

# The Short Stories of John Varley

## John Varley

### AIR RAID

I was jerked awake by the silent alarm vibrating my skull. It won't shut down until you sit up, so I did. All around me in the darkened bunkroom the Snatch Team members were sleeping singly and in pairs. I yawned, scratched my ribs, and patted Gene's hairy flank. He turned over. So much for a romantic send-off.

Rubbing sleep from my eyes, I reached to the floor for my leg, strapped it on, and plugged it in. Then I was running down the rows of bunks toward Ops.

The situation board glowed in the gloom. Sun-Belt Airlines Flight 128, Miami to New York, September 15, 1979. We'd been looking for that one for three years. I should have been happy, but who can afford it when you wake up?

Liza Boston muttered past me on the way to Prep. I muttered back and followed. The lights came on around the mirrors, and I groped my way to one of them. Behind us, three more people staggered in. I sat down, plugged in, and at last I could lean back and close my eyes.

They didn't stay closed for long. Rush! I sat up straight as the sludge I use for blood was replaced with supercharged go-juice. I looked around me and got a series of idiot grins. There was Liza, and Pinky and Dave. Against the far wall Cristabel was already turning slowly in front of the airbrush, getting a Caucasian paint job. It looked like a good team.

I opened the drawer and started preliminary work on my face. It's a bigger job every time. Transfusion or no, I looked like death. The right ear was completely gone now. I could no longer close my lips; the gums were permanently bared. A week earlier, a finger had fallen off in my sleep. And what's it to you, bugger?

While I worked, one of the screens around the mirror glowed. A smiling young woman, blonde, high brow, round face. Close enough. The crawl line read Mary Katrina Sondergard, born Trenton, New Jersey, age in 1979: 25. Baby, this is your lucky day.

The computer melted the skin away from her face to show me the bone structure, rotated it, gave me cross sections. I studied the similarities with my own skull, noted the differences. Not bad, and better than some I'd been given.

I assembled a set of dentures that included the slight gap in the upper incisors. Putty filled out my cheeks. Contact lenses fell from the dispenser and I popped them in. Nose plugs widened my nostrils. No need for ears; they'd be covered by the wig. I pulled a blank plastiflesh mask over my face and had to pause while it melted in. It took only a minute to mold it to perfection. I smiled at myself. How nice to have lips.

The delivery slot clunked and dropped a blonde wig and a pink outfit into my lap. The wig was hot from the styler. I put it on, then the pantyhose.

"Mandy? Did you get the profile on Sondergard?" I didn't look up; I recognized the voice.

"Roger."

"We've located her near the airport. We can slip you in before take-off, so you'll be the joker."

I groaned and looked up at the face on the screen. Elfreda Baltimore-Louisville, Director of Operational Teams: lifeless face and tiny slits for eyes. What can you do when all the muscles are dead?

"Okay." You take what you get.

She switched off, and I spent the next two minutes trying to get dressed while keeping my eyes on the screens. I memorized names and faces of crew members plus the few facts known about them. Then I hurried out and caught up with the others. Elapsed time from first alarm: twelve minutes and seven seconds. We'd better get moving.

"Goddam Sun-Belt," Cristabel grouched, hitching at her bra.

"At least they got rid of the high heels," Dave pointed out. A year earlier we would have been teetering down the aisles on three-inch platforms. We all wore short pink shifts with blue and white diagonal stripes across the front, and carried matching shoulder bags. I fussed trying to get the ridiculous pillbox cap pinned on.

We jogged into the dark Operations Control Room and lined up at the gate. Things were out of our hands now. Until the gate was ready, we could only wait.

I was first, a few feet away from the portal. I turned away from it; it gives me vertigo. I focused instead on the gnomes sitting at their consoles, bathed in yellow lights from their screens. None of them looked back at me. They don't like us much. I don't like them, either. Withered, emaciated, all of them. Our fat legs and butts and breasts are a reproach to them, a reminder that Snatchers eat five times their ration to stay presentable for the masquerade. Meantime we continue to rot. One day I'll be sitting at a console. One day I'll be built in to a console, with all my guts on the outside and nothing left of my body but stink. The hell with them.

I buried my gun under a clutter of tissues and lipsticks in my purse. Elfreda was looking at me.

"Where is she?" I asked.

"Motel room. She was alone from ten PM to noon on flight day."

Departure time was 1:15. She had cut it close and would be in a hurry. Good.

"Can you catch her in the bathroom? Best of all, in the tub?"

"We're working on it." She sketched a smile with a fingertip drawn over lifeless lips. She knew how I liked to operate, but she was telling me I'd take what I got. It never hurts to ask. People are at their most defenseless stretched out and up to their necks in water.

"Go!" Elfreda shouted. I stepped through, and things started to go wrong.

I was facing the wrong way, stepping out of the bathroom door and facing the bedroom. I turned and spotted Mary Katrina Sondergard through the haze of the gate. There was no way I could reach her without stepping back through. I couldn't even shoot without hitting someone on the other side.

Sondergard was at the mirror, the worst possible place. Few people recognize themselves quickly, but she'd been looking right at herself. She saw me and her eyes widened. I stepped to the side, out of her sight.

"What the hell is... hey? Who the hell-" I noted the voice, which can be the trickiest thing to get right.

I figured she'd be more curious than afraid. My guess was right. She came out of the bathroom, passing through the gate as if it wasn't there, which it wasn't, since it only has one side. She had a towel wrapped around her.

"Jesus Christ! What are you doing in my-" Words fail you at a time like that. She knew she ought to say something, but what? Excuse me, haven't I seen you in the mirror?

I put on my best stew smile and held out my hand.

"Pardon the intrusion. I can explain everything. You see, I'm-" I hit her on the side of the head and she staggered and went down hard. Her towel fell to the floor, "-working my way through college." She started to get up, so I caught her under the chin with my artificial knee. She stayed down.

"Standard fuggin' oil!" I hissed, rubbing my injured knuckles. But there was no time. I knelt beside her, checked her pulse. She'd be okay, but I think I loosened some front teeth. I paused a moment. Lord, to look like that with no makeup, no prosthetics! She nearly broke my heart.

I grabbed her under the knees and wrestled her to the gate. She was a sack of limp noodles. Somebody reached through, grabbed her feet, and pulled. So long, love! How would you like to go on a long voyage?

I sat on her rented bed to get my breath. There were car keys and cigarettes in her purse, genuine tobacco, worth its weight in blood. I lit six of them, figuring I had five minutes of my very own. The room filled with sweet smoke. They don't make 'em like that anymore.

The Hertz sedan was in the motel parking lot. I got in and headed for the airport. I breathed deeply of the air, rich in hydrocarbons. I could see for hundreds of yards into the distance. The perspective nearly made me dizzy, but I live for those moments. There's no way to explain what it's like in the pre-meck

world. The sun was a fierce yellow ball through the haze.

The other stews were boarding. Some of them knew Sondergard so I didn't say much, pleading a hangover. That went over well, with a lot of knowing laughs and sly remarks. Evidently it wasn't out of character. We boarded the 707 and got ready for the goats to arrive.

It looked good. The four commandos on the other side were identical twins for the women I was working with. There was nothing to do but be a stewardess until departure time. I hoped there would be no more glitches. Inverting a gate for a joker run into a motel room was one thing, but in a 707 at twenty thousand feet...

The plane was nearly full when the woman Pinky would impersonate sealed the forward door. We taxied to the end of the runway, then we were airborne. I started taking orders for drinks in first.

The goats were the usual lot, for 1979. Fat and sassy, all of them, and as unaware of living in a paradise as a fish is of the sea. What would you think, ladies and gents, of a trip to the future? No? I can't say I'm surprised. What if I told you this plane is going to- My alarm beeped as we reached cruising altitude. I consulted the indicator under my Lady Bulova and glanced at one of the restroom doors. I felt a vibration pass through the plane. Damn it, not so soon.

The gate was in there. I came out quickly, and motioned for Diana Gleason-Dave's pigeon-to come to the front.

"Take a look at this," I said, with a disgusted look. She started to enter the restroom, stopped when she saw the green glow. I planted a boot on her fanny and shoved. Perfect. Dave would have a chance to hear her voice before popping in. Though she'd be doing little but screaming when she got a look around...

Dave came through the gate, adjusting his silly little hat. Diana must have struggled.

"Be disgusted," I whispered.

"What a mess," he said as he came out of the restroom. It was a fair imitation of Diana's tone, though he'd missed the accent. It wouldn't matter much longer.

"What is it?" It was one of the stews from tourist. We stepped aside so she could get a look, and Dave shoved her through. Pinky popped out very quickly.

"We're minus on minutes," Pinky said. "We lost five on the other side."

"Five?" Dave-Diana squeaked. I felt the same way. We had a hundred and three passengers to process.

"Yeah. They lost contact after you pushed my pigeon through. It took that long to realign."

You get used to that. Time runs at different rates on each side of the gate, though it's always sequential, past to future. Once we'd started the Snatch with me entering Sondergard's room, there was no way to go back any earlier on either side. Here, in 1979, we had a rigid ninety-four minutes to get everything done. On the other side, the gate could never be maintained longer than three hours.

"When you left, how long was it since the alarm went in?"

"Twenty-eight minutes."

It didn't sound good. It would take at least two hours just customizing the wimps. Assuming there was no more slippage on 79-time, we might just make it. But there's always slippage. I shuddered, thinking about riding it in.

"No time for any more games, then," I said. "Pink, you go back to tourist and call both of the other girls up here. Tell 'em to come one at a time, and tell 'em we've got a problem. You know the bit."

"Biting back the tears. Got you." She hurried aft. In no time the first one showed up. Her friendly Sun-Belt Airlines smile was stamped on her face, but her stomach would be churning. Oh God, this is it!

I took her by the elbow and pulled her behind the curtains in front. She was breathing hard.

"Welcome to the twilight zone," I said, and put the gun to her head. She slumped, and I caught her. Pinky and Dave helped me shove her through the gate.

"Fug! The rotting thing's flickering."

Pinky was right. A very ominous sign. But the green glow stabilized as we watched, with who knows how much slippage on the other side. Cristabel ducked through.

"We're plus thirty-three," she said. There was no sense talking about what we were all thinking: things

were going badly.

"Back to tourist," I said. "Be brave, smile at everyone, but make it just a little bit too good, got it?"

"Check," Cristabel said.

We processed the other quickly, with no incident. Then there was no time to talk about anything. In eighty-nine minutes Flight 128 was going to be spread all over a mountain whether we were finished or not.

Dave went into the cockpit to keep the flight crew out of our hair. Me and Pinky were supposed to take care of first class, then back up Cristabel and Liza in tourist. We used the standard "coffee, tea, or milk" gambit, relying on our speed and their inertia.

I leaned over the first two seats on the left.

"Are you enjoying your flight?" Pop, pop. Two squeezes on the trigger, close to the heads and out of sight of the rest of the goats.

"Hi, folks. I'm Mandy. Fly me." Pop, pop.

Halfway to the galley, a few people were watching us curiously. But people don't make a fuss until they have a lot more to go on. One goat in the back row stood up, and I let him have it. By now there were only eight left awake. I abandoned the smile and squeezed off four quick shots. Pinky took care of the rest. We hurried through the curtains, just in time.

There was an uproar building in the back of tourist, with about 60 percent of the goats already processed. Cristabel glanced at me, and I nodded.

"Okay, folks," she bawled. "I want you to be quiet. Calm down and listen up. You, fathead, pipe down before I cram my foot up your ass sideways."

The shock of hearing her talk like that was enough to buy us a little time, anyway. We had formed a skirmish line across the width of the plane, guns out, steadied on seat backs, aimed at the milling, befuddled group of thirty goats.

The guns are enough to awe all but the most foolhardy. In essence, a standard-issue stunner is just a plastic rod with two grids about six inches apart. There's not enough metal in it to set off a hijack alarm. And to people from the Stone Age to about 2190 it doesn't look any more like a weapon than a ball-point pen. So Equipment Section jazzes them up in a plastic shell to real Buck Rogers blasters, with a dozen knobs and lights that flash and a barrel like the snout of a hog. Hardly anyone ever walks into one.

"We are in great danger, and time is short. You must all do exactly as I tell you, and you will be safe."

You can't give them time to think, you have to rely on your status as the Voice of Authority. The situation is just not going to make sense to them, no matter how you explain it.

"Just a minute, I think you owe us--"

An airborne lawyer. I made a snap decision, thumbed the fireworks switch on my gun, and shot him.

The gun made a sound like a flying saucer with hemorrhoids, spit sparks and little jets of flame, and extended a green laser finger to his forehead. He dropped.

All pure kark, of course. But it sure is impressive.

And it's damn risky, too. I had to choose between a panic if the fathead got them to thinking, and a possible panic from the flash of the gun. But when a 20th gets to talking about his "rights" and what he is "owed," things can get out of hand. It's infectious.

It worked. There was a lot of shouting, people ducking behind seats, but no rush. We could have handled it, but we needed some of them conscious if we were ever going to finish the Snatch.

"Get up. Get up, you slugs!" Cristabel yelled. "He's stunned, nothing worse. But I'll kill the next one who gets out of line. Now get to your feet and do what I tell you. Children first! Hurry, as fast as you can, to the front of the plane. Do what the stewardess tells you. Come on, kids, move!"

I ran back into first class just ahead of the kids, turned at the open restroom door, and got on my knees.

They were petrified. There were five of them-crying, some of them, which always chokes me up-looking left and right at dead people in the first class seats, stumbling, near panic.

"Come on, kids," I called to them, giving my special smile. "Your parents will be along in just a minute."

Everything's going to be all right, I promise you. Come on."

I got three of them through. The fourth balked. She was determined not to go through that door. She spread her legs and arms and I couldn't push her through. I will not hit a child, never. She raked her nails over my face. My wig came off, and she gaped at my bare head. I shoved her through.

Number five was sitting in the aisle, bawling. He was maybe seven. I ran back and picked him up, hugged him and kissed him, and tossed him through. God, I needed a rest, but I was needed in tourist.

"You, you, you, and you. Okay, you too. Help him, will you?" Pinky had a practiced eye for the ones that wouldn't be any use to anyone, even themselves. We herded them toward the front of the plane, then deployed ourselves along the left side where we could cover the workers. It didn't take long to prod them into action. We had them dragging the limp bodies forward as fast as they could go. Me and Cristabel were in tourist, with the others up front.

Adrenalin was being catabolized in my body now; the rush of action left me and I started to feel very tired. There's an unavoidable feeling of sympathy for the poor dumb goats that starts to get me about this stage of the game. Sure, they were better off; sure, they were going to die if we didn't get them off the plane. But when they saw the other side they were going to have a hard time believing it.

The first ones were returning for a second load, stunned at what they'd just seen: dozens of people being put into a cubicle that was crowded when it was empty. One college student looked like he'd been hit in the stomach. He stopped by me and his eyes pleaded.

"Look, I want to help you people, just... what's going on? Is this some new kind of rescue? I mean, are we going to crash-"

I switched my gun to prod and brushed it across his cheek. He gasped and fell back.

"Shut your fuggin' mouth and get moving, or I'll kill you." It would be hours before his jaw was in shape to ask any more stupid questions.

We cleared tourist and moved up. A couple of the work gang were pretty damn pooped by then. Muscles like horses, all of them, but they can hardly run up a flight of stairs. We let some of them go through, including a couple that were at least fifty years old. Je-zuz. Fifty! We got down to a core of four men and two women who seemed strong, and worked them until they nearly dropped. But we processed everyone in twenty-five minutes.

The portapak came through as we were stripping off our clothes. Cristabel knocked on the door to the cockpit and Dave came out, already naked. A bad sign.

"I had to cork 'em," he said. "Bleeding captain just had to make his grand march through the plane. I tried everything."

Sometimes you have to do it. The plane was on autopilot, as it normally would be at this time. But if any of us did anything detrimental to the craft, changed the fixed course of events in any way, that would be it. All that work for nothing, and Flight 128 inaccessible to us for all Time. I don't know sludge about time theory, but I know the practical angles. We can do things in the past only at times and in places where it won't make any difference. We have to cover our tracks. There's flexibility, once a Snatcher left her gun behind and it went in with the plane. Nobody found it, or if they did, they didn't have the smoggiest idea of what it was, so we were okay.

Flight 128 was mechanical failure. That's the best land; it means we don't have to keep the pilot unaware of the situation in the cabin right down to ground level. We can cork him and fly the plane, since there's nothing he could have done to save the flight anyway. A pilot-error smash is almost impossible to Snatch. We mostly work midairs, bombs, and structural failures. If there's even one survivor, we can't touch it. It would not fit the fabric of space-time, which is immutable (though it can stretch a little), and we'd all just fade away and appear back in the ready room.

My head was hurting. I wanted that portapak very badly.

"Who has the most hours on a 707?" Pinky did, so I sent her to the cabin, along with Dave, who could do the pilot's voice for air traffic control. You have to have a believable record in the flight recorder, too. They trailed two long tubes from the portapak, and the rest of us hooked in up close. We stood there, each of us smoking a fistful of cigarettes, wanting to finish them but hoping there wouldn't be time. The gate had vanished as soon as we tossed our clothes and the flight crew through.

But we didn't worry long. There's other nice things about Snatching, but nothing to compare with the rush of plugging into a portapak. The wake-up transfusion is nothing but fresh blood, rich in oxygen and sugars. What we were getting now was an insane brew of concentrated adrenalin, supersaturated hemoglobin, methedrine, white lightning, TNT, and Kickapoo joyjuice. It was like a firecracker in your heart; a boot in the box that rattled your sox.

"I'm growing hair on my chest," Cristabel said solemnly. Everyone giggled.

"Would someone hand me my eyeballs?"

"The blue ones, or the red ones?"

"I think my ass just fell off."

We'd heard them all before, but we howled anyway. We were strong, strong, and for one golden moment we had no worries. Everything was hilarious. I could have torn sheet metal with my eyelashes.

But you get hyper on that mix. When the gate didn't show, and didn't show, and didn't sweetjeez show we all started milling. This bird wasn't going to fly all that much longer.

Then it did show, and we turned on. The first of the wimps came through, dressed in the clothes taken from a passenger it had been picked to resemble.

"Two thirty-five elapsed upside time," Cristabel announced.

"Je-zuz."

It is a deadening routine. You grab the harness around the wimp's shoulders and drag it along the aisle, after consulting the seat number painted on its forehead. The paint would last three minutes. You seat it, strap it in, break open the harness and carry it back to toss through the gate as you grab the next one. You have to take it for granted they've done the work right on the other side: fillings in the teeth, fingerprints, the right match in height and weight and hair color. Most of those things don't matter much, especially on Flight 128 which was a crash-and-burn. There would be bits and pieces, and burned to a crisp at that. But you can't take chances. Those rescue workers are pretty thorough on the parts they do find; the dental work and fingerprints especially are important.

I hate wimps. I really hate 'em. Every time I grab the harness of one of them, if it's a child, I wonder if it's Alice. Are you my kid, you vegetable, you slug, you slimy worm? I joined the Snatchers right after the brain bugs ate the life out of my baby's head. I couldn't stand to think she was the last generation, that the last humans there would ever be would live with nothing in their heads, medically dead by standards that prevailed even in 1979, with computers working their muscles to keep them in tone. You grow up, reach puberty still fertile-one in a thousand-rush to get pregnant in your first heat. Then you find out your mom or pop passed on a chronic disease bound right into the genes, and none of your lads will be immune. I knew about the paraleprosy; I grew up with my toes rotting away. But this was too much. What do you do?

Only one in ten of the wimps had a customized face. It takes time and a lot of skill to build a new face that will stand up to a doctor's autopsy. The rest came pre mutilated. We've got millions of them; it's not hard to find a good match in the body. Most of them would stay breathing, too dumb to stop, until they went in with the plane.

The plane jerked, hard. I glanced at my watch. Five minutes to impact. We should have time. I was on my last wimp. I could hear Dave frantically calling the ground. A bomb came through the gate, and I tossed it into the cockpit. Pinky turned on the pressure sensor on the bomb and came running out, followed by Dave. Liza was already through. I grabbed the limp dolls in stewardess costume and tossed them to the floor. The engine fell off and a piece of it came through the cabin. We started to depressurize. The bomb blew away part of the cockpit (the ground crash crew would read it-we hoped-that part of the engine came through and killed the crew: no more words from the pilot on the flight recorder) and we turned, slowly, left and down. I was lifted toward the hole in the side of the plane, but I managed to hold onto a seat. Cristabel wasn't so lucky. She was blown backwards.

We started to rise slightly, losing speed. Suddenly it was uphill from where Cristabel was lying in the aisle. Blood oozed from her temple. I glanced back; everyone was gone, and three pink-suited wimps were piled on the floor. The plane began to stall, to nose down, and my feet left the floor.

"Come on, Bel!" I screamed. That gate was only three feet away from me, but I began pulling myself

along to where she floated. The plane bumped, and she hit the floor. Incredibly, it seemed to wake her up. She started to swim toward me, and I grabbed her hand as the floor came up to slam us again. We crawled as the plane went through its final death agony, and we came to the door. The gate was gone.

There wasn't anything to say. We were going in. It's hard enough to keep the gate in place on a plane that's moving in a straight line. When a bird gets to corkscrewing and coming apart, the math is fearsome. So I've been told.

I embraced Cristabel and held her bloodied head. She was groggy, but managed to smile and shrug. You take what you get. I hurried into the restroom and got both of us down on the floor. Back to the forward bulkhead, Cristabel between my legs, back to front. Just like in teaming. We pressed our feet against the other wall. I hugged her tightly and cried on her shoulder.

And it was there. A green glow to my left. I threw myself toward it, dragging Cristabel, keeping low as two wimps were thrown headfirst through the gate above our heads. Hands grabbed and pulled us through. I clawed my way a good five yards along the floor. You can leave a leg on the other side and I didn't have one to spare.

I sat up as they were carrying Cristabel to Medical. I patted her arm as she went by on the stretcher, but she was passed out. I wouldn't have minded passing out myself.

For a while, you can't believe it all really happened. Sometimes it turns out it didn't happen. You come back and find out all the goats in the holding pen have softly and suddenly vanished away because the continuum won't tolerate the changes and paradoxes you've put into it. The people you've worked so hard to rescue are spread like tomato surprise all over some goddam hillside in Carolina and all you've got left is a bunch of ruined wimps and an exhausted Snatch Team. But not this time. I could see the goats milling around in the holding pen, naked and more bewildered than ever. And just starting to be really afraid.

Elfreda touched me as I passed her. She nodded, which meant well-done in her limited repertoire of gestures. I shrugged, wondering if I cared, but the surplus adrenalin was still in my veins and I found myself grinning at her. I nodded back.

Gene was standing by the holding pen. I went to him, hugged him. I felt the juices start to flow. Damn it, let's squander a little ration and have us a good time.

Someone was beating on the sterile glass wall of the pen. She shouted, mouthing angry words at us. Why? What have you done to us? It was Mary Sondergard. She implored her bald, one-legged twin to make her understand. She thought she had problems. God, was she pretty. I hated her guts.

Gene pulled me away from the wall. My hands hurt, and I'd broken off all my fake nails without scratching the glass. She was sitting on the floor now, sobbing. I heard the voice of the briefing officer on the outside speaker.

"...Centauri Three is hospitable, with an Earth-like climate. By that, I mean your Earth, not what it has become. You'll see more of that later. The trip will take five years, shiptime. Upon landfall, you will be entitled to one horse, a plow, three axes, two hundred kilos of seed gram..."

I leaned against Gene's shoulder. At their lowest ebb, this very moment, they were so much better than us. I had maybe ten years, half of that as a basket case. They are our best, our very brightest hope. Everything is up to them.

"...that no one will be forced to go. We wish to point out again, not for the last time, that you would all be dead without our intervention. There are things you should know, however. You cannot breathe our air. If you remain on Earth, you can never leave this building. We are not like you. We are the result of a genetic winnowing, a mutation process. We are the survivors, but our enemies have evolved along with us. They are winning. You, however, are immune to the diseases that afflict us..."

I winced and turned away.

"...the other hand, if you emigrate you will be given a chance at a new life. It won't be easy, but as Americans you should be proud of your pioneer heritage. Your ancestors survived, and so will you. It can be a rewarding experience, and I urge you..."

Sure. Gene and I looked at each other and laughed. Listen to this, folks. Five percent of you will suffer nervous breakdowns in the next few days, and never leave. About the same number will commit suicide,

here and on the way. When you get there, sixty to seventy percent will die in the first three years. You will die in childbirth, be eaten by animals, bury two out of three of your babies, starve slowly when the rains don't come. If you live, it will be to break your back behind a plow, sun-up to dusk. New Earth is Heaven, folks!

God, how I wish I could go with them.

## **THE BARBIE MURDERS**

The body came to the morgue at 2246 hours. No one paid much attention to it. It was a Saturday night, and the bodies were piling up like logs in a millpond. A harried attendant working her way down the row of stainless steel tables picked up the sheaf of papers that came with the body, peeling back the sheet over the face. She took a card from her pocket and scrawled on it, copying from the reports filed by the investigating officer and the hospital staff:

Ingraham, Leah Petrie. Female. Age: 35. Length: 2.1 meters. Mass: 59 kilograms.

Dead on arrival, Crisium Emergency Terminal. Cause of death: homicide. Next of kin: unknown.

She wrapped the wire attached to the card around the left big toe, slid the dead weight from the table and onto the wheeled carrier, took it to cubicle 659A, and rolled out the long tray.

The door slammed shut, and the attendant placed the paperwork in the out tray, never noticing that, in his report, the investigating officer had not specified the sex of the corpse.

Lieutenant Anna-Louise Bach had moved into her new office three days ago and already the paper on her desk was threatening to avalanche onto the floor.

To call it an office was almost a perversion of the term. It had a file cabinet for pending cases; she could open it only at severe risk to life and limb. The drawers had a tendency to spring out at her, pinning her in her chair in the corner. To reach "A" she had to stand on her chair; "Z" required her either to sit on her desk or to straddle the bottom drawer with one foot in the legwell and the other against the wall.

But the office had a door. True, it could only be opened if no one was occupying the single chair in front of the desk.

Bach was in no mood to gripe. She loved the place. It was ten times better than the squadroom, where she had spent ten years elbow-to-elbow with the other sergeants and corporals.

Jorge Weil stuck his head in the door.

"Hi. We're taking bids on a new case. What am I offered?"

"Put me down for half a Mark," Bach said, without looking up from the report she was writing. "Can't you see I'm busy?"

"Not as busy as you're going to be." Weil came in without an invitation and settled himself in the chair. Bach looked up, opened her mouth, then said nothing. She had the authority to order him to get his big feet out of her "cases completed" tray, but not the experience in exercising it. And she and Jorge had worked together for three years. Why should a stripe of gold paint on her shoulder change their relationship? She supposed the informality was Weil's way of saying he wouldn't let her promotion bother him as long as she didn't get snotty about it.

Weil deposited a folder on top of the teetering pile marked "For Immediate Action," then leaned back again. Bach eyed the stack of paper-and the circular file mounted in the wall not half a meter from it, leading to the incinerator-and thought about having an accident. Just a careless nudge with an elbow...

"Aren't you even going to open it?" Weil asked, sounding disappointed. "It's not every day I'm going to hand-deliver a case."

"You tell me about it, since you want to so badly."

"All right. We've got a body, which is cut up pretty bad. We've got the murder weapon, which is a knife. We've got thirteen eyewitnesses who can describe the killer, but we don't really need them since the murder was committed in front of a television camera. We've got the tape."

"You're talking about a case which has to have been solved ten minutes after the first report, untouched by human hands. Give it to the computer, idiot." But she looked up. She didn't like the smell of it. "Why give it to me?"



"Because of the other thing we know. The scene of the crime. The murder was committed at the barbie colony."

"Oh, sweet Jesus."

The Temple of the Standardized Church in Luna was in the center of the Standardist Commune, Anytown, North Crisium. The best way to reach it, they found, was a local tube line which paralleled the Cross-Crisium Express Tube.

She and Weil checked out a blue-and-white police capsule with a priority sorting code and surrendered themselves to the New Dresden municipal transport system-the pill sorter, as the New Dresdenites called it. They were whisked through the precinct chute to the main nexus, where thousands of capsules were stacked awaiting a routing order to clear the computer. On the big conveyer which should have taken them to a holding cubby, they were snatched by a grapple-the cops called it the long arm of the law-and moved ahead to the multiple maws of the Cross-Crisium while people in other capsules glared at them. The capsule was inserted, and Bach and Weil were pressed hard into the backs of their seats.

In seconds they emerged from the tube and out onto the plain of Crisium, speeding along through the vacuum, magnetically suspended a few millimeters above the induction rail. Bach glanced up at the Earth, then stared out the window at the featureless landscape rushing by. She brooded.

It had taken a look at the map to convince her that the barbie colony was indeed in the New Dresden jurisdiction-a case of blatant gerrymandering if ever there was one. Anytown was fifty kilometers from what she thought of as the boundaries of New Dresden, but was joined to the city by a dotted line that represented a strip of land one meter wide.

A roar built up as they entered a tunnel and air was injected into the tube ahead of them. The car shook briefly as the shock wave built up, then they popped through pressure doors into the tube station of Anytown. The capsule doors hissed and they climbed out onto the platform.

The tube station at Anytown was primarily a loading dock and warehouse. It was a large space with plastic crates stacked against all the walls, and about fifty people working to load them into freight capsules.

Bach and Weil stood on the platform for a moment, uncertain where to go. The murder had happened at a spot not twenty meters in front of them, right here in the tube station.

"This place gives me the creeps," Weil volunteered.

"Me, too."

Every one of the fifty people Bach could see was identical to every other. All appeared to be female, though only faces, feet, and hands were visible, everything else concealed by loose white pajamas belted at the waist. They were all blonde; all had hair cut off at the shoulder and parted in the middle, blue eyes, high foreheads, short noses, and small mouths.

The work slowly stopped as the barbies became aware of them. They eyed Bach and Weil suspiciously. Bach picked one at random and approached her.

"Who's in charge here?" she asked.

"We are," the barbie said. Bach took it to mean the woman herself, recalling something about barbies never using the singular pronoun.

"We're supposed to meet someone at the temple," she said. "How do we get there?"

"Through that doorway," the woman said. "It leads to Main Street. Follow the street to the temple. But you really should cover yourselves."

"Huh? What do you mean?" Bach was not aware of anything wrong with the way she and Weil were dressed. True, neither of them wore as much as the barbies did.

Bach wore her usual blue nylon briefs in addition to a regulation uniform cap, arm and thigh bands, and cloth-soled slippers. Her weapon, communicator, and handcuffs were fastened to a leather equipment belt.

"Cover yourself," the barbie said, with a pained look. "You're flaunting your differentness. And you, with all that hair..." There were giggles and a few shouts from the other barbies.

"Police business," Weil snapped.

"Uh, yes," Bach said, feeling annoyed that the barbie had put her on the defensive. After all, this was New Dresden, it was a public thoroughfare-even though by tradition and usage a Standardist enclave-and they were entitled to dress as they wished.

Main Street was a narrow, mean little place. Bach had expected a promenade like those in the shopping districts of New Dresden; what she found was indistinguishable from a residential corridor. They drew curious stares and quite a few frowns from the identical people they met.

There was a modest plaza at the end of the street. It had a low roof of bare metal, a few trees, and a blocky stone building in the center of a radiating network of walks.

A barbie who looked just like all the others met them at the entrance. Bach asked if she was the one Weil had spoken to on the phone, and she said she was.

Bach wanted to know if they could go inside to talk. The barbie said the temple was off limits to outsiders and suggested they sit on a bench outside the building.

When they were settled, Bach started her questioning. "First, I need to know your name, and your title. I assume that you are... what was it?" She consulted her notes, taken hastily from a display she had called up on the computer terminal in her office. "I don't seem to have found a title for you."

"We have none," the barbie said. "If you must think of a title, consider us as the keeper of records."

"All right. And your name?"

"We have no name."

Bach sighed. "Yes, I understand that you forsake names when you come here. But you had one before. You were given one at birth. I'm going to have to have it for my investigation."

The woman looked pained. "No, you don't understand. It is true that this body had a name at one time. But it has been wiped from this one's mind. It would cause this one a great deal of pain to be reminded of it." She stumbled verbally every time she said "this one." Evidently even a polite circumlocution of the personal pronoun was distressing.

"I'll try to get it from another angle, then." This was already getting hard to deal with, Bach saw, and knew it could only get tougher. "You say you are the keeper of records."

"We are. We keep records because the law says we must. Each citizen must be recorded, or so we have been told."

"For a very good reason," Bach said. "We're going to need access to those records. For the investigation. You understand? I assume an officer has already been through them, or the deceased couldn't have been identified as Leah P.

Ingraham."

"That's true. But it won't be necessary for you to go through the records again.

We are here to confess. We murdered L. P. Ingraham, serial number 11005. We are surrendering peacefully. You may take us to your prison." She held out her hands, wrists close together, ready to be shackled.

Weil was startled, reached tentatively for his handcuffs, then looked to Bach for guidance.

"Let me get this straight. You're saying you're the one who did it? You, personally."

"That's correct. We did it. We have never defied temporal authority, and we are willing to pay the penalty."

"Once more." Bach reached out and grasped the barbie's wrist, forced the hand open, palm up. "This is the person, this is the body that committed the murder?"

This hand, this one right here, held the knife and killed Ingraham? This hand, as opposed to 'your' thousands of other hands?"

The barbie frowned.

"Put that way, no. This hand did not grasp the murder weapon. But our hand did.

What's the difference?"

"Quite a bit, in the eyes of the law." Bach sighed, and let go of the woman's hand. Woman? She wondered if the term applied. She realized she needed to know more about Standardists. But it was convenient to think of them as such, since their faces were feminine.

"Let's try again. I'll need you-and the eyewitnesses to the crime-to study the tape of the murder. I can't

tell the difference between the murderer, the victim, or any of the bystanders. But surely you must be able to. I assume that... well, like the old saying went, 'all Chinamen look alike.' That was to Caucasian races, of course. Orientals had no trouble telling each other apart.

So I thought that you... that you people would..." She trailed off at the look of blank incomprehension on the barbie's face.

"We don't know what you're talking about."

Bach's shoulders slumped.

"You mean you can't... not even if you saw her again...?"

The woman shrugged. "We all look the same to this one."

Anna-Louise Bach sprawled out on her flotation bed later that night, surrounded by scraps of paper. Untidy as it was, her thought processes were helped by actually scribbling facts on paper rather than filing them in her datalink. And she did her best work late at night, at home, in bed, after taking a bath or making love. Tonight she had done both and found she needed every bit of the invigorating clarity it gave her.

Standardists.

They were an off-beat religious sect founded ninety years earlier by someone whose name had not survived. That was not surprising, since Standardists gave up their names when they joined the order, made every effort consistent with the laws of the land to obliterate the name and person as if he or she had never existed. The epithet "barbie" had quickly been attached to them by the press.

The origin of the word was a popular children's toy of the twentieth and early twenty-first centuries, a plastic, sexless, mass-produced "girl" doll with an elaborate wardrobe.

The barbies had done surprisingly well for a group which did not reproduce, which relied entirely on new members from the outside world to replenish their numbers. They had grown for twenty years, then reached a population stability where deaths equalled new members-which they call "components." They had suffered moderately from religious intolerance, moving from country to country until the majority had come to Luna sixty years ago.

They drew new components from the walking wounded of society, the people who had not done well in a world which preached conformity, passivity, and tolerance of your billions of neighbors, yet rewarded only those who were individualist and aggressive enough to stand apart from the herd. The barbies had opted out of a system where one had to be at once a face in the crowd and a proud individual with hopes and dreams and desires. They were the inheritors of a long tradition of ascetic withdrawal, surrendering their names, their bodies, and their temporal aspirations to a life that was ordered and easy to understand.

Bach realized she might be doing some of them a disservice in that evaluation.

They were not necessarily all losers. There must be those among them who were attracted simply by the religious ideas of the sect, though Bach felt there was little in the teachings that made sense.

She skimmed through the dogma, taking notes. The Standardists preached the commonality of humanity, denigrated free will, and elevated the group and the consensus to demi-god status. Nothing too unusual in the theory; it was the practice of it that made people queasy.

There was a creation theory and a godhead, who was not worshipped but contemplated. Creation happened when the Goddess-a prototypical earth-mother who had no name-gave birth to the universe. She put people in it, all alike, stamped from the same universal mold.

Sin entered the picture. One of the people began to wonder. This person had a name, given to him or her after the original sin as part of the punishment, but Bach could not find it written down anywhere. She decided that it was a dirty word which Standardists never told an outsider.

This person asked Goddess what it was all for. What had been wrong with the void, that Goddess had seen fit to fill it with people who didn't seem to have a reason for existing?

That was too much. For reasons unexplained-and impolite to even ask about-Goddess had punished humans by introducing differentness into the world.

Warts, big noses, kinky hair, white skin, tall people and fat people and deformed people, blue eyes, body hair, freckles, testicles, and labia. A billion faces and fingerprints, each soul trapped in a body

distinct from all others, with the heavy burden of trying to establish an identity in a perpetual shouting match.

But the faith held that peace was achieved in striving to regain that lost Eden.

When all humans were again the same person, Goddess would welcome them back.

Life was a testing, a trial.

Bach certainly agreed with that. She gathered her notes and shuffled them together, then picked up the book she had brought back from Anytown. The barbie had given it to her when Bach asked for a picture of the murdered woman.

It was a blueprint for a human being.

The title was *The Book of Specifications*. The Specs, for short. Each barbie carried one, tied to her waist with a tape measure. It gave tolerances in engineering terms, defining what a barbie could look like. It was profusely illustrated with drawings of parts of the body in minute detail, giving measurements in millimeters.

She closed the book and sat up, propping her head on a pillow. She reached for her viewpad and propped it on her knees, punched the retrieval code for the murder tape. For the twentieth time that night, she watched a figure spring forward from a crowd of identical figures in the tube station, slash at Leah Ingraham, and melt back into the crowd as her victim lay bleeding and eviscerated on the floor.

She slowed it down, concentrating on the killer, trying to spot something different about her. Anything at all would do. The knife struck. Blood spurted.

Barbies milled about in consternation. A few belatedly ran after the killer, not reacting fast enough. People seldom reacted quickly enough. But the killer had blood on her hand. Make a note to ask about that.

Bach viewed the film once more, saw nothing useful, and decided to call it a night.

The room was long and tall, brightly lit from strips high above. Bach followed the attendant down the rows of square locker doors which lined one wall. The air was cool and humid, the floor wet from a recent hosing.

The man consulted the card in his hand and pulled the metal handle on locker 659A, making a noise that echoed through the bare room. He slid the drawer out and lifted the sheet from the corpse.

It was not the first mutilated corpse Bach had seen, but it was the first nude barbie. She immediately noted the lack of nipples on the two hills of flesh that pretended to be breasts, and the smooth, unmarked skin in the crotch. The attendant was frowning, consulting the card on the corpse's foot.

"Some mistake here," he muttered. "Geez, the headaches. What do you do with a thing like that?" He scratched his head, then scribbled through the large letter "F" on the card, replacing it with a neat "N." He looked at Bach and grinned sheepishly. "What do you do?" he repeated.

Bach didn't much care what he did. She studied L. P. Ingraham's remains, hoping that something on the body would show her why a barbie had decided she must die.

There was little difficulty seeing how she had died. The knife had entered her abdomen, going deep, and the wound extended upward from there in a slash that ended beneath the breastbone. Part of the bone was cut through. The knife had been sharp, but it would have taken a powerful arm to slice through that much meat.

The attendant watched curiously as Bach pulled the dead woman's legs apart and studied what she saw there. She found the tiny slit of the urethra set back around the curve, just anterior to the anus.

Bach opened her copy of *The Specs*, took out a tape measure, and started to work.

"Mr. Atlas, I got your name from the Morphology Guide's files as a practitioner who's had a lot of dealings with the Standardist Church."

The man frowned, then shrugged. "So? You may not approve of them, but they're legal. And my records are in order. I don't do any work on anybody until the police have checked for a criminal record." He sat on the edge of the desk in the spacious consulting room, facing Bach. Mr. Rock Atlas—surely a *nom de métier*—had shoulders carved from granite, teeth like flashing pearls, and the face of a young god. He was a walking, flexing advertisement for his profession.

Bach crossed her legs nervously. She had always had a taste for beef.

"I'm not investigating you, Mr. Atlas. This is a murder case, and I'd appreciate your cooperation."

"Call me Rock," he said, with a winning smile.

"Must I? Very well. I came to ask you what you would do, how long the work would take, if I asked to be converted to a barbie."

His face fell. "Oh, no, what a tragedy! I can't allow it. My dear, it would be a crime." He reached over to her and touched her chin lightly, turning her head.

"No, Lieutenant, for you I'd build up the hollows in the cheeks just the slightest bit-maybe tighten up the muscles behind them-then drift the orbital bones out a little bit farther from the nose to set your eyes wider. More attention-getting, you understand. That touch of mystery. Then of course there's your nose."

She pushed his hand away and shook her head. "No, I'm not coming to you for the operation. I just want to know. How much work would it entail, and how close can you come to the specs of the church?" Then she frowned and looked at him suspiciously. "What's wrong with my nose?"

"Well, my dear, I didn't mean to imply there was anything wrong; in fact, it has a certain overbearing power that must be useful to you once in a while, in the circles you move in. Even the lean to the left could be justified, aesthetically-"

"Never mind," she said, angry at herself for having fallen into his sales pitch.

"Just answer my question."

He studied her carefully, asked her to stand up and turn around. She was about to object that she had not necessarily meant herself personally as the surgical candidate, just a woman in general, when he seemed to lose interest in her.

"It wouldn't be much of a job," he said. "Your height is just slightly over the parameters; I could take that out of your thighs and lower legs, maybe shave some vertebrae. Take out some fat here and put it back there. Take off those nipples and dig out your uterus and ovaries, sew up your crotch. With a man, chop off the penis. I'd have to break up your skull a little and shift the bones around, then build up the face from there. Say two days work, one overnight and one outpatient."

"And when you were through, what would be left to identify me?"

"Say that again?"

Bach briefly explained her situation, and Atlas pondered it.

"You've got a problem. I take off the fingerprints and footprints. I don't leave any external scars, not even microscopic ones. No moles, freckles, warts or birthmarks; they all have to go. A blood test would work, and so would a retinal print. An X-ray of the skull. A voiceprint would be questionable. I even that out as much as possible. I can't think of anything else."

"Nothing that could be seen from a purely visual exam?"

"That's the whole point of the operation, isn't it?"

"I know. I was just hoping you might know something even the barbies were not aware of. Thank you, anyway."

He got up, took her hand, and kissed it. "No trouble. And if you ever decide to get that nose taken care of..."

She met Jorge Weil at the temple gate in the middle of Anytown. He had spent his morning there, going through the records, and she could see the work didn't agree with him. He took her back to the small office where the records were kept in battered file cabinets. There was a barbie waiting for them there. She spoke without preamble.

"We decided at equalization last night to help you as much as possible."

"Oh, yeah? Thanks. I wondered if you would, considering what happened fifty years ago."

Weil looked puzzled. "What was that?" Bach waited for the barbie to speak, but she evidently wasn't going to.

"All right. I found it last night. The Standardists were involved in murder once before, not long after they came to Luna. You notice you never see one of them in New Dresden?"

Weil shrugged. "So what? They keep to themselves."

"They were ordered to keep to themselves. At first, they could move freely like any other citizens. Then one of them killed somebody-not a Standardist this time. It was known the murderer was a barbie;

there were witnesses. The police started looking for the killer. You guess what happened."

"They ran into the problems we're having." Weil grimaced. "It doesn't look so good, does it?"

"It's hard to be optimistic," Bach conceded. "The killer was never found. The barbies offered to surrender one of their number at random, thinking the law would be satisfied with that. But of course it wouldn't do. There was a public outcry, and a lot of pressure to force them to adopt some kind of distinguishing characteristic, like a number tattooed on their foreheads. I don't think that would have worked, either. It could have been covered.

"The fact is that the barbies were seen as a menace to society. They could kill at will and blend back into their community like grains of sand on a beach. We would be powerless to punish a guilty party. There was no provision in the law for dealing with them."

"So what happened?"

"The case is marked closed, but there's no arrest, no conviction, and no suspect. A deal was made whereby the Standardists could practice their religion as long as they never mixed with other citizens. They had to stay in Anytown. Am I right?" She looked at the barbie.

"Yes. We've adhered to the agreement."

"I don't doubt it. Most people are barely aware you exist out here. But now we've got this. One barbie kills another barbie, and under a television camera..." Bach stopped, and looked thoughtful. "Say, it occurs to me... wait a minute. Wait a minute." She didn't like the look of it.

"I wonder. This murder took place in the tube station. It's the only place in Anytown that's scanned by the municipal security system. And fifty years is a long time between murders, even in a town as small as... how many people did you say live here, Jorge?"

"About seven thousand. I feel I know them all intimately." Weil had spent the day sorting barbies. According to measurements made from the tape, the killer was at the top end of permissible height.

"How about it?" Bach said to the barbie. "Is there anything I ought to know?"

The woman bit her lip, looked uncertain.

"Come on, you said you were going to help me."

"Very well. There have been three other killings in the last month. You would not have heard of this one except it took place with outsiders present.

Purchasing agents were there on the loading platform. They made the initial report. There was nothing we could do to hush it up."

"But why would you want to?"

"Isn't it obvious? We exist with the possibility of persecution always with us.

We don't wish to appear a threat to others. We wish to appear peaceful-which we are-and prefer to handle the problems of the group within the group itself. By divine consensus."

Bach knew she would get nowhere pursuing that line of reasoning. She decided to take the conversation back to the previous murders.

"Tell me what you know. Who was killed, and do you have any idea why? Or should I be talking to someone else?" Something occurred to her then, and she wondered why she hadn't asked it before. "You are the person I was speaking to yesterday, aren't you? Let me rephrase that. You're the body... that is, this body before me..."

"We know what you're talking about," the barbie said. "Uh, yes, you are correct.

We are... I am the one you spoke to." She had to choke the word out, blushing furiously. "We have been... I have been selected as the component to deal with you, since it was perceived at equalization that this matter must be dealt with.

This one was chosen as... I was chosen as punishment."

"You don't have to say 'I' if you don't want to."

"Oh, thank you."

"Punishment for what?"

"For... for individualistic tendencies. We spoke up too personally at equalization, in favor of cooperation with you. As a political necessity. The conservatives wish to stick to our sacred principles no matter what the cost. We are divided; this makes for bad feelings within the organism, for sickness. This

one spoke out, and was punished by having her own way, by being appointed... individually... to deal with you." The woman could not meet Bach's eyes. Her face burned with shame.

"This one has been instructed to reveal her serial number to you. In the future, when you come here you are to ask for 23900."

Bach made a note of it.

"All right. What can you tell me about a possible motive? Do you think all the killings were done by the same... component?"

"We do not know. We are no more equipped to select an... individual from the group than you are. But there is great consternation. We are fearful."

"I would think so. Do you have reason to believe that the victims were... does this make sense?... known to the killer? Or were they random killings?" Bach hoped not. Random killers were the hardest to catch; without motive, it was hard to tie killer to victim, or to sift one person out of thousands with the opportunity. With the barbies, the problem would be squared and cubed.

"Again, we don't know."

Bach sighed. "I want to see the witnesses to the crime. I might as well start interviewing them."

In short order, thirteen barbies were brought. Bach intended to question them thoroughly to see if their stories were consistent, and if they had changed.

She sat them down and took them one at a time, and almost immediately ran into a stone wall. It took her several minutes to see the problem, frustrating minutes spent trying to establish which of the barbies had spoken to the officer first, which second, and so forth.

"Hold it. Listen carefully. Was this body physically present at the time of the crime? Did these eyes see it happen?"

The barbie's brow furrowed. "Why, no. But does it matter?"

"It does to me, babe. Hey, twenty-three thousand!"

The barbie stuck her head in the door. Bach looked pained.

"I need the actual people who were there. Not thirteen picked at random."

"The story is known to all."

Bach spent five minutes explaining that it made a difference to her, then waited an hour as 23900 located the people who were actual witnesses.

And again she hit a stone wall. The stories were absolutely identical, which she knew to be impossible. Observers always report events differently. They make themselves the hero, invent things before and after they first began observing, rearrange and edit and interpret. But not the barbies. Bach struggled for an hour, trying to shake one of them, and got nowhere. She was facing a consensus, something that had been discussed among the barbies until an account of the event had emerged and then been accepted as truth. It was probably a close approximation, but it did Bach no good. She needed discrepancies to gnaw at, and there were none.

Worst of all, she was convinced no one was lying to her. Had she questioned the thirteen random choices she would have gotten the same answers. They would have thought of themselves as having been there, since some of them had been and they had been told about it. What happened to one, happened to all.

Her options were evaporating fast. She dismissed the witnesses, called 23900 back in, and sat her down. Bach ticked off points on her fingers.

"One. Do you have the personal effects of the deceased?"

"We have no private property."

Bach nodded. "Two. Can you take me to her room?"

"We each sleep in any room we find available at night. There is no-"

"Right. Three. Any friends or co-workers I might..." Bach rubbed her forehead with one hand. "Right. Skip it. Four. What was her job? Where did she work?"

"All jobs are interchangeable here. We work at what needs-"

"Right!" Bach exploded. She got up and paced the floor. "What the hell do you expect me to do with a situation like this? I don't have anything to work with, not one snuffin' thing. No way of telling why she

was killed, no way to pick out the killer, no way... ah, shit. What do you expect me to do?"

"We don't expect you to do anything," the barbie said, quietly. "We didn't ask you to come here. We'd like it very much if you just went away."

In her anger Bach had forgotten that. She was stopped, unable to move in any direction. Finally, she caught Weil's eye and jerked her head toward the door.

"Let's get out of here." Weil said nothing. He followed Bach out the door and hurried to catch up.

They reached the tube station, and Bach stopped outside their waiting capsule.

She sat down heavily on a bench, put her chin on her palm, and watched the ant-like mass of barbies working at the loading dock. "Any ideas?"

Weil shook his head, sitting beside her and removing his cap to wipe sweat from his forehead.

"They keep it too hot in here," he said. Bach nodded, not really hearing him.

She watched the group of barbies as two separated themselves from the crowd and came a few steps in her direction. Both were laughing, as if at some private joke, looking right at Bach. One of them reached under her blouse and withdrew a long, gleaming steel knife. In one smooth motion she plunged it into the other barbie's stomach and lifted, bringing her up on the balls of her feet. The one who had been stabbed looked surprised for a moment, staring down at herself, her mouth open as the knife gutted her like a fish. Then her eyes widened and she stared horror-stricken at her companion, and slowly went to her knees, holding the knife to her as blood gushed out and soaked her white uniform.

"Stop her!" Bach shouted. She was on her feet and running, after a moment of horrified paralysis. It had looked so much like the tape.

She was about forty meters from the killer, who moved with deliberate speed, jogging rather than running. She passed the barbie who had been attacked-and who was now on her side, still holding the knife hilt almost tenderly to herself, wrapping her body around the pain. Bach thumbed the panic button on her communicator, glanced over her shoulder to see Weil kneeling beside the stricken barbie, then looked back- -to a confusion of running figures. Which one was it? Which one?

She grabbed the one that seemed to be in the same place and moving in the same direction as the killer had been before she looked away. She swung the barbie around and hit her hard on the side of the neck with the edge of her palm, watched her fall while trying to look at all the other barbies at the same time.

They were running in both directions, some trying to get away, others entering the loading dock to see what was going on. It was a madhouse scene with shrieks and shouts and baffling movement.

Bach spotted something bloody lying on the floor, then knelt by the inert figure and clapped the handcuffs on her.

She looked up into a sea of faces, all alike.

The commissioner dimmed the lights, and he, Bach, and Weil faced the big screen at the end of the room. Beside the screen was a department photoanalyst with a pointer in her hand. The tape began to run.

"Here they are," the woman said, indicating two barbies with the tip of the long stick. They were just faces on the edge of the crowd, beginning to move. "Victim right here, the suspect to her right." Everyone watched as the stabbing was re-created. Bach winced when she saw how long she had taken to react. In her favor, it had taken Weil a fraction of a second longer.

"Lieutenant Bach begins to move here. The suspect moves back toward the crowd.

If you'll notice, she is watching Bach over her shoulder. Now. Here." She froze a frame. "Bach loses eye contact. The suspect peels off the plastic glove which prevented blood from staining her hand. She drops it, moves laterally. By the time Bach looks back, we can see she is after the wrong suspect."

Bach watched in sick fascination as her image assaulted the wrong barbie, the actual killer only a meter to her left. The tape resumed normal speed, and Bach watched the killer until her eyes began to hurt from not blinking. She would not lose her this time. "She's incredibly brazen. She does not leave the room for another twenty minutes." Bach saw herself kneel and help the medical team load the wounded barbie into the capsule. The killer had been at her elbow, almost touching her. She felt her arm break out in goose pimples.

She remembered the sick fear that had come over her as she knelt by the injured woman. It could be



any of them. The one behind me, for instance...

She had drawn her weapon then, backed against the wall, and not moved until the reinforcements arrived a few minutes later. At a motion from the commissioner, the lights came back on. "Let's hear what you have," he said.

Bach glanced at Weil, then read from her notebook. " 'Sergeant Weil was able to communicate with the victim shortly before medical help arrived. He asked her if she knew anything pertinent as to the identity of her assailant. She answered no, saying only that it was 'the wrath.' She could not elaborate.' I quote now from the account Sergeant Weil wrote down immediately after the interview. ' "It hurts, it hurts." "I'm dying, I'm dying." I told her help was on the way. She responded: "I'm dying." Victim became incoherent, and I attempted to get a shirt from the onlookers to stop the flow of blood. No cooperation was forthcoming.' "

"It was the word 'I,'" Weil supplied. "When she said that, they all started to drift away."

" 'She became rational once more,' " Bach resumed, " 'long enough to whisper a number to me. The number was twelve-fifteen, which I wrote down as one-two-one-five. She roused herself once more, said "I'm dying." ' " Bach closed the notebook and looked up. "Of course, she was right." She coughed nervously.

"We invoked section 35b of the New Dresden Unified Code, 'Hot Pursuit,' suspending civil liberties locally for the duration of the search. We located component 1215 by the simple expedient of lining up all the barbies and having them pull their pants down. Each has a serial number in the small of her back.

Component 1215, one Sylvester J. Cronhausen, is in custody at this moment.

"While the search was going on, we went to sleeping cubicle 1215 with a team of criminologists. In a concealed compartment beneath the bunk we found these items." Bach got up, opened the evidence bag, and spread the items on the table.

There was a carved wooden mask. It had a huge nose with a hooked end, a mustache, and a fringe of black hair around it. Beside the mask were several jars of powders and creams, greasepaint and cologne. One black nylon sweater, one pair black trousers, one pair black sneakers. A stack of pictures clipped from magazines, showing ordinary people, many of them wearing more clothes than was normal in Luna. There was a black wig and a merkin of the same color.

"What was that last?" the commissioner asked.

"A merkin, sir," Bach supplied. "A pubic wig."

"Ah." He contemplated the assortment, leaned back in his chair. "Somebody liked to dress up."

"Evidently, sir." Bach stood at ease with her hands clasped behind her back, her face passive. She felt an acute sense of failure, and a cold determination to get the woman with the gall to stand at her elbow after committing murder before her eyes. She was sure the time and place had been chosen deliberately, that the barbie had been executed for Bach's benefit.

"Do you think these items belonged to the deceased?"

"We have no reason to state that, sir," Bach said. "However, the circumstances are suggestive."

"Of what?"

"I can't be sure. These things might have belonged to the victim. A random search of other cubicles turned up nothing like this. We showed the items to component 23900, our liaison. She professed not to know their purpose." She stopped, then added, "I believe she was lying. She looked quite disgusted."

"Did you arrest her?"

"No, sir. I didn't think it wise. She's the only connection we have, such as she is."

The commissioner frowned, and laced his fingers together. "I'll leave it up to you, Lieutenant Bach. Frankly, we'd like to be shut of this mess as soon as possible."

"I couldn't agree with you more, sir."

"Perhaps you don't understand me. We have to have a warm body to indict. We have to have one soon."

"Sir, I'm doing the best I can. Candidly, I'm beginning to wonder if there's anything I can do."

"You still don't understand me." He looked around the office. The stenographer and photoanalyst had left. He was alone with Bach and Weil. He flipped a switch on his desk, turning a recorder off, Bach

realized.

"The news is picking up on this story. We're beginning to get some heat. On the one hand, people are afraid of these barbies. They're hearing about the murder fifty years ago, and the informal agreement. They don't like it much. On the other hand, there's the civil libertarians. They'll fight hard to prevent anything happening to the barbies, on principle. The government doesn't want to get into a mess like that. I can hardly blame them."

Bach said nothing, and the commissioner looked pained.

"I see I have to spell it out. We have a suspect in custody," he said.

"Are you referring to component 1215, Sylvester Cronhausen?"

"No. I'm speaking of the one you captured."

"Sir, the tape clearly shows she is not the guilty party. She was an innocent bystander." She felt her face heat up as she said it. Damn it; she had tried her best.

"Take a look at this." He pressed a button and the tape began to play again. But the quality was much impaired. There were bursts of snow, moments when the picture faded out entirely. It was a very good imitation of a camera failing.

Bach watched herself running through the crowd-there was a flash of white- and she had hit the woman. The lights came back on in the room.

"I've checked with the analyst. She'll go along. There's a bonus in this, for both of you." He looked from Weil to Bach.

"I don't think I can go through with that, sir."

He looked like he'd tasted a lemon. "I didn't say we were doing this today. It's an option. But I ask you to look at it this way, just look at it, and I'll say no more. This is the way they themselves want it. They offered you the same deal the first time you were there. Close the case with a confession, no mess. We've already got this prisoner. She just says she killed her, she killed all of them.

I want you to ask yourself, is she wrong? By her own lights and moral values?

She believes she shares responsibility for the murders, and society demands a culprit. What's wrong with accepting their compromise and letting this all blow over?"

"Sir, it doesn't feel right to me. This is not in the oath I took. I'm supposed to protect the innocent, and she's innocent. She's the only barbie I know to be innocent."

The commissioner sighed. "Bach, you've got four days. You give me an alternative by then."

"Yes, sir. If I can't, I'll tell you now that I won't interfere with what you plan. But you'll have to accept my resignation."

Anna-Louise Bach reclined in the bathtub with her head pillowed on a folded towel. Only her neck, nipples, and knees stuck out above the placid surface of the water, tinted purple with a generous helping of bath salts. She clenched a thin cheroot in her teeth. A ribbon of lavender smoke curled from the end of it, rising to join the cloud near the ceiling.

She reached up with one foot and turned on the taps, letting out cooled water and refilling with hot until the sweat broke out on her brow. She had been in the tub for several hours. The tips of her fingers were like washboards.

There seemed to be few alternatives. The barbies were foreign to her, and to anyone she could assign to interview them. They didn't want her help in solving the crimes. All the old rules and procedures were useless. Witnesses meant nothing; one could not tell one from the next, nor separate their stories.

Opportunity? Several thousand individuals had it. Motive was a blank. She had a physical description in minute detail, even tapes of the actual murders. Both were useless.

There was one course of action that might show results. She had been soaking for hours in the hope of determining just how important her job was to her.

Hell, what else did she want to do?

She got out of the tub quickly, bringing a lot of water with her to drip onto the floor. She hurried into her bedroom, pulled the sheets off the bed and slapped the nude male figure on the buttocks.

"Come on, Svengali," she said. "Here's your chance to do something about my nose."

She used every minute while her eyes were functioning to read all she could find about Standardists.

When Atlas worked on her eyes, the computer droned into an earphone. She memorized most of the Book of Standards.

Ten hours of surgery, followed by eight hours flat on her back, paralyzed, her body undergoing forced regeneration, her eyes scanning the words that flew by on an overhead screen.

Three hours of practice, getting used to shorter legs and arms. Another hour to assemble her equipment.

When she left the Atlas clinic, she felt she would pass for a barbie as long as she kept her clothes on. She hadn't gone that far.

People tended to forget about access locks that led to the surface. Bach had used the fact more than once to show up in places where no one expected her.

She parked her rented crawler by the lock and left it there. Moving awkwardly in her pressure suit, she entered and started it cycling, then stepped through the inner door into an equipment room in Anytown. She stowed the suit, checked herself quickly in a washroom mirror, straightened the tape measure that belted her loose white jumpsuit, and entered the darkened corridors.

What she was doing was not illegal in any sense, but she was on edge. She didn't expect the barbies to take kindly to her masquerade if they discovered it, and she knew how easy it was for a barbie to vanish forever. Three had done so before Bach ever got the case.

The place seemed deserted. It was late evening by the arbitrary day cycle of New Dresden. Time for the nightly equalization. Bach hurried down the silent hallways to the main meeting room in the temple.

It was full of barbies and a vast roar of conversation. Bach had no trouble slipping in, and in a few minutes she knew her facial work was as good as Atlas had promised.

Equalization was the barbie's way of standardizing experience. They had been unable to simplify their lives to the point where each member of the community experienced the same things every day; the Book of Standards said it was a goal to be aimed for, but probably unattainable this side of Holy Reassimilation with Goddess. They tried to keep the available jobs easy enough that each member could do them all. The commune did not seek to make a profit; but air, water, and food had to be purchased, along with replacement parts and services to keep things running. The community had to produce things to trade with the outside.

They sold luxury items: hand-carved religious statues, illuminated holy books, painted crockery, and embroidered tapestries. None of the items were Standardist. The barbies had no religious symbols except their uniformity and the tape measure, but nothing in their dogma prevented them from selling objects of reverence to people of other faiths.

Bach had seen the products for sale in the better shops. They were meticulously produced, but suffered from the fact that each item looked too much like every other. People buying hand-produced luxuries in a technological age tend to want the differences that non-machine production entails, whereas the barbies wanted everything to look exactly alike. It was an ironic situation, but the barbies willingly sacrificed value by adhering to their standards.

Each barbie did things during the day that were as close as possible to what everyone else had done. But someone had to cook meals, tend the air machines, load the freight. Each component had a different job each day. At equalization, they got together and tried to even that out.

It was boring. Everyone talked at once, to anyone that happened to be around.

Each woman told what she had done that day. Bach heard the same group of stories a hundred times before the night was over, and repeated them to anyone who would listen.

Anything unusual was related over a loudspeaker so everyone could be aware of it and thus spread out the intolerable burden of anomaly. No barbie wanted to keep a unique experience to herself; it made her soiled, unclean, until it was shared by all.

Bach was getting very tired of it-she was short on sleep- when the lights went out. The buzz of conversation shut off as if a tape had broken.

"All cats are alike in the dark," someone muttered, quite near Bach. Then a single voice was raised. It was solemn; almost a chant.

"We are the wrath. There is blood on our hands, but it is the holy blood of cleansing. We have told

you of the cancer eating at the heart of the body, and yet still you cower away from what must be done. The filth must be removed from us!"

Bach was trying to tell which direction the words were coming from in the total darkness. Then she became aware of movement, people brushing against her, all going in the same direction. She began to buck the tide when she realized everyone was moving away from the voice.

"You think you can use our holy uniformity to hide among us, but the vengeful hand of Goddess will not be stayed. The mark is upon you, our one-time sisters.

Your sins have set you apart, and retribution will strike swiftly.

"There are five of you left. Goddess knows who you are, and will not tolerate your perversion of her holy truth. Death will strike you when you least expect it. Goddess sees the differentness within you, the differentness you seek but hope to hide from your upright sisters."

People were moving more swiftly now, and a scuffle had developed ahead of her.

She struggled free of people who were breathing panic from every pore, until she stood in a clear space. The speaker was shouting to be heard over the sound of whimpering and the shuffling of bare feet. Bach moved forward, swinging her outstretched hands. But another hand brushed her first.

The punch was not centered on her stomach, but it drove the air from her lungs and sent her sprawling. Someone tripped over her, and she realized things would get pretty bad if she didn't get to her feet. She was struggling up when the lights came back on.

There was a mass sigh of relief as each barbie examined her neighbor. Bach half expected another body to be found, but that didn't seem to be the case. The killer had vanished again.

She slipped away from the equalization before it began to break up, and hurried down the deserted corridors to room 1215.

She sat in the room-little more than a cell, with a bunk, a chair, and a light on a table-for more than two hours before the door opened, as she had hoped it would. A barbie stepped inside, breathing hard, closed the door, and leaned against it.

"We wondered if you would come," Bach said, tentatively.

The woman ran to Bach and collapsed at her knees, sobbing.

"Forgive us, please forgive us, our darling. We didn't dare come last night. We were afraid that... that if... that it might have been you who was murdered, and that the wrath would be waiting for us here. Forgive us, forgive us."

"It's all right," Bach said, for lack of anything better. Suddenly, the barbie was on top of her, kissing her with a desperate passion. Bach was startled, though she had expected something of the sort. She responded as best she could.

The barbie finally began to talk again.

"We must stop this, we just have to stop. We're so frightened of the wrath, but... but the longing! We can't stop ourselves. We need to see you so badly that we can hardly get through the day, not knowing if you are across town or working at our elbow. It builds all day, and at night, we cannot stop ourselves from sinning yet again." She was crying, more softly this time, not from happiness at seeing the woman she took Bach to be, but from a depth of desperation. "What's going to become of us?" she asked, helplessly.

"Shhh," Bach soothed. "It's going to be all right."

She comforted the barbie for a while, then saw her lift her head. Her eyes seemed to glow with a strange light.

"I can't wait any longer," she said. She stood up, and began taking off her clothes. Bach could see her hands shaking.

Beneath her clothing the barbie had concealed a few things that looked familiar.

Bach could see that the merkin was already in place between her legs. There was a wooden mask much like the one that had been found in the secret panel, and a jar. The barbie unscrewed the top of it and used her middle finger to smear dabs of brown onto her breasts, making stylized nipples.

"Look what I got," she said, coming down hard on the pronoun, her voice trembling. She pulled a flimsy yellow blouse from the pile of clothing on the floor, and slipped it over her shoulders. She struck a

pose, then strutted up and down the tiny room.

"Come on, darling," she said. "Tell me how beautiful I am. Tell me I'm lovely.

Tell me I'm the only one for you. The only one. What's the matter? Are you still frightened? I'm not. I'll dare anything for you, my one and only love." But now she stopped walking and looked suspiciously at Bach. "Why aren't you getting dressed?"

"We...uh, I can't," Bach said, extemporizing. "They, uh, someone found the things. They're all gone." She didn't dare remove her clothes because her nipples and pubic hair would look too real, even in the dim light.

The barbie was backing away. She picked up her mask and held it protectively to her. "What do you mean? Was she here? The wrath? Are they after us? It's true, isn't it? They can see us." She was on the edge of crying again, near panic.

"No, no, I think it was the police-" But it was doing no good. The barbie was at the door now, and had it half open.

"You're her! What have you done to... no, no, you stay away." She reached into the clothing that she now held in her hand, and Bach hesitated for a moment, expecting a knife. It was enough time for the barbie to dart quickly through the door, slamming it behind her.

When Bach reached the door, the woman was gone.

Bach kept reminding herself that she was not here to find the other potential victims-of whom her visitor was certainly one- but to catch the killer. The fact remained that she wished she could have detained her, to question her further.

The woman was a pervert, by the only definition that made any sense among the Standardists. She, and presumably the other dead barbies, had an individuality fetish. When Bach had realized that, her first thought had been to wonder why they didn't simply leave the colony and become whatever they wished. But then why did a Christian seek out prostitutes? For the taste of sin. In the larger world, what these barbies did would have had little meaning. Here, it was sin of the worst and tastiest kind.

And somebody didn't like it at all.

The door opened again, and the woman stood there facing Bach, her hair disheveled, breathing hard.

"We had to come back," she said. "We're so sorry that we panicked like that. Can you forgive us?" She was coming toward Bach now, her arms out. She looked so vulnerable and contrite that Bach was astonished when the fist connected with her cheek.

Bach thudded against the wall, then found herself pinned under the woman's knees, with something sharp and cool against her throat. She swallowed very carefully, and said nothing. Her throat itched unbearably.

"She's dead," the barbie said. "And you're next." But there was something in her face that Bach didn't understand. The barbie brushed at her eyes a few times, and squinted down at her.

"Listen, I'm not who you think I am. If you kill me, you'll be bringing more trouble on your sisters than you can imagine."

The barbie hesitated, then roughly thrust her hand down into Bach's pants. Her eyes widened when she felt the genitals, but the knife didn't move. Bach knew she had to talk fast, and say all the right things.

"You understand what I'm talking about, don't you?" She looked for a response, but saw none. "You're aware of the political pressures that are coming down. You know this whole colony could be wiped out if you look like a threat to the outside. You don't want that."

"If it must be, it will be," the barbie said. "The purity is the important thing. If we die, we shall die pure. The blasphemers must be killed."

"I don't care about that anymore," Bach said, and finally got a ripple of interest from the barbie. "I have my principles, too. Maybe I'm not as fanatical about them as you are about yours. But they're important to me. One is that the guilty be brought to justice."

"You have the guilty party. Try her. Execute her. She will not protest."

"You are the guilty party."

The woman smiled. "So arrest us."

"All right, all right. I can't, obviously. Even if you don't kill me, you'll walk out that door and I'll never

be able to find you. I've given up on that. I just don't have the time. This was my last chance, and it looks like it didn't work."

"We didn't think you could do it, even with more time. But why should we let you live?"

"Because we can help each other." She felt the pressure ease up a little, and managed to swallow again. "You don't want to kill me, because it could destroy your community. Myself... I need to be able to salvage some self-respect out of this mess. I'm willing to accept your definition of morality and let you be the law in your own community. Maybe you're even right. Maybe you are one being. But I can't let that woman be convicted, when I know she didn't kill anyone."

The knife was not touching her neck now, but it was still being held so that the barbie could plunge it into her throat at the slightest movement.

"And if we let you live? What do you get out of it? How do you free your 'innocent' prisoner?"

"Tell me where to find the body of the woman you just killed. I'll take care of the rest."

The pathology team had gone and Anytown was settling down once again. Bach sat on the edge of the bed with Jorge Weil. She was as tired as she ever remembered being. How long had it been since she slept?

"I'll tell you," Weil said, "I honestly didn't think this thing would work. I guess I was wrong."

Bach sighed. "I wanted to take her alive, Jorge. I thought I could. But when she came at me with the knife..." She let him finish the thought, not caring to lie to him. She'd already done that to the interviewer. In her story, she had taken the knife from her assailant and tried to disable her, but was forced in the end to kill her. Luckily, she had the bump on the back of her head from being thrown against the wall. It made a blackout period plausible. Otherwise, someone would have wondered why she waited so long to call for police and an ambulance. The barbie had been dead for an hour when they arrived.

"Well, I'll hand it to you. You sure pulled this out. I'll admit it, I was having a hard time deciding if I'd do as you were going to do and resign, or if I could have stayed on. Now I'll never know."

"Maybe it's best that way. I don't really know, either."

Jorge grinned at her. "I can't get used to thinking of you being behind that godawful face."

"Neither can I, and I don't want to see any mirrors. I'm going straight to Atlas and get it changed back." She got wearily to her feet and walked toward the tube station with Weil.

She had not quite told him the truth. She did intend to get her own face back as soon as possible—nose and all—but there was one thing left to do.

From the first, a problem that had bothered her had been the question of how the killer identified her victims.

Presumably the perverts had arranged times and places to meet for their strange rites. That would have been easy enough. Any one barbie could easily shirk her duties. She could say she was sick, and no one would know it was the same barbie who had been sick yesterday, and for a week or month before. She need not work; she could wander the halls acting as if she was on her way from one job to another. No one could challenge her. Likewise, while 23900 had said no barbie spent consecutive nights in the same room, there was no way for her to know that. Evidently room 1215 had been taken over permanently by the perverts.

And the perverts would have no scruples about identifying each other by serial number at their clandestine meetings, though they could do it in the streets.

The killer didn't even have that.

But someone had known how to identify them, to pick them out of a crowd. Bach thought she must have infiltrated meetings, marked the participants in some way.

One could lead her to another, until she knew them all and was ready to strike.

She kept recalling the strange way the killer had looked at her, the way she had squinted. The mere fact that she had not killed Bach instantly in a case of mistaken identity meant she had been expecting to see something that had not been there.

And she had an idea about that.

She meant to go to the morgue first, and to examine the corpses under different wavelengths of lights, with various filters. She was betting some kind of mark would become visible on the faces, a mark the

killer had been looking for with her contact lenses.

It had to be something that was visible only with the right kind of equipment, or under the right circumstances. If she kept at it long enough, she would find it.

If it was an invisible ink, it brought up another interesting question. How had it been applied? With a brush or spray gun? Unlikely. But such an ink on the killer's hands might look and feel like water.

Once she had marked her victims, the killer would have to be confident the mark would stay in place for a reasonable time. The murders had stretched over a month. So she was looking for an indelible, invisible ink, one that soaked into pores.

And if it was indelible...

There was no use thinking further about it. She was right, or she was wrong.

When she struck the bargain with the killer she had faced up to the possibility that she might have to live with it. Certainly she could not now bring a killer into court, not after what she had just said.

No, if she came back to Anytown and found a barbie whose hands were stained with guilt, she would have to do the job herself.

## BEATNIK BAYOU

The pregnant woman had been following us for over an hour when Cathay did the unspeakable thing.

At first it had been fun. Me and Denver didn't know what it was about, just that she had some sort of beef with Cathay. She and Cathay had gone off together and talked. The woman started yelling, and it was not too long before Cathay was yelling, too. Finally Cathay said something I couldn't hear and came back to join the class. That was me, Denver, Trigger, and Cathay, the last two being the teachers, me and Denver being the students. I know, you're not supposed to be able to tell which is which, but believe me, you usually know.

That's when the chase started. This woman wouldn't take no for an answer, and she followed us wherever we went. She was about as awkward an animal as you could imagine, and I certainly wasn't feeling sorry for her after the way she had talked to Cathay, who is my friend. Every time she slipped and landed on her behind, we all had a good laugh.

For a while. After an hour, she started to seem a little frightening. I had never seen anyone so determined.

The reason she kept slipping was that she was chasing us through Beatnik Bayou, which is Trigger's home. Trigger herself describes it as "twelve acres of mud, mosquitoes, and moonshine." Some of her visitors had been less poetic but more colorful. I don't know what an acre is, but the bayou is fairly large. Trigger makes the moonshine in a copper and aluminum still in the middle of a canebrake.

The mosquitoes don't bite, but they buzz a lot. The mud is just plain old mississippi mud, suitable for beating your feet. Most people see the place and hate it instantly, but it suits me fine.

Pretty soon the woman was covered in mud. She had three things working against her. One was her ankle-length maternity gown, which covered all of her except for face, feet, and bulging belly and breasts. She kept stepping on the long skirt and going down. After a while, I winced every time she did that.

Another handicap was her tummy, which made her walk with her weight back on her heels. That's not the best way to go through mud, and every so often she sat down real hard, proving it.

Her third problem was the Birthgirdle pelvic bone, which must have just been installed. It was one of those which sets the legs far apart and is hinged in the middle so when the baby comes it opens out and gives more room. She needed it, because she was tall and thin, the sort of build that might have died in childbirth back when such things were a problem. But it made her waddle like a duck.

"Quack, quack," Denver said, with an attempt at a smile. We both looked back at the woman, still following, still waddling. She went down, and struggled to her feet. Denver wasn't smiling when she met my eyes. She muttered something.

"What's that?" I said.

"She's unnerving," Denver repeated. "I wonder what the hell she wants?"

"Something pretty powerful."

Cathay and Trigger were a few paces ahead of us, and I saw Trigger glance back.

She spoke to Cathay. I don't think I was supposed to hear it, but I did. I've got good ears.

"This is starting to upset the kids."

"I know," he said, wiping his brow with the back of his hand. All four of us watched her as she toiled her way up the far side of the last rise. Only her head and shoulders were visible.

"Damn. I thought she'd give up pretty soon." He groaned, but then his face became expressionless. "There's no help for it. We'll have to have a confrontation."

"I thought you already did," Trigger said, lifting an eyebrow.

"Yeah. Well, it wasn't enough, apparently. Come on, people. This is part of your lives, too." He meant me and Denver, and when he said that we knew this was supposed to be a "learning experience." Cathay can turn the strangest things into learning experiences. He started back toward the shallow stream we had just waded across, and the three of us followed him.

If I sounded hard on Cathay, I really shouldn't have been. Actually, he was one damn fine teacher. He was able to take those old saws about learning by doing, seeing is believing, one-on-one instruction, integration of life experiences-all the conventional wisdom of the educational establishment-and make it work better than any teacher I'd ever seen. I knew he was a counterfeit child. I had known that since I first met him, when I was seven, but it hadn't started to matter until lately. And that was just the natural cynicism of my age-group, as Trigger kept pointing out in that smug way of hers.

Okay, so he was really forty-eight years old. Physically he was just my age, which was almost thirteen: a short, slightly chubby kid with curly blond hair and an androgynous face, just starting to grow a little fuzz around his balls.

When he turned to face that huge, threatening woman and stood facing her calmly, I was moved.

I was also fascinated. Mentally, I settled back on my haunches to watch and wait and observe. I was sure I'd be learning something about "life" real soon now.

Class was in session.

When she saw us coming back, the woman hesitated. She picked her footing carefully as she came down the slight rise to stand at the edge of the water, then waited for a moment to see if Cathay was going to join her. He wasn't. She made an awful face, lifted her skirt up around her waist, and waded in.

The water lapped around her thighs. She nearly fell over when she tried to dodge some dangling Spanish moss. Her lace dress was festooned with twigs and leaves and smeared with mud.

"Why don't you turn around?" Trigger yelled, standing beside me and Denver and shaking her fist. "It's not going to do you any good."

"I'll be the judge of that," she yelled back. Her voice was harsh and ugly and what had probably been a sweet face was now set in a scowl. An alligator was swimming up to look her over. She swung at it with her fist, nearly losing her balance. "Get out of here, you slimy lizard!" she screamed. The reptile recalled urgent business on the other side of the swamp, and hurried out of her way.

She clambered ashore and stood ankle-deep in ooze, breathing hard. She was a mess, and beneath her anger I could now see fear. Her lips trembled for a moment. I wished she would sit down; just looking at her exhausted me.

"You've got to help me," she said, simply.

"Believe me, if I could, I would," Cathay said.

"Then tell me somebody who can."

"I told you, if the Educational Exchange can't help you, I certainly can't.

Those few people I know who are available for a contract are listed on the exchange."

"But none of them are available any sooner than three years."

"I know. It's the shortage."

"Then help me," she said, miserably. "Help me."

Cathay slowly rubbed his eyes with a thumb and forefinger, then squared his shoulders and put his hands on his hips.

"I'll go over it once more. Somebody gave you my name and said I was available for a primary stage teaching contract. I-"



"He did! He said you'd-"

"I never heard of this person," Cathay said, raising his voice. "Judging from what you're putting me through, he gave you my name from the Teacher's Association listings just to get you off his back. I guess I could do something like that, but frankly, I don't think I have the right to subject another teacher to the sort of abuse you've heaped on me." He paused, and for once she didn't say anything.

"Right," he said, finally. "I'm truly sorry that the man you contracted with for your child's education went to Pluto instead. From what you told me, what he did was legal, which is not to say ethical." He grimaced at the thought of a teacher who would run out on an ethical obligation. "All I can say is you should have had the contract analyzed, you should have had a standby contract drawn up three years ago... oh, hell. What's the use? That doesn't do you any good. You have my sympathy, I hope you believe that."

"Then help me," she whispered, and the last word turned into a sob. She began to cry quietly. Her shoulders shook and tears leaked from her eyes, but she never looked away from Cathay.

"There's nothing I can do."

"You have to."

"Once more. I have obligations of my own. In another month, when I've fulfilled my contract with Argus' mother," he gestured toward me, "I'll be regressing to seven again. Don't you understand? I've already got an intermediate contract.

The child will be seven in a few months. I contracted for her education four years ago. There's no way I can back out of that, legally or morally."

Her face was twisting again, filling with hate.

"Why not?" she rasped. "Why the hell not? He ran out on my contract. Why the hell should I be the only one to suffer? Why me, huh? Listen to me, you shitsucking little son of a blowout. You're all I've got left. After you, there's nothing but the public educator. Or trying to raise him all by myself, all alone, with no guidance. You want to be responsible for that? What the hell kind of start in life does that give him?"

She went on like that for a good ten minutes, getting more illogical and abusive with every sentence. I'd vacillated between a sort of queasy sympathy for her-she was in a hell of a mess, even though she had no one to blame but herself-and outright hostility. Just then she scared me. I couldn't look into those tortured eyes without cringing. My gaze wandered down to her fat belly, and the glass eye of the wombscope set into her navel. I didn't need to look into it to know she was due, and overdue. She'd been having the labor postponed while she tried to line up a teacher. Not that it made much sense; the kid's education didn't start until his sixth month. But it was a measure of her desperation, and of her illogical thinking under stress.

Cathay stood there and took it until she broke into tears again. I saw her differently this time, maybe a little more like Cathay was seeing her. I was sorry for her, but the tears failed to move me. I saw that she could devour us all if we didn't harden ourselves to her. When it came right down to it, she was the one who had to pay for her carelessness. She was trying her best to get someone else to shoulder the blame, but Cathay wasn't going to do it.

"I didn't want to do this," Cathay said. He looked back at us. "Trigger?"

Trigger stepped forward and folded her arms across her chest.

"Okay," she said. "Listen, I didn't get your name, and I don't really want to know it. But whoever you are, you're on my property, in my house. I'm ordering you to leave here, and I further enjoin you never to come back."

"I won't go," she said, stubbornly, looking down at her feet. "I'm not leaving till he promises to help me."

"My next step is to call the police," Trigger reminded her.

"I'm not leaving."

Trigger looked at Cathay and shrugged helplessly. I think they were both realizing that this particular life experience was getting a little too raw.

Cathay thought it over for a moment, eye to eye with the pregnant woman. Then he reached down and scooped up a handful of mud. He looked at it, hefting it experimentally, then threw it at her. It struck her

on the left shoulder with a wet plop, and began to ooze down.

"Go," he said. "Get out of here."

"I'm not leaving," she said.

He threw another handful. It hit her face, and she gasped and sputtered.

"Go," he said, reaching for more mud. This time he hit her on the leg, but by now Trigger had joined him, and the woman was being pelted.

Before I quite knew what was happening, I was scooping mud from the ground and throwing it. Denver was, too. I was breathing hard, and I wasn't sure why.

When she finally turned and fled from us, I noticed that my jaw muscles were tight as steel. It took me a long time to relax them, and when I did, my front teeth were sore.

There are two structures on Beatnik Bayou. One is an old, rotting bait shop and lunch counter called the Sugar Shack, complete with a rusty gas pump out front, a battered Grapette machine on the porch, and a sign advertising Rainbow Bread on the screen door. There's a gray Dodge pickup sitting on concrete blocks to one side of the building, near a pile of rusted auto parts overgrown with weeds.

The truck has no wheels. Beside it is a Toyota sedan with no windows or engine.

A dirt road runs in front of the shack, going down to the dock. In the other direction the road curves around a cypress tree laden with moss- -and runs into the wall. A bit of a jolt. But though twelve acres is large for a privately owned disneyland, it's not big enough to sustain the illusion of really being there. "There," in this case, is supposed to be Louisiana in 1951, old style. Trigger is fascinated by the twentieth century, which she defines as 1903 to 1987.

But most of the time it works. You can seldom see the walls because trees are in the way. Anyhow, I soak up the atmosphere of the place not so much with my eyes but with my nose and ears and skin. Like the smell of rotting wood, the sound of a frog hitting the water or the hum of the compressor in the soft drink machine, the silver wiggle of a dozen minnows as I scoop them from the metal tanks in back of the shack, the feel of sun-heated wood as I sit on the pier fishing for alligator gar.

It takes a lot of power to operate the "sun," so we get a lot of foggy days, and long nights. That helps the illusion, too. I would challenge anyone to go for a walk in the bayou night with the crickets chirping and the bullfrogs booming and not think they were back on Old Earth. Except for the Lunar gravity, of course.

Trigger inherited money. Even with that and a teacher's salary, the bayou is an expensive place to maintain. It used to be a more conventional environment, but she discovered early that the swamp took less upkeep, and she likes the sleazy atmosphere, anyway. She put in the bait shop, bought the automotive mockups from artists, and got it listed with the Lunar Tourist Bureau as an authentic period reconstruction. They'd die if they knew the truth about the Toyota, but I certainly won't tell them.

The only other structure is definitely not from Louisiana of any year. It's a teepee sitting on a slight rise, just out of sight of the Sugar Shack. Cheyenne, I think. We spend most of our time there when we're on the bayou.

That's where we went after the episode with the pregnant woman. The floor is hard-packed clay and there's a fire always burning in the center. There's lots of pillows scattered around, and two big waterbeds.

We tried to talk about the incident. I think Denver was more upset than the rest of us, but from the tense way Cathay sat while Trigger massaged his back I knew he was bothered, too. His voice was troubled.

I admitted I had been scared, but there was more to it than that, and I was far from ready to talk about it. Trigger and Cathay sensed it, and let it go for the time being. Trigger got the pipe and stuffed it with dexeplant leaves.

It's a long-stemmed pipe. She got it lit, then leaned back with the stem in her teeth and the bowl held between her toes. She exhaled sweet, honey-colored smoke. As the day ended outside, she passed the pipe around. It tasted good, and calmed me wonderfully. It made it easy to fall asleep.

But I didn't sleep. Not quite. Maybe I was too far into puberty for the drug in the plant to act as a tranquilizer anymore. Or maybe I was too emotionally stimulated. Denver fell asleep quickly enough.

Cathay and Trigger didn't. They made love on the other side of the teepee, did it in such a slow, dreamy way that I knew the drug was affecting them. Though Cathay is in his forties and Trigger is over a hundred, both have the bodies of thirteen-year-olds, and the metabolism that goes with the territory.

They didn't actually finish making love; they sort of tapered off, like we used to do before orgasms became a factor. I found that made me happy, lying on my side and watching them through slitted eyes.

They talked for a while. The harder I strained to hear them, the sleepier I got.

Somewhere in there I lost the battle to stay awake.

I became aware of a warm body close to me. It was still dark, the only light coming from the embers of the fire.

"Sorry, Argus," Cathay said. "I didn't mean to wake you."

"It's okay. Put your arms around me?" He did, and I squirmed until my back fit snugly against him. For a long time I just enjoyed it. I didn't think about anything, unless it was his warm breath on my neck, or his penis slowly hardening against my back. If you can call that thinking.

How many nights had we slept like this in the last seven years? Too many to count. We knew each other every way possible. A year ago he had been female, and before that both of us had been. Now we were both male, and that was nice, too.

One part of me thought it didn't really matter which sex we were, but another part was wondering what it would be like to be female and know Cathay as a male.

We hadn't tried that yet.

The thought of it made me shiver with anticipation. It had been too long since I'd had a vagina. I wanted Cathay between my legs, like Trigger had had him a short while before.

"I love you," I mumbled.

He kissed my ear. "I love you, too, silly. But how much do you love me?" . "What do you mean?"

I felt him shift around to prop his head up on one hand. His fingers unwound a tight curl in my hair.

"I mean, will you still love me when I'm no taller than your knee?"

I shook my head, suddenly feeling cold. "I don't want to talk about that."

"I know that very well," he said. "But I can't let you forget it. It's not something that'll go away."

I turned onto my back and looked up at him. There was a faint smile on his face as he toyed with my lips and hair with his gentle fingertips, but his eyes were concerned. Cathay can't hide much from me anymore.

"It has to happen," he emphasized, showing no mercy. "For the reasons you heard me tell the woman. I'm committed to going back to age seven. There's another child waiting for me. She's a lot like you."

"Don't do it," I said, feeling miserable. I felt a tear in the corner of my eye, and Cathay brushed it away.

I was thankful that he didn't point out how unfair I was being. We both knew it; he accepted that, and went on as best he could.

"You remember our talk about sex? About two years ago, I think it was. Not too long after you first told me you love me."

"I remember. I remember it all."

He kissed me. "Still, I have to bring it up. Maybe it'll help. You know we agreed that it didn't matter what sex either of us was. Then I pointed out that you'd be growing up, while I'd become a child again. That we'd grow further apart sexually."

I nodded, knowing that if I spoke I'd start to sob.

"And we agreed that our love was deeper than that. That we didn't need sex to make it work. It can work."

This was true. Cathay was close to all his former students. They were adults now, and came to see him often. It was just to be close, to talk and hug. Lately sex had entered it again, but they all understood that would be over soon.

"I don't think I have that perspective," I said, carefully. "They know in a few years you'll mature again. I know it too, but it still feels like..."

"Like what?"

"Like you're abandoning me. I'm sorry, that's just how it feels."

He sighed, and pulled me close to him. He hugged me fiercely for a while, and it felt so good.

"Listen," he said, finally. "I guess there's no avoiding this. I could tell you that you'll get over it-you will-but it won't do any good. I had this same problem with every child I've taught."

"You did?" I hadn't known that, and it made me feel a little better.

"I did. I don't blame you for it. I feel it myself. I feel a pull to stay with you. But it wouldn't work, Argus. I love my work, or I wouldn't be doing it.

There are hard times, like right now. But after a few months you'll feel better."

"Maybe I will." I was far from sure of it, but it seemed important to agree with him and get the conversation ended.

"In the meantime," he said, "we still have a few weeks together. I think we should make the most of them." And he did, his hands roaming over my body. He did all the work, letting me relax and try to get myself straightened out.

So I folded my arms under my head and reclined, trying to think of nothing but the warm circle of his mouth.

But eventually I began to feel I should be doing something for him, and knew what was wrong. He thought he was giving me what I wanted by making love to me in the way we had done since we grew older together. But there was another way, and I realized I didn't so much want him to stay thirteen. What I really wanted was to go back with him, to be seven again.

I touched his head and he looked up, then we embraced again face to face. We began to move against each other as we had done since we first met, the mindless, innocent friction from a time when it had less to do with sex than with simply feeling good.

But the body is insistent, and can't be fooled. Soon our movements were frantic, and then a feeling of wetness between us told me as surely as entropy that we could never go back.

On my way home the signs of change were all around me.

You grow a little, let out the arms and legs of your pressure suit until you finally have to get a new one. People stop thinking of you as a cute little kid and start talking about you being a fine young person. Always with that smile, like it's a joke that you're not supposed to get.

People treat you differently as you grow up. At first you hardly interact at all with adults, except your own mother and the mothers of your friends. You live in a kid's world, and adults are hardly even obstacles because they get out of your way when you run down the corridors. You go all sorts of places for free; people want you around to make them happy because there are so few kids and just about everybody would like to have more than just the one. You hardly even notice the people smiling at you all the time.

But it's not like that at all when you're thirteen. Now there was the hesitation, just a fraction of a second before they gave me a child's privileges. Not that I blamed anybody. I was nearly as tall as a lot of the adults I met.

But now I had begun to notice the adults, to watch them. Especially when they didn't know they were being watched. I saw that a lot of them spent a lot of time frowning. Occasionally, I would see real pain on a face. Then he or she would look at me, and smile. I could see that wouldn't be happening forever.

Sooner or later I'd cross some invisible line, and the pain would stay in those faces, and I'd have to try to understand it. I'd be an adult, and I wasn't sure I wanted to be.

It was because of this new preoccupation with faces that I noticed the woman sitting across from me on the Archimedes train. I planned to be a writer, so I tended to see everything in terms of stories and characters. I watched her and tried to make a story about her.

She was attractive: physically mid-twenties, straight black hair and brownish skin, round face without elaborate surgery or startling features except her dark brown eyes. She wore a simple thigh-length robe of thin white material that flowed like water when she moved. She had one elbow on the back of her seat, absently chewing a knuckle as she looked out the window.

There didn't seem to be a story in her face. She was in an unguarded moment, but I saw no pain, no big concerns or fears. It's possible I just missed it. I was new at the game and I didn't know much about

what was important to adults. But I kept trying.

Then she turned to look at me, and she didn't smile.

I mean, she smiled, but it didn't say isn't-he-cute. It was the sort of smile that made me wish I'd worn some clothes. Since I'd learned what erections are for, I no longer wished to have them in public places.

I crossed my legs. She moved to sit beside me. She held up her palm and I touched it. She was facing me with one leg drawn up under her and her arm resting on the seat behind me.

"I'm Trilby," she said.

"Hi. I'm Argus." I found myself trying to lower my voice.

"I was sitting over there watching you watch me."

"You were?"

"In the glass," she explained.

"Oh." I looked, and sure enough, from where she had been sitting she could appear to be looking at the landscape while actually studying my reflection. "I didn't mean to be rude."

She laughed and put her hand on my shoulder, then moved it. "What about me?" she said. "I was being sneaky about it; you weren't. Anyhow, don't fret. I don't mind." I shifted again, and she glanced down. "And don't worry about that, either. It happens."

I still felt nervous but she was able to put me at ease. We talked for the rest of the ride, and I have no memory of what we talked about. The range of subjects must have been quite narrow, as I'm sure she never made reference to my age, my schooling, her profession-or just why she had started a conversation with a thirteen-year-old on a public train.

None of that mattered. I was willing to talk about anything. If I wondered about her reasons, I assumed she actually was in her twenties, and not that far from her own childhood.

"Are you in a hurry?" she asked at one point, giving her head a little toss.

"Me? No. I'm on my way to see-" No, no, not your mother. "-a friend. She can wait. She expects me when I get there." That sounded better.

"Can I buy you a drink?" One eyebrow raised, a small motion with the hand. Her gestures were economical, but seemed to say more than her words. I mentally revised her age upward a few years. Maybe quite a few.

This was timed to the train arriving at Archimedes; we got up and I quickly accepted.

"Good. I know a nice place."

The bartender gave me that smile and was about to give me the customary free one on the house toward my legal limit of two. But Trilby changed all that.

"Two Irish whiskeys, please. On the rocks." She said it firmly, raising her voice a little, and a complex thing happened between her and the bartender. She gave him a look, his eyebrow twitched and he glanced at me, seemed to understand something. His whole attitude toward me changed.

I had the feeling something had gone over my head, but didn't have time to worry about it. I never had time to worry when Trilby was around. The drinks arrived, and we sipped them.

"I wonder why they still call it Irish?" she said.

We launched into a discussion of the Invaders, or Ireland, or Occupied Earth.

I'm not sure. It was inconsequential, and the real conversation was going on eye to eye. Mostly it was her saying wordless things to me, and me nodding agreement with my tongue hanging out.

We ended up at the public baths down the corridor. Her nipples were shaped like pink valentine hearts. Other than that, her body was unremarkable, though wonderfully firm beneath the softness. She was so unlike Trigger and Denver and Cathay. So unlike me. I catalogued the differences as I sat behind her in the big pool and massaged her soapy shoulders.

On the way to the tanning room she stopped beside one of the private alcoves and just stood there, waiting, looking at me. My legs walked me into the room and she followed me. My hands pressed against her back and my mouth opened when she kissed me. She lowered me to the soft floor and took me.

What was so different about it?

I pondered that during the long walk from the slide terminus to my home. Trilby and I had made love

for the better part of an hour. It was nothing fancy, nothing I had not already tried with Trigger and Denver. I had thought she would have some fantastic new tricks to show me, but that had not been the case.

Yet she had not been like Trigger or Denver. Her body responded in a different way, moved in directions I was not used to. I did my best. When I left her, I knew she was happy, and yet felt she expected more.

I found that I was very interested in giving her more.

I was in love again.

With my hand on the doorplate, I suddenly knew that she had already forgotten me. It was silly to assume anything else. I had been a pleasant diversion, an interesting novelty.

I hadn't asked for her name, her address or call number. Why not? Maybe I already knew she would not care to hear from me again.

I hit the plate with the heel of my hand and brooded during the elevator ride to the surface.

My home is unusual. Of course, it belongs to Darcy, my mother. She was there now, putting the finishing touches on a diorama. She glanced up at me, smiled, and offered her cheek for a kiss.

"I'll be through in a moment," she said. "I want to finish this before the light fails."

We live in a large bubble on the surface. Part of it is partitioned into rooms without ceilings, but the bulk forms Darcy's studio. The bubble is transparent.

It screens out the ultraviolet light so we don't get burned.

It's an uncommon way to live, but it suits us. From our vantage point at the south side of a small valley only three similar bubbles can be seen. It would be impossible for an outsider to guess that a city teemed just below the surface.

Growing up, I never gave a thought to agoraphobia, but it's common among Lunarians. I felt sorry for those not fortunate enough to grow up with a view.

Darcy likes it for the light. She's an artist, and particular about light. She works two weeks on and two off, resting during the night. I grew up to that schedule, leaving her alone while she put in marathon sessions with her airbrushes, coming home to spend two weeks with her when the sun didn't shine.

That had changed a bit when I reached my tenth birthday. We had lived alone before then, Darcy cutting her work schedule drastically until I was four, gradually picking it up as I attained more independence. She did it so she could devote all her time to me. Then one day she sat me down and told me two men were moving in. It was only later that I realized how Darcy had altered her lifestyle to raise me properly. She is a serial polyandrist, especially attracted to fierce-faced, uncompromising, maverick male artists whose work doesn't sell and who are usually a little hungry. She likes the hunger, and the determination they all have not to pander to public tastes. She usually keeps three or four of them around, feeding them and giving them a place to work. She demands little of them other than that they clean up after themselves.

I had to step around the latest of these household pets to get to the kitchen.

He was sound asleep, snoring loudly, his hands stained yellow and red and green.

I'd never seen him before.

Darcy came up behind me while I was making a snack, hugged me, then pulled up a chair and sat down. The sun would be out another half hour or so, but there wasn't time to start another painting.

"How have you been? You didn't call for three days."

"Didn't I? I'm sorry. We've been staying on the bayou."

She wrinkled her nose. Darcy had seen the bayou. Once.

"That place. I wish I knew why-"

"Darcy. Let's not get into that again. Okay?"

"Done." She spread her paint-stained hands and waved them in a circle, as if erasing something, and that was it. Darcy is good that way. "I've got a new roommate."

"I nearly stumbled over him."

She ran one hand through her hair and gave me a lopsided grin. "He'll shape up.

His name's Thogra."

"Thogra," I said, making a face. "Listen, if he's housebroken, and stays out of my way, we'll-" But I couldn't go on. We were both laughing and I was about to choke on a bite that went down wrong. Darcy knows what I think of her choice in bedmates.

"What about... what's-his-name? The armpit man. The guy who kept getting arrested for body odor." She stuck her tongue out at me.

"You know he cleaned up months ago."

"Hah! It's those months before he discovered water that I remember. All my friends wondering where we were raising sheep, the flowers losing petals when he walked by, the-"

"Abil didn't come back," Darcy said, quietly.

I stopped laughing. I'd known he'd been away a few weeks, but that happens. I raised one eyebrow.

"Yeah. Well, you know he sold a few things. And he had some offers. But I keep expecting him to at least stop by to pick up his bedroll."

I didn't say anything. Darcy's loves follow a pattern that she is quite aware of, but it's still tough when one breaks up. Her men would often speak with contempt of the sort of commercial art that kept me and Darcy eating and paying the oxygen bills. Then one of three things would happen. They would get nowhere, and leave as poor as they had arrived, contempt intact. A few made it on their own terms, forcing the art world to accept their peculiar visions. Often Darcy was able to stay on good terms with these; she was on a drop-in-and-make-love basis with half the artists in Luna.

But the most common departure was when the artist decided he was tired of poverty. With just a slight lowering of standards they were all quite capable of making a living. Then it became intolerable to live with the woman they had ridiculed. Darcy usually kicked them out quickly, with a minimum of pain. They were no longer hungry, no longer fierce enough to suit her. But it always hurt.

Darcy changed the subject.

"I made an appointment at the medico for your Change," she said. "You're to be there next Monday, in the morning."

A series of quick, vivid impressions raced through my mind. Trilby. Breasts tipped with hearts. The way it had felt when my penis entered her, and the warm exhaustion after the semen had left my body.

"I've changed my mind about that," I said, crossing my legs. "I'm not ready for another Change. Maybe in a few months."

She just sat there with her mouth open.

"Changed your mind? Last time I talked to you, you were all set to change your sex. In fact, you had to talk me into giving permission."

"I remember," I said, feeling uneasy about it. "I just changed my mind, that's all."

"But Argus. This just isn't fair. I sat up two nights convincing myself how nice it would be to have my daughter back again. It's been a long time. Don't you think you-"

"It's really not your decision, Mother."

She looked like she was going to get angry, then her eyes narrowed. "There must be a reason. You've met somebody. Right?"

But I didn't want to talk about that. I had told her the first time I made love, and about every new person I'd gone to bed with since. But I didn't want to share this with her.

So I told her about the incident earlier that day on the bayou. I told her about the pregnant woman, and about the thing Cathay had done.

Darcy frowned more and more. When I got to the part about the mud, there were ridges all over her forehead.

"I don't like that," she said.

"I don't really like it, either. But I didn't see what else we could do."

"I just don't think it was handled well. I think I should call Cathay and talk to him about it."

"I wish you wouldn't." I didn't say anything more, and she studied my face for a long, uncomfortable time. She and Cathay had differed before about how I should be raised.

"This shouldn't be ignored."

"Please, Darcy. He'll only be my teacher for another month. Let it go, okay?"

After a while she nodded, and looked away from me.

"You're growing more every day," she said, sadly. I didn't know why she said that, but was glad she was dropping the subject. To tell the truth, I didn't want to think about the woman anymore. But I was going to have to think about her, and very soon.

I had intended to spend the week at home, but Trigger called the next morning to say that Mardi Gras '56 was being presented again, and it was starting in a few hours. She'd made reservations for the four of us.

Trigger had seen the presentation before, but I hadn't, and neither had Denver.

I told her I'd come, went in to tell Darcy, found her still asleep. She often slept for two days after a Lunar Day of working. I left her a note and hurried to catch the train.

It's called the Cultural Heritage Museum, and though they pay for it with their taxes, most Lunarians never go there. They find the exhibits disturbing. I understand that lately, however, with the rise of the Free Earth Party, it's become more popular with people searching for their roots.

Once they presented London Town 1903, and I got to see what Earth museums had been like by touring the replica British Museum. The CHM isn't like that at all.

Only a very few art treasures, artifacts, and historical curiosities were brought to Luna in the days before the Invasion. As a result, all the tangible relics of Earth's past were destroyed.

On the other hand, the Lunar computer system had a capacity that was virtually limitless even then; everything was recorded and stored. Every book, painting, tax receipt, statistic, photograph, government report, corporate record, film, and tape existed in the memory banks. Just as the disneylands are populated with animals cloned from cells stored in the Genetic Library, the CHM is filled with cunning copies made from the old records of the way things were.

I met the others at the Sugar Shack, where Denver was trying to talk Trigger into taking Tuesday along with us. Tuesday is the hippopotamus that lives on the bayou, in cheerful defiance of any sense of authenticity. Denver had her on a chain and she stood placidly watching us, blinking her piggy little eyes.

Denver was tickled at the idea of going to Mardi Gras with a hippo named Tuesday, but Trigger pointed out that the museum officials would never let us into New Orleans with the beast. Denver finally conceded, and shooed her back into the swamp. The four of us went down the road and out of the bayou, boarded the central slidewalk, and soon arrived in the city center.

There are twenty-five theaters in the CHM. Usually about half of them are operating while the others are being prepared for a showing. Mardi Gras '56 is a ten-year-old show, and generally opens twice a year for a two week run. It's one of the more popular environments.

We went to the orientation room and listened to the lecture on how to behave, then were given our costumes. That's the part I like the least. Up until about the beginning of the twenty-first century, clothing was designed with two main purposes in mind: modesty, and torture. If it didn't hurt, it needed redesigning. It's no wonder they killed each other all the time. Anybody would, with high gravity and hard shoes mutilating their feet.

"We'll be beatniks," Trigger said, looking over the racks of period clothing.

"They were more informal, and it's accurate enough to get by. There were beatniks in the French Quarter."

Informality was fine with us. The girls didn't need bras, and we could choose between leather sandals or canvas sneakers for our feet. I can't say I cared much for something called Levis, though. They were scratchy, and pinched my balls. But after visiting Victorian England-I had been female at the time, and what those people made girls wear would shock most Lunarians silly-anything was an improvement.

Entry to the holitorium was through the restrooms at the back of a nightclub that fronted on Bourbon Street. Boys to the left, girls to the right. I think they did that to impress you right away that you were going back into the past, when people did things in strange ways. There was a third restroom, actually, but it was only a false door with the word "colored" on it. It was impossible to sort that out anymore.

I like the music of 1956 New Orleans. There are many varieties, all sounding similar for modern ears with their simple rhythms and blends of wind, string, and percussion. The generic term is jazz, and the particular kind of jazz that afternoon in the tiny, smoke-filled basement was called dixieland. It's



dominated by two instruments called a clarinet and a trumpet, each improvising a simple melody while the rest of the band makes as much racket as it can.

We had a brief difference of opinion. Cathay and Trigger wanted me and Denver to stay with them, presumably so they could use any opportunity to show off their superior knowledge- translation: "educate" us. After all, they were teachers.

Denver didn't seem to mind, but I wanted to be alone.

I solved the problem by walking out onto the street, reasoning that they could follow me if they wished. They didn't, and I was free to explore on my own.

Going to a holitorium show isn't like the sensies, where you sit in a chair and the action comes to you. And it's not like a disneyland, where everything is real and you just poke around. You have to be careful not to ruin the illusion.

The majority of the set, most of the props, and all of the actors are holograms.

Any real people you meet are costumed visitors, like yourself. What they did in the case of New Orleans was to lay out a grid of streets and surface them as they had actually been. Then they put up two-meter walls where the buildings would be, and concealed them behind holos of old buildings. A few of the doors in these buildings were real, and if you went in you would find the interiors authentic down to the last detail. Most just concealed empty blocks.

You don't go there to play childish tricks with holos, that's contrary to the whole spirit of the place. You find yourself being careful not to shatter the illusion. You don't talk to people unless you're sure they're real, and you don't touch things until you've studied them carefully. No holo can stand up to a close scrutiny, so you can separate the real from the illusion if you try.

The stage was a large one. They had reproduced the French Quarter-or Vieux Carre-from the Mississippi River to Rampart Street, and from Canal Street to a point about six blocks east. Standing on Canal and looking across, the city seemed to teem with life for many kilometers in the distance, though I knew there was a wall right down the yellow line in the middle.

New Orleans '56 begins at noon on Shrove Tuesday and carries on far into the night. We had arrived in late afternoon, with the sun starting to cast long shadows over the endless parades. I wanted to see the place before it got dark.

I went down Canal for a few blocks, looking into the "windows." There was an old flat movie theater with a marquee announcing From Here to Eternity, winner of something called an Oscar. I saw that it was a real place and thought about going in, but I'm afraid those old 2-D movies leave me flat, no matter how good Trigger says they are.

So instead I walked the streets, observing, thinking about writing a story set in old New Orleans.

That's why I hadn't wanted to stay and listen to the music with the others.

Music is not something you can really put into a story, beyond a bare description of what it sounds like, who is playing it, and where it is being heard. In the same way, going to the flat movie would not have been very productive.

But the streets, the streets! There was something to study.

The pattern was the same as old London, but all the details had changed. The roads were filled with horseless carriages, great square metal boxes that must have been the most inefficient means of transport ever devised. Nothing was truly straight, nor very clean. To walk the streets was to risk broken toes or cuts on the soles of the feet. No wonder they wore thick shoes.

I knew what the red and green lights were for, and the lines painted on the road. But what about the rows of timing devices on each side of the street? What was the red metal object that a dog was urinating on? What did the honking of the car horns signify? Why were wires suspended overhead on wooden poles? I ignored the Mardi Gras festivities and spent a pleasant hour looking for the answers to these and many other questions.

What a challenge to write of this time, to make the story a slice of life, where these outlandish things seemed normal and reasonable. I visualized one of the inhabitants of New Orleans transplanted to Archimedes, and tried to picture her confusion.

Then I saw Trilby, and forgot about New Orleans.

She was behind the wheel of a 1955 Ford station wagon. I know this because when she motioned for me to join her, slid over on the seat, and let me drive, there was a gold plaque on the bulkhead just below the forward viewport.

"How do you run this thing?" I asked, flustered and trying not to show it.

Something was wrong. Maybe I'd known it all along, and was only now admitting it.

"You press that pedal to go, and that one to stop. But mostly it controls itself." The car proved her right by accelerating into the stream of holographic traffic. I put my hands on the wheel, found that I could guide the car within limits. As long as I wasn't going to hit anything it let me be the boss.

"What brings you here?" I asked, trying for a light voice.

"I went by your home," she said. "Your mother told me where you were."

"I don't recall telling you where I live."

She shrugged, not seeming too happy. "It's not hard to find out."

"I... I mean, you didn't..." I wasn't sure if I wanted to say it, but decided I'd better go on. "We didn't meet by accident, did we?"

"No."

"And you're my new teacher."

She sighed. "That's an oversimplification. I want to be one of your new teachers. Cathay recommended me to your mother, and when I talked to her, she was interested. I was just going to get a look at you on the train, but when I saw you looking at me... well, I thought I'd give you something to remember me by."

"Thanks."

She looked away. "Darcy told me today that it might have been a mistake. I guess I judged you wrong."

"It's nice to hear that you can make a mistake."

"I guess I don't understand."

"I don't like to feel predictable. I don't like to be toyed with. Maybe it hurts my dignity. Maybe I get enough of that from Trigger and Cathay. All the lessons."

"I see it now," she sighed. "It's a common enough reaction, in bright children, they-"

"Don't say that."

"I'm sorry, but I must. There's no use hiding from you that my business is to know people, and especially children. That means the phases they go through, including the phase when they like to imagine they don't go through phases. I didn't recognize it in you, so I made a mistake."

I sighed. "What does it matter, anyway? Darcy likes you. That means you'll be my new teacher, doesn't it?"

"It does not. Not with me, anyway. I'm one of the first big choices you get to make with no adult interference."

"I don't get it."

"That's because you've never been interested enough to find out what's ahead of you in your education. At the risk of offending you again, I'll say it's a common response in people your age. You're only a month from graduating away from Cathay, ready to start more goal-oriented aspects of learning, and you haven't bothered to find what that will entail. Did you ever stop to think what's between you and becoming a writer?"

"I'm a writer, already," I said, getting angry for the first time. Before that, I'd been feeling hurt more than anything. "I can use the language, and I watch people. Maybe I don't have much experience yet, but I'll get it with or without you. I don't even have to have teachers at all anymore. At least I know that much."

"You're right, of course. But you've known your mother intended to pay for your advanced education. Didn't you ever wonder what it would be like?"

"Why should I? Did you ever think that I'm not interested because it just doesn't seem important? I mean, who's asked me what I felt about any of this up to now? What kind of stake do I have in it? Everyone seems to know what's best for me. Why should I be consulted?"

"Because you're nearly an adult now. My job, if you hire me, will be to ease the transition. When you've made it, you'll know, and you won't need me anymore.

This isn't primary phase. Your teacher's job back then was to work with your mother to teach you the basic ways of getting along with people and society, and to cram your little head with all the skills a seven-year-old can learn. They taught you language, dexterity, reasoning, responsibility, hygiene, and not to go in an airlock without your suit. They took an ego-centered infant and turned him into a moral being. It's a tough job; so little, and you could have been a sociopath.

"Then they handed you to Cathay. You didn't mind. He showed up one day, just another playmate your own age. You were happy and trusting. He guided you very gently, letting your natural curiosity do most of the work. He discovered your creative abilities before you had any inkling of them, and he saw to it that you had interesting things to think about, to react to, to experience.

"But lately you've been a problem for him. Not your fault, nor his, but you no longer want anyone to guide you. You want to do it on your own. You have vague feelings of being manipulated."

"Which is not surprising," I put in. "I am being manipulated."

"That's true, so far as it goes. But what would you have Cathay do? Leave everything to chance?"

"That's beside the point. We're talking about my feelings now, and what I feel is you were dishonest with me. You made me feel like a fool. I thought what happened was... was spontaneous, you know? Like a fairy tale."

She gave me a funny smile. "What an odd way to put it. What I intended to do was allow you to live out a wet dream."

I guess the easy way she admitted that threw me off my stride. I should have told her there was no real difference. Both fairy tales and wet dreams were visions of impossibly convenient worlds, worlds where things go the way you want them to go. But I didn't say anything.

"I realize now that it was the wrong way to approach you. Frankly, I thought you'd enjoy it. Wait, let me change that. I thought you'd enjoy it even after you knew. I submit that you did enjoy it while it was happening."

I once again said nothing, because it was the simple truth. But it wasn't the point.

She waited, watching me as I steered the old car through traffic. Then she sighed, and looked out the viewport again.

"Well, it's up to you. As I said, things won't be planned for you anymore.

You'll have to decide if you want me to be your teacher."

"Just what is it you teach?" I asked.

"Sex is part of it."

I started to say something, but was stopped by the novel idea that someone thought she could-or needed to-teach me about sex. I mean, what was there to learn?

I hardly noticed it when the car stopped on its own, was shaken out of my musings only when a man in blue stuck his head in the window beside me. There was a woman behind him, dressed the same way. I realized they were wearing 1956 police uniforms.

"Are you Argus-Darcy-Meric?" the man asked.

"Yeah. Who are you?"

"My name is Jordan. I'm sorry, but you'll have to come with me. A complaint has been filed against you. You are under arrest."

Arrest. To take into custody by legal authority. Or, to stop suddenly.

Being arrested contains both meanings, it seems to me. You're in custody, and your life comes to a temporary halt. Whatever you were doing is interrupted, and suddenly only one thing is important.

I wasn't too worried until I realized what that one thing must be. After all, everyone gets arrested. You can't avoid it in a society of laws. Filing a complaint against someone is the best way of keeping a situation from turning violent. I had been arrested three times before, been found guilty twice. Once I had filed a complaint myself, and had it sustained.

But this time promised to be different. I doubted I was being hauled in for some petty violation I had not even been aware of. No, this had to be the pregnant woman, and the mud. I had a while to think

about that as I sat in the bare-walled holding cell, time to get really worried. We had physically attacked her, there was no doubt about that.

I was finally summoned to the examination chamber. It was larger than the ones I had been in before. Those occasions had involved just two people. This room had five wedge-shaped glass booths, each with a chair inside, arranged so that we faced each other in a circle. I was shown into the only empty one and I looked around at Denver, Cathay, Trigger... and the woman.

It's quiet in the booths. You are very much alone.

I saw Denver's mother come in and sit behind her daughter, outside the booth.

Turning around, I saw Darcy. To my surprise, Trilby was with her.

"Hello, Argus." The Central Computer's voice filled the tiny booth, mellow as usual but without the reassuring resonance.

"Hello, CC," I tried to keep it light, but of course the CC was not fooled.

"I'm sorry to see you in so much trouble."

"Is it real bad?"

"The charge certainly is, there's no sense denying that. I can't comment on the testimony, or on your chances. But you know you're facing a possible mandatory death penalty, with automatic reprieve."

I was aware of it. I also knew it was rarely enforced against someone my age.

But what about Cathay and Trigger?

I've never cared for that term "reprieve." It somehow sounds like they aren't going to kill you, but they are. Very, very dead. The catch is that they then grow a clone from a cell of your body, force it quickly to maturity, and play your recorded memories back into it. So someone very like you will go on, but you will be dead. In my case, the last recording had been taken three years ago.

I was facing the loss of almost a quarter of my life. If it was found necessary to kill me, the new Argus-not me, but someone with my memories and my name-would start over at age ten. He would be watched closely, be given special guidance to insure he didn't grow into the sociopath I had become.

The CC launched into the legally required explanation of what was going on: my rights, the procedures, the charges, the possible penalties, what would happen if a determination led the CC to believe the offense might be a capital one.

"Whew!" the CC breathed, lapsing back into the informal speech it knew I preferred. "Now that we have that out of the way, I can tell you that, from the preliminary reports, I think you're going to be okay."

"You're not just saying that?" I was sincerely frightened. The enormity of it had now had time to sink in.

"You know me better than that."

The testimony began. The complainant went first, and I learned her name was Tiona. The first round was free-form; we could say anything we wanted to, and she had some pretty nasty things to say about all four of us.

The CC went around the circle asking each of us what had happened. I thought Cathay told it most accurately, except for myself. During the course of the statements both Cathay and Trigger filed counter-complaints. The CC noted them.

They would be tried simultaneously.

There was a short pause, then the CC spoke in its "official" voice.

"In the matters of Argus and Denver: testimony fails to establish premeditation, but neither deny the physical description of the incident, and a finding of Assault is returned. Mitigating factors of age and consequent inability to combat the mob aspect of the situation are entered, with the following result: the charge is reduced to Willful Deprivation of Dignity.

"In the case of Tiona versus Argus: guilty.

"In the case of Tiona versus Denver: guilty.

"Do either of you have anything to say before sentence is entered?"

I thought about it. "I'm sorry," I said. "It upset me quite a bit, what happened. I won't do it again."

"I'm not sorry," Denver said. "She asked for it. I'm sorry for her, but I'm not sorry for what I did."

"Comments are noted," the CC said. "You are each fined the sum of three hundred Marks, collection

deferred until you reach employable age, sum to be taken at the rate of ten percent of your earnings until paid, half going to Tiona, half to the State. Final entry of sentence shall be delayed until a further determination of matters still before the court is made."

"You got off easy," the CC said, speaking only to me. "But stick around. Things could still change, and you might not have to pay the fine after all."

It was a bit of a wrench, getting a sentence, then sympathy from the same machine. I had to guard against feeling that the CC was on my side. It wasn't, not really. It's absolutely impartial, so far as I can tell. Yet it is so vast an intelligence that it makes a different personality for each citizen it deals with. The part that had just talked to me was really on my side, but was powerless to affect what the judgmental part of it did.

"I don't get it," I said. "What happens now?"

"Well, I've been rashomoned again. That means you all told your stories from your own viewpoints. We haven't reached deeply enough into the truth. Now I'm going to have to wire you all, and take another round."

As it spoke, I saw the probes come up behind everyone's chairs: little golden snakes with plugs on the end. I felt one behind me search through my hair until it found the terminal. It plugged in.

There are two levels to wired testimony. Darcy and Trilby and Denver's mother had to leave the room for the first part, when we all told our stories without our censors working. The transcript bears me out when I say I didn't tell any lies in the first round, unlike Tiona, who told a lot of them. But it doesn't sound like the same story, nevertheless. I told all sorts of things I never would have said without being wired: fears, selfish, formless desires, infantile motivations. It's embarrassing, and I'm glad I don't recall any of it. I'm even happier that only Tiona and I, as interested parties, can see my testimony. I only wish I was the only one.

The second phase is the disconnection of the subconscious. I told the story a third time, in terms as bloodless as the stage directions of a holovision script.

Then the terminals withdrew from us and I suffered a moment of disorientation. I knew where I was, where I had been, and yet I felt like I had been told about it rather than lived it. But that passed quickly. I stretched.

"Is everyone ready to go on?" the CC asked, politely. We all said that we were.

"Very well. In the matters of Tiona versus Argus and Denver: the guilty judgments remain in force in both cases, but both fines are rescinded in view of provocation, lessened liability due to immaturity, and lack of signs of continuing sociopathic behavior. In place of the fines, Denver and Argus are to report weekly for evaluation and education in moral principles until such time as a determination can be made, duration of such sessions to be no less than four weeks.

"In the matter of Tiona versus Trigger: Trigger is guilty of an Assault.

Tempering this judgment is her motive, which was the recognition of Cathay's strategy in dealing with Tiona, and her belief that he was doing the right thing. This court notes that he was doing the merciful thing; right is another matter. There can be no doubt that a physical assault occurred. It cannot be condoned, no matter what the motive. For bad judgment, then, this court fines Trigger ten percent of her earnings for a period of ten years, all of it to be paid to the injured party, Tiona."

Tiona did not look smug. She must have known by then that things were not going her way. I was beginning to understand it, too.

"In the matter of Tiona versus Cathay," the CC went on, "Cathay is guilty of an Assault. His motive has been determined to be the avoidance of just such a situation as he now finds himself in, and the knowledge that Tiona would suffer greatly if he brought her to court. He attempted to bring the confrontation to an end with a minimum of pain for Tiona, never dreaming that she would show the bad judgment to bring the matter to court. She did, and now he finds himself convicted of assault. In view of his motives, mercy will temper this court's decision. He is ordered to pay the same fine as his colleague, Trigger.

"Now to the central matter, that of Trigger and Cathay versus Tiona." I saw her sink a little lower in her chair.

"You are found to be guilty by reason of insanity of the following charges: harassment, trespassing, verbal assault, and four counts of infringement.

"Your offense was in attempting to make others shoulder the blame for your own misjudgments and misfortunes. The court is sympathetic to your plight, realizes that the fault for your situation was not entirely your own. This does not excuse your behavior, however.

"Cathay attempted to do you a favor, supposing that your aberrant state of mind would not last long enough for the filing of charges, that when you were alone and thought it over you would realize how badly you had wronged him and that a court would find in his favor.

"The State holds you responsible for the maintenance of your own mind, does not care what opinions you hold or what evaluations you make of reality so long as they do not infringe on the rights of other citizens. You are free to think Cathay responsible for your troubles, even if this opinion is irrational, but when you assault him with this opinion the State must take notice and make a judgment as to the worth of the opinion.

"This court is appointed to make that judgment of right and wrong, and finds no basis in fact for your contentions.

"This court finds you to be insane.

"Judgment is as follows:

"Subject to the approval of the wronged parties, you are given the choice of death with reprieve, or submission to a course of treatment to remove your sociopathic attitudes.

"Argus, do you demand her death?"

"Huh?" That was a big surprise to me, and not one that I liked. But the decision gave me no trouble.

"No, I don't demand anything. I thought I was out of this, and I feel just rotten about the whole thing. Would you really have killed her if I asked you to?"

"I can't answer that, because you didn't. It's not likely that I would have, mostly because of your age." It went on to ask the other four, and I suspect that Tiona would have been pushing up daisies if Cathay had wanted it that way, but he didn't. Neither did Trigger or Denver.

"Very well. How do you choose, Tiona?"

She answered in a very small voice that she would be grateful for the chance to go on living. Then she thanked each of us. It was excruciatingly painful for me; my empathy was working overtime, and I was trying to imagine what it would feel like to have society's appointed representative declare me insane.

The rest of it was clearing up details. Tiona was fined heavily, both in court costs and taxes, and in funds payable to Cathay and Trigger. Their fines were absorbed in her larger ones, with the result that she would be paying them for many years. Her child was in cold storage; the CC ruled that he should stay there until Tiona was declared sane, as she was now unfit to mother him. It occurred to me that if she had considered suspending his animation while she found a new primary teacher, we all could have avoided the trial.

Tiona hurried away when the doors came open behind us. Darcy hugged me while Trilby stayed in the background, then I went over to join the others, expecting a celebration.

But Trigger and Cathay were not elated. In fact, you would have thought they'd just lost the judgment. They congratulated me and Denver, then hurried away. I looked at Darcy, and she wasn't smiling, either.

"I don't get it," I confessed. "Why is everyone so glum?"

"They still have to face the Teacher's Association," Darcy said.

"I still don't get it. They won."

"It's not just a matter of winning or losing with the TA," Trilby said. "You forget, they were judged guilty of assault. To make it even worse, in fact as bad as it can be, you and Denver were there when it happened. They were the cause of you two joining in the assault. I'm afraid the TA will frown on that."

"But if the CC thought they shouldn't be punished, why should the TA think otherwise? Isn't the CC smarter than people?"

Trilby grimaced. "I wish I could answer that. I wish I was even sure how I feel about it."

She found me the next day, shortly after the Teacher's Association announced its decision. I didn't really want to be found, but the bayou is not so big that one can really hide there, so I hadn't tried. I was

sitting on the grass on the highest hill in Beatnik Bayou, which was also the driest place.

She beached the canoe and came up the hill slowly, giving me plenty of time to warn her off if I really wanted to be alone. What the hell. I'd have to talk to her soon enough.

For a long time she just sat there. She rested her elbows on her knees and stared down at the quiet waters, just like I'd been doing all afternoon.

"How's he taking it?" I said, at last.

"I don't know. He's back there, if you want to talk to him. He'd probably like to talk to you."

"At least Trigger got off okay." As soon as I'd said it, it sounded hollow.

"Three years' probation isn't anything to laugh about. She'll have to close this place down for a while. Put it in mothballs."

"Mothballs." I saw Tuesday the hippo, wallowing in the deep mud across the water. Tuesday in suspended animation? I thought of Tiona's little baby, waiting in a bottle until his mother became sane again. I remembered the happy years slogging around in the bayou mud, and saw the waters frozen, icicles mixed with Spanish moss in the tree limbs. "I guess it'll cost quite a bit to start it up again in three years, won't it?" I had only hazy ideas of money. So far, it had never been important to me.

Trilby glanced at me, eyes narrowed. She shrugged.

"Most likely, Trigger will have to sell the place. There's a buyer who wants to expand it and turn it into a golf course."

"Golf course," I echoed, feeling numb. Manicured greens, pretty water hazards, sand traps, flags whipping in the breeze. Sterile. I suddenly felt like crying, but for some reason I didn't do it.

"You can't come back here, Argus. Nothing stays the same. Change is something you have to get used to."

"Cathay will, too." And just how much change should a person be expected to take? With a shock, I realized that now Cathay would be doing what I had wanted him to do. He'd be growing up with me, getting older instead of being regressed to grow up with another child. And it was suddenly just too much. It hadn't been my fault that this was happening to him, but having wished for it and having it come true made it feel like it was. The tears came, and they didn't stop for a long time.

Trilby left me alone, and I was grateful for that.

She was still there when I got myself under control. I didn't care one way or the other. I felt empty, with a burning in the back of my throat. Nobody had told me life was going to be like this.

"What... what about the child Cathay contracted to teach?" I asked, finally, feeling I should say something. "What happens to her?"

"The TA takes responsibility," Trilby said. "They'll find someone. For Trigger's child, too."

I looked at her. She was stretched out, both elbows behind her to prop her up.

Her valentine nipples crinkled as I watched.

She glanced at me, smiled with one corner of her mouth. I felt a little better.

She was awfully pretty.

"I guess he can... well, can't he still teach older kids?"

"I suppose he can," Trilby said, with a shrug. "I don't know if he'll want to. I know Cathay. He's not going to take this well."

"Is there anything I could do?"

"Not really. Talk to him. Show sympathy, but not too much. You'll have to figure it out. See if he wants to be with you."

It was too confusing. How was I supposed to know what he needed? He hadn't come to see me. But Trilby had.

So there was one uncomplicated thing in my life right then, one thing I could do where I wouldn't have to think. I rolled over and got on top of Trilby and started to kiss her. She responded with a lazy eroticism I found irresistible.

She did know some tricks I'd never heard of.

"How was that?" I said, much later.

That smile again. I got the feeling that I constantly amused her, and somehow I didn't mind it. Maybe it

was the fact that she made no bones about her being the adult and me being the child. That was the way it would be with us. I would have to grow up to her; she would not go back and imitate me.

"Are you looking for a grade?" she asked. "Like the twentieth century?" She got to her feet and stretched.

"All right. I'll be honest. You get an A for effort, but any thirteen-year-old would. You can't help it. In technique, maybe a low C. Not that I expected any more, for the same reason."

"So you want to teach me to do better? That's your job?"

"Only if you hire me. And sex is such a small part of it. Listen, Argus. I'm not going to be your mother. Darcy does that okay. I won't be your playmate, either, like Cathay was. I won't be teaching you moral lessons. You're getting tired of that, anyway."

It was true. Cathay had never really been my contemporary, though he tried his best to look it and act it. But the illusion had started to wear thin, and I guess it had to. I was no longer able to ignore the contradictions, I was too sophisticated and cynical for him to hide his lessons in everyday activities.

It bothered me in the same way the CC did. The CC could befriend me one minute and sentence me to death the next. I wanted more than that, and Trilby seemed to be offering it.

"I won't be teaching you science or skills, either," she was saying. "You'll have tutors for that, when you decide just what you want to do."

"Just what is it you do, then?"

"You know, I've never been able to find a good way of describing that. I won't be around all the time, like Cathay was. You'll come to me when you want to, maybe when you have a problem. I'll be sympathetic and do what I can, but mostly I'll just point out that you have to make all the hard choices. If you've been stupid I'll tell you so, but I won't be surprised or disappointed if you go on being stupid in the same way. You can use me as a role model if you want to, but I don't insist on it. But I promise I'll always tell you things straight, as I see them. I won't try to slip things in painlessly. It's time for pain. Think of Cathay as a professional child. I'm not putting him down. He turned you into a civilized being, and when he got you you were hardly that. It's because of him that you're capable of caring about his situation now, that you have loyalties to feel divided about. And he's good enough at it to know how you'll choose."

"Choose? What do you mean?"

"I can't tell you that." She spread her hands, and grinned. "See how helpful I can be?"

She was confusing me again. Why can't things be simpler?

"Then if Cathay's a professional child, you're a professional adult?"

"You could think of it like that. It's not really analogous."

"I guess I still don't know what Darcy would be paying you for."

"We'll make love a lot. How's that? Simple enough for you?" She brushed dirt from her back and frowned at the ground. "But not on dirt anymore. I don't care for dirt."

I looked around, too. The place was messy. Not pretty at all. I wondered how I could have liked it so much. Suddenly I wanted to get out, to go to a clean, dry place.

"Come on," I said, getting up. "I want to try some of those things again."

"Does this mean I have a job?"

"Yeah. I guess it does."

Cathay was sitting on the porch of the Sugar Shack, a line of brown beer bottles perched along the edge. He smiled at us as we approached him. He was stinking drunk.

It's strange. We'd been drunk many times together, the four of us. It's great fun. But when only one person is drunk, it's a little disgusting. Not that I blamed him. But when you're drinking together all the jokes make sense. When you drink alone, you just make a sloppy nuisance of yourself.

Trilby and I sat on either side of him. He wanted to sing. He pressed bottles on both of us, and I sipped mine and tried to get into the spirit of it. But pretty soon he was crying, and I felt awful. And I admit that it wasn't entirely in sympathy. I felt helpless because there was so little I could do, and a bit resentful of some of the promises he had me make. I would have come to see him anyway. He didn't have to blubber on my shoulder and beg me not to abandon him.



So he cried on me, and on Trilby, then just sat between us looking glum. I tried to console him.

"Cathay, it's not the end of the world. Trilby says you'll still be able to teach older kids. My age and up. The TA just said you couldn't handle younger ones."

He mumbled something.

"It shouldn't be that different," I said, not knowing when to shut up.

"Maybe you're right," he said.

"Sure I am." I was unconsciously falling into that false heartiness people use to cheer up drunks. He heard it immediately.

"What the hell do you know about it? You think you... damn it, what do you know?"

You know what kind of person it takes to do my job? A little bit of a misfit, that's what. Somebody who doesn't want to grow up any more than you do. We're both cowards, Argus. You don't know it, but I do. I do. So what the hell am I going to do? Huh? Why don't you go away? You got what you wanted, didn't you?"

"Take it easy, Cathay," Trilby soothed, hugging him close to her. "Take it easy."

He was immediately contrite, and began to cry quietly. He said how sorry he was, over and over, and he was sincere. He said, he hadn't meant it, it just came out, it was cruel.

And so forth.

I was cold all over.

We put him to bed in the shack, then started down the road.

"We'll have to watch him the next few days," Trilby said. "He'll get over this, but it'll be rough."

"Right," I said.

I took a look at the shack before we went around the false bend in the road. For one moment I saw Beatnik Bayou as a perfect illusion, a window through time.

Then we went around the tree and it all fell apart. It had never mattered before.

But it was such a sloppy place. I'd never realized how ugly the Sugar Shack was.

I never saw it again. Cathay came to live with us for a few months, tried his hand at art. Darcy told me privately that he was hopeless. He moved out, and I saw him frequently after that, always saying hello.

But he was depressing to be around, and he knew it. Besides, he admitted that I represented things he was trying to forget. So we never really talked much.

Sometimes I play golf in the old bayou. It's only two holes, but there's talk of expanding it.

They did a good job on the renovation.

## **BLUE CHAMPAGNE**

Megan Galloway arrived in the Bubble with a camera crew of three. With her breather and her sidekick she was the least naked nude woman any of the lifeguards had ever seen.

"I bet she's carrying more hardware than any of her crew," Glen said.

"Yeah, but it hardly shows, you know?"

Q. M. Cooper was thinking back as he watched her accept the traditional bulb of champagne. "Isn't that some kind of record? Three people in her crew?"

"The President of Brazil brought twenty-nine people in with her," Anna-Louise observed. "The King of England had twenty-five."

"Yeah, but only one network pool camera."

"So that's the Golden Gypsy," Leah said.

Anna-Louise snorted. "More like the Brass Transistor."

They had all heard that one before, but laughed anyway. None of the lifeguards had much respect for Trans-sisters. Yet Cooper had to admit that in a profession which sought to standardize emotion, Galloway was the only one who was uniquely herself. The others were interchangeable as News Anchors.

A voice started whispering in their ears, over the channel reserved for emergency announcements and warnings.

"Entering the Bubble is Megan Galloway, representing the Feelie Corporation, a wholly-owned subsidiary of GWA Conglom. Feeliecorp: bringing you the best in experiential tapes and erotix. Blue Champagne Enterprises trusts you will not impede the taping, and regrets any disturbance."

"Commercials, yet," Glen said in disgust. To those who loved the Bubble-as all the lifeguards did-this was something like using the walls of the Taj Mahal for the Inter-conglomerate Graffiti Championship finals.

"Stick around for the yacht races," Cooper said. "They should have at least told us she was coming. What about that sidekick? Should we know anything about it if she gets into trouble?"

"Maybe she knows what she's doing," Leah said, earning sour looks from the other four. It was an article of faith that nobody on a first visit to the Bubble knew what they were doing.

"You think she'll take the sidekick into the water?"

"Well, since she can't move without it I sort of doubt she'll take it off." Cooper said. "Stu, you call operations and ask why we weren't notified. Find out about special precautions. The rest of you get back to work. A.L., you take charge here."

"What will you be doing, Q.M.?" Anna-Louise asked, arching one eyebrow.

"I'm going to get a closer look." He pushed off, and flew toward the curved inner surface of the Bubble.

The Bubble was the only thing Q. M. Cooper ever encountered which caught his imagination, held it for years, and did not prove a disappointment when he finally saw it. It was love at first sight.

It floated in lunar orbit with nothing to give it perspective. Under those conditions the eye can see the Earth or Luna as hunks of rock no bigger than golf balls, or a fleck of ice millimeters from the ship's window can seem to be a distant, tumbling asteroid. When Cooper first saw it the illusion was perfect: someone had left a champagne glass floating a few meters from the ship.

The constricted conic-shape was dictated by the mathematics of the field generators that held the Bubble. It was made of an intricate network of fine wires. No other configuration was possible; it was mere chance that the generator resembled the bowl and stem of a wine glass.

The Bubble itself had to be weightless, but staff and visitors needed a spin-gravity section. A disc was better than a wheel for that purpose, since it provided regions of varying gravity, from one gee at the rim to free-fall at the hub. The most logical place for the disc was at the base of the generator stem, which also made it the base of the glass. It was rumored that the architect of the Bubble had gone mad while designing it and that, since he favored martinis, he had included in the blueprints a mammoth toothpick spearing a giant green olive.

But that was only the station. It was beautiful enough in itself, but was nothing compared to the Bubble.

It floated in the shallow bowl of the generators, never touching them. It was two hundred million liters of water held between two concentric spherical fields of force, one of them one hundred meters in diameter, the other one hundred and forty. The fields contained a shell of water massing almost a million tonnes, with a five-hundred-thousand-cubic-meter bubble of air in the middle.

Cooper knew the relevant numbers by heart. Blue Champagne Enterprises made sure no one entered the Bubble without hearing them at least once. But numbers could not begin to tell what the Bubble was really like. To know that, one had to ride the elevator up through the glass swizzle stick that ended in the center of the air bubble, step out of the car, grab one of the monkeybar struts near the lifeguard station, and hold on tight until one's emotions settled down enough to be able to believe in the damn thing.

The lifeguards had established six classes of visitor. It was all unofficial; to BCE, everyone was an honored guest. The rankings were made by a guest's behavior and personal habits, but mostly by swimming ability.

Crustaceans clung to the monkeybars. Most never got their feet wet. They came to the Bubble to be seen, not to swim. Plankton thought they could swim, but it was no more than a fond hope. Turtles and frogs really could swim, but it was a comical business.

Sharks were excellent swimmers. If they had added brains to their other abilities the lifeguards would have loved them. Dolphins were the best. Cooper was a dolphin-class swimmer, which was why he had

the job of chief lifeguard for the third shift.

To his surprise, Megan Galloway ranked somewhere between a frog and a shark. Most of her awkward moves were the result of being unaccustomed to the free-fall environment. She had obviously spent a lot of time in flat water.

He pulled ahead and broke through the outer surface of the Bubble with enough speed to carry him to the third field, which kept air in and harmful radiation out. On his way he twisted in the air to observe how she handled the breakthrough. He could see gold reflections from the metal bands of her sidekick while she was just an amorphous shape beneath the surface. The water around her was bright aquamarine from the camera lights. She had outdistanced her crew.

He had an immediate and very strong reaction: what a ghastly way to live. Working in the Bubble was very special to him. He griped about the clients, just like everyone did, complained when he had to ferry some damn crustacean who couldn't even get up enough speed to return to the monkeybars, or when he had to clean up one of the excretory nuisances that got loose in surprising numbers when somebody got disoriented and scared. But the basic truth was that, for him, it never got old. There was always some new way of looking at the place, some fresh magic to be found. He wondered if he could feel that way about it if he lived in the middle of a traveling television studio with the whole world watching.

He was starting to drift back toward the water when she burst free of it. She broke the surface like a golden mermaid, rising, trailing a plume of water that turned into a million quivering crystals as it followed her into the air. She tumbled in the middle of a cloud of water globes, a flesh and metal Aphrodite emerging from the foam.

Her mouthpiece fell from her lips to dangle from its airhose, and he heard her laugh. He did not think she had noticed him. He was fairly sure she thought she was alone, for once, if only for a few seconds. She sounded as delighted as a child, and her laughter went on until the camera crew came grumbling out of the water.

They made her go back and do it over.

"She's not worth the effort, Q.M."

"Who? Oh, you mean the Golden Gypsy."

"You want your bedroom technique studied by ninety million slobs?"

Cooper turned to look at Anna-Louise, who sat behind him on the narrow locker room bench, tying her shoelaces. She glanced over her shoulder and grinned. He knew he had a reputation as a starfucker. When he first came to work at the Bubble he had perceived one of the fringe benefits to be the opportunity to meet, hob-nob with, and bed famous women, and had done so with more than a few. But he was long over that.

"Galloway doesn't make heavy-breathers."

"Not yet. Neither did Lyshia Trumbull until about a year ago. Or that guy who works for ABS... Chin. Randall Chin."

"Neither did Salome Hassan," someone chimed in from across the room. Cooper looked around and saw the whole shift was listening.

"I thought you were all above that," he said. "Turns out we're a bunch of feelie-groupies."

"You can't help hearing the names," Stu said, defensively.

Anna-Louise pulled her shirt over her head and stood up. "There's no sense denying I've tried tapes," she said. "The trans-sisters have to make a living. She'll do them. Wet-dreams are the coming thing."

"They're coming, all right," Stu said, with an obscene gesture.

"Why don't you idiots knock it off and get out of here?" Cooper said.

They did, gradually, and the tiny locker room at the gee/10 level was soon empty but for Cooper and Anna-Louise. She stood at the mirror, rubbing a lotion over her scalp to make it shine.

"I'd like to move to the number two shift," she said.

"You're a crazy Loonie, you know that?" he shot back, annoyed.

She turned at the waist and glared at him.

"That's redundant and racist," she said. "If I wasn't such a sweet person I'd resent it."

"But it's true."

"That's the other reason I'm not going to resent it."

He got up and embraced her from behind, nuzzling her ear. "Hey, you're all wet," she laughed, but did not try to stop him, even when his hands lifted her shirt and went down under the waistband of her pants. She turned and he kissed her.

Cooper had never really understood Anna-Louise, even though he had bunked with her for six months. She was almost as big as he was, and he was not small. Her home was New Dresden, Luna. Though German was her native tongue, she spoke fluent, unaccented English. Her face would inspire adjectives like strong, healthy, glowing, and fresh, but never a word like glamorous. In short, she was physically just like all the other female lifeguards. She even shaved her head, but where the others did it in an attempt to recapture past glory, to keep that Olympic look, she had never done any competitive swimming. That alone made her unique in the group, and was probably what made her so refreshing. All the other women in the lifeguard force were uncomplicated jocks who liked two things: swimming, and sex, in that order.

Cooper did not object to that. It was a pretty fair description of himself. But he was creeping up on thirty, getting closer every day. That is never a good time for an athlete. He was surprised to find that it hurt when she told him she wanted to change shifts.

"Does this have anything to do with Yuri Feldman?" he asked, between kisses.

"Is that his shift?"

"Are we still going to be bunkmates?"

She drew back. "Are we going to talk? Is that why you're undressing me?"

"I just wanted to know."

She turned away, buckling her pants.

"Unless you want to move out, we're still bunkmates. I didn't think it really meant a hell of a lot. Was I wrong?"

"I'm sorry."

"It's just that it might be simpler to sleep alone, that's all." She turned back and patted his cheek. "Hell, Q.M. It's just sex. You're very good at it, and so long as you stay interested we'll do just fine. Okay?" Her hand was still on his cheek. Her expression changed as she peered intently into his eyes. "It is just sex, isn't it? I mean-"

"Sure, it's-"

"-if it isn't... but you've never said anything that would-"

"God, no," he said. "I don't want to get tied down."

"Me, either." She looked as if she might wish to say more, but instead touched his cheek again, and left him alone.

Cooper was so preoccupied that he walked past the table where Megan Galloway sat with her camera crew.

"Cooper! Your name is Cooper, right?"

When he turned he had his camera smile in place. Though being recognized had by that time become a rare thing, the reflexes were still working. But the smile was quickly replaced by a more genuine expression of delight. He was surprised and flattered that she had known who he was.

Galloway had her hand to her forehead, looking up at him with comical intensity. She snapped her fingers, hit her forehead again.

"I've been trying to think of the name since I saw you in the water," she said. "Don't tell me... I'll get it... it was a nickname..." She trailed off helplessly, then plunked both elbows on the table and put her chin in her hands, glowering at him.

"I can't think of it."

"It's-"

"Don't tell me."

He had been about to say it was not something he revealed, but instead he shrugged and said nothing.

"I'll get it, if you'll just give me time."

"She will, too," said the other woman, who then gestured to an empty seat and extended a hand to

him. "I'm Consuela Lopez. Let me buy you a drink."

"I'm... Cooper."

Consuela leaned closer and murmured, "If she doesn't have the goddam name in ten minutes, tell her, huh? Otherwise she won't be worth a damn until she gets it. You're a lifeguard."

He nodded, and his drink arrived. He tried to conceal his amazement. It was impossible to impress the waiters at the promenade cafes. Yet Galloway's party did not even have to order.

"Fascinating profession. You must tell me all about it. I'm a producer, studying to be a pimp." She swayed slightly, and Cooper realized she was drunk. It didn't show in her speech. "That devilish fellow with the beard is Markham Montgomery, director and talent prostitute." Montgomery glanced at Cooper, made a gesture that could have been the step-outline for a nod. "And the person of debatable sex is Coco-89 (Praise-god), recordist, enigma, and devotee of a religiosexual cult so obscure even Coco isn't sure what it's about." Cooper had seen Coco in the water. He or she had the genitals of a man and the breasts of a woman, but androgynes were not uncommon in the Bubble.

"Cheers," Coco said, solemnly raising a glass. "Acclly your am tance to deep make honored."

Everyone laughed but Cooper. He could not see the joke. Lopez had not bothered him—he had heard cute speeches from more rich/sophisticated people than he could count—but Coco sounded crazy.

Lopez lifted a small, silver tube over the edge of the table, squeezed a trigger, and a stream of glittering silver powder sprayed toward Coco. It burst in a thousand pinpoint scintillations. The androgyne inhaled with a foolish grin.

"Wacky Dust," Lopez said, and pointed the tube at Cooper. "Want some?" Without waiting for an answer she fired again. The stuff twinkled around his head. It smelled like one of the popular aphrodisiacs.

"What is it?" he asked.

"A mind-altering drug," she said, theatrically. When she saw his alarm she relented a little. "The trip is very short. In fact, I gave you such a little squirt you'll hardly notice it. Five minutes, tops."

"What does it do?"

She was eyeing him suspiciously. "Well, it should have done it already. Are you left-handed?"

"Yes."

"That explains it. Most of it's going to the wrong side of your head. What it does is scramble your speech center."

Montgomery roused himself enough to turn his head. He looked at Cooper with something less than total boredom. "It's like inhaling helium," he said. "You talk funny for a while."

"I didn't think that was possible," Cooper said, and everyone laughed. He found himself grinning reflexively, not knowing what was funny until he played his words back in his head and realized he had said something like "Pos that ib think unt I bull..."

He gritted his teeth and concentrated.

"I," he said, and thought some more. "Don't. Like. This." They seemed delighted. Coco babbled gibberish, and Lopez patted him on the back.

"Not many people figure it out that fast," she said. "Stick to one-word sentences and you're okay."

"The Wacky Dust scrambles the sentence-making capability of the brain," Montgomery said. He was sounding almost enthusiastic. Cooper knew from experience that the man was speaking of one of the few things that could excite him, that being his current ten-minute's wonder, the thing that everyone of any importance was doing today and would forget about tomorrow. "Complex thoughts are no longer—"

Cooper slammed his fist on the table and got the expected silence. Montgomery's eyes glazed and he looked away, bored by poor sportsmanship. Cooper stood.

"You," he said, pointing at all of them. "Stink."

"Quarter-meter!" Galloway shouted, pointing at Cooper. "Quarter-meter Cooper! Silver medal in Rio, bronze at Shanghai, 1500-meter freestyle, competed for United N.A., then for Ryancorp." She was grinning proudly, but when she looked around her face fell. "What's wrong?"

Cooper walked away from them. She caught him when he was almost out of sight around the curved promenade floor.

"Quarter-meter, please don't-"

"Don't me call that!" he shouted, jerking his arm away from her touch, not caring how the words came out. Her hand sprang back poised awkwardly, each joint of her fingers twinkling with its own golden band.

"Mr. Cooper, then." She let her hand fall, and her gaze with it, looked at her booted feet. "I want to apologize for her. She had no right to do that. She's drunk, if you hadn't-"

"I no... ticed."

"You'll be all right now," she said, touching his arm lightly, remembering, and pulling it away with a sheepish smile.

"There are no lasting effects?"

"We hope not. There haven't been so far. It's experimental."

"And illegal."

She shrugged. "Naturally. Isn't everything fun?"

He wanted to tell her how irresponsible that was, but he sensed she would be bored with him if he belabored it and while he did not care if Montgomery was bored with him, he did not want to be tiresome with her. So when she offered another tentative smile, he smiled back, and she grinned, showing him that gap between her front teeth which had made a fortune for the world's dentists when one hundred million girls copied it.

She had one of the most famous faces in the world, but she did not closely resemble herself as depicted on television. The screen missed most of her depth, which centered on her wide eyes and small nose, was framed by her short blonde curls. A faint series of lines around her mouth betrayed the fact that she was not twenty, as she looked at first glance, but well into her thirties. Her skin was pale, and she was taller than she seemed in pictures, and her arms and legs were even thinner.

"They compensate for that with camera angles," she said, and he realized she was not reading his mind but merely noticing where he was looking. He had given her a stock reaction, one she got every day, and he hated that. He resolved not to ask any questions about her sidekick. She had heard them all and was surely as sick of them as he was of his nickname.

"Will you join us?" she asked. "I promise we won't misbehave again."

He looked back at the three, just visible at their table before the curved roof cut off his view of the corridor promenade, gee/1 level.

"I'd rather not. Maybe I shouldn't say this, but those are pretty stock types. I always want to either sneer at them or run away from them."

She leaned closer.

"Me too. Will you rescue me?"

"What do you mean?"

"Those three could teach limpets a thing or two about clinging. That's their job, but the hell with them."

"What do you want to do?"

"How should I know? Whatever people do around here for a good time. Bob for apples, ride on the merry-go-round, screw, play cards, see a show."

"I'm interested in at least one of those."

"So you like cards, too?" She glanced back at her crew. "I think they're getting suspicious."

"Then let's go." He took her arm and started to walk away with her. Suddenly she was running down a corridor. He hesitated only a second, then was off after her.

He was not surprised to see her stumble. She recovered quickly, but it slowed her enough for him to catch her.

"What happened?" she said. "I thought I was falling-" She pulled back her sleeve and stared at the world's most complicated wristwatch. He realized it was some sort of monitor for her sidekick.

"It isn't your hardware," he said, leading her at a fast walk. "You were running with the spin. You got heavier. You should bear in mind that what you're feeling isn't gravity."

"But how will we get away if we can't run?"

"By going just a little faster than they do." He looked back, and as he had expected, Lopez was

already down. Coco was wavering between turning back to help and following Montgomery, who was still coming, wearing a determined expression. Cooper grinned. He had finally succeeded in getting the man's attention. He was making off with the star.

Just beyond stairwell C Cooper pulled Galloway into an elevator whose door was closing. He had a glimpse of Montgomery's outraged face.

"What good will this do us?" Galloway wanted to know. "He'll just follow us up the stairs. These things are slow as the mid-town express."

"They're slow for a very good reason, known as coriolis force," Cooper said, reaching into his pocket for his keys. He inserted one in the control board of the elevator. "Since we're on the bottom level, Montgomery will go up. It's the only direction the stairs go." He twisted the key, and the elevator began to descend.

The two "basement" levels were the parts of the Champagne Hotel complex nearest hard vacuum. The car stopped on B level and he held the door for her. They walked among exposed pipes, structural cables, and beams not masked by the frothy decorations of the public levels. The only light came from bare bulbs spaced every five meters. The girders and the curved floor made the space resemble the innards of a zeppelin.

"How hard will they look for you?"

She shrugged. "They won't be fooling around. They'll keep it up until they find me. It's only a question of time."

"Can they get me in trouble?"

"They'd love to. But I won't let them."

"Thanks."

"It's the least I could do."

"So my room is out. First place they'd look."

"No, they'd check my room first. It's better equipped for playing cards."

He was mentally kicking himself. She was playing games with him, he knew that, but what was the game? If it was just sex, that was okay. He'd never made love with a woman in a sidekick.

"About your nickname..." she said, leaving the sentence unfinished to see how he would react. When he said nothing, she started over. "Is it your favorite swimming distance? I seem to recall you were accused of never exerting yourself more than the situation required."

"Wouldn't it be foolish if I did?" But the label still rankled. It was true he had never turned in a decent time just swimming laps, and that he seldom won a race by more than a meter. The sports media had never warmed to him because of that, even before he failed to win the gold. For some reason, they thought of him as lazy, and most people assumed his nickname meant he would prefer to swim races of no more than a quarter of a meter.

"No, that's not it," was all he would say, and she dropped the subject.

The silence gave him time to reflect, and the more he did, the less happy he was. She had said she could keep him out of trouble, but could she? When it came to a showdown, who had more clout with BCE? The Golden Gypsy, or her producers? He might be risking a lot, and she was risking nothing at all. He knew he should ditch her but, if he spurned her now, she might withdraw what protection she could offer.

"I sense you don't care for your nickname," she said, at last. "What should I call you? What's your real name?"

"I don't like that, either. Call me Q.M."

"Must I?" she sighed.

"Everybody else does."

He took her to Eliot's room because Eliot was in the infirmary and because Montgomery and company would not look for them there. They drank some of Eliot's wine, talked for a while, and made love.

The sex was pleasant, but nothing to shout about. He was surprised at how little the sidekick got in his way. Though it was all over her body, it was warm and most of it was flexible, and he soon forgot about it.

Finally she kissed him and got dressed. She promised to see him again soon. He thought she said something about love. It struck him as a grotesque thing to say, but by then he was not listening very hard. There was an invisible wall between them and most of it belonged to her. He had tried to penetrate it-not very hard, he admitted to himself-but a good ninety-nine percent of her was in a fiercely-guarded place he was sure he'd never see. He shrugged mentally. It was certainly her right.

He was left with a bad post-coital depression. It had not been one of his finer moments. The best thing to do about it was to put it behind him and try not to do it again. It was not long before he realized he was doing uncommonly well at that already. Reclining naked on the bed, gazing at the ceiling, he could not recall a single thing she had said.

What with one thing and another, he did not get back to his room until late. He did not turn on the light because he did not want to wake Anna-Louise. And he walked with extra care because he was not balancing as well as he might. There had been a few drinks.

Still, she woke up, as she always did. She pressed close to him under the covers, her body warm and humid and musky, her breath a little sour as she kissed him. He was half-drunk and she was half-awake, but when her hands began to pull and her hips to thrust forward insistently he found to his surprise that he was ready and so was she. She guided him, then eased over onto her side and let him nestle in behind her. She drew her knees up and hugged them. Her head was pillowed on his arm. He kissed the back of her smooth scalp and nibbled her ear, then let his head fall into the pillow and moved against her slowly for a peaceful few minutes. At last she stretched, squeezing him, making small fists, digging her toes into his thighs.

"How did you like her?" she mumbled.

"Who?"

"You know who."

He was pretty sure he could pull off a lie, because Anna-Louise couldn't be that sure, and then he frowned in the darkness, because he had never wanted to lie to her before.

So he said, "Do you know me that well?"

She stretched again, this time more sensually, to more of a purpose than simply getting the sleepiness out of her system.

"How should I know? My nose didn't give me a chance to find out. I smelled the liquor on your breath when you came in, but I smelled her on my fingers after I touched you."

"Come on."

"Don't get mad." She reached around to pat his buttocks while at the same time pressing herself back against him. "Okay, so I guessed at the identity. It didn't take much intuition."

"It was lousy," he admitted.

"I'm so sorry." He knew she really was, and did not know if that made him happy or sad. It was a hell of a thing, he thought, not to know something as basic as that.

"It's a damn shame," she went on. "Fucking should never be lousy."

"I agree."

"If you can't have fun doing it, you shouldn't do it."

"You're one hundred per cent right."

He could just see her teeth in the darkness; he had to imagine the rest of her grin, but he knew it well.

"Do you have anything left for me?"

"There's a very good chance that I do."

"Then what do you say we just skip the next part and wake up?"

She shifted gears so fast he had a hard time keeping up at first; she was all over him and she was one of the strongest women he knew. She liked to wrestle. Luckily, there were no losers in her matches. It was everything the encounter with Galloway had not been. That was no surprise; it always was. Sex with Anna-Louise was very good indeed. For that matter, so was everything else.

He lay there in the dark long after she had gone to sleep, their bodies spooned together just as they had begun, and he thought long and hard and as clearly as he could. Why not? Why not Anna-Louise? She could care if he gave her the chance. And maybe he could, too.



He sighed, and hugged her tighter. She murmured like a big, happy cat, and began to snore.

He would talk to her in the morning, tell her what he had been thinking. They would begin the uncertain process of coming to know each other.

Except that he woke with a hangover, Anna-Louise had already showered, dressed, and gone, and someone was knocking on his door.

He stumbled out of bed and it was her, Galloway. He had a bad moment of disorientation, wishing that famous face would get back on the television screen where it belonged. But somehow she was in his room, though he did not recall standing aside to admit her. She was smiling, smiling, and talking so fast he could barely understand her. It was an inane rattle about how good it was to see him and how nice the room was, as her eyes swept him and the room from head to toe and corner to corner until he was sure she knew Anna-Louise better than he did himself, just from the faint traces she had left on the bare impersonal cubicle.

This was going to be difficult. He closed the door and padded to the bed, where he sank gratefully and put his face in his hands.

When she finally ran down he looked up. She was perched on the edge of the room's only chair, hands laced together on her knees. She looked so bright and chipper he wanted to puke.

"I quit my job," she said. It took a while for that to register. In time, he was able to offer a comment.

"Huh?" he said.

"I quit. Just said screw this and walked out. All over, ka-put, down the toilet. Fuck it." Her smile looked unhealthy.

"Oh." He thought about that, listening to the dripping of the bathroom faucet. "Ah... what will you do?"

"Oh, no problem, no problem." She was bouncing a little now. One knee bobbed in four-four time while the other waltzed. Perhaps that should have told him something. Her head jerked to the left, and there was a whine as it slowly straightened.

"I've had offers from all over," she went on. "CBS would sacrifice seven virgin vice-presidents on a stone altar to sign me up. NAAR and Telecommunism are fighting a pitched battle across Sixth Avenue at this very moment, complete with tanks and nerve gas. Shit, I'm already pulling down half the GNP of Costa Rica, and they all want to triple that."

"Sounds like you'll do all right," he ventured. He was alarmed. The head movement was repeating now, and her heels were hammering the floor. He had finally figured out that the whining noise was coming from her sidekick.

"Oh, bugger them, too," she said easily. "Independent production, that's for me. Doing my own thing. I'll show you some tapes. No more LCD, no more Trendex. Just me and a friend or two."

### "LCD?"

"Lowest common denominator. My audience. Eight-year-old minds in thirty-one-point-three-six-year-old bodies. Demographics. Brain-cancer victims."

"Television made them that way," he said.

"Of course. And they loved it. Nobody could ever underestimate them, and nobody could ever give them enough crap. I'm not even going to try anymore."

She stood up, turned at the waist, and knocked the door off its hinges. It clattered into the hallway, teetering around the deep dimple her fist had made in the metal.

ALL that would have been bizarre enough, but when the noise had finally stopped she still stood there, arm extended, fist clenched, half turned at the waist. The whining sound was louder now, accompanied by something resembling the wail of a siren. She looked over her shoulder.

"Oh, darn it," she said, in a voice that rose in pitch with every word. "I think I'm stuck." And she burst into tears.

Cooper was no stranger to the ways of the super-rich and super-famous. He had thought he understood clout. He soon learned he knew nothing about it.

He got her calmed in a few minutes. She eventually noticed the small crowd that had gathered beyond

the space where his door had been, whispering and pointing at the woman sitting on Cooper's bed with her arm stuck in an odd position. Her eyes grew cold, and she asked for his telephone.

Thirty seconds after her first call, eight employees of BCE arrived in the hallway outside. Guards herded the audience away and engineers erected a new door, having to remove two twisted hinges to do so. It was all done in less than four minutes, and by then Galloway had completed her second call.

She made three calls, none of them over two minutes long. In one, she merely chatted with someone at the Telecommunium Network and mentioned, in passing, that she had a problem with her sidekick. She listened, thanked the person on the other end, and hung up. The call to GML, the conglom that owned Sidekick, Incorporated, was businesslike and short.

Two hours later a repairman from Sidekick knocked at the door. It was not until the next day that Cooper realized the man had been on the Earth's surface when he got the call, that his trip had involved a special ship boosting at one gee all the way and carrying no cargo but himself and his tool kit, which he opened and plugged into the wall computerminal before starting to work on the sidekick.

But in those two hours...

"If you'd like me to leave, I'll leave," she said, sipping her third glass of Cooper's wine.

"No, please."

She was still frozen like a frame from a violent film. Her legs worked and so did her right arm, but from her hips all the way up her back and down her left arm the sidekick had shorted out. It looked awfully uncomfortable. He asked if there was anything he could do.

"It's okay, really," she said, resting her chin on the arm that crossed in front of her.

"Will they be able to fix it?"

"Oh, sure." She tossed down the rest of the wine. "And if they can't, I'll just stay here and you'll have a real conversation piece. A human hatrack." She picked her shirt off the couch beside her and draped it over her frozen arm, then smiled at him. It was not a pretty smile.

He had helped her get the shirt off. It had been like undressing a statue. The idea had been to check the sidekick core for hot spots and visible cracks, which would necessitate the quick removal of the apparatus. It was clearly a project she did not relish. But as far as he had been able to see the thing was physically intact. The damage was on the electronic level.

It was the closest look he had yet taken at the technological marvel of the age, closer even than the night before, when he had made love to her. Then, manners had prevented him from staring. Now he had a perfect excuse, and he used it.

When he thought about it, it was frightening that they could pack so much power into a mechanism that, practically speaking, was hardly even there. The most massive part of the sidekick was the core, which was segmented, padded in flesh-toned soft plastic, and hugged her spine from the small of the back to the nape of her neck. Nowhere was it more than three centimeters thick.

Radiating from the core was an intricate network of gold chains, bands, and bracelets, making such a cunningly contrived system that one could almost believe it was all decoration rather than the conductors for energized fields that allowed her to move. Woven belts of fine gold wire criss-crossed like bandoliers between her breasts and just happened to connect, via a fragile gold chain, with the sinuous gooseneck that was concealed by her hair before it attached to the back of the golden tiara that made her look like Wonder Woman. Helical bands fashioned to look like snakes coiled down her arms, biting each other's tails until the last ones attached to thick, jewel-encrusted bracelets around her wrists, which in turn sprouted hair-fine wires that transformed themselves into finger rings, one for each joint, each inset with a single diamond. Elsewhere the effect was much the same. Each piece, taken by itself, was a beautiful piece of jewelry. The worst that could be said about Megan Galloway in the "nude" was that she was ostentatiously bejeweled. If one didn't mind that, she was absolutely stunning: a gilded Venus, or a fantasy artist's Amazon in full, impractical armor. Dressed, she was just like anyone else except for the tiara and the rings. There were no edges on her sidekick to savage clothes or poke out at unnatural angles. Cooper guessed this was as important to Galloway as the fact that the sidekick was a beautiful object, emphatically not an orthopedic appliance.

"It's unique," she said. "One of a kind."

"I didn't mean to stare."

"Heavens," she said. "You weren't staring. You are so pointedly not staring that your fascination must be intense. And no... don't say anything." She held up her free hand and waited for him to settle back in his chair. "Please, no more apologies. I've got a pretty good idea of the problem I present to somebody with both manners and curiosity, and it was shitty of me to say that about not staring. That puts you in the wrong whatever you do, huh?" She leaned back against the wall, getting comfortable as she could while waiting for the repairman to arrive.

"I'm proud of the damned thing. Cooper. That's probably obvious. And of course I've answered the same questions so many times that it bores me, but for you, since you're providing me a refuge in an embarrassing moment, I'll tell you anything you want to know."

"Is it really gold?"

"Twenty-four carat, solid."

"That's where your nickname comes from, I presume."

She looked puzzled for a moment, then her face cleared.

"Touché. I don't like that nickname any more than you like yours. And no, it's no more correct than yours is. At first, I wasn't the Golden Gypsy. The sidekick was. That was the name of this model sidekick. But they've still only made one of them, and before long, the name rubbed off on me. I discourage it."

Cooper understood that too well.

He asked more questions. Before long the explanations got too technical for him. He was surprised that she knew as much about it as she did. Her knowledge stopped short of the mathematics of Tunable Deformation Fields, but that was her only limit. TDF's were what had made the Bubble possible, since they could be made to resonate with particular molecular or atomic structures. The Bubble's fields were turned to attract or repel H<sub>2</sub>O, while the fields generated by Galloway's sidekick influenced gold, Au<sup>197</sup>, and left everything else alone. She went on to tell him far more than he could absorb about the ways in which the fields were generated in the sidekick core, shaped by wave guides buried in the jewelry, and deformed ("Physics terms are usually inelegant," she apologized), to the dictates of nanocomputers scattered throughout the hardware, operating by a process she called "augmented neuro-feedback holistitology."

"The English of which is..." he pleaded.

"...that I think of pressing the middle valve down, the music goes round and round and it comes out here." She held out her hand and depressed the middle finger. "You would weep to know how many decisions the core made to accomplish that simple movement."

"On the other hand," he said, and rushed on when he remembered what had happened to her other hand, "what goes on in my brain to do the same thing is complex, but I don't have to program it. It's done for me. Isn't it much the same with you?"

"Much. Not exactly. If they made one of these for you and plugged you in right now, you'd twitch a lot. In a few weeks you'd patty-cake pretty well. But in a year you'd not even think about it. The brain re-trains itself. Which is a simple way of saying you struggle day and night for six or seven months with something that feels totally unnatural and eventually you learn to do it. Having done it, you know that learning to tap-dance on the edge of a razor blade would be a snap."

"You say you've heard all the questions. What's your least favorite?"

"God, you're merciless, aren't you? There's no contest. 'How did you hurt yourself?' To answer the question you so cleverly didn't ask, I broke my fool neck when me and my hang-glider got into an argument with a tree. The tree won. Many years later I went back and chopped that tree down, which just may be the stupidest thing I ever did, not counting today." She looked at him and raised one eyebrow. "Aren't you going to ask me about that?"

He shrugged.

"The funny thing is, that's the question I want you to ask. Because it's tied up with what we did yesterday, and that's really what I came here to talk to you about."

"So talk," he said, wondering what she could have to say about it beyond the fact that it had been

hideous, and demeaning to both of them.

"It was the worst sexual experience I ever had," she said. "And you bear zero percent responsibility for that. Please don't interrupt. There are things you don't know about.

"I know you don't think much of my profession-I really don't want you to interrupt, or I'll never get all this out; if you disagree you can tell me when I'm through.

"You'd be a pretty strange lifeguard if you were a fan of the trans-tapes, or if you didn't feel superior to the kind of people who buy them. You're young, fairly well-educated and fairly articulate, you've got a good body and an attractive face and the opposite sex neither terrifies nor intimidates you. You are out on the end of all the bell-curves, demographically. You are not my audience, and people who aren't my audience tend to look down on my audience, and usually on me and my kind, too. And I don't blame them. Me and my kind have taken what might have been a great art-form and turned it into something so exploitative that even Hollywood and Sixth Avenue gag at it.

"You know as well as I do that there are many, many people growing up now who wouldn't know an honest, genuine, self-originated emotion if it kicked them in the behind. If you take their Transers away from them they're practically zombies.

"For a long time I've flattered myself that I'm a little better than the industry in general. There are some tapes I've made that will back me up on that. Things I've taken a chance on, things that try to be more complex than the LCD would dictate. Not my bread-and-butter tapes. Those are as simple-headed as the worst hack travelogue. But I've tried to be like the laborers in other artistic sweatshops of the past. Those few who managed to turn out something with some merit, like some directors of Hollywood westerns which were never meant to be anything but crowd pleasers and who still produced some works of art, or a handful of television producers who... none of this is familiar to you, is it? Sorry, I didn't mean to get academic. I've made a study of it, of art in the mass culture.

"All those old art-forms had undergrounds, independents who struggled along with no financing and produced things of varying quality but with some vision, no matter how weird. Trans-tapes are more expensive than films or television but there is an underground. It's just so far under it practically never comes to light. Believe it or not, it's possible to produce great art in emotional recording. I could name names, but you will not have heard of any of them. And I'm not talking about the people who make tapes about how it feels to kill somebody; that's another underground entirely.

"But things are getting tight. It used to be that we could make a good living and still stay away from the sex tapes. Let me add that I don't feel contempt for the people who make sex tapes. Given the state of our audience, it has become necessary that many of them have their well-worn jerk-off cassette, so when they get horny they know what to do with it. Most of them wouldn't have the vaguest notion otherwise. I just didn't want to make them myself. It's axiomatic in the trade that love is the one emotion that cannot be recorded, and if I can't have-

"I'm sorry," Cooper said, "but I have to interrupt there. I've never heard that. In fact, I've heard just the opposite."

"You've been listening to our commercials," she reproved. "Get that shit out of your head, Cooper. It's pure hype." She rubbed her forehead, and sighed. "Oh, all right. I wasn't precise enough. I can make a tape of how I love my mother or my father or anybody I'm already in love with. It's not easy to do-it's the less subtle emotions that are more readily transed. But nobody has ever recorded the process of falling in love. It's sort of a Heisenberg Principle of transing, and nobody's sure if the limitation is in the equipment or in the person being recorded, but it exists, and there are some very good reasons to think nobody will ever succeed in recording that kind of love."

"I don't see why not," Cooper confessed. "It's supposed to be very intense, isn't it? And you said the strong emotions are the easiest to tape."

"That's true. But... well, try to visualize it. I've got my job because I'm better at ignoring all the hardware involved in transing. It's because of my sidekick; I mean, if I can learn to forget I'm operating that I can ignore anything. That's why the nets scour the trauma wards of hospitals looking for potential stars. It's like... well, in the early days of sex research they had people fuck in laboratories, with wires taped to them. A lot of people just couldn't do it. They were too self-conscious. Hook most people up to

a transcorder and what you get is 'Oh, how interesting it is to be making a tape, look at all those people watching me, look at all those cameras, how interesting, now I have to forget about them, I must forget about them I just must forget-' "

Cooper held up his hand, nodding. He was recalling seeing her burst from the water that first day in the Bubble, and his feelings as he watched her.

"So the essence of making a tape," she went on, "is the ability to ignore the fact that you're making one. To react just as you would have reacted if you weren't doing it. It calls for some of the qualities of an actor, but most actors can't do it. They think too much about the process. They can't be natural about it. That's my talent: to feel natural in unnatural circumstances.

"But there are limits. You can fuck up a storm while transing, and the tape will record how good everything feels and how goddam happy you are to be fucking. But it all falls apart when the machine is confronted with that moment of first falling in love. Either that, or the person being recorded just can't get into the frame of mind to fall in love while transing. The distraction of the transer itself makes that emotional state impossible.

"But I really got off on a tangent there. I'd appreciate it if you'd just hear me out until I've said what I have to say." She rubbed her forehead again, and looked away from him.

"We were talking economics. You have to make what sells. My sales have been dropping off. I've specialized in what we call 'elbow-rubbers.' 'You, too, can go to fancy places with fancy people. You, too, can be important, recognized, appreciated.' " She made a face. "I also do the sort of thing we've been making in the Bubble. Sensuals, short of sex. Those, frankly, are not selling so well anymore. The snob-tapes still do well, but everybody makes those. What you're marketing there is your celebrity, and mine is falling off. The competition has been intense.

"That's why I... well, it was Markham who talked me into it. I've been on the verge of going into heavy-breathers." She lifted her eyes. "I assume you know what those are."

Cooper nodded, remembering what Anna-Louise had said. So even Galloway could not stay out of it. She sighed deeply, but no longer looked away from him.

"Anyway, I wanted to make something just a little bit better than the old tired in-and-outers. You know: 'Door-to-door salesman enters living room; "I'd like to show you my samples, ma'am." Woman rips open nightgown; "Take a look at these samples, buster." Fade to bed.' I thought that for my first sex-tape I'd try for something more erotic than salacious. I wanted a romantic situation, and if I couldn't get some love in it at least I'd try for affection. It would be with a handsome guy I met unexpectedly. He'd have some aura of romance about him. Maybe there'd be an argument at first, but the irresistible attraction would bring us together in spite of it, and we'd make love and part on a slightly tragic note since we'd be from different worlds and it could never..."

Tears were running down her cheeks. Cooper realized his mouth was open. He was leaning toward her, too astonished at first to say anything.

"You and me..." he finally managed to say.

"Shit, Cooper, obviously you and me."

"And you thought that... that what we did last night... did you really think that was worth a tape? I knew it was bad, but I had no inkling how bad it could be. I knew you were using me-hell, I was using you, too, and I didn't like that any better-but I never thought it was so cynical-"

"No, no, no, no, no!" She was sobbing now. "It wasn't that. It was worse than that! It was supposed to be spontaneous, damn it! I didn't pick you out. Markham was going to do that. He would find someone, coach him, arrange a meeting, conceal cameras to tape the meeting and in the bedroom later. I'd never really know. We've been studying an old show called Candid Camera and using some of their techniques. They're always throwing something unexpected at me. trying to help me stay fresh. That's Markham's job. But how surprised can I be when you show up at my table? Just look at it: in the romantic Bubble, the handsome lifeguard-lifeguard, for pete's sake!-an Olympic athlete familiar to millions from their television sets, gets pissed at my rich, decadent friends... I couldn't have gotten a more clichéd script from the most drug-brained writer in Television City!"

For a time there was no sound in the room but her quiet sobs. Cooper looked at it from all angles, and

it didn't look pretty from any of them. But he had been just as eager to go along with the script as she had.

"I wouldn't have your job for anything," he said.

"Neither would I," she finally managed to say. "And I don't, damn it. You want to know what happened this morning? Markham showed me just how original he really is. I was eating breakfast and this guy-he was a lifeguard, are you ready?-he tripped over his feet and dropped his plate in my lap. Well, while he was cleaning me up he started dropping cute lines at a rate that would have made Neil Simon green. Sorry, getting historical again. Let's just say he sounded like he was reading from a script... he made that shitty little scene we played out together yesterday seem just wonderful. His smile was phony as a brass transistor. I realized what had happened, what I'd done to you, so I pushed the son of a bitch down into his French toast, went to find Markham, broke his fucking jaw for him, quit my job, and came here to apologize. And went a little crazy and broke your door. So I'm sorry, I really am, and I'd leave but I've busted my sidekick and I can't stand to have people staring at me like that, so I'd like to stay here a little longer, until the repairman gets here, and I don't have any notion of what I'm going to do."

What composure she had managed to gather fell apart once again, and she wept bitterly.

By the time the repairman arrived Galloway was back in control.

The repairman's name was Snyder. He was a medical doctor as well as a cybertechnician, and Cooper supposed that combination allowed him to set any price he fancied for his services.

Galloway went into the bedroom and got all the clean towels. She spread them on the bed, then removed her clothes. She reclined, face down, with the towels making a thick pad from her knees to her waist. She made herself as comfortable as she could with her arm locked in the way, and waited.

Snyder fiddled with the controls in his tool kit, touched needle-sharp probes to various points on the sidekick core, and Galloway's arm relaxed. He made more connections, there was a high whine from the core, and the sidekick opened like an iron maiden. Each bracelet, chain, amulet and ring separated along invisible join lines. Snyder then went to the bed, grasped the sidekick with one hand around the center of the core, and lifted it away from her. He set it on its "feet," where it promptly assumed a parade-rest stance.

There was an Escher print Cooper had seen, called "Rind," that showed the bust of a woman as if her skin had been peeled off and arranged in space to suggest the larger thing she had once been. Both the inner and outer surfaces of the rind could be seen, like one barber-pole stripe painted over an irregular, invisible surface. Galloway's sidekick, minus Galloway, looked much like that. It was one continuous, though convoluted, entity, a thing of springs and wires, too fragile to stand on its own but doing it somehow. He saw it shift slightly to maintain its balance. It seemed all too alive.

Galloway, on the other hand, looked like a rag doll. Snyder motioned to Cooper with his eyes, and the two of them turned her on her back. She had some control of her arms, and her head did not roll around as he had expected it to. There was a metal wire running along her scarred spine.

"I was an athlete, too, before the accident," she said.

"Were you?"

"Well, not in your class. I was fifteen when I cracked my neck, and I wasn't setting the world on fire as a runner. For a girl that's already too old."

"Not strictly true," Cooper said. "But it's a lot harder after that." She was reaching for the blanket with hands that did not work very well. Coupled with her inability to raise herself from the bed, it was a painful process to watch. Cooper reached for the edge of the blanket.

"No," she said, matter-of-factly. "Rule number one. Don't help a cripple unless she asks for it. No matter how badly she's doing something, just don't. She's got to learn to ask, and you've got to learn to let her do what she can do."

"I'm afraid I've never known any cripples."

"Rule number two. A nigger can call herself a nigger and a cripple can call herself a cripple, but lord help the able-bodied white who uses either word."

Cooper settled back in his chair.

"Maybe I'd better just shut up until you fill me in on all the rules."

She grinned at him. "It'd take all day. And frankly, maybe some of them are self-contradictory. We can be a pretty prickly lot, but I ain't going to apologize for it. You've got your body and I don't have mine. That's not your fault, but I think I hate you a little because of it."

Cooper thought about that. "I think I probably would, too."

"Yeah. It's nothing serious. I came to terms with it a long time ago, and so would you, after a bad couple of years." She still hadn't managed to reach the blanket, and at last she gave it up and asked him to do it for her. He tucked it around her neck.

There were other things he thought he would like to know, but he felt she must have reached the limits of questioning, no matter what she said. And he was no longer quite so eager to know the answers. He had been about to ask what the towels on the bed were for, then suddenly it was obvious what they were for and he couldn't imagine why he hadn't known it at once. He simply knew nothing about her, and nothing about disability. And he was a little ashamed to admit it, but he was not sure he wanted to know any more.

There was no way he could keep the day's events from Anna-Louise, even if he had wanted to. The complex was buzzing with the story of how the Golden Gypsy had blown a fuse, though the news about her quitting her job was still not general knowledge. He was told the story three different times during his next shift. Each story was slightly different, but all approximated the truth. Most of the tellers seemed to think it was funny. He supposed he would have, too, yesterday.

Anna-Louise inspected the door hinges when they got back from work.

"She must have quite a right hook," she said.

"Actually, she hit it with her left. Do you want to hear about it?"

"I'm all ears."

So he told her the whole story. Cooper had a hard time figuring out how she was taking it. She didn't laugh, but she didn't seem too sympathetic, either. When he was through-mentioning Galloway's incontinence with some difficulty-Anna-Louise nodded, got up, and started toward the bathroom.

"You've led a sheltered life, Q.M."

"What do you mean?"

She turned, and looked angry for the first time.

"I mean you sound as if incontinence was the absolute worst thing you'd ever heard of in your life."

"Well, what is it, then? No big thing?"

"It certainly isn't to that woman. For most people with her problem, it means catheters and feces bags. Or diapers. Like my grandfather wore for the last five years of his life. The operations she's had to fix it, and the hardware, implanted and external... well, it's damn expensive, Q.M. You can't afford it on the money grandfather was getting from the State, and Conglomerate health plans won't pay for it, either."

"Oh, so that's it. Just because she's rich and can afford the best treatment, her problems don't amount to anything. Just how would you like to-"

"Wait a minute, hold on..." She was looking at him with an expression that would not hold still, changing from sympathy to disgust. "I don't want to fight with you. I know it wouldn't be pleasant to have my neck broken, even if I was a trillionaire." She paused, and seemed to be choosing her words carefully.

"I'm bothered by something here," she said, at last. "I'm not even sure what it is. I'm concerned about you, for one thing. I still think it's a mistake to get involved with her. I like you. I don't want to see you hurt."

Cooper suddenly remembered his resolve of the night before, as she lay sleeping at his side. It confused him terribly. Just what did he feel for Anna-Louise? After the things Galloway had told him about love and the lies of the Transer commercials, he didn't know what to think. It was pitiful, when he thought about it, that he was as old as he was and hadn't the vaguest notion what love might be, that he had actually assumed the place to find it, when the time came, was on trans-tapes. It made him angry.

"What are you talking about, hurt?" he retorted. "She's not dangerous. I'll admit she lost control there for a moment, and she's strong, but-"

"Oh, help!" Anna-Louise moaned. "What am I supposed to do with these emotionally stunted smoggies who think nothing is real unless they've been told by somebody on the-"

"Smoggies? You called me a racist when-"

"Okay, I'm sorry." He complained some more but she just shook her head and wouldn't listen and he eventually sputtered to a stop.

"Finished? Okay. I'm getting crazy here. I've only got one more month before I go back home. And I do find most Earthlings-is that a neutral enough term for you?-I find them weird. You're not so bad, most of the time, except you don't seem to have much notion about what life is for. You like to screw and you like to swim. Even that is twice as much purpose as most sm-, Terrans seem to have."

"You... you're going?"

"Surprise!" Her tone dripped sarcasm.

"But why didn't you tell me?"

"You never asked. You never asked about a lot of things. I don't think you ever realized I might like to tell you about my life, or that it might be any different from yours."

"You're wrong. I sensed a difference."

She raised an eyebrow and seemed about to say something, but changed her mind. She rubbed her forehead, then took a deep, decisive breath.

"I'm almost sorry to hear that. But I'm afraid it's too late to start over. I'm moving out." And she began packing.

Cooper tried to argue with her but it did no good. She assured him she wasn't leaving because she was jealous; she even seemed amused that he thought that might be the reason. And she also claimed she was not going to move in with Yuri Feldman. She intended to live her last month in the Bubble alone.

"I'm going back to Luna to do what I planned to do all along," she said, tying the drawstring of her duffel bag. "I'm going to the police academy. I've saved enough now to put me through."

"Police?" Cooper could not have been more astonished if she had said she intended to fly to Mars by flapping her arms.

"You had no inkling, right? Well, why should you? You don't notice other people much unless you're screwing them. I'm not saying that's your fault; you've been trained to be that way. Haven't you ever wondered what I was doing here? It isn't the working conditions that drew me. I despise this place and all the people who come to visit. I don't even like water very much, and I hate that monstrous obscenity they call the Bubble."

Cooper was beyond shock. He had never imagined anyone could exist who would not be drawn by the magic of the Bubble.

"Then why? Why work here, and why do you hate it?"

"I hate it because people are starving in Pennsylvania," she said, mystifying him completely. "And I work here, God help me, because the pay is good, which you may not have noticed since you grew up comfortable. I would have said rich, but by now I know what real rich is. I grew up poor, Q.M. Another little detail you never bothered to learn. I've worked hard for everything, including the chance to come here to this disgusting pimp-city to provide a safety service for rich degenerates, because BCE pays in good, hard GWA Dollars. You probably never noticed, but Luna is having serious economic troubles because it's caught between a couple of your corporation-states... ah, forget it. Why worry your cute little head with things like that?"

She went to the door, opened it, then turned to look at him.

"Honestly, Q.M., I don't dislike you. I think I feel sorry for you. Sorry enough that I'm going to say once more you'd better watch out for Galloway. If you mess around with her right now, you're going to get hurt."

"I still don't understand how."

She sighed, and turned away.

"Then there's nothing more I can say. I'll see you around."

Megan Galloway had the Mississippi Suite, the best in the hotel. She didn't come to the door when Cooper knocked, but just buzzed him in.



She was sitting tailor-fashion on the bed, wearing a loose nightgown and a pair of wire-rimmed glasses and looking at a small box in front of her. The bed resembled a sternwheeler, with smoke and sparks shooting from the bedposts, and was larger than his entire room and bath. She put her glasses at the end of her nose and peered over them.

"Something I can do for you?"

He came around until he could see the box, which had a picture flickering dimly on one side of it.

"What's that?"

"Old-timey television," she said. "Honey West, circa 1965, American Broadcasting Company. Starring Anne Francis, John Ericson, and Irene Hervey, Friday nights at 2100. Spin-off from Burke's Law, died 1966. What's up?"

"What's wrong with the depth?"

"They didn't have it." She removed her glasses and began to chew absently on one rubber tip. "How are you doing?"

"I'm surprised to see you wear glasses."

"When you've had as many operations as I have, you skip the ones you think you can do without. Why is it I sense you're having a hard time saying whatever it is you came here to say?"

"Would you like to go for a swim?"

"Pool's closed. Weekly filtering, or something like that."

"I know. Best possible time to go for a swim."

She frowned. "But I was told no one is admitted during the filtering."

"Yeah. It's illegal. Isn't everything that's fun?"

The Bubble was closed one hour in every twenty-four for accelerated filtering. At one time the place had been open all day, with filtration constantly operating, but then a client got past the three safety systems, where he was aerated, churned, irradiated, centrifuged, and eventually forced through a series of very fine screens. Most of him was still in the water in one form or another, and his legend had produced the station's first ghost.

But long before the Filtered Phantom first sloshed down the corridors the system had been changed. The filters never shut down completely, but while people were in the pool they were operated at slow speed. Once a day they were turned to full power.

It still wasn't enough. So every ten days BCE closed the pool for a longer period and gave the water an intensive treatment.

"I can't believe no one even watches it," Megan whispered.

"It's a mistake. Security is done by computer. There's twenty cameras in here but somebody forgot to tell the computer to squeal if it sees anybody enter during filtration. I got that from the computer itself, which thinks the whole fuck-up is very funny."

The hordes of swimmers had been gone for over two hours, and the clean-up crew had left thirty minutes before. Megan Galloway had probably thought she knew the Bubble pretty well, on the basis of her two visits. She was finding out now, as Cooper had done long ago, that she knew nothing. The difference between a resort beach on a holiday weekend and on a day in mid-winter was nothing compared to what she saw now.

It was perfectly still, totally clear: a crystal ball as big as the world.

"Oh, Cooper." He felt her hand tighten on his arm.

"Look. Down there. No, to the left." She followed his pointing finger and saw a school of the Bubble goldfish far below the surface, moving like lazy submarines, big and fat as watermelons and tame as park squirrels.

"Can I touch it, daddy?" she whispered, with the hint of a giggle. He pretended to consider it, then nodded. "I almost don't want to, you know?" she said. "Like a huge field covered in new snow, before anybody tracks across it."

"Yeah, I know." He sighed. "But it might as well be us. Hurry, before somebody beats you to it." He grinned at her, and pushed off slowly from his weightless perch on the sundeck tier that circled the rim of the champagne glass.

She pushed off harder and passed him before he was halfway there, as he had expected her to. The waves made by her entry spread out in perfect circles, then he broke the surface right behind her.

It was a different world.

When the Bubble had first been proposed, many years before, it had been suggested that it be a solid sphere of water, and that nothing but weightlessness and surface tension be employed to maintain it. Both forces came free of charge, which was a considerable factor in their favor.

But in the end, the builders had opted for TDF fields. This was because, while any volume of water would assume a spherical shape in free-fall, surface tension was not strong enough to keep it that way if it was disturbed. Such a structure would work fine so long as no swimmers entered to upset the delicate balance.

The TDF's provided the necessary unobtrusive force to keep things from getting messy. Tuned to attract or repel water, they also acted to force foreign matter toward either the inner or outer surfaces; in effect, making things that were not water float. A bar of lead floated better than a human body. Air bubbles also were pushed out. The fields were deliberately tuned to a low intensity. As a result, humans did not bob out of the water like corks but drifted toward a surface slowly, where they floated quite high in the water. As a further result, when the pool was open it was always churned by a billion bubbles.

When Cooper and Galloway entered the water the bubbles left behind by the happy throngs had long since merged with one of the larger volumes of air. The Bubble had become a magic lens, a piece of water with infinite curvature. It was nearly transparent with an aquamarine tint. Light was bent by it in enchanting ways, to the point that one could fancy the possibility of seeing all the way around it.

It distorted the world outside itself. The lifeguard station, cabanas, bar, and tanning chairs in the center were twisted almost beyond recognition, as if vanishing down the event horizon of a black hole. The rim of the glass, the deep violet field-dome that arched over it, and the circle of tanning chairs where patrons could brown themselves under genuine sunlight bent and flowed like a surrealist landscape. And everything, inside and outside the Bubble, oozed from one configuration to another as one changed position in the water. Nothing remained constant.

There was one exception to that rule. Objects in the water were not distorted. Galloway's body existed in a different plane, moved against the flowing, twisting background as an almost jarring intrusion of reality: pink flesh and golden metal, curly yellow hair, churning arms and legs. The stream of air ejected from her mouthpiece cascaded down the front of her body. It caressed her intimately, a thousand shimmering droplets of mercury, before it was thrashed to foam by her feet. She moved like a sleek aerial machine, streamlined, leaving a contrail behind her.

He customarily left his mouthpiece and collar-tank behind when he swam alone, but he was wearing it now, mostly so Galloway would not insist on removing hers, too. He felt the only decent way to swim was totally nude. He conceded the breathers were necessary for the crustaceans and plankton who did not understand the physical laws of the Bubble and who would never take the time to learn them. It was possible to get hopelessly lost, to become disoriented, unable to tell which was the shortest distance to air. Though bodies would float to a surface eventually, one could easily drown on the way out. The Bubble had no ends, deep or shallow. Thus the mouthpieces were required for all swimmers. They consisted of two semi-circular tanks that closed around the neck, a tube, a sensor that clipped to the ear, and the mouthpiece itself. Each contained fifteen minutes of oxygen, supplied on demand or when blood color changed enough to indicate it was needed. The devices automatically notified both the user and the lifeguard station when they were nearly empty.

It was a point of honor among the lifeguards to turn them in as full as they had been issued.

There were things one could do in the Bubble that were simply impossible in flat water. Cooper showed her some of the tricks, soon had her doing them herself. They burst from the water together, described long, lazy parabolas through the air, trailing comet tails of water. The TDF fields acted on the water in their bodies at all times, but it was such a lackadaisical force that it was possible to remain in the air for several minutes before surrendering to the inexorable center-directed impulse. They laced the water with their trails of foam, be-spattered the air with fine mist. They raced through the water, cutting across along a radial line, building up speed until they emerged on the inner surface to barrel across the

width of the Bubble and re-enter, swam some more, and came up outside in the sunlight. If they went fast enough their momentum would carry them to the dark sun-field, which was solid enough to stand on.

He had had grave misgivings about asking her to come here with him. In fact, it had surprised him when he heard himself asking. For hours he had hesitated, coming to her door, going away, never knocking. Once inside it hadn't seemed possible to talk to her, particularly since he was far from sure he knew what he wanted to say. So he had brought her here, where talking was unnecessary. And the biggest surprise was that he was glad. It was fun to share this with someone. He wondered why he had never done it before. He wondered why he had never brought Anna-Louise, remembered the revelation of her real opinions of the place, and then turned away from thoughts of her.

It was strenuous play. He was in pretty good shape but was getting tired. He wondered if Galloway ever got tired. If she did, she seemed sustained by the heady joy of being there. She summed it up to him in a brief rest period at the outer rim.

"Cooper, you're a genius. We've just hijacked a swimming pool!"

The big clock at the lifeguard station told him it was time to quit, not so much because he needed the rest as because there was something he wanted her to see, something she would not expect. So he swam up to her and took her hand, motioned toward the rim of the glass, and saw her nod. He followed her as she built up speed.

He got her to the rim just in time. He pointed toward the sun, shielding his eyes, just as the light began to change. He squinted, and there it was. The Earth had appeared as a black disc, beginning to swallow the sun.

It ate more and more of it. The atmosphere created a light show that had no equal. Arms of amber encircled the black hole in the sky, changing colors quickly through the entire spectrum: pure, luminous colors against the deepest black imaginable. The sun became a brilliant point, seemed to flare sharply, and was gone. What was left was one side of the corona, the halo of Earth's air, and stars.

Millions of stars. If tourists ever complained about anything at the Bubble, it was usually that. There were no stars. The reason was simple: space was flooded with radiation. There was enough of it to fry an unprotected human. Any protection that could shut out that radiation would have to shut out the faint light of the stars as well. But now, with the sun in eclipse, the sensors in the field turned it clear as glass. It was still opaque to many frequencies, but that did not matter to the human eye. It simply vanished, and they were naked in space.

Cooper could not imagine a better time or place to make love, and that is exactly what they did.

"Enjoyed that a little more, did you?" she said.

"Uh." He was still trying to catch his breath. She rested her head against his chest and sighed in contentment.

"I can still hear your heart going crazy."

"My heart has seldom had such a workout."

"Nor a certain quarter of a meter, from the look of things."

He laughed. "So you figured that out. It's exaggerated."

"But a fifth of a meter would be an understatement, wouldn't you say?"

"I suppose so."

"So what's between? Nine fortieths? Who the hell needs a nickname like 'Nine-fortieths-of-a-meter Cooper'? That is about right, isn't it?"

"Close enough for rock and roll."

She thought about that for a time, then kissed him. "I'll bet you know, exactly. To the goddamn tenth of a millimeter.

You'd have to, with a nickname like that." She laughed again, and moved in his arms. He opened his eyes and she was looking into them.

"This time I rock, and you roll," she suggested.

"I guess I'm getting older," he admitted, at last.

"You'd be a pretty odd fellow if you weren't."

He had to smile at that, and he kissed her again. "I only regret that we didn't get to see the sun come

out."

"Well, I regret a little more than that." She studied his face closely, and seemed puzzled by what she found. "Damn. I never would have expected it, but I don't think you're really upset. For some reason, I don't feel the need to soothe your wounded ego."

He shrugged. "I guess not."

"What's your secret?"

"Just that I'm a realist, I guess. I never claimed to be superman. And I had a fairly busy night." He shut his eyes, not wanting to remember it. But the truth was that something was bothering him, and something else was warning him not to ask about it. He did, anyway.

"Not only did I have a rather full night," he said, "but I think I sensed a certain... well, you were less than totally enthusiastic, the second time. I think that put me off slightly."

"Did it, now?"

He looked at her face, but she did not seem angry, only amused.

"Was I right?"

"Certainly."

"What was wrong?"

"Not much. Only that I have absolutely no sensation from my toes to... right about here." She was holding her arm over her chest, just below her shoulders.

It was too much for him to take in all at once. When he began to understand what she was saying, he felt a terror beside which fear of impotence would have been a very minor annoyance.

"You can't mean... nothing I did had... you were faking it? Faking everything, the whole time? You felt-"

"That first night, yes, I was. Totally. Not very well, I presume, from your reaction."

"...but just now..."

"Just now, it was something different. I really don't know if I could explain it to you."

"Please try." It was very important that she try, because he felt despair such as he had never imagined. "Can you... is it all going through the motions? Is that it? You can't have sex, really?"

"I have a full and satisfying sex life," she assured him. "It's different than yours, and it's different from other women's. There are a lot of adaptations, a lot of new techniques my lovers must learn."

"Will you-" Cooper was interrupted by high-pitched, chattering squeals from the water. He glanced behind him, saw Charlie the Dolphin had been allowed to re-enter the Bubble, signaling the end of their privacy. Charlie knew about Cooper, was in on the joke, and always warned him when people were coming.

"We have to go now. Can we go back to your room, and... and will you teach me how?"

"I don't know if it's a good idea, friend. Listen, I enjoyed it, I loved it. Why don't we leave it that way?"

"Because I'm very ashamed. It never occurred to me."

She studied him, all trace of levity gone from her face. At last, she nodded. He wished she looked more pleased about it.

But when they returned to her room she had changed her mind. She did not seem angry. She would not even talk about it. She just kept putting him off each time he tried to start something, not unkindly, but firmly, until he finally stopped pursuing the matter. She asked him then if he wanted to leave. He said no, and he thought her smile grew a little warmer at that.

So they built a fire in her fireplace with logs of real wood brought up from Earth. ("This fireplace must be the least energy-efficient heater humans have ever built," she said.) They curled up on the huge pillows scattered on the rug, and they talked. They talked long into the night, and this time Cooper had no trouble at all remembering what she said. Yet he would have been hard put to relate the conversation to anyone else. They spoke of trivia and of heartbreaks, sometimes in the same sentence, and it was hard to know what it all meant.

They popped popcorn, drank hot buttered rum from her auto-bar until they were both feeling silly, kissed a few times, and at last fell asleep, chaste as eight-year-olds at a slumber party.

For a week they were separated only when Cooper was on duty. He did not get much sleep, and he got no sex at all. It was his longest period of abstinence since puberty, and he was surprised at how little he felt the lack. There was another surprise, too. Suddenly he found himself watching the clock while he was working. The shift could not be over soon enough to suit him.

She was educating him, he realized that, and he did not mind. There was nothing dry or boring about the things they did together, nor did she demand that he share all her interests. In the process he expanded his tastes more in a week than he had in the previous ten years.

The outer, promenade level of the station was riddled with hole-in-the-wall restaurants, each featuring a different ethnic cuisine. She showed him there was more to food than hamburgers, steaks, potato chips, tacos, and fried chicken. She never ate anything that was advertised on television, yet her diet was a thousand times more varied than his.

"Look around you," she told him one night, in a Russian restaurant she assured him was better than any to be found in Moscow. "These are the people who own the companies that make the food you've been eating all your life. They pay the chemists who formulate the glop-of-the-month, they hire the advertising agencies who manufacture a demand for it, and they bank the money the proles pay for it. They do everything with it but eat it."

"Is there really something wrong with it?"

She shrugged. "Some of it used to cause problems, like cancer. Most of it's not very nutritious. They watched for carcinogens, but that's because a consumer with cancer eats less. As for nutrition, the more air the better. My rule of thumb is if they have to flog the stuff on television it has to be bad."

"Is everything on television bad, then?"

"Yes. Even me."

He was indifferent to clothes but liked to shop for them. She did not patronize the couturiers but put her wardrobe together from unlikely sources.

"Those high-priced designers work according to ancient laws," she told him. "They all work more or less together-though they don't plan it that way. I've decided that trite ideas are born simultaneously in mediocre minds. A fashion designer or a television writer or a studio executive cannot really be said to possess a mind at all. They're hive mentalities; they eat the sewage that floats on the surface of the mass culture, digest it, and then get creative diarrhea-all at once. The turds look and smell exactly alike, and we call them this year's fashions, hit shows, books, and movies. The key to dressing is to look at what everyone else is wearing then avoid it. Find a creative person who had never thought of designing clothes, and ask her to come up with something."

"You don't look like that on television," he pointed out.

"Ah, my dear. That's my job. A Celebrity must be homogenized with the culture that believes she is a Celebrity. I couldn't even get on the television dressed like I am now; the Taste Arbiter would consult its trendex and throw up its hands and have a screaming snit. But take note; the way I'm dressed now is the way everyone will be dressed in about a month."

"Do you like that?"

"Better than I like getting into costume for a guest spot on the Who's Hot, Who's Shit? show. This way the designers are watching me instead of the other way around." She laughed, and nudged him with her elbow. "Remember drop-seat pajamas, about a year and a half ago? That was mine. I wanted to see how far they'd go. They ate it up. Didn't you think that was funny?"

Cooper did recall thinking they were funny when they first came around. But then, somehow, they looked sexy. Soon a girl looked frumpy without that rectangle of flannel flapping against the backs of her thighs. Later, another change had happened, the day he realized the outfits were old-fashioned.

"Remember tail-fins on shoes? That was mine too."

One night she took him through part of her library of old tapes.

After her constant attacks on television, he was not prepared for her fondness, her genuine love, for the buried antiques of the medium.

"Television is the mother that eats its young," she said, culling through a case of thumbnail-sized cassettes. "A television show is senile about two seconds after the phosphor dots stop glowing. It's dead

after one re-run, and it doesn't go to heaven." She came back to the couch with her selection and dumped them on the table beside the ancient video device.

"My library is hit-and-miss," she said. "But it's one of the best there is. In the real early days they didn't even save the shows. They made some films, lost most of those, then went to tape and erased most of them after a few years in the vault. Shows you how valuable the product was, in their own estimation. Here, take a look at this."

What she now showed him lacked not only depth, but color as well. It took him a few minutes to reliably perceive the picture, it was so foreign to him. It flickered, jumped, it was all shades of gray, and the sound was tinny. But in ten minutes he was hypnotized.

"This is called Faraway Hill," she said. "It was the first net soap. It came on Wednesday nights at 2100, on the DuMont Net, and it ran for twelve weeks. This is, so far as I know, the only existing episode, and it didn't surface until 1990."

She took him back, turning the tiny glass screen into a time machine. They sampled *Toast of the Town*, *One Man's Family*, *My Friend Irma*, *December Bride*, *Pete and Gladys*, *Petticoat Junction*, *Ball Four*, *Hunky Dora*, *Black Vet*, *Kunklowitz*, *Kojak*, and *Koonz*. She showed him wonderfully inventive game shows, serials that made him deeply involved after only one episode, adventures so civilized and restrained he could barely believe they were on television. Then she went on to the Golden Age of the Sitcom for *Gilligan's Island* and *Family Affair*.

"What I can't get over," he said, "is how good it is. It's so much better than what we see today. And they did it all with no sex and practically no violence."

"No nudity, even," she said. "There was no frontal nudity on network TV until *Koonz*. Next season, every show had it, naturally. There was no actual intercourse until much later, in *Kiss My Ass*." She looked away from him, but not before he caught a hint of sadness in her eyes. He asked her what was wrong.

"I don't know, Q.M. I mean... I don't know exactly. Part of it is knowing that most of these shows were panned by the critics when they came out. And I've showed you some flops, but mostly these were hits. And I can't tell the difference. They all look good. I mean, none of them have people you'd expect to meet in real life, but they're all recognizably human, they act more or less like humans act. You can care for the characters in the dramas, and the comedies are witty."

"So those critics just had their heads up their asses."

She sighed. "No. What I fear is that it's us. If you're brought up eating shit, rotten soyaloid tastes great. I really do think that's what's happened. It's possible to do the moral equivalent of the anatomical impossibility you just mentioned. I know, because I'm one of the contortionists who does it. What frightens me is that I've been kidding myself all along, that I'm stuck in that position. That none of us can unbend our spines any longer."

She had other tapes.

It was not until their second week together that she brought them out, rather shyly, he thought. Her mother had been a fanatic home vidmaker; she had documented Megan's life in fine detail.

What he saw was a picture of lower-upper-class life, not too different in its broad outlines from his own upper-middle milieu. Cooper's family had never had any financial troubles. Galloway's were not fabulously wealthy, though they brought in twenty times the income of Cooper's. The house that appeared in the background shots was much larger than the one Cooper had grown up in. Where his family had biked, hers had private automobiles. There was a woman in the early tapes that Megan identified as her nurse; he did not see any other servants. But the only thing he saw that really impressed him was a sequence of her receiving a pony for her tenth birthday. Now, there was class.

Little Megan Galloway, pre-sidekick, emerged as a precocious child, perhaps a trifle spoiled. It was easy to see where at least part of her composure before the Transer came from; her mother had been everywhere, aiming her vidicam. Her life was *cinema verité*, with Megan either totally ignoring the camera or playing to it expertly, as her mood dictated. There were scenes of her reading fluently in three languages at the age of seven, others showing her hamming it up in amateur theatricals staged in the back yard.

"Are you sure you want to see more?" she asked, for the third or fourth time.

"I tell you, I'm fascinated. I forgot to ask you where all this is happening. California, isn't it?"

"No, I grew up in La Barrio Cercada, Veintiuno, one of the sovereign enclaves the congloms carved out of Mexico for exec families. Dual United States and GWA citizenship. I never saw a real Mexican the whole time I lived there. I just thought I ought to ask you," she went on, diffidently. "Home vids can be deadly boring."

"Only if you don't care about the subject. Show me more."

Somewhere during the next hour of tapes, control of the camera was wrested from Megan's mother and came to reside primarily with Megan herself and with her friends. They were as camera-crazy as her mother had been, but not quite so restrained in subject matter. The children used their vidicams as virtually every owner had used them since the invention of the device: they made dirty tapes. The things they did could usually better be described as horseplay than as sex, and they generally stopped short of actual intercourse, at least while the tape was rolling.

"My god," Megan sighed, rolling her eyes. "I must have a million kilometers of this sort of kiddie-porn. You'd think we invented it."

He observed that she and her crowd were naked a lot more than he and his friends had been. The students at his school had undressed at the beach, to participate in athletics, and to celebrate special days like Vernal Equinox and The Last Day of School. Megan's friends did not seem to dress at all. Most of them were Caucasian, but all were brown as coffee beans.

"It's true," she said. "I never wore anything but a pair of track shoes."

"Even to school?"

"They didn't believe in dictating things like that to us."

He watched her develop as a woman in a sequence that lap-dissolved her from the age of ten, like those magic time-lapses of flowers blooming.

"I call this 'The Puberieties of 2073,' " she said, with a self-deprecating laugh. "I put it together years ago, for something to do."

He had already been aware of the skilled hand which had assembled these pieces into a whole which was integrated, yet not artificially slick. The arts learned during her years in the business had enabled her to produce an extended program which entranced him far longer than its component parts, seen raw, could ever have done. He remembered Anna-Louise's accusations, and wondered what she would think if she could see him now, totally involved in someone else's life.

A hand-lettered title card appeared on the screen: "The Broken Blossom: An Act of Love. By Megan Allegra Galloway and Reginald Patrick Thomas." What followed had none of the smooth flow of what had gone before. The cuts were jerky. The camera remained stationary at all times, and there were no fades. He knew this bit of tape had been left untouched from the time a young girl had spliced it together many years ago. The children ran along the beach in slow-motion, huge waves breaking silently behind them. They walked along a dirt road, holding hands, stopping to kiss. The music swelled behind them. They sat in an infinite field of yellow flowers. They laughed, tenderly fondled each other. The boy covered Megan with showers of petals.

They ran through the woods, found a waterfall and a deep pool. They embraced under the waterfall. The kisses became passionate and they climbed out onto a flat rock where-coincidentally-there was an inflatable mattress. ("When we rehearsed it," Megan explained, "that damn rock didn't feel half as romantic as it looked.") The act was consummated. The sequence was spliced from three camera angles; in some of the shots Cooper could see the legs of one of the other tripods. The lovers lay in each other's arms, spent, and more ocean breakers were seen. Fade to black.

Galloway turned off the tape player. She sat for a time examining her folded hands.

"That was my first time," she said.

Cooper frowned. "I was sure I saw-"

"No. Not with me, you didn't. The other girls, yes. And you saw me doing a lot of other things. But I was 'saving' that." She chuckled. "I'd read too many old romances. My first time was going to be with someone I loved. I know it's silly."

"And you loved him?"

"Hopelessly." She brushed her eyes with the back of her hand, then sighed. "He wanted to pull out at the end and ejaculate on my belly, because that's the way they always do it on television. I had to argue with him for hours to talk him out of that. He was an idiot." She considered that for a moment. "We were both idiots. He believed real life should imitate television, and I believed it wasn't real unless it was on television. So I had to record it, or it might all fade away. I guess I'm still doing that."

"But you know it's not true. You do it for a living."

She regarded him bleakly. "This makes it better?"

When he did not answer she fell silent for a long time, studying her hands again. When she spoke, she did not look up.

"There are more tapes."

He knew what she meant, knew it would no longer be fun, and knew just as certainly that he must view them. He told her to go on.

"My mother shot this."

It began with a long shot of a silver hang-glider. Cooper heard Megan's mother shout for her daughter to be careful. In response, the glider banked sharply upward, almost stalled, then came around to pass twenty meters overhead. The camera followed. Megan was waving and smiling. There was a chaotic moment-shots of the ground, of the sky, a blurred glimpse of the glider nearing the tree-then it steadied.

"I don't know what was going through her mind," Megan said, quietly. "But she responded like an old pro. It must have been reflex."

Whatever it was, the camera was aimed unerringly as the glider turned right, grazed the tree, and flipped over. It went through the lower branches, and impaled itself. The image was jerky as Megan's mother ran. There was a momentary image of Megan dangling from her straps. Her head was at a horrifying angle. Then the sky filled one half of the screen and the ground the other as the camera continued to record after being flung aside.

Things were not nearly so comprehensive after that. The family at last had no more inclination to tape things. There were some hasty shots of a bed with a face-Megan, so wrapped and strapped and tucked that nothing else showed-pictures of doctors, of the doors of operating rooms and the bleak corridors of hospitals. And suddenly a girl with ancient eyes was sitting in a wheelchair, feeding herself laboriously with a spoon strapped to her fist.

"Things pick up a little now," Megan said. "I told them to start taping again. I was going to contrast these tapes with the ones they would make a year from now, when I was walking again."

"They told you you would walk?"

"They told me I would not. But everyone thinks they're the exception. The doctors tell you you'll regain some function, and hell, if you can regain some you can regain it all, right? You start to believe in mind over matter, and you're sure God will smile on you alone. Oh, by the way, there's trans-tape material with some of these."

The implications of the casual statement did not hit him for a moment. When he understood, he knew she would not mention it again. It was an invitation she would never make more directly than she had just done.

"I'd like to run them, if you wouldn't mind." He had hoped for a tone of voice as casual as hers had been, and was not sure he had pulled it off. When she looked at him her eyes were measuring.

"It would be bad form for me to protest," she said, at last. "Obviously, I want very much for you to try them. But I'm not sure you can handle them. I should warn you, they're-"

"-not much fun? Damn it, Megan, don't insult me."

"All right." She got up and went to a cabinet, removed a very small, very expensive Transer unit and helmet. As she helped him mount it she would not look into his eyes, but babbled nervously about how the Feelie Corporation people had showed up in the hospital one day, armed with computer printouts that had rated her a good possibility for a future contract with the company. She had turned them away the first time, but they were used to that. Transing had still been a fairly small industry at the time. They were on the verge of breakthroughs that would open the mass market, but neither Feeliecorp nor Megan



knew that. When she finally agreed to make some tapes for them it was not in the belief that they would lead to stardom. It was to combat her growing fear that there was very little she could do with her life. They were offering the possibility of a job, something she had never worried about when she was rich and un-injured. Suddenly, any job looked good.

"I'll start you at low intensity," she said. "You don't have a tolerance for transing, I presume, so there's no need for power boosters. This is fragmented stuff. Some of the tapes have trans-tracks, and others don't, so you'll-

"Will you get on with it, please?"

She turned on the machine.

On the screen, Megan was in a therapy pool. Two nurses stood beside her, supporting her, stretching her thin limbs. There were more scenes of physical therapy. He was wondering when the transing would begin. It should start with a shifting of perspectives, as though he had (The television expanded; he passed through the glass and into the world beyond.) actually entered- "Are you all right?"

Cooper was holding his face in his hands. He looked up, and shook his head, realized that she would misinterpret the gesture, and nodded.

"A touch of vertigo. It's been a while."

"We could wait. Do it another time."

"No. Let's go."

He was sitting in the wheelchair, dressed in a fine lace gown that covered him from his neck to his toes. The toes were already beginning to look different. There was no more muscle tone in them. Most important, he could no longer feel them.

He felt very little sensation. There was a gray area just above his breasts where everything began to fade. He was a floating awareness, suspended above the wheelchair and the body attached to it.

He was aware of all this, but he was not thinking about it. It was already a common thing. The awful novelty was long gone.

Spring had arrived outside his window. (Where was he? This was not Mexico, he was sure, but his precise location eluded him. No matter.) He watched a squirrel climbing a tree just outside his window. It might be nice to be a squirrel.

Someone was coming to visit real soon. It would only be a few more hours. He felt good about that. He was looking forward to it. Nothing much had happened today. There had been therapy (his shoulders still ached from it) and a retraining session (without thinking about it, he made the vast, numb mittens that used to be his hands close together strongly-which meant he had exerted almost enough force to hold a sheet of paper between thumb and bunched fingers). Pretty soon there would be lunch. He wondered what it would be.

Oh, yes. There had been that unpleasantness earlier in the day. He had been screaming hysterically and the doctor had come with the needle. That was all still down there. There was enough sadness to drown in, but he didn't feel it. He felt the sunlight on his arm and was grateful for it. He felt pretty good. Wonder what's for lunch?

"You still okay?"

"I'm fine." He rubbed his eyes, trying to uncross them. It was the transition that always made him dizzy; that feeling as though a taut rubber band had snapped and he had popped out of the set and back into his own head, his own body. He rubbed his arms, which felt as though they had gone to sleep. On the screen, Megan still sat in her wheelchair, looking out the window with a vague expression. The scene changed.

He sat as still as he could so he wouldn't disturb the sutures in the back of his neck, but it was worth a little pain. On the table in front of him, the tiny metal bug shuddered, jerked forward, then stopped. He concentrated, telling it to make a right turn. He thought about how he would have turned right while driving a car. Foot on the accelerator, hands on the wheel. Shoulder muscles holding the arms up, fingers curled, thumbs... what had he done with his thumbs? But then he had them, he felt the muscles of his arms as he began turning the wheel. He tapped the brake with his foot, trying to feel the tops of his toes against the inside of his shoe as his foot lifted, the steady pressure on the sole as he pushed down. He

took his right hand off the wheel as his left crossed in front of him...

On the table, the metal bug whirred as it turned to the right. There was applause from the people he only vaguely sensed standing around him. Sweat dripped down his neck as he guided the device through a left turn, then another right. It was too much. The bug reached the edge of the table and try as he might, he could not get it straightened out. One of the doctors caught it and placed it in the center of the table.

"Would you like to rest, Megan?"

"No," he said, not allowing himself to relax. "Let me try again." Behind him, an entire wall flashed and blinked as the computer found itself taxed to its limits, sorting the confusing neural impulses that gathered on the stump of his spinal cord, translating the information, and broadcasting it to the servos in the remotalog device. He made it start, then stopped it before it reached the edge of the table. Just how he had done it was still mostly mysterious, but he felt he was beginning to get a handle on it. Sometimes it worked best if he tried to trick himself into thinking he could still walk and then just did it. Other times the bug just sat there, not fooled. It knew he could not walk. It knew he was never going to- A white-sheeted form was being wheeled down the corridor toward the door to the operating room. Inside, from the gallery, he saw them transfer the body onto the table. The lights were very bright. He blinked, confused by them. But they were turning him over now, and that made it much better. Something cool touched the back of his neck- "A thousand pardons, sir," Megan said, briskly fast-forwarding the tape. "You're not ready for that. I'm not ready for that."

He was not sure what she was talking about. He knew he needed the operation. It was going to improve the neural interfaces, which would make it easier for him to operate the new remotes they were developing. It was exciting to be involved in the early stages of...

"Oh. Right. I'm..."

"Q.M. Cooper," she said, and looked dubiously into his eyes. "Are you sure you wouldn't rather wait?"

"No. Show me more."

The nights were the worst. Not all of them, but when it was bad it was very bad. During the day there was acceptance, or some tough armor that contained the real despair. For days at a time he could be happy, he could accept what had happened, know that he must struggle but that the struggle was worth it. For most of his life he knew that what had happened was not the end of the world, that he could lead a full, happy life. There were people who cared about him. His worst fears had not been realized. Pleasure was still possible, happiness could be attained. Even sexual pleasures had not vanished. They were different and sometimes awkward, but he didn't mind.

But alone at night, it could all fall apart. The darkness stripped his defenses and he was helpless, physically and emotionally.

He could not move. His legs were dead meat. He was repulsive, disgusting, rotting away, a hideous object no one could ever love. The tube had slipped out and the sheets were soaked with urine. He was too ashamed to buzz for the nurse.

He wept silently. When he was through, he coldly began plotting the best way to end his life.

She held him until the worst of the shaking passed. He cried like a child who cannot understand the hurt, and like a weary old man. For the longest time he could not seem to make his eyes open. He did not want to see anything.

"Do I... do I have to see the next part?" He heard the whine in his voice.

She covered his face with kisses, hugging him, giving him wordless reassurance that everything would be all right. He accepted it gratefully.

"No. You don't have to see anything. I don't know why I showed you as much as I have, but I can't show you that part even if I wanted to because I destroyed it. It's too dangerous. I'm no more suicidal now than anybody else, but transing that next tape would strip me naked and maybe drive me crazy, or anybody who looked at it. The strongest of us is pretty fragile, you know. There is so much primal despair just under our surfaces that you don't dare fool around with it."

"How close did you come?"

"Gestures," she said, easily. "Two attempts, both discovered in plenty of time." She kissed him again,

looked into his eyes and gave him a tentative smile. She seemed satisfied with what she saw, for she patted his cheek and reached for the transer controls again.

"One more little item," she said, "and we'll call it a night. This is a happy tape. I think we could both use it."

There was a girl in a sidekick. This machine was to the Golden Gypsy what a Wright Brothers Flyer was to a supersonic jet. Megan was almost invisible. Chromed struts stuck out all over, hydraulic cylinders hissed. There were welds visible where the thing had been bashed into shape. When she moved, the thing whined like a sick dog. Yet she was moving, and under her own control, placing one foot laboriously in front of the other, biting her tongue in concentration as she pondered her next step. Quick cut to- -next year's model. It was still ponderous, it poked through her clothes, it was hydraulic and no-nonsense orthopedic. But she was moving well. She was able to walk naturally; the furrows of concentration were gone from her brow. This one had hands. They were heavy metal gauntlets, but she could move each finger separately. The smile she gave the camera had more genuine warmth than Cooper had seen from her since the accident.

"The new Mark Three," said an off-camera voice, and Cooper saw Megan running. She did high kicks, jumped up and down. And yet this new model was actually bulkier than the Mark Two had been. There was a huge bulge on her back, containing computers which had previously been external to the machine. It was the first self-contained sidekick. No one would ever call it pretty, but he could imagine the feeling of freedom it must have given Megan, and wondered why she wasn't playing the trans-track. He started to look away from the screen but this was no time to worry about things like that. He was free!

He held his hands before his face, turning them, looking at the trim leather gloves he would always have to wear, and not caring, because they were so much better than the mailed fists, or the fumbling hooks before that. It was the first day in his new sidekick, and it was utterly glorious. He ran, he shouted and jumped and cavorted, and everyone laughed with him and applauded his every move. He was powerful! He was going to change the world. Nothing could stop him. Some day, everyone would know the name of Me(Q.M.)gan Gallo (Cooper)way. There was nothing, nothing in the world he couldn't do. He would- "Oh!" He clapped his hands to his face in shock. "Oh! You turned it off!"

"Sort of coitus interruptus, huh?" she said, smugly.

"But I want more!"

"That would be a mistake. It's not good to get too deeply into someone else's joy or sadness. Besides, how do you know it stays that good?"

"How could it not? You have everything now, you-" He stopped, and looked into her face. She was smiling. He would come back to the moment many times in days to come, searching for a hint of mockery, but he would never find it. The walls were gone. She had showed him everything there was to know about her, and he knew his life would never be the same.

"I love you," he said.

Her expression changed so slightly he might have missed it had he not been so exquisitely attuned to her emotions. Her lower lip quivered, and sadness outlined her eyes. She drew a ragged breath.

"This is sudden. Maybe you should wait until you've recovered from-"

"No." He touched her face with his hands and made her look at him. "No. I could only put it into words just now, in that crazy moment. It wasn't an easy thing for me to say."

"Oh boy," she said, in a quiet monotone.

"What's the matter?" When she wouldn't talk, he shook her head gently back and forth between his hands. "You don't love me, is that it? I'd rather you came out and said it now."

"That's not it. I do love you. You've never been in love before, have you?"

"No. I wondered if I'd know what it would feel like. Now I know."

"You don't know the half of it. Sometimes, you almost wish it was a more rational thing, that it wouldn't hit you when you feel you can least cope with it."

"I guess we're really helpless, aren't we?"

"You said it." She sighed again, then rose and took his hand. She pulled him toward the bed.

"Come on. You're going to have to learn to make love."

He had feared it would be bizarre. It was not. He had thought about it a great deal in the last weeks and had come up with no answers. What would she do? If she could feel nothing below the collarbone, how could any sexual activity have any meaning for her?

One answer should have been obvious. She still felt with her shoulders, her neck, her face, lips, and ears. A second answer had been there for him to see. but he had not made the connection. She was still capable of erection. Sensation from her genitals never reached her brain, but the nerves from her clitoris to her spinal cord were undamaged. Complex things happened, things she never explained completely, involving secondary and tertiary somatic effects, hormones, transfer arousal, the autonomic and vascular systems of the body.

"Some of it is natural adaptation," she said, "and some of it has been augmented by surgery and microprocessors. Quadraplegics could do this before the kind of nerve surgery we can do today, but not as easily as I can. It's like a blind person, whose sense of hearing and touch sharpen in compensation. The areas of my body I can still feel are now more sensitive, more responsive. I know a woman who can have an orgasm from having her elbow stimulated. With me, elbows are not so great."

"With all they can do, why can't they bridge the gap where your spinal cord was cut? If they can make a machine to read the signals your brain sends out, why can't they make one to put new signals into the rest of your body, and take the signals that come from your lower body and put them into-"

"It's a different problem. They're working on it. Maybe in fifteen or twenty years."

"Here?"

"More around here. All around my neck, from ear to ear... that's it. Keep doing that. And why don't you find something for your hands to do?"

"But you can't feel this. Can you?"

"Not directly. But nice things are happening. Just look."

"Yeah."

"Then don't worry about it. Just keep doing it."

"What about this?"

"Not particularly."

"This?"

"You're getting warmer."

"But I thought you-"

"Why don't you do a little less thinking? Come on, put it in. I want this to be good for you, too. And don't think it won't do something for me."

"Whatever you say. Oh, lord, that feels... hey, how did you do that?"

"You ask a lot of questions."

"Yeah, but you can't move any muscles down there."

"A simple variation on the implants that keep me from making a mess of myself. Now, honestly, Q.M. Don't you think the time for questions is over?"

"I think you're right."

"You want to see something funny?" she asked.

They were sprawled in each other's arms, looking at the smoke belching from her ridiculous bedposts. She had flipped on the holo generators, and her bedroom had vanished in a Mark Twain illusion. They floated down the Mississippi River. The bed rocked gently. Cooper felt indecently relaxed.

"Sure."

"Promise you won't laugh?"

"Not unless it's funny."

She rolled over and spread her arms and legs, face down on the bed. The sidekick released her, stood up, found the holo control, and turned off the river. It put one knee on the bed, carefully turned Megan onto her back, crossed her legs for her, then sat beside her on the edge of the bed and crossed its own legs, swinging them idly. By then he was laughing, as she had intended. It sat beside her and encased her left forearm and hand, lit a cigarette and placed it in her mouth, then released her hand again. It went to a

chair across the room and sat down.

He jumped when she touched him. He turned and saw a thin hand on his elbow, not able to grasp him, not strong enough to do more than nudge.

"Will you put this out?" She inclined her head toward him. He carefully removed the cigarette from her lips, cupping his hand under the ash. When he turned back to her, her eyes were guarded.

"This is me, too," she said.

"I know that." He frowned, and tried to get closer to the truth, for his own sake as well as hers. "I hadn't thought about it much. You look very helpless like this."

"I am very helpless."

"Why are you doing it?"

"Because nobody sees me like this, except doctors. I wanted to know if it made any difference."

"No. No difference at all. I've seen you this way before. I'm surprised you asked."

"You shouldn't be. I hate myself like this. I disgust myself. I expect everyone else to react the way I do."

"You expect wrong." He hugged her, then drew back and studied her face. "Do you... would you like to make love again? Not this second, I mean, but a little later. Like this."

"God, no. But thanks for offering." When she was inside the sidekick again she touched his face with her be-ringed hand. Her expression was an odd mixture of satisfaction and uncertainty.

"You keep passing the tests, Cooper. As fast as I can throw them at you. I wonder what I'm going to do with you?"

"Are there more tests?"

She shook her head. "No. Not for you."

"You're going to be late for work," Anna-Louse said, as Cooper lifted one of her suitcases and followed her out of the shuttleport waiting room.

"I don't care." Anna-Louse gave him an odd look. He knew why. When they had been together he had always been eager for his shift to begin. By now he was starting to hate it. When he worked he could not be with Megan.

"You've really got it bad, don't you?" she said.

He smiled at her. "I sure do. This is the first time I've been away from her in weeks. I hope you aren't angry."

"Me? No. I'm flattered that you came to see me off. You... well, you wouldn't have thought of something like that a month ago. Sorry."

"You're right." He put the suitcase down beside the things she had been carrying. A porter took them through the lock and into the shuttle. Cooper leaned against the sign that announced "New Dresden, Clavius, Tycho Under." "I didn't know if you'd be angry, but I thought I ought to be here."

Anna-Louse smiled wryly. "Well, she's certainly changed you. I'm happy for you. Even though I still think she's going to hurt you, you'll gain something from it. You've come alive since the last time I saw you."

"I wanted to ask you about that," he said, slowly. "Why do you think she'll hurt me?"

She hesitated, hitching at her pants and awkwardly scuffing her shoes on the deck.

"You don't like your work as much as you did. Right?"

"Well... yeah. I guess not. Mostly because I'd like to spend more time with her."

She looked at him, cocking her head.

"Why don't you quit?"

"What... you mean-"

"Just quit. She wouldn't even notice the money she spent to support you."

He grinned at her. "You've got the wrong guy, A.L. I don't have any objections to being supported by a woman. Did you really think I was that old-fashioned?"

She shook her head.

"But you think money will be a problem."

She nodded. "Not the fact that she has it. The fact that you don't."

"Come on. She doesn't care that I'm not rich."

Anna-Louise looked at him a long time, then smiled.

"Good," she said, and kissed him. She hurried into the shuttle, waving over her shoulder.

Megan received a full sack of mail every day. It was the tip of the iceberg; she employed a staff on Earth to screen it, answer fan mail with form letters, turn down speaking engagements, and repel parasites. The remainder was sent on, and fell into three categories. The first, and by far the largest, was the one out of a thousand matters that came in unsolicited and, after sifting, seemed to have a chance of meriting her attention. She read some, threw most away, unopened.

The last two categories she always read. One was job offers, and the other was material from facilities on Earth doing research into the nervous system. Often the latter was accompanied by requests for money. She usually sent a check.

At first she tried to keep him up on the new developments but she soon realized he would never have her abiding and personal interest in matters neurological. She was deeply involved with what is known as the cutting edge of the research. Nothing new was discovered, momentous or trivial, that did not end up on her desk the next day. There were odd side effects: The Wacky Dust which had figured in their first meeting had been sent by a lab which had stumbled across it and didn't know what to do with it.

Her computer was jammed with information on neurosurgery. She could call up projections of when certain milestones might be reached, from minor enhancements all the way up to complete regeneration of the neuron net. Most of the ones Cooper saw looked dismal. The work was not well funded. Most money for medical research went to the study of radiation disease.

Reading the mail in the morning was far from the high point of the day. The news was seldom good. But he was not prepared for her black depression one morning two weeks after Anna-Louise's departure.

"Did someone die?" he asked, sitting down and reaching for the coffee.

"Me. Or I'm in the process."

When she looked up and saw his face she shook her head.

"No, it's not medical news. Nothing so straightforward." She tossed a sheet of paper across the table at him. "It's from Allgemein Fernsehen Gesellschaft. They will pay any price... if I'll do essentially what I've been doing all along for Feeli-corp. They regret that the board of directors will not permit the company to enter any agreement wherein AFG has less than total creative control of the product."

"How many does that make now?"

"That you've seen? Seventeen. There have been many more that never got past the preliminary stage."

"So independent production isn't going to be as easy as you thought."

"I never said it would be easy."

"Why not use your own money? Start your own company."

"We've looked into it, but the answers are all bad. The war between GWA and Royal Dutch Shell makes the tax situation..." She looked at him, quickly shifted gears. "It's hard to explain."

That was a euphemism for "you wouldn't understand." He did not mind it. She had tried to explain her business affairs to him and all it did was frustrate them both. He had no head for it.

"Okay. So what do you do now?"

"Oh, there's no crisis yet. My investments are doing all right. Some war losses, but I'm getting out of GWA. The bank balance is in fair shape." That was another euphemism. She had begun using it when she realized he was baffled by the baroque mechanism that was Gitano de Oro, her corporate self. He had seen some astounding bills from Sidekick Inc., but if she said she was not hurting he would believe her.

She had been toying with the salt shaker while her eggs benedict grew cold. Now she gave a derisive snort, and glanced at him.

"The funny thing is, I've just proved all the theoreticians wrong. I've made a breakthrough no one believed was possible. I could set the whole industry on its ear, and I can't get a job."

It was the first he heard of it. He raised one eyebrow in polite inquiry.

"Damn it, Cooper. I've been wondering how to tell you this. The problem is I didn't realize until something you said a few days ago that you didn't know my transcorder is built in to my sidekick."

"I thought your camera crew-"

"I know you did, now. I swear I didn't realize that. No, the crew makes nothing but visual tapes. It's edited into the trans-tape which is made by my sidekick. I leave it on all the time."

He chewed on that one for a while, and frowned at her.

"You're saying you got love on tape."

"The moment of falling in love. I got it all."

"Why didn't you tell me?"

She sighed. "Trans-tapes have to be developed. They aren't like viddies. They just came back from the lab yesterday. I transed them last night, while you slept."

"I'd like to see them."

"Maybe someday," she hedged. "For right now, it's too personal. I want to keep this just for myself. Can you understand that? God knows I've never sought privacy very hard in my life, but this..." She looked helpless.

"I guess so." He considered it a little longer. "But if you sell them, it'll hardly be personal then, will it?"

"I don't want to sell them, Q.M."

He said nothing, but he had been hoping for something a little stronger than that. For the first time, he began to feel alarmed.

He did not think about money, or about trans-tapes, in the next two weeks. There was too much else to do. He took his accumulated vacation and sick leave and the two of them traveled to Earth. It might as well have been a new planet.

It was not only that he went to places he had never seen. They went there in a style to which he was not accustomed. It was several steps above what most people thought of as first class. Problems did not exist on this planet. Luggage took care of itself. He never saw any money. There was no schedule that had to be met. Cars and planes and hypersonic shuttles were always ready to whisk them anywhere they wanted to go. When he mentioned that all this might be costing too much she explained that she was paying for none of it. Everything was provided by eager corporate suitors. Cooper thought they behaved worse than any love-smitten adolescent. They were as demonstrative as puppies, and as easily forgiving when she snubbed them while accepting their gifts.

She did not seem afraid of kidnapping, either, though he saw little in the way of security. When he asked, she told him that security one kept tripping over was just amateur gun-toting. She advised him never to think of it again, that it was all taken care of.

"You wouldn't market that tape, would you?" There, he finally had it out in the open.

"Well, let me put it this way. When I first came to you, I was near a nervous breakdown from just thinking about going into the sex tape business. This is much more personal, much dearer to me than plain old intercourse."

"Ah. I feel better."

She reached across the bed and squeezed his hand, looked at him fondly.

"You really don't want me to market it, do you?"

"No. I really don't. The first day I saw you, a good friend warned me that if I got into bed with you my technique would be seen by ninety million slob."

She laughed. "Well, Anna-Louise was wrong. You can put that possibility right out of your mind. For one thing, there were no vidicams around, so no one will ever see you making love to me. For another, they wouldn't use my sensations while I'm making love if I ever get into the sex-tape business. Those are a little esoteric for my audience. That would all be put together in the editing room. There would be visuals and emotionals from me-showing me making love in the regular way-and there'd be a stand-in for the physical sensations."

"Pardon my asking," he said, "but wasn't your reaction that first day a little overblown, then?"

She laughed. "Much ado about nothing?"

"Yeah. I mean, it'd be your body on the screen-"

"-but I've already shown you I don't care about that."

"And if you were making love in the conventional way, you'd hardly be emotionally transported-"

"It would register as sheer boredom."

"-so I presume you'd splice in the emotional track from some other source, too." He frowned, no longer sure of what he was trying to say.

"You're catching on. I told you this business was all fake. And I can't really explain why it bothers me so much, except to say I don't want to surrender that part of myself, even a little bit. I taped my first intercourse, but I didn't show it to anybody until you saw it. And what about you? You're worried that I might sell a tape of falling in love with you. You wouldn't be on it at all."

"Well, it was something we shared."

"Exactly. I don't want to share it with anyone else."

"I'm glad you don't plan to sell it."

"My darling, I would hate that as much as you would."

It was not until later that he realized she had never ruled out the possibility.

They went back to the Bubble when Cooper's vacation time was over. She never suggested he quit his job. They checked into a different suite. She said the cost had little to do with it, but this time he was not so sure. He had begun to see a haunted expression around her eyes as she read letter after letter rejecting increasingly modest proposals.

"They really know the game," she told him bitterly, one night. "Every one of those companies will give me any salary I want to name, but I have to sign their contract. You begin to think it's a conspiracy."

"Is it?"

"I really don't know. It may be just shrewdness. I talk about how stupid they are, and artistically they live up to that description. Morally, there's not one of them who wouldn't pay to have his daughter gang-raped if it meant a tenth-point ratings jump. But financially, you can't fault them. These are the folks who have suppressed the cures for a dozen diseases because they didn't cost enough to use. I'm speaking of the parent congloms, of course, the real governments. If they ever find a way to profit off nuclear war we'll be having them every other week. And they have obviously decided that television outside their control is dangerous."

"So what does it mean to you and me?"

"I got into the business by accident. I won't go crazy if I'm not working."

"And the money?"

"We'll get along."

"Your expenses must be pretty high."

"They are. No sense lying about that. I can cut out a lot, but the sidekick is never going to be cheap."

As if to underscore her words of the night before, the Golden Gypsy chose the next morning to get temperamental. The middle finger of Megan's right hand was frozen in the extended position. She joked about it.

"As they say, 'The perversity of the universe tends toward the maximum.' Why the middle finger? Can you answer me that?"

"I guess you'll have the repairman up here before I get back."

"Not this time," she decided. "It'll be hard, but I'll struggle through. I'll wait until we return to Earth, and drop by the factory."

She called Sidekick while he dressed for work. He could hear her without being able to make out the words. She was still on the phone when he came out of the bathroom and started for the door. She punched the hold button and caught him. turned him around, and kissed him hard.

"I love you very much," she said.

"I love you, too."

She was not there when he returned. She had left a tape playing. When he went to turn it off he found the switch had been sealed. On the screen, a younger Megan moved through the therapy room in her Mark One sidekick. It was a loop, repeating the same scene.

He waited for almost an hour, then went to look for her. Ten minutes later he learned she had taken the 0800 shuttle for Earth.

A day later he realized he was not going to be able to get her on the telephone. That same day he



heard the news that she had signed a contract with Telecommunio, and as he turned off the set he saw the trans-tape which had been sitting on top of it. unnoticed.

He got out the Transer she had left behind, donned the headset, inserted the cassette, turned on the machine. Half an hour later it turned itself off, and he came back to reality with a beatific smile on his face.

Then he began to scream.

They released him from the hospital in three days. Still numb from sedation, he went to the bank and closed his account. He bought a ticket for New Dresden.

He located Anna-Louise in the barracks of the police academy. She was surprised to see him, but not as much as he had expected. She took him to a lunar park-an area of trees with a steel roof and corridors radiating in all directions-sat him down, and let him talk.

"...and you were the only one who seemed to have understood her. You warned me the first day. I want to know how you did that, and I want to know if you can explain it to me."

She did not seem happy, but he could see it was not directed at him.

"You say the tape really did what she claimed? It captured love?"

"I don't think anyone could doubt it."

She shivered. "That frightens me more than anything I've heard in a long time." He waited, not knowing exactly what she meant by that. When she spoke again, it was not about her fears. "Then it proved to your satisfaction that she really was in love with you."

"Absolutely."

She studied his face. "I'll take your word for it. You look like someone who would recognize it." She got up and began to walk, and he followed her. "Then I've done her an injustice. I thought at first that you were just a plaything to her. From what you said, I changed my mind, even before I left the station."

"But you were still sure she'd hurt me. Why?"

"Cooper, have you studied much history? Don't answer that. Whatever you learned, you got from corporate-run schools. Have you heard of the great ideological struggles of the last century?"

"What the hell does that have to do with me?"

"Do you want my opinions or not? You came a long way to hear them." When she was sure he'd listen, she went on.

"This is very simplified. I don't have time to give you a history lesson, and I'm pretty sure you aren't in the mood for one. But there was capitalism, and there was communism. Both systems were run, in the end, by money. The capitalists said money was really a good thing. The communists kept trying to pretend that money didn't actually exist. They were both wrong, and money won in the end. It left us where we are now. The institutions wholly devoted to money swallowed up all political philosophies."

"Listen, I know you're a crazy Loonie and you think Earth is-"

"Shut up!" He was caught off guard when she spun him around. For a moment he thought she would hit him. "Damn you, that might have been funny in the Bubble, but now you're on my territory and you're the crazy one. I don't have to listen to your smoggy shit!"

"I'm sorry."

"Forget it!" she shouted, then ran her hand through her short hair. "Forget the history lesson, too. Megan Galloway is trying to make it as best she can in a world that rewards nothing so well as it rewards total self-interest. So am I, and so are you. Today or yesterday, Earth or Luna, it doesn't really matter. It's probably always been like that. It'll be that way tomorrow. I am very sorry, Q.M., I was right about her, but she had no choice, and I could see that from the start."

"That's what I want you to explain to me."

"If she was anybody but the Golden Gypsy, she might have gone with you to the ends of the world, endured any poverty. She might not have cared that you were never going to be rich. I'm not saying you wouldn't have had your problems, but you'd have had the same chance anyone else has to overcome them. But there is only one Golden Gypsy, and there's a reason for that."

"You're talking about the machine now. The sidekick."

"Yes. She called me yesterday. She was crying. I didn't know what to say to her, so I just listened. I

felt sorry for her, and I don't even like her. I guess she knew you'd seek me out. She wanted you to hear some things she was ashamed to tell you. I really don't like her for that, but what can I do?

"There is only one Golden Gypsy. It is not owned by Megan Galloway. Rich as she is, she couldn't afford that. She leases it, at a monthly fee that is more than you or I will ever see in our lives, and she pays for a service contract that is almost that much money again. She had not been on television for over a month. Babe, it's not like there aren't other people who would like to use a machine like that. There must be a million of them or more. If you ran a conglomerate that owned that machine, who would you rent it to? Some nobody, or someone who will wear it in ten billion homes every night, along with a promo for your company?"

"That's what they told her on the phone? That they were going to take the machine away."

"The way she put it was they threatened to take her body away."

"But that's not enough!" He was weeping again, and he had thought he was past that stage. "I would have understood that. I told her I didn't care if she was in a sidekick, in a wheelchair, in bed, or whatever."

"Your opinion is hardly the one that matters, there," Anna-Louise pointed out.

"No, what I'm saying is, I don't care if she had to sign a contract she didn't like to do things she hates. Not if it means that much to her. If having the Golden Gypsy is that important. That wasn't enough reason to walk out on me."

"Well, I think she gave you credit for that much. She was less certain you'd forgive her for the other thing she had to do, which was sell the tape she made of her falling in love with you. But maybe she'd have tried to make you understand why she had to do that, too... except that wasn't her real problem. The thing is, she couldn't live with it, not with her betrayal of herself, if you were around to remind her of the magnitude of the thing she had sold."

He looked at it from all angles, taking his time. He thought it would be too painful to put into words, but he gave it a try.

"She could keep me, or she could keep her body. She couldn't keep both."

"I'm afraid that's the equation. There's a rather complex question of self-respect in there, too. I don't think she figured she could save much of that either way."

"And she chose the machine."

"You might have, too."

"But she loved me. Love is supposed to be the strongest thing there is."

"Get your brain out of the television set, Q.M."

"I think I hate her."

"That would be a big mistake."

But he was no longer listening.

He tried to kill her, once, shortly after the tape came out, more because it seemed like the right thing to do than because he really wanted to. He never got within a mile of her. Her security had his number, all right.

The tape was a smash, the biggest thing ever to hit the industry. Within a year, all the other companies had imitations, mostly bootlegged from the original. Copyright skirmishes were fought in Hollywood and Tokyo.

He spent his time beachcombing, doing a lot of swimming. He found that he now preferred flat water. He roamed, with no permanent address, but the checks found him, no matter where he was. The first was accompanied with a detailed royalty statement showing that he was getting fifty percent of the profits from sales of the tape. He tore it up and mailed it back. The second one was for the original amount plus interest plus the new royalties. He smeared it with his blood and paid to have it hand-delivered to her.

The tape she had left behind continued to haunt him. He had kept it, and viewed it when he felt strong enough. Again and again the girl in the wheezing sidekick walked across the room, her face set in determination. He remembered her feeling of triumph to be walking, even so awkwardly.

Gradually, he came to focus on the last few meters of the tape. The camera panned away from Megan and came to rest on the face of one of the nurses. There was an odd expression there, as subtle and

elusive as the face of the Mona Lisa. He knew this was what Megan had wanted him to see, this was her last statement to him, her final plea for understanding. He willed himself to supply a trans-track for the nurse, to see with her eyes and feel with her skin. He could let no nuance escape him as he watched Megan's triumphant walk, the thing the girl had worked so long and hard to achieve. And at last he was sure that what the woman was feeling was an uglier thing than mere pity. That was the image Megan had chosen to leave him with: the world looking at Megan Galloway. It was an image to which she would never return, no matter what the price.

In a year he allowed himself to view the visual part of the love tape. They had used an actor to stand in for him, re-playing the scene in the Bubble and in the steam-boat bed. He had to admit it: she had never lied to him. The man did not even resemble Cooper. No one would be studying his lovemaking.

It was some time later before he actually transed the tape again. It was both calming and sobering. He wondered what they could sell using this new commodity, and the thought frightened him as much as it had Anna-Louise. But he was probably the only spurned lover in history who knew, beyond a doubt, that she actually had loved him.

Surely that counted for something.

His hate died quickly. His hurt lasted much longer, but a day came when he could forgive her.

Much later, he knew she had done nothing that needed his forgiveness.

## **GOOD-BYE, ROBINSON CRUSOE**

IT WAS SUMMER. AND Piri was in his second childhood. First, second; who counted?

His body was young. He had not felt more alive since his original childhood back in the spring, when the sun drew closer and the air began to melt.

He was spending his time at Rarotonga Reef, in the Pacifica Disneyland. Pacifica was still under construction, but Rarotonga had been used by the ecologists as a testing ground for the more ambitious barrier-type reef they were building in the south, just off the "Australian" coast. As a result, it was more firmly established than the other biomes. It was open to visitors, but so far only Piri was there. The "sky" disconcerted everyone else.

Piri didn't mind it. He was equipped with a brand-new toy: a fully operational imagination, a selective sense of wonder that allowed him to blank out those parts of his surroundings that failed to fit with his current fantasy.

He awoke with the tropical sun blinking in his face through the palm fronds. He had built a rude shelter from flotsam and detritus on the beach. It was not to protect him from the elements. The Disneyland management had the weather well in hand; he might as well have slept in the open. But castaways always build some sort of shelter.

He bounced up with the quick alertness that comes from being young and living close to the center of things, brushed sand from his naked body, and ran for the line of breakers at the bottom of the narrow strip of beach.

His gait was awkward. His feet were twice as long as they should have been, with flexible toes that were webbed into flippers. Dry sand showered around his legs as he ran. He was brown as coffee and cream, and hairless.

Piri dived flat to the water, sliced neatly under a wave, and paddled out to waist-height. He paused there. He held his nose and worked his arms up and down, blowing air through his mouth and swallowing at the same time. What looked like long, hairline scars between his lower ribs came open. Red-orange fringes became visible inside them, and gradually lowered. He was no longer an air-breather.

He dived again, mouth open, and this time he did not come up. His esophagus and trachea closed and a new valve came into operation. It would pass water in only one direction, so his diaphragm now functioned as a pump pulling water through his mouth and forcing it out through the gill-slits. The water flowing through this lower chest area caused his gills to engorge with blood, turning them purplish-red and forcing his lungs to collapse upward into his chest cavity.

Bubbles of air trickled out his sides, then stopped. His transition was complete.

The water seemed to grow warmer around him. It had been pleasantly cool; now it seemed no temperature at all. It was the result of his body temperature lowering in response to hormones released by an artificial gland in his cranium. He could not afford to burn energy at the rate he had done in the air; the water was too efficient a coolant for that. All through his body arteries and capillaries were constricting as parts of him stabilized at a lower rate of function.

No naturally evolved mammal had ever made the switch from air to water breathing, and the project had taxed the resources of bio-engineering to its limits. But everything in Piri's body was a living part of him. It had taken two full days to install it all.

He knew nothing of the chemical complexities that kept him alive where he should have died quickly from heat loss or oxygen starvation. He knew only the joy of arrowing along the white sandy bottom. The water was clear, blue-green in the distance.

The bottom kept dropping away from him, until suddenly it reached for the waves.

He angled up the wall of the reef until his head broke the surface, climbed up the knobs and ledges until he was standing in the sunlight. He took a deep breath and became an air-breather again.

The change cost him some discomfort. He waited until the dizziness and fit of coughing had passed, shivering a little as his body rapidly underwent a reversal to a warm-blooded economy.

It was time for breakfast.

He spent the morning foraging among the tidepools. There were dozens of plants and animals that he had learned to eat raw. He ate a great deal, storing up energy for the afternoon's expedition on the outer reef.

Piri avoided looking at the sky. He wasn't alarmed by it; it did not disconcert him as it did the others. But he had to preserve the illusion that he was actually on a tropical reef in the Pacific Ocean, a castaway, and not a vacationer in an environment bubble below the surface of Pluto.

Soon he became a fish again, and dived off the sea side of the reef.

The water around the reef was oxygen-rich from the constant wave action. Even here, though, he had to remain in motion to keep enough water flowing past his external gill fringes. But he could move more slowly as he wound his way down into the darker reaches of the sheer reef face. The reds and yellows of his world were swallowed by the blues and greens and purples. It was quiet. There were sounds to hear, but his ears were not adapted to them. He moved slowly through shafts of blue light, keeping up the bare minimum of water flow.

He hesitated at the ten-meter level. He had thought he was going to his Atlantis Grotto to check out his crab farm. Then he wondered if he ought to hunt up Ocho the Octopus instead. For a panicky moment he was afflicted with the bane of childhood: an inability to decide what to do with himself. Or maybe it was worse, he thought. Maybe it was a sign of growing up. The crab farm bored him, or at least it did today.

He waffled back and forth for several minutes, idly chasing the tiny red fish that flirted with the anemones. He never caught one. This was no good at all.

Surely there was an adventure in this silent fairyland. He had to find one.

An adventure found him, instead. Piri saw something swimming out in the open water, almost at the limits of his vision. It was long and pale, an attenuated missile of raw death. His heart squeezed in panic, and he scuttled for a hollow in the reef.

Piri called him the Ghost. He had seen him many times in the open sea. He was eight meters of mouth, belly and tail: hunger personified. There were those who said the great white shark was the most ferocious carnivore that ever lived.

Piri believed it.

It didn't matter that the Ghost was completely harmless to him. The Pacifica management did not like having its guests eaten alive. An adult could elect to go into the water with no protection, providing the necessary waivers were on file. Children had to be implanted with an equalizer. Piri had one, somewhere just below the skin of his left wrist. It was a sonic generator, set to emit a sound that would mean terror to any predator in the water.

The Ghost, like all the sharks, barracudas, morays, and other predators in Pacifica, was not like his

cousins who swam the seas of Earth. He had been cloned from cells stored in the Biological Library on Luna. The library had been created two hundred years before as an insurance policy against the extinction of a species. Originally, only endangered species were filed, but for years before the Invasion the directors had been trying to get a sample of everything.

Then the Invaders had come, and Lunarians were too busy surviving without help from Occupied Earth to worry about the library. But when the time came to build the disneylands, the library had been ready.

By then, biological engineering had advanced to the point where many modifications could be made in genetic structure. Mostly, the disneyland biologists had left nature alone. But they had changed the predators. In the Ghost, the change was a mutated organ attached to the brain that responded with a flood of fear when a supersonic note was sounded.

So why was the Ghost still out there? Piri blinked his nictating membranes, trying to clear his vision. It helped a little. The shape looked a bit different.

Instead of moving back and forth, the tail seemed to be going up and down, perhaps in a scissoring motion. Only one animal swims like that. He gulped down his fear and pushed away from the reef.

But he had waited too long. His fear of the Ghost went beyond simple danger, of which there was none. It was something more basic, an unreasoning reflex that prickled his neck when he saw that long white shape. He couldn't fight it, and didn't want to. But the fear had kept him against the reef, hidden, while the person swam out of reach. He thrashed to catch up, but soon lost track of the moving feet in the gloom.

He had seen gills trailing from the sides of the figure, muted down to a deep blue-black by the depths. He had the impression that it was a woman.

Tongatown was the only human habitation on the island. It housed a crew of maintenance people and their children, about fifty in all, in grass huts patterned after those of South Sea natives. A few of the buildings concealed elevators that went to the underground rooms that would house the tourists when the project was completed. The shacks would then go at a premium rate, and the beaches would be crowded.

Piri walked into the circle of firelight and greeted his friends. Nighttime was party time in Tongatown. With the day's work over, everybody gathered around the fire and roasted a vat-grown goat or lamb. But the real culinary treats were the fresh vegetable dishes. The ecologists were still working out the kinks in the systems, controlling blooms, planting more of failing species. They often produced huge excesses of edibles that would have cost a fortune on the outside.

The workers took some of the excess for themselves. It was understood to be a fringe benefit of the job. It was hard enough to find people who could stand to stay under the Pacifica sky.

"Hi, Piri," said a girl. "You meet any pirates today?" It was Harra, who used to be one of Piri's best friends but had seemed increasingly remote over the last year. She was wearing a handmade grass skirt and a lot of flowers, tied into strings that looped around her body. She was fifteen now, and Piri was... but who cared? There were no seasons here, only days. Why keep track of time?

Piri didn't know what to say. The two of them had once played together out on the reef. It might be Lost Atlantis, or Submariner, or Reef Pirates; a new plot line and cast of heroes and villains every day. But her question had held such thinly veiled contempt. Didn't she care about the Pirates anymore? What was the matter with her?

She relented when she saw Piri's helpless bewilderment.

"Here, come on and sit down. I saved you a rib." She held out a large chunk of mutton.

Piri took it and sat beside her. He was famished, having had nothing all day since his large breakfast.

"I thought I saw the Ghost today," he said, casually.

Harra shuddered. She wiped her hands on her thighs and looked at him closely.

"Thought? You thought you saw him?" Harra did not care for the Ghost. She had cowered with Piri more than once as they watched him prowl.

"Yep. But I don't think it was really him."

"Where was this?"

"On the sea-side, down about, oh, ten meters. I think it was a woman."

"I don't see how it could be. There's just you and-and Midge and Darwin with-did this woman have an air tank?"

"Nope. Gills. I saw that."

"But there's only you and four others here with gills. And I know where they all were today."

"You used to have gills," he said, with a hint of accusation.

She sighed. "Are we going through that again? I told you, I got tired of the flippers. I wanted to move around the land some more."

"I can move around the land," he said, darkly.

"All right, all right. You think I deserted you. Did you ever think that you sort of deserted me?"

Piri was puzzled by that, but Harra had stood up and walked quickly away. He could follow her, or he could finish his meal. She was right about the flippers.

He was no great shakes at chasing anybody.

Piri never worried about anything for too long. He ate, and ate some more, long past the time when everyone else had joined together for the dancing and singing. He usually hung back, anyway. He could sing, but dancing was out of his league.

Just as he was leaning back in the sand, wondering if there were any more corners he could fill up-perhaps another bowl of that shrimp teriyaki?-Harra was back. She sat beside him.

"I talked to my mother about what you said. She said a tourist showed up today.

It looks like you were right. It was a woman, and she was amphibious."

Piri felt a vague unease. One tourist was certainly not an invasion, but she could be a harbinger. And amphibious. So far, no one had gone to that expense except for those who planned to live here for a long time. Was his tropical hideout in danger of being discovered?"

"What-what's she doing here?" He absently ate another spoonful of crab cocktail.

"She's looking for you," Harra laughed, and elbowed him in the ribs. Then she pounced on him, tickling his ribs until he was howling in helpless glee. He fought back, almost to the point of having the upper hand, but she was bigger and a little more determined. She got him pinned, showering flower petals on him as they struggled. One of the red flowers from her hair was in her eye, and she brushed it away, breathing hard.

"You want to go for a walk on the beach?" she asked.

Harra was fun, but the last few times he'd gone with her she had tried to kiss him. He wasn't ready for that. He was only a kid. He thought she probably had something like that in mind now.

"I'm too full," he said, and it was almost the literal truth. He had stuffed himself disgracefully, and only wanted to curl up in his shack and go to sleep.

Harra said nothing, just sat there getting her breathing under control. At last she nodded, a little jerkily, and got to her feet. Piri wished he could see her face to face. He knew something was wrong. She turned from him and walked away.

Robinson Crusoe was feeling depressed when he got back to his hut. The walk down the beach away from the laughter and singing had been a lonely one. Why had he rejected Harra's offer of companionship? Was it really so bad that she wanted to play new kinds of games?

But no, damn it. She wouldn't play his games, why should he play hers?

After a few minutes of sitting on the beach under the crescent moon, he got into character. Oh, the agony of being a lone castaway, far from the company of fellow creatures, with nothing but faith in God to sustain oneself. Tomorrow he would read from the scriptures, do some more exploring along the rocky north coast, tan some goat hides, maybe get in a little fishing.

With his plans for the morrow laid before him, Piri could go to sleep, wiping away a last tear for distant England.

The ghost woman came to him during the night. She knelt beside him in the sand.

She brushed his sandy hair from his eyes and he stirred in his sleep. His feet thrashed.

He was churning through the abyssal deeps, heart hammering, blind to everything but internal terror. Behind him, jaws yawned, almost touching his toes. They closed with a snap.

He sat up woozily. He saw rows of serrated teeth in the line of breakers in front of him. And a tall, white shape in the moonlight dived into a curling breaker and was gone.

"Hello."

Piri sat up with a start. The worst thing about being a child living alone on an island-which, when he thought about it, was the sort of thing every child dreamed of-was not having a warm mother's breast to cry on when you had nightmares. It hadn't affected him much, but when it did, it was pretty bad.

He squinted up into the brightness. She was standing with her head blocking out the sun. He winced, and looked away, down to her feet. They were webbed, with long toes. He looked a little higher. She was nude, and quite beautiful.

"Who...?"

"Are you awake now?" She squatted down beside him. Why had he expected sharp, triangular teeth? His dreams blurred and ran like watercolors in the rain, and he felt much better. She had a nice face. She was smiling at him.

He yawned, and sat up. He was groggy, stiff, and his eyes were coated with sand that didn't come from the beach. It had been an awful night.

"I think so."

"Good. How about some breakfast?" She stood, and went to a basket on the sand.

"I usually-" but his mouth watered when he saw the guavas, melons, kippered herring, and the long brown loaf of bread. She had butter, and some orange marmalade. "Well, maybe just a-" and he had bitten into a succulent slice of melon. But before he could finish it, he was seized by an even stronger urge. He got to his feet and scuttled around the palm tree with the waist-high dark stain and urinated against it.

"Don't tell anybody, huh?" he said, anxiously.

She looked up. "About the tree? Don't worry."

He sat back down and resumed eating the melon. "I could get in a lot of trouble.

They gave me a thing and told me to use it."

"It's all right with me," she said, buttering a slice of bread and handing it to him. "Robinson Crusoe never had a portable EcoSan, right?"

"Right," he said, not showing his surprise. How did she know that?

Piri didn't know quite what to say. Here she was, sharing his morning, as much a fact of life as the beach or the water.

"What's your name?" It was as good a place to start as any.

"Leandra. You can call me Lee."

"I'm-"

"Piri. I heard about you from the people at the party last night. I hope you don't mind me barging in on you like this."

He shrugged, and tried to indicate all the food with the gesture. "Anytime," he said, and laughed. He felt good. It was nice to have someone friendly around after last night. He looked at her again, from a mellower viewpoint.

She was large; quite a bit taller than he was. Her physical age was around thirty, unusually old for a woman. He thought she might be closer to sixty or seventy, but he had nothing to base it on. Piri himself was in his nineties, and who could have known that? She had the slanting eyes that were caused by the addition of transparent eyelids beneath the natural ones. Her hair grew in a narrow band, cropped short, starting between her eyebrows and going over her head to the nape of her neck. Her ears were pinned efficiently against her head, giving her a lean, streamlined look.

"What brings you to Pacifica?" Piri asked.

She reclined on the sand with her hands behind her head, looking very relaxed.

"Claustrophobia." She winked at him. "Not really. I wouldn't survive long in Pluto with that." Piri wasn't even sure what it was, but he smiled as if he knew. "Tired of the crowds. I heard that people couldn't enjoy themselves here, what with the sky, but I didn't have any trouble when I visited. So I bought flippers and gills and decided to spend a few weeks skin-diving by myself."

Piri looked at the sky. It was a staggering sight. He'd grown used to it, but knew that it helped not to look up more than he had to.

It was an incomplete illusion, all the more appalling because the half of the sky that had been painted was so very convincing. It looked like it really was the sheer blue of infinity, so when the eye slid over to the unpainted overhanging canopy of rock, scarred from blasting, painted with gigantic numbers that were barely visible from twenty kilometers below—one could almost imagine God looking down through the blue opening. It loomed, suspended by nothing, gigatons of rock hanging up there.

Visitors to Pacifica often complained of headaches, usually right on the crown of the head. They were cringing, waiting to get conked.

"Sometimes I wonder how I live with it," Piri said.

She laughed. "It's nothing for me. I was a space pilot once."

"Really?" This was catnip to Piri. There's nothing more romantic than a space pilot. He had to hear stories.

The morning hours dwindled as she captured his imagination with a series of tall tales he was sure were mostly fabrication. But who cared? Had he come to the South Seas to hear of the mundane? He felt he had met a kindred spirit, and gradually, fearful of being laughed at, he began to tell her stories of the Reef Pirates, first as wishful wouldn't-it-be-fun-if's, then more and more seriously as she listened intently. He forgot her age as he began to spin the best of the yarns he and Harra had concocted.

It was a tacit conspiracy between them to be serious about the stories, but that was the whole point. That was the only way it would work, as it had worked with Harra. Somehow, this adult woman was interested in playing the same games he was.

Lying in his bed that night, Piri felt better than he had for months, since before Harra had become so distant. Now that he had a companion, he realized that maintaining a satisfying fantasy world by yourself is hard work. Eventually you need someone to tell the stories to, and to share in the making of them.

They spent the day out on the reef. He showed her his crab farm, and introduced her to Ocho the Octopus, who was his usual shy self. Piri suspected the damn thing only loved him for the treats he brought.

She entered into his games easily and with no trace of adult condescension. He wondered why, and got up the courage to ask her. He was afraid he'd ruin the whole thing, but he had to know. It just wasn't normal.

They were perched on a coral outcropping above the high tide level, catching the last rays of the sun.

"I'm not sure," she said. "I guess you think I'm silly, huh?"

"No, not exactly that. It's just that most adults seem to, well, have more 'important' things on their minds." He put all the contempt he could into the word.

"Maybe I feel the same way you do about it. I'm here to have fun. I sort of feel like I've been reborn into a new element. It's terrific down there, you know that. I just didn't feel like I wanted to go into that world alone. I was out there yesterday..."

"I thought I saw you."

"Maybe you did. Anyway, I needed a companion, and I heard about you. It seemed like the polite thing to, well, not to ask you to be my guide, but sort of fit myself into your world. As it were." She frowned, as if she felt she had said too much. "Let's not push it, all right?"

"Oh, sure. It's none of my business."

"I like you, Piri."

"And I like you. I haven't had a friend for... too long."

That night at the luau, Lee disappeared. Piri looked for her briefly, but was not really worried. What she did with her nights was her business. He wanted her during the days.

As he was leaving for his home, Harra came up behind him and took his hand. She walked with him for a moment, then could no longer hold it in.

"A word to the wise, old pal," she said. "You'd better stay away from her. She's not going to do you any good."

"What are you talking about? You don't even know her."



"Maybe I do."

"Well, do you or don't you?"

She didn't say anything, then sighed deeply.

"Piri, if you do the smart thing you'll get on that raft of yours and sail to Bikini. Haven't you had any... feelings about her? Any premonitions or anything?"

"I don't know what you're talking about," he said, thinking of sharp teeth and white death.

"I think you do. You have to, but you won't face it. That's all I'm saying. It's not my business to meddle in your affairs."

"I'll say it's not. So why did you come out here and put this stuff in my ear?"

He stopped, and something tickled at his mind from his past life, some earlier bit of knowledge, carefully suppressed. He was used to it. He knew he was not really a child, and that he had a long life and many experiences stretching out behind him. But he didn't think about it. He hated it when part of his old self started to intrude on him.

"I think you're jealous of her," he said, and knew it was his old, cynical self talking. "She's an adult, Harra. She's no threat to you. And, hell, I know what you've been hinting at these last months. I'm not ready for it, so leave me alone. I'm just a kid."

Her chin came up, and the moonlight flashed in her eyes.

"You idiot. Have you looked at yourself lately? You're not Peter Pan, you know.

You're growing up. You're damn near a man."

"That's not true." There was panic in Piri's voice. "I'm only... well, I haven't exactly been counting, but I can't be more than nine, ten years-"

"Shit. You're as old as I am, and I've had breasts for two years. But I'm not out to cop you. I can cop with any of seven boys in the village younger than you are, but not you." She threw her hands up in exasperation and stepped back from him. Then, in a sudden fury, she hit him on the chest with the heel of her fist.

He fell back, stunned at her violence.

"She is an adult," Harra whispered through her teeth. "That's what I came here to warn you against. I'm your friend, but you don't know it. Ah, what's the use?"

I'm fighting against that scared old man in your head, and he won't listen to me. Go ahead, go with her. But she's got some surprises for you."

"What? What surprises?" Piri was shaking, not wanting to listen to her. It was a relief when she spat at his feet, whirled, and ran down the beach.

"Find out for yourself," she yelled back over her shoulder. It sounded like she was crying.

That night, Piri dreamed of white teeth, inches behind him, snapping.

But morning brought Lee, and another fine breakfast in her bulging bag. After a lazy interlude drinking coconut milk, they went to the reef again. The pirates gave them a rough time of it, but they managed to come back alive in time for the nightly gathering.

Harra was there. She was dressed as he had never seen her, in the blue tunic and shorts of the reef maintenance crew. He knew she had taken a job with the disneyland and had been working days with her mother at Bikini, but had not seen her dressed up before. He had just begun to get used to the grass skirt. Not long ago, she had been always nude like him and the other children.

She looked older somehow, and bigger. Maybe it was just the uniform. She still looked like a girl next to Lee. Piri was confused by it, and his thoughts veered protectively away.

Harra did not avoid him, but she was remote in a more important way. It was like she had put on a mask, or possibly taken one off. She carried herself with a dignity that Piri thought was beyond her years.

Lee disappeared just before he was ready to leave. He walked home alone, half hoping Harra would show up so he could apologize for the way he'd talked to her the night before. But she didn't.

He felt the bow-shock of a pressure wave behind him, sensed by some mechanism he was unfamiliar with, like the lateral line of a fish, sensitive to slight changes in the water around him. He knew there was something behind him, closing the gap a little with every wild kick of his flippers.

It was dark. It was always dark when the thing chased him. It was not the wispy, insubstantial thing

that darkness was when it settled on the night air, but the primal, eternal night of the depths. He tried to scream with his mouth full of water, but it was a dying gurgle before it passed his lips. The water around him was warm with his blood.

He turned to face it before it was upon him, and saw Harra's face corpse-pale and glowing sickly in the night. But no, it wasn't Harra, it was Lee, and her mouth was far down her body, rimmed with razors, a gaping crescent hole in her chest. He screamed again- And sat up.

"What? Where are you?"

"I'm right here, it's going to be all right." She held his head as he brought his sobbing under control. She was whispering something but he couldn't understand it, and perhaps wasn't meant to. It was enough. He calmed down quickly, as he always did when he woke from nightmares. If they hung around to haunt him, he never would have stayed by himself for so long.

There was just the moonlit paleness of her breast before his eyes and the smell of skin and sea water. Her nipple was wet. Was it from his tears? No, his lips were tingling and the nipple was hard when it brushed against him. He realized what he had been doing in his sleep.

"You were calling for your mother," she whispered, as though she'd read his mind. "I've heard you shouldn't wake someone from a nightmare. It seemed to calm you down."

"Thanks," he said quietly. "Thanks for being here, I mean."

She took his cheek in her hand, turned his head slightly, and kissed him. It was not a motherly kiss, and he realized they were not playing the same game. She had changed the rules on him.

"Lee..."

"Hush. It's time you learned."

She eased him onto his back, and he was overpowered with *deja vu*. Her mouth worked downward on his body and it set off chains of associations from his past life. He was familiar with the sensation. It had happened to him often in his second childhood. Something would happen that had happened to him in much the same way before and he would remember a bit of it. He had been seduced by an older woman the first time he was young. She had taught him well, and he remembered it all but didn't want to remember. He was an experienced lover and a child at the same time.

"I'm not old enough," he protested, but she was holding in her hand the evidence that he was old enough, had been old enough for several years. I'm fourteen years old, he thought. How could he have kidded himself into thinking he was ten?

"You're a strong young man," she whispered in his ear. "And I'm going to be very disappointed if you keep saying that. You're not a child anymore, Piri. Face it."

"I... I guess I'm not."

"Do you know what to do?"

"I think so."

She reclined beside him, drew her legs up. Her body was huge and ghostly and full of limber strength. She would swallow him up, like a shark. The gill slits under her arms opened and shut quickly with her breathing, smelling of salt, iodine, and sweat.

He got on his hands and knees and moved over her.

He woke before she did. The sun was up: another warm, cloudless morning. There would be two thousand more before the first scheduled typhoon.

Piri was a giddy mixture of elation and sadness. It was sad, and he knew it already, that his days of frolicking on the reef were over. He would still go out there, but it would never be the same.

Fourteen years old! Where had the years gone? He was nearly an adult. He moved away from the thought until he found a more acceptable one. He was an adolescent, and a very fortunate one to have been initiated into the mysteries of sex by this strange woman.

He held her as she slept, spooned cozily back to front with his arms around her waist. She had already been playmate, mother, and lover to him. What else did she have in store?

But he didn't care. He was not worried about anything. He already scorned his yesterdays. He was not a boy, but a youth, and he remembered from his other youth what that meant and was excited by it. It was a time of sex, of internal exploration and the exploration of others. He would pursue these new

frontiers with the same single-mindedness he had shown on the reef.

He moved against her, slowly, not disturbing her sleep. But she woke as he entered her and turned to give him a sleepy kiss.

They spent the morning involved in each other, until they were content to lie in the sun and soak up heat like glossy reptiles.

"I can hardly believe it," she said. "You've been here for... how long? With all these girls and women. And I know at least one of them was interested."

He didn't want to go into it. It was important to him that she not find out he was not really a child. He felt it would change things, and it was not fair. Not fair at all, because it had been the first time. In a way he could never have explained to her, last night had been not a rediscovery but an entirely new thing. He had been with many women and it wasn't as if he couldn't remember it.

It was all there, and what's more, it showed up in his lovemaking. He had not been the bumbling teenager, had not needed to be told what to do.

But it was new. That old man inside had been a spectator and an invaluable coach, but his hardened viewpoint had not intruded to make last night just another bout. It had been a first time, and the first time is special.

When she persisted in her questions he silenced her in the only way he knew, with a kiss. He could see he had to rethink his relationship to her. She had not asked him questions as a playmate, or a mother. In the one role, she had been seemingly as self-centered as he, interested only in the needs of the moment and her personal needs above all. As a mother, she had offered only wordless comfort in a tight spot.

Now she was his lover. What did lovers do when they weren't making love?

They went for walks on the beach, and on the reef. They swam together, but it was different. They talked a lot.

She soon saw that he didn't want to talk about himself. Except for the odd question here and there that would momentarily confuse him, throw him back to stages of his life he didn't wish to remember, she left his past alone.

They stayed away from the village except to load up on supplies. It was mostly his unspoken wish that kept them away. He had made it clear to everyone in the village many years ago that he was not really a child. It had been necessary to convince them that he could take care of himself on his own, to keep them from being overprotective. They would not spill his secret knowingly, but neither would they lie for him.

So he grew increasingly nervous about his relationship with Lee, founded as it was on a lie. If not a lie, then at least a withholding of the facts. He saw that he must tell her soon, and dreaded it. Part of him was convinced that her attraction to him was based mostly on age difference.

Then she learned he had a raft, and wanted to go on a sailing trip to the edge of the world.

Piri did have a raft, though an old one. They dragged it from the bushes that had grown around it since his last trip and began putting it into shape. Piri was delighted. It was something to do, and it was hard work. They didn't have much time for talking.

It was a simple construction of logs lashed together with rope. Only an insane sailor would put the thing to sea in the Pacific Ocean, but it was safe enough for them. They knew what the weather would be, and the reports were absolutely reliable. And if it came apart, they could swim back.

All the ropes had rotted so badly that even gentle wave action would have quickly pulled it apart. They had to be replaced, a new mast erected, and a new sailcloth installed. Neither of them knew anything about sailing, but Piri knew that the winds blew toward the edge at night and away from it during the day. It was a simple matter of putting up the sail and letting the wind do the navigating.

He checked the schedule to be sure they got there at low tide. It was a moonless night, and he chuckled to himself when he thought of her reaction to the edge of the world. They would sneak up on it in the dark, and the impact would be all the more powerful at sunrise.

But he knew as soon as they were an hour out of Rarotonga that he had made a mistake. There was not much to do there in the night but talk.

"Piri, I've sensed that you don't want to talk about certain things."

"Who? Me?"

She laughed into the empty night. He could barely see her face. The stars were shining brightly, but there were only about a hundred of them installed so far, and all in one part of the sky.

"Yeah, you. You won't talk about yourself. It's like you grew here, sprang up from the ground like a palm tree. And you've got no mother in evidence. You're old enough to have divorced her, but you'd have a guardian somewhere. Someone would be looking after your moral upbringing. The only conclusion is that you don't need an education in moral principles. So you've got a co-pilot."

"Um." She had seen through him. Of course she would have. Why hadn't he realized it?

"So you're a clone. You've had your memories transplanted into a new body, grown from one of your own cells. How old are you? Do you mind my asking?"

"I guess not. Uh... what's the date?"

She told him.

"And the year?"

She laughed, but told him that, too.

"Damn. I missed my one-hundredth birthday. Well, so what? It's not important.

Lee, does this change anything?"

"Of course not. Listen, I could tell the first time, that first night together.

You had that puppy-dog eagerness, all right, but you knew how to handle yourself. Tell me: what's it like?"

"The second childhood, you mean?" He reclined on the gently rocking raft and looked at the little clot of stars. "It's pretty damn great. It's like living in a dream. What kid hasn't wanted to live alone on a tropic isle? I can, because there's an adult in me who'll keep me out of trouble. But for the last seven years I've been a kid. It's you that finally made me grow up a little, maybe sort of late, at that."

"I'm sorry. But it felt like the right time."

"It was. I was afraid of it at first. Listen, I know that I'm really a hundred years old, see? I know that all the memories are ready for me when I get to adulthood again. If I think about it, I can remember it all as plain as anything. But I haven't wanted to, and in a way, I still don't want to. The memories are suppressed when you opt for a second childhood instead of being transplanted into another full-grown body."

"I know."

"Do you? Oh, yeah. Intellectually. So did I, but I didn't understand what it meant. It's a nine- or ten-year holiday, not only from your work, but from yourself. When you get into your nineties, you might find that you need it."

She was quiet for a while, lying beside him without touching.

"What about the reintegration? Is that started?"

"I don't know. I've heard it's a little rough. I've been having dreams about something chasing me. That's probably my former self, right?"

"Could be. What did your older self do?"

He had to think for a moment, but there it was. He'd not thought of it for eight years.

"I was an economic strategist."

Before he knew it, he found himself launching into an explanation of offensive economic policy.

"Did you know that Pluto is in danger of being gutted by currency transfers from the Inner Planets? And you know why? The speed of light, that's why. Time lag.

It's killing us. Since the time of the Invasion of Earth it's been humanity's idea-and a good one, I think-that we should stand together. Our whole cultural thrust in that time has been toward a total economic community. But it won't work at Pluto. Independence is in the cards."

She listened as he tried to explain things that only moments before he would have had trouble understanding himself. But it poured out of him like a breached dam, things like inflation multipliers, futures buying on the oxygen and hydrogen exchanges, phantom dollars and their manipulation by central banking interests, and the invisible drain.

"Invisible drain? What's that?"

"It's hard to explain, but it's tied up in the speed of light. It's an economic drain on Pluto that has

nothing to do with real goods and services, or labor, or any of the other traditional forces. It has to do with the fact that any information we get from the Inner Planets is already at least nine hours old. In an economy with a stable currency-pegged to gold, for instance, like the classical economies on Earth-it wouldn't matter much, but it would still have an effect. Nine hours can make a difference in prices, in futures, in outlook on the markets. With a floating exchange medium, one where you need the hourly updates on your credit meter to know what your labor input will give you in terms of material output-your personal financial equation, in other words-and the inflation multiplier is something you simply must have if the equation is going to balance and you're not going to be wiped out, then time is really of the essence. We operate at a perpetual disadvantage on Pluto in relation to the Inner Planet money markets. For a long time it ran on the order of point three percent leakage due to outdated information. But the inflation multiplier has been accelerating over the years. Some of it's been absorbed by the fact that we've been moving closer to the I.P.; the time lag has been getting shorter as we move into summer. But it can't last. We'll reach the inner point of our orbit and the effects will really start to accelerate. Then it's war."

"War?" She seemed horrified, as well she might be.

"War, in the economic sense. It's a hostile act to renounce a trade agreement, even if it's bleeding you white. It hits every citizen of the Inner Planets in the pocketbook, and we can expect retaliation. We'd be introducing instability by pulling out of the Common Market."

"How bad will it be? Shooting?"

"Not likely. But devastating enough. A depression's no fun. And they'll be planning one for us."

"Isn't there any other course?"

"Someone suggested moving our entire government and all our corporate headquarters to the Inner Planets. It could happen, I guess. But who'd feel like it was ours? We'd be a colony, and that's a worse answer than independence, in the long run."

She was silent for a time, chewing it over. She nodded her head once; he could barely see the movement in the darkness.

"How long until the war?"

He shrugged. "I've been out of touch. I don't know how things have been going.

But we can probably take it for another ten years or so. Then we'll have to get out. I'd stock up on real wealth if I were you. Canned goods, air, water, so forth. I don't think it'll get so bad that you'll need those things to stay alive by consuming them. But we may get to a semibarter situation where they'll be the only valuable things. Your credit meter'll laugh at you when you punch a purchase order, no matter how much work you've put into it."

The raft bumped. They had arrived at the edge of the world.

They moored the raft to one of the rocks on the wall that rose from the open ocean. They were five kilometers out of Rarotonga. They waited for some light as the sun began to rise, then started up the rock face.

It was rough: blasted out with explosives on this face of the dam. It went up at a thirty-degree angle for fifty meters, then was suddenly level and smooth as glass. The top of the dam at the edge of the world had been smoothed by cutting lasers into a vast table top, three hundred kilometers long and four kilometers wide. They left wet footprints on it as they began the long walk to the edge.

They soon lost any meaningful perspective on the thing. They lost sight of the sea-edge, and couldn't see the dropoff until they began to near it. By then, it was full light. Timed just right, they would reach the edge when the sun came up and they'd really have something to see.

A hundred meters from the edge when she could see over it a little, Lee began to unconsciously hang back. Piri didn't prod her. It was not something he could force someone to see. He'd reached this point with others, and had to turn back.

Already, the fear of falling was building up. But she came on, to stand beside him at the very lip of the canyon.

Pacifica was being built and filled in three sections. Two were complete, but the third was still being hollowed out and was not yet filled with water except in the deepest trenches. The water was kept out of this section by the dam they were standing on. When it was completed, when all the underwater trenches

and mountain ranges and guyots and slopes had been built to specifications, the bottom would be covered with sludge and ooze and the whole wedge-shaped section flooded. The water came from liquid hydrogen and oxygen on the surface, combined with the limitless electricity of fusion powerplants.

"We're doing what the Dutch did on Old Earth, but in reverse," Piri pointed out, but he got no reaction from Lee. She was staring, spellbound, down the sheer face of the dam to the apparently bottomless trench below. It was shrouded in mist, but seemed to fall off forever.

"It's eight kilometers deep," Piri told her. "It's not going to be a regular trench when it's finished. It's there to be filled up with the remains of this dam after the place has been flooded." He looked at her face, and didn't bother with more statistics. He let her experience it in her own way.

The only comparable vista on a human-inhabited planet was the Great Rift Valley on Mars. Neither of them had seen it, but it suffered in comparison to this because not all of it could be seen at once. Here, one could see from one side to the other, and from sea level to a distance equivalent to the deepest oceanic trenches on Earth. It simply fell away beneath them and went straight down to nothing. There was a rainbow beneath their feet. Off to the left was a huge waterfall that arced away from the wall in a solid stream. Tons of overflow water went through the wall, to twist, fragment, vaporize and blow away long before it reached the bottom of the trench.

Straight ahead of them and about ten kilometers away was the mountain that would become the Okinawa biome when the pit was filled. Only the tiny, blackened tip of the mountain would show above the water.

Lee stayed and looked at it as long as she could. It became easier the longer one stood there, and yet something about it drove her away. The scale was too big, there was no room for humans in that shattered world. Long before noon, they turned and started the long walk back to the raft.

She was silent as they boarded, and set sail for the return trip.

The winds were blowing fitfully, barely billowing the sail. It would be another hour before they blew very strongly. They were still in sight of the dam wall.

They sat on the raft, not looking at each other.

"Piri, thanks for bringing me here."

"You're welcome. You don't have to talk about it."

"All right. But there's something else I have to talk about. I... I don't know where to begin, really."

Piri stirred uneasily. The earlier discussion about economics had disturbed him.

It was part of his past life, a part that he had not been ready to return to. He was full of confusion. Thoughts that had no place out here in the concrete world of wind and water were roiling through his brain. Someone was calling to him, someone he knew but didn't want to see right then.

"Yeah? What is it you want to talk about?"

"It's about-" she stopped, seemed to think it over. "Never mind. It's not time yet." She moved close and touched him. But he was not interested. He made it known in a few minutes, and she moved to the other side of the raft.

He lay back, essentially alone with his troubled thoughts. The wind gusted, then settled down. He saw a flying fish leap, almost passing over the raft. There was a piece of the sky falling through the air. It twisted and turned like a feather, a tiny speck of sky that was blue on one side and brown on the other.

He could see the hole in the sky where it had been knocked loose.

It must be two or three kilometers away. No, wait, that wasn't right. The top of the sky was twenty kilometers up, and it looked like it was falling from the center. How far away were they from the center of Pacifica? A hundred kilometers?

A piece of the sky?

He got to his feet, nearly capsizing the raft.

"What's the matter?"

It was big. It looked large even from this far away. It was the dreamy tumbling motion that had deceived him.

"The sky is..." he choked on it, and almost laughed. But this was no time to feel silly about it. "The sky is falling, Lee." How long? He watched it, his mind full of numbers. Terminal velocity from that high up,

assuming it was heavy enough to punch right through the atmosphere... over six hundred meters per second. Time to fall, seventy seconds. Thirty of those must already have gone by.

Lee was shading her eyes as she followed his gaze. She still thought it was a joke. The chunk of sky began to glow red as the atmosphere got thicker.

"Hey, it really is falling," she said. "Look at that."

"It's big. Maybe one or two kilometers across. It's going to make quite a splash, I'll bet."

They watched it descend. Soon it disappeared over the horizon, picking up speed.

They waited, but the show seemed to be over. Why was he still uneasy?

"How many tons in a two-kilometer chunk of rock, I wonder?" Lee mused. She didn't look too happy, either. But they sat back down on the raft, still looking in the direction where the thing had sunk into the sea.

Then they were surrounded by flying fish, and the water looked crazy. The fish were panicked. As soon as they hit they leaped from the water again. Piri felt rather than saw something pass beneath them. And then, very gradually, a roar built up, a deep bass rumble that soon threatened to turn his bones to powder.

It picked him up and shook him, and left him limp on his knees. He was stunned, unable to think clearly. His eyes were still fixed on the horizon, and he saw a white fan rising in the distance in silent majesty. It was the spray from the impact, and it was still going up.

"Look up there," Lee said, when she got her voice back. She seemed as confused as he. He looked where she pointed and saw a twisted line crawling across the blue sky. At first he thought it was the end of his life, because it appeared that the whole overhanging dome was fractured and about to fall in on them. But then he saw it was one of the tracks that the sun ran on, pulled free by the rock that had fallen, twisted into a snake of tortured metal.

"The dam!" he yelled. "The dam! We're too close to the dam!"

"What?"

"The bottom rises this close to the dam. The water here isn't that deep.

There'll be a wave coming, Lee, a big wave. It'll pile up here."

"Piri, the shadows are moving."

"Huh?"

Surprise was piling on surprise too fast for him to cope with it. But she was right. The shadows were moving. But why?

Then he saw it. The sun was setting, but not by following the tracks that led to the concealed opening in the west. It was falling through the air, having been shaken loose by the rock.

Lee had figured it out, too.

"What is that thing?" she asked. "I mean, how big is it?"

"Not too big, I heard. Big enough, but not nearly the size of that chunk that fell. It's some kind of fusion generator. I don't know what'll happen when it hits the water."

They were paralyzed. They knew there was something they should do, but too many things were happening. There was not time to think it out.

"Dive!" Lee yelled. "Dive into the water!"

"What?"

"We have to dive and swim away from the dam, and down as far as we can go. The wave will pass over us, won't it?"

"I don't know."

"It's all we can do."

So they dived. Piri felt his gills come into action, then he was swimming down at an angle toward the dark-shrouded bottom. Lee was off to his left, swimming as hard as she could. And with no sunset, no warning, it got black as pitch. The sun had hit the water.

He had no idea how long he had been swimming when he suddenly felt himself pulled upward. Floating in the water, weightless, he was not well equipped to feel accelerations. But he did feel it, like a rapidly rising elevator. It was accompanied by pressure waves that threatened to burst his eardrums. He kicked

and clawed his way downward, not even knowing if he was headed in the right direction. Then he was falling again.

He kept swimming, all alone in the dark. Another wave passed, lifted him, let him down again. A few minutes later, another one, seeming to come from the other direction. He was hopelessly confused. He suddenly felt he was swimming the wrong way. He stopped, not knowing what to do. Was he pointed in the right direction? He had no way to tell.

He stopped paddling and tried to orient himself. It was useless. He felt surges, and was sure he was being tumbled and buffeted.

Then his skin was tingling with the sensation of a million bubbles crawling over him. It gave him a handle on the situation. The bubbles would be going up, wouldn't they? And they were traveling over his body from belly to back. So down was that way.

But he didn't have time to make use of the information. He hit something hard with his hip, wrenched his back as his body tried to tumble over in the foam and water, then was sliding along a smooth surface. It felt like he was going very fast, and he knew where he was and where he was heading and there was nothing he could do about it. The tail of the wave had lifted him clear of the rocky slope of the dam and deposited him on the flat surface. It was now spending itself, sweeping him along to the edge of the world. He turned around, feeling the sliding surface beneath him with his hands, and tried to dig in. It was a nightmare; nothing he did had any effect. Then his head broke free into the air.

He was still sliding, but the huge hump of the wave had dissipated itself and was collapsing quietly into froth and puddles. It drained away with amazing speed. He was left there, alone, cheek pressed lovingly to the cold rock. The darkness was total.

He wasn't about to move. For all he knew, there was an eight-kilometer drop just behind his toes.

Maybe there would be another wave. If so, this one would crash down on him instead of lifting him like a cork in a tempest. It should kill him instantly.

He refused to worry about that. All he cared about now was not slipping any further.

The stars had vanished. Power failure? Now they blinked on. He raised his head a little, in time to see a soft, diffused glow in the east. The moon was rising, and it was doing it at breakneck speed. He saw it rotate from a thin crescent configuration to bright fullness in under a minute. Someone was still in charge, and had decided to throw some light on the scene.

He stood, though his knees were weak. Tall fountains of spray far away to his right indicated where the sea was battering at the dam. He was about in the middle of the tabletop, far from either edge. The ocean was whipped up as if by thirty hurricanes, but he was safe from it at this distance unless there were another tsunami yet to come.

The moonlight turned the surface into a silver mirror, littered with flopping fish. He saw another figure get to her feet, and ran in that direction.

The helicopter located them by infrared detector. They had no way of telling how long it had been. The moon was hanging motionless in the center of the sky.

They got into the cabin, shivering.

The helicopter pilot was happy to have found them, but grieved over other lives lost. She said the toll stood at three dead, fifteen missing and presumed dead.

Most of these had been working on the reefs. All the land surface of Pacifica had been scoured, but the loss of life had been minimal. Most had had time to get to an elevator and go below or to a helicopter and rise above the devastation.

From what they had been able to find out, heat expansion of the crust had moved farther down into the interior of the planet than had been expected. It was summer on the surface, something it was easy to forget down here. The engineers had been sure that the inner surface of the sky had been stabilized years ago, but a new fault had been opened by the slight temperature rise. She pointed up to where ships were hovering like fireflies next to the sky, playing searchlights on the site of the damage. No one knew yet if Pacifica would have to be abandoned for another twenty years while it stabilized.

She set them down on Rarotonga. The place was a mess. The wave had climbed the bottom rise and crested at the reef, and a churning hell of foam and debris had swept over the island. Little was left



standing except the concrete blocks that housed the elevators, scoured of their decorative camouflage.

Piri saw a familiar figure coming toward him through the wreckage that had been a picturesque village. She broke into a run, and nearly bowled him over, laughing and kissing him.

"We were sure you were dead," Harra said, drawing back from him as if to check for cuts and bruises.

"It was a fluke I guess," he said, still incredulous that he had survived. It had seemed bad enough out there in the open ocean; the extent of the disaster was much more evident on the island. He was badly shaken to see it.

"Lee suggested that we try to dive under the wave. That's what saved us. It just lifted us up, then the last one swept us over the top of the dam and drained away. It dropped us like leaves."

"Well, not quite so tenderly in my case," Lee pointed out. "It gave me quite a jolt. I think I might have sprained my wrist."

A medic was available. While her wrist was being bandaged, she kept looking at Piri. He didn't like the look.

"There's something I'd intended to talk to you about on the raft, or soon after we got home. There's no point in your staying here any longer anyway, and I don't know where you'd go."

"No!" Harra burst out. "Not yet. Don't tell him anything yet. It's not fair.

Stay away from him." She was protecting Piri with her body, from no assault that was apparent to him.

"I just wanted to-"

"No, no. Don't listen to her, Piri. Come with me." She pleaded with the other woman. "Just give me a few hours alone with him, there's some things I never got around to telling him."

Lee looked undecided, and Piri felt mounting rage and frustration. He had known things were going on around him. It was mostly his own fault that he had ignored them, but now he had to know. He pulled his hand free from Harra and faced Lee.

"Tell me."

She looked down at her feet, then back to his eyes.

"I'm not what I seem, Piri. I've been leading you along, trying to make this easier for you. But you still fight me. I don't think there's any way it's going to be easy."

"No!" Harra shouted again.

"What are you?"

"I'm a psychiatrist. I specialize in retrieving people like you, people who are in a mental vacation mode, what you call 'second childhood.' You're aware of all this, on another level, but the child in you has fought it at every stage. The result has been nightmares-probably with me as the focus, whether you admitted it or not."

She grasped both his wrists, one of them awkwardly because of her injury.

"Now listen to me." She spoke in an intense whisper, trying to get it all out before the panic she saw in his face broke free and sent him running. "You came here for a vacation. You were going to stay ten years, growing up and taking it easy. That's all over. The situation that prevailed when you left is now out of date. Things have moved faster than you believed possible. You had expected a ten-year period after your return to get things in order for the coming battles.

That time has evaporated. The Common Market of the Inner Planets has fired the first shot. They've instituted a new system of accounting and it's locked into their computers and running. It's aimed right at Pluto, and it's been working for a month now. We cannot continue as an economic partner to the C.M.I.P., because from now on every time we sell or buy or move money the inflationary multiplier is automatically juggled against us. It's all perfectly legal by all existing treaties, and it's necessary to their economy. But it ignores our time-lag disadvantage. We have to consider it as a hostile act, no matter what the intent. You have to come back and direct the war, Mister Finance Minister."

The words shattered what calm Piri had left. He wrenched free of her hands and turned wildly to look all around him. Then he sprinted down the beach. He tripped once over his splay feet, got up without ever slowing, and disappeared.

Harra and Lee stood silently and watched him go.

"You didn't have to be so rough with him," Harra said, but knew it wasn't so.

She just hated to see him so confused.

"It's best done quickly when they resist. And he's all right. He'll have a fight with himself, but there's no real doubt of the outcome."

"So the Piri I know will be dead soon?"

Lee put her arm around the younger woman.

"Not at all. It's a reintegration, without a winner or a loser. You'll see." She looked at the tear-streaked face.

"Don't worry. You'll like the older Piri. It won't take him any time at all to realize that he loves you."

He had never been to the reef at night. It was a place of furtive fish, always one step ahead of him as they darted back into their places of concealment. He wondered how long it would be before they ventured out in the long night to come. The sun might not rise for years.

They might never come out. Not realizing the changes in their environment, night fish and day fish would never adjust. Feeding cycles would be disrupted, critical temperatures would go awry, the endless moon and lack of sun would frustrate the internal mechanisms, bred over billions of years, and fish would die. It had to happen.

The ecologists would have quite a job on their hands.

But there was one denizen of the outer reef that would survive for a long time.

He would eat anything that moved and quite a few things that didn't, at any time of the day or night. He had no fear, he had no internal clocks dictating to him, no inner pressures to confuse him except the one overriding urge to attack. He would last as long as there was anything alive to eat.

But in what passed for a brain in the white-bottomed torpedo that was the Ghost, a splinter of doubt had lodged. He had no recollection of similar doubts, though there had been some. He was not equipped to remember, only to hunt. So this new thing that swam beside him, and drove his cold brain as near as it could come to the emotion of anger, was a mystery. He tried again and again to attack it, then something would seize him with an emotion he had not felt since he was half a meter long, and fear would drive him away.

Piri swam along beside the faint outline of the shark. There was just enough moonlight for him to see the fish, hovering at the ill-defined limit of his sonic signal. Occasionally, the shape would shudder from head to tail, turn toward him, and grow larger. At these times Piri could see nothing but a gaping jaw. Then it would turn quickly, transfix him with that bottomless pit of an eye, and sweep away.

Piri wished he could laugh at the poor, stupid brute. How could he have feared such a mindless eating machine?

Good-bye, pinbrain. He turned and stroked lazily toward the shore. He knew the shark would turn and follow him, nosing into the interdicted sphere of his transponder, but the thought did not impress him. He was without fear. How could he be afraid, when he had already been swallowed into the belly of his nightmare? The teeth had closed around him, he had awakened, and remembered. And that was the end of his fear.

Good-bye, tropical paradise. You were fun while you lasted. Now I'm a grownup, and must go off to war.

He didn't relish it. It was a wrench to leave his childhood, though the time had surely been right. Now the responsibilities had descended on him, and he must shoulder them. He thought of Harra.

"Piri," he told himself, "as a teenager, you were just too dumb to live."

Knowing it was the last time, he felt the coolness of the water flowing over his gills. They had served him well, but had no place in his work. There was no place for a fish, and no place for Robinson Crusoe.

Good-bye, gills.

He kicked harder for the shore and came to stand, dripping wet, on the beach.

Harra and Lee were there, waiting for him.

**GOTTA SING, GOTTA DANCE**

Sailing in toward a rendezvous with Janus, Barnum and Bailey encountered a giant, pulsing quarter note. The stem was a good five kilometers tall. The note itself was a kilometer in diameter, and glowed a faint turquoise. It turned ponderously on its axis as they approached it.

"This must be the place," Barnum said to Bailey.

"Janus approach control to Barnum and Bailey," came a voice from the void. "You will encounter the dragline on the next revolution. You should be seeing the visual indicator in a few minutes."

Barnum looked down at the slowly turning irregular ball of rock and ice that was Janus, innermost satellite of Saturn. Something was coming up behind the curve of the horizon. It didn't take long for enough of it to become visible so they could see what it was. Barnum had a good laugh.

"Is that yours, or theirs?" he asked Bailey.

Bailey sniffed. "Theirs. Just how silly do you think I am?"

The object rising behind the curve of the satellite was a butterfly net, ten kilometers tall. It had a long, fluttering net trailing from a gigantic hoop. Bailey sniffed again, but applied the necessary vectors to position them for being swooped up in the preposterous thing.

"Come on, Bailey," Barnum chided. "You're just jealous because you didn't think of it first."

"Maybe so," the symb conceded. "Anyway, hold onto your hat, this is likely to be quite a jerk."

The illusion was carried as far as was practical, but Barnum noticed that the first tug of deceleration started sooner than one would expect if the transparent net was more than an illusion. The force built up gradually as the electromagnetic field clutched at the metal belt he had strapped around his waist. It lasted for about a minute. When it had trailed off, Janus no longer appeared to rotate beneath them. It was coming closer.

"Listen to this," Bailey said. Barnum's head was filled with music. It was bouncy, featuring the reedy, flatulent, yet engaging tones of a bass saxophone in a honky-tonk tune that neither of them could identify. They shifted position and could just make out the location of Pearly Gates, the only human settlement on Janus. It was easy to find because of the weaving, floating musical staves that extruded themselves from the spot like parallel strands of spider web.

The people who ran Pearly Gates were a barrel of laughs. All the actual structures that made up the above-ground parts of the settlement were disguised behind whimsical holographic projections. The whole place looked like a cross between a child's candy-land nightmare and an early Walt Disney cartoon.

Dominating the town was a giant calliope with pipes a thousand meters tall. There were fifteen of them, and they were all bouncing and swaying in time to the saxophone music. They would squat down as if taking a deep breath, then stand up again, emitting a colored smoke ring. The buildings, which Barnum knew were actually functional, uninteresting hemispheres, appeared to be square houses with flower boxes in the windows and cartoon eyes peering out the doors. They trembled and jiggled as if they were made of jello.

"Don't you think it's a trifle overdone?" Bailey asked.

"Depends on what you like. It's kind of cute, in its own gaudy way."

They drifted in through the spaghetti maze of lines, bars, sixteenth notes, rests, smoke rings, and blaring music. They plowed through an insubstantial eighth-note run, and Bailey killed their remaining velocity with the jets. They lighted softly in the barely perceptible gravity and made their way to one of the grinning buildings.

Coming up to the entrance of the building had been quite an experience. Barnum had reached for a button marked LOCK CYCLE and it had dodged out of his way, then turned into a tiny face, leering at him. Practical joke. The lock had opened anyway, actuated by his presence. Inside, Pearly Gates was not so flamboyant. The corridors looked decently like corridors, and the floors were solid and gray.

"I'd watch out, all the same." Bailey advised, darkly. "These people are real self-panickers. Their idea of a good laugh might be to dig a hole in the floor and cover it with a holo. Watch your step."

"Aw, don't be such a sore loser. You could spot something like that, couldn't you?"

Bailey didn't answer, and Barnum didn't pursue it. He knew the source of the symb's uneasiness and dislike of the station on Janus. Bailey wanted to get their business over as soon as possible and get back

to the Ring, where he felt needed. Here, in a corridor filled with oxygen, Bailey was physically useless.

Bailey's function in the symbiotic team of Barnum and Bailey was to provide an environment of food, oxygen, and water for the human, Barnum. Conversely, Barnum provided food, carbon dioxide, and water for Bailey. Barnum was a human, physically unremarkable except for a surgical alteration of his knees that made them bend outward rather than forward, and the oversized hands, called peds, that grew out of his ankles where his feet used to be. Bailey, on the other hand, was nothing like a human.

Strictly speaking, Bailey was not even a he. Bailey was a plant, and Barnum thought of him as a male only because the voice in Barnum's head-Bailey's only means of communication-sounded masculine. Bailey had no shape of his own. He existed by containing Barnum and taking on part of his shape. He extended into Barnum's alimentary canal, in the mouth and all the way through to emerge at the anus, threading him like a needle. Together, the team looked like a human in a featureless spacesuit, with a bulbous head, a tight waist, and swollen hips. A ridiculously exaggerated female, if you wish.

"You might as well start breathing again," Bailey said.

"What for? I will when I need to talk to someone who's not paired with a symb. In the meantime, why bother?"

"I just thought you'd like to get used to it."

"Oh, very well. If you think it's necessary."

So Bailey gradually withdrew the parts of him that filled Barnum's lungs and throat, freeing his speech apparatus to do what it hadn't done for over ten years. Barnum coughed as the air flowed into his throat. It was cold! Well, it felt like it, though it was actually at the standard seventy-two degrees. He was unused to it. His diaphragm gave one shudder then took over the chore of breathing as if his medulla had never been disconnected.

"There," he said aloud, surprised at how his voice sounded. "Satisfied?"

"It never hurts to do a little testing."

"Let's get this out in the open, shall we? I didn't want to come here any more than you did, but you know we had to. Are you going to give me trouble about it until we leave? We're supposed to be a team, remember?"

There was a sigh from his partner.

"I'm sorry, but that's just it. We are supposed to be a team, and out in the Ring we are. Neither of us is anything without the other. Here I'm just something you have to carry around. I can't walk, I can't talk; I'm revealed as the vegetable that I am."

Barnum was accustomed to the symb's periodic attacks of insecurity. In the Ring they never amounted to much. But when they entered a gravitational field Bailey was reminded of how ineffectual a being he was.

"Here you can breathe on your own," Bailey went on. "You could see on your own if I uncovered your eyes. By the way, do you-"

"Don't be silly. Why should I use my own eyes when you can give me a better picture than I could on my own?"

"In the Ring, that's true. But here all my extra senses are just excess mass. What good is an adjusted velocity display to you here, where the farthest thing I can sense is twenty meters off, and stationary?"

"Listen, you. Do you want to turn around and march back out that lock? We can. I'll do it if this is going to be such a trauma for you."

There was a long silence, and Barnum was flooded with a warm, apologetic sensation that left him weak at his splayed-out knees.

"There's no need to apologize," he went on in a more sympathetic tone. "I understand you. This is just something we have to do together, like everything else, the good along with the bad."

"I love you, Barnum."

"And you, silly."

The sign on the door read:

## TINPANALLEYCATS

Barnum and Bailey hesitated outside the door.

"What are you supposed to do, knock?" Barnum asked out loud. "It's been so long I've forgotten how."

"Just fold your fingers into a fist and-"

"Not that." He laughed, dispelling his momentary nervousness. "I've forgotten the politenesses of human society. Well, they do it in all the tapes I ever saw." He knocked on the door and it opened by itself on the second rap.

There was a man sitting behind a desk with his bare feet propped up on it. Barnum had been prepared for the shock of seeing another human, one who was not enclosed in a symb, for he had encountered several of them on the way to the offices of Tympani and Ragtime. But he was still reeling from the unfamiliarity of it. The man seemed to realize it and silently gestured him to a chair. He sat down in it, thinking that in the low gravity it really wasn't necessary. But somehow he was grateful. The man didn't say anything for a long while, giving Barnum time to settle down and arrange his thoughts. Barnum spent the time looking the man over carefully.

Several things were apparent about him; most blatantly, he was not a fashionable man. Shoes had been virtually extinct for over a century for the simple reason that there was nothing to walk on but padded floors. However, current fashion decreed that Shoes Are Worn.

The man was young-looking, having halted his growth at around twenty years. He was dressed in a holo suit, a generated illusion of flowing color that refused to stay in one spot or take on a definite form. Under the suit he might well have been nude, but Barnum couldn't tell.

"You're Barnum and Bailey, right?" the man said.

"Yes. And you're Tympani?"

"Ragtime. Tympani will be here later. I'm pleased to meet you. Have any trouble on the way down? This is your first visit, I think you said."

"Yes, it is. No trouble. And thank you, incidentally, for the ferry fee."

He waved it away. "Don't concern yourself. It's all in the overhead. We're taking a chance that you'll be good enough to repay that many times over. We're right enough times that we don't lose money on it. Most of your people out there can't afford being landed on Janus, and then where would we be? We'd have to go out to you. Cheaper this way."

"I suppose it is." He was silent again. He noticed that his throat was beginning to get sore with the unaccustomed effort of talking. No sooner had the thought been formed than he felt Bailey go into action. The internal tendril that had been withdrawn flicked up out of his stomach and lubricated his larynx. The pain died away as the nerve endings were suppressed. It's all in your head, anyway, he told himself.

"Who recommended us to you?" Ragtime said.

"Who... oh, it was... who was it, Bailey?" He realized too late that he had spoken it aloud. He hadn't wanted to, he had a vague feeling that it might be impolite to speak to his symb that way. Rag-time wouldn't hear the answer, of course.

"It was Antigone," Bailey supplied.

"Thanks," Barnum said, silently this time. "A man named Antigone," he told Ragtime.

The man made a note of that, and looked up again, smiling.

"Well now. What is it you wanted to show us?"

Barnum was about to describe their work to Ragtime when the door burst open and a woman sailed in. She sailed in the literal sense, banking off the doorjamb, grabbing at the door with her left ped and slamming it shut in one smooth motion, then spinning in the air to kiss the floor with the tips of her fingers, using them to slow her speed until she was stopped in front of the desk, leaning over it and talking excitedly to Ragtime. Barnum was surprised that she had peds instead of feet; he had thought that no one used them in Pearly Gates. They made walking awkward. But she didn't seem interested in walking.

"Wait till you hear what Myers has done now!" she said, almost levitating in her enthusiasm. Her

ped-fingers worked in the carpet as she talked. "He realigned the sensors in the right anterior ganglia, and you won't believe what it does to the-

"We have a client, Tympani."

She turned and saw the symb-human pair sitting behind her. She put her hand to her mouth as if to hush herself, but she was smiling behind it. She moved over to them (it couldn't be called walking in the low gravity; she seemed to accomplish it by perching on two fingers of each of her peds and walking on them, which made it look like she was floating). She reached them and extended her hand.

She was wearing a holo suit like Ragtime's but instead of wearing the projector around her waist, as he did, she had it mounted on a ring. When she extended her hand, the holo generator had to compensate by weaving larger and thinner webs of light around her body. It looked like an explosion of pastels, and left her body barely covered. What Barnum saw could have been a girl of sixteen: lanky, thin hips and breasts, and two blonde braids that reached to her waist. But her movements belied that. There was no adolescent awkwardness there.

"I'm Tympani," she said, taking his hand. Bailey was taken by surprise and didn't know whether to bare his hand or not. So what she grasped was Barnum's hand covered by the three-centimeter padding of Bailey. She didn't seem to mind.

"You must be Barnum and Bailey. Do you know who the original Barnum and Bailey were?"

"Yes, they're the people who built your big calliope outside."

She laughed. "The place is a kind of a circus, until you get used to it. Rag tells me you have something to sell us."

"I hope so."

"You've come to the right place. Rag's the business side of the company; I'm the talent. So I'm the one you'll be selling to. I don't suppose you have anything written down?"

He made a wry face, then remembered she couldn't see anything but a blank stretch of green with a hole for his mouth. It took some time to get used to dealing with people again.

"I don't even know how to read music."

She sighed, but didn't seem unhappy. "I figured as much. So few of you Ringers do. Honestly, if I could ever figure out what it is that turns you people into artists I could get rich."

"The only way to do that is to go out in the Ring and see for yourself."

"Right," she said, a little embarrassed. She looked away from the misshapen thing sitting in the chair. The only way to discover the magic of a life in the Ring was to go out there, and the only way to do that was to adopt a symb. Forever give up your individuality and become a part of a team. Not many people could do that.

"We might as well get started," she said, standing and patting her thighs to cover her nervousness. "The practice room is through that door."

He followed her into a dimly lit room that seemed to be half-buried in paper. He hadn't realized that any business could require so much paper. Their policy seemed to be to stack it up and when the stack got too high and tumbled into a landslide, to kick it back into a corner. Sheets of music crunched under his peds as he followed her to the corner of the room where the synthesizer keyboard stood beneath a lamp. The rest of the room was in shadows, but the keys gleamed brightly in their ancient array of black and white.

Tympani took off her ring and sat at the keyboard. "The damn holo gets in my way," she explained. "I can't see the keys." Barnum noticed for the first time that there was another keyboard on the floor, down in the shadows, and her peds were poised over it. He wondered if that was the only reason she wore them. Having seen her walk, he doubted it.

She sat still for a moment, then looked over to him expectantly.

"Tell me about it," she said in a whisper.

He didn't know what to say.

"Tell you about it? Just tell you?"

She laughed and relaxed again, hands in her lap.

"I was kidding. But we have to get the music out of your head and onto that tape some way. How

would you prefer? I heard that a Beethoven symphony was once written out in English, each chord and run described in detail. I can't imagine why anyone would want to, but someone did. It made quite a thick book. We can do it that way. Or surely you can think of another." He was silent. Until she sat at the keyboard, he hadn't really thought about that part of it. He knew his music, knew it to the last hemi-semi-demi-quaver. How to get it out?

"What's the first note?" she prompted.

He was ashamed again. "I don't even know the names of the notes," he confessed.

She was not surprised. "Sing it."

"I... I've never tried to sing it."

"Try now." She sat up straight, looking at him with a friendly smile, not coaxing, but encouraging.

"I can hear it," he said, desperately. "Every note, every dissonance-is that the right word?"

She grinned. "It's a right word, but I don't know if you know what it means. It's the quality of sound produced when the vibrations don't mesh harmoniously: dis-chord, it doesn't produce a sonically pleasing chord. Like this," and she pressed two keys close together, tried several others, then played with the knobs mounted over the keyboard until the two notes were only a few vibrations apart and wavered sinuously. "They don't automatically please the ear, but in the right context they can make you sit up and take notice. Is your music discordant?"

"Some places. Is that bad?"

"Not at all. Used right, it's... well, not pleasing exactly..." She spread her arms helplessly. "Talking about music is a pretty frustrating business, at best. Singing's much friendlier. Are you going to sing for me, love, or must I try to wade through your descriptions?"

Hesitantly, he sang the first three notes of his piece, knowing that they sounded nothing like the orchestra that crashed through his head, but desperate to try something. She took it up, playing the three unmodulated tones on the synthesizer: three pure sounds that were pretty, but lifeless and light-years away from what he wanted.

"No, no, it has to be richer."

"All right, I'll play what I think of as richer, and we'll see if we speak the same language." She turned some knobs and played the three notes again, this time giving them the modulations of a string bass.

"That's closer. But it's still not there."

"Don't despair," she said, waving her hand at the bank of dials before her. "Each of these will produce a different effect, singly or in combination. I'm reliably informed that the permutations are infinite. So somewhere in there we'll find your tune. Now. Which way should we go; this way, or this?"

Twisting the knob she touched in one direction made the sound become tinnier; the other, brassier, with a hint of trumpets.

He sat up. That was getting closer still, but it lacked the richness of the sounds in his brain. He had her turn the knob back and forth, finally settled on the place that most nearly approached his phantom tune. She tried another knob, and the result was an even closer approach. But it lacked something.

Getting more and more involved, Barnum found himself standing over her shoulder as she tried another knob. That was closer still, but...

Feverishly, he sat beside her on the bench and reached out for the knob. He tuned it carefully, then realized what he had done.

"Do you mind?" he asked. "It's so much easier sitting here and turning them myself."

She slapped him on the shoulder. "You dope," she laughed, "I've been trying to get you over here for the last fifteen minutes. Do you think I could really do this by myself? That Beethoven story was a lie."

"What will we do, then?"

"What you'll do is fiddle with this machine, with me here to help you and tell you how to get what you want. When you get it right, I'll play it for you. Believe me, I've done this too many times to think you could sit over there and describe it to me. Now sing!"

He sang. Eight hours later Ragtime came quietly into the room and put a plate of sandwiches and a pot of coffee on the table beside them. Barnum was still singing, and the synthesizer was singing along with him.

Barnum came swimming out of his creative fog, aware that something was hovering in his field of vision, interfering with his view of the keyboard. Something white and steaming, at the end of a long...

It was a coffee cup, held in Tympani's hand. He looked at her face and she tactfully said nothing.

While working at the synthesizer, Barnum and Bailey had virtually fused into a single being. That was appropriate, since the music Barnum was trying to sell was the product of their joint mind. It belonged to both of them. Now he wrenched himself away from his partner, far enough away that talking to him became a little more than talking to himself.

"How about it, Bailey? Should we have some?"

"I don't see why not I've had to expend quite a bit of water vapor to keep you cool in this place. It could stand replenishing."

"Listen, why don't you roll back from my hands? It would make it easier to handle those controls; give me finer manipulation, see? Besides, I'm not sure if it's polite to shake hands with her without actually touching flesh."

Bailey said nothing, but his fluid body drew back quickly from Barnum's hands. Barnum reached out and took the offered cup, starting at the unfamiliar sensation of heat in his own nerve endings. Tympani was unaware of the discussion; it had taken only a second.

The sensation was explosive when it went down his throat. He gasped, and Tympani looked worried.

"Take it easy there, friend. You've got to get your nerves back in shape for something as hot as that." She took a careful sip and turned back to the keyboard. Barnum set his cup down and joined her. But it seemed like time for a recess and he couldn't get back into the music. She recognized this and relaxed, taking a sandwich and eating it as if she were starving.

"She is starving, you dope," Bailey said. "Or at least very hungry. She hasn't had anything to eat for eight hours, and she doesn't have a symb recycling her wastes into food and dripping it into her veins. So she gets hungry. Remember?"

"I remember. I'd forgotten." He looked at the pile of sandwiches. "I wonder what it would feel like to eat one of those?"

"Like this." Barnum's mouth was flooded with the taste of a tuna salad sandwich on whole wheat. Bailey produced this trick, like all his others, by direct stimulation of the sensorium. With no trouble at all he could produce completely new sensations simply by shorting one sector of Barnum's brain into another. If Barnum wanted to know what the taste of a tuna sandwich sounded like, Bailey could let him hear.

"All right. And I won't protest that I didn't feel the bite of it against my teeth, because I know you can produce that, too. And all the sensations of chewing and swallowing it, and much more besides. Still," and his thoughts took on a tone that Bailey wasn't sure he liked, "I wonder if it would be the polite thing to eat one of them?"

"What's all this politeness all of a sudden?" Bailey exploded. "Eat it if you like, but I'll never know why. Be a carnivorous animal and see if I care."

"Temper, temper," Barnum chided, with tenderness in his voice. "Settle down, chum. I'm not going anywhere without you. But we have to get along with these people. I'm just trying to be diplomatic."

"Eat it, then," Bailey sighed. "You'll ruin my ecology schedules for months-what'll I do with all that extra protein?-but why should you care about that?"

Barnum laughed silently. He knew that Bailey could do anything he liked with it: ingest it, refine it, burn it, or simply contain it and expel it at the first opportunity. He reached for a sandwich and felt the thick substance of Bailey's skin draw back from his face as he raised it to his mouth.

He had expected a brighter light, but he shouldn't have. He was using his own retinas to see with for the first time in years, but it was no different from the cortex-induced pictures Bailey had shown him all that time.

"You have a nice face," Tympani said, around a mouthful of sandwich. "I thought you would have. You painted a very nice picture of yourself."

"I did?" Barnum asked, intrigued. "What do you mean?"

"Your music. It reflects you. Oh, I don't see everything in your eyes that I saw in the music, but I never



do. The rest of it is Bailey, your friend. And I can't read his expression."

"No, I guess you couldn't. But can you tell anything about him?"

She thought about it, then turned to the keyboard. She picked out a theme they had worried out a few hours before, played it a little faster and with subtle alterations in the tonality. It was a happy fragment, with a hint of something just out of reach.

"That's Bailey. He's worried about something. If experience is any guide, it's being here at Pearly Gates. Symbys don't like to come here, or anywhere there's gravity. It makes them feel not needed."

"Hear that?" he asked his silent partner.

"Umm."

"And that's so silly," she went on. "I don't know about it firsthand, obviously, but I've met and talked to a lot of pairs. As far as I can see, the bond between a human and a symb is... well, it makes a mother cat dying to defend her kittens seem like a case of casual affection. I guess you know that better than I could ever say, though."

"You stated it well," he said.

Bailey made a grudging sign of approval, a mental sheepish grin. "She's outpointed me, meat-eater. I'll shut up and let you two talk without me intruding my baseless insecurities."

"You relaxed him," Barnum told her, happily. "You've even got him making jokes about himself. That's no small accomplishment, because he takes himself pretty seriously."

"That's not fair, I can't defend myself."

"I thought you were going to be quiet?"

The work proceeded smoothly, though it was running longer than Bailey would have liked. After three days of transcribing, the music was beginning to take shape. A time came when Tympani could press a button and have the machine play it back: it was much more than the skeletal outline they had evolved on the first day but still needed finishing touches.

"How about 'Contrapunctual Cantata'?" Tympani asked.

"What?"

"For a title. It has to have a title. I've been thinking about it, and coined that word. It fits, because the piece is very metrical in construction: tight, on time, on the beat. Yet it has a strong counterpoint in the woodwinds."

"That's the reedy sections, right?"

"Yes. What do you think?"

"Bailey wants to know what a cantata is."

Tympani shrugged her shoulders, but looked guilty. "To tell you the truth, I stuck that in for alliteration. Maybe as a selling point. Actually, a cantata is sung, and you don't have anything like voices in this. You sure you couldn't work some in?"

Barnum considered it. "No."

"It's your decision, of course." She seemed about to say something else but decided against it.

"Look, I don't care too much about the title," Barnum said. "Will it help you to sell it, naming it that?"

"Might."

"Then do as you please."

"Thanks. I've got Rag working on some preliminary publicity. We both think this has possibilities. He liked the title, and he's pretty good at knowing what will sell. He likes the piece, too."

"How much longer before we'll have it ready?"

"Not too long. Two more days. Are you getting tired of it?"

"A little. I'd like to get back to the Ring. So would Bailey."

She frowned at him, pouting her lower lip. "That means I won't be seeing you for ten years. This sure can be a slow business. It takes forever to develop new talent."

"Why are you in it?"

She thought about it. "I guess because music is what I like, and Janus is where the most innovative music in the system is born and bred. No one else can compete with you Ringers."

He was about to ask her why she didn't pair up and see what it was like, firsthand. But something held

him back, some unspoken taboo she had set up; or perhaps it was him. Truthfully, he could no longer understand why everyone didn't pair with a symb. It seemed the only sane way to live. But he knew that many found the idea unattractive, even repugnant.

After the fourth recording session Tympani relaxed by playing the synthesizer for the pair. They had known she was good, and their opinion was confirmed by the artistry she displayed at the keyboard.

Tympani had made a study of musical history. She could play Bach or Beethoven as easily as the works of the modern composers like Barnum. She performed Beethoven's Eighth Symphony, first movement. With her two hands and two peds she had no trouble at all in making an exact reproduction of a full symphony orchestra. But she didn't limit herself to that. The music would segue imperceptibly from the traditional strings into the concrete sounds that only an electronic instrument could produce.

She followed it with something by Ravel that Barnum had never heard, then an early composition by Riker. After that, she amused him with some Joplin rags and a march by John Philip Sousa. She allowed herself no license on these, playing them with the exact instrumentation indicated by the composer.

Then she moved into another march. This one was incredibly lively, full of chromatic runs that soared and swooped. She played it with a precision in the bass parts that the old musicians could never have achieved. Barnum was reminded of old films seen as a child, films full of snarling lions in cages and elephants bedecked with feathers.

"What was that?" he asked when she was through.

"Funny you should ask, Mr. Barnum. That was an old circus march called 'Thunder and Blazes.' Or some call it 'Entry of the Gladiators.' There's some confusion among the scholars. Some say it had a third title, 'Barnum and Bailey's Favorite,' but the majority think that was another one. If it was, it's lost and too bad. But everyone is sure that Barnum and Bailey liked this one, too. What do you think of it?"

"I like it. Would you play it again?"

She did, and later a third time, because Bailey wanted to be sure it was safe in Barnum's memory where they could replay it later.

Tympani turned the machine off and rested her elbows on the keyboard.

"When you go back out," she said, "why don't you give some thought to working in a synapticon part for your next work?"

"What's a synapticon?"

She stared at him, not believing what she had heard. Then her expression changed to one of delight.

"You really don't know? Then you have something to learn." And she bounced over to her desk, grabbed something with her peds, and hopped back to the synthesizer. It was a small black box with a strap and a wire with an input jack at one end. She turned her back to him and parted her hair at the base of her skull.

"Will you plug me in?" she asked.

Barnum saw the tiny gold socket buried in her hair, the kind that enabled one to interface directly with a computer. He inserted the plug into it and she strapped the box around her neck. It was severely functional, and had an improvised, bread-boarded look about it, scarred with tool marks and chipped paint. It gave the impression of having been tinkered with almost daily.

"It's still in the development process," she said. "Myers-he's the guy who invented it-has been playing with it, adding things. When we get it right we'll market it as a necklace. The circuitry can be compacted quite a bit. The first one had a wire that connected it to the speaker, which hampered my style considerably. But this one has a transmitter. You'll see what I mean. Come on, there isn't room in here."

She led the way back to the outer office and turned on a big speaker against the wall.

"What it does," she said, standing in the middle of the room with her hands at her sides, "is translate body motion into music. It measures the tensions in the body nerve network, amplifies them, and... well, I'll show you what I mean. This position is null; no sound is produced." She was standing straight, but relaxed, peds together, hands at her sides, head slightly lowered.

She brought her arm up in front of her, reaching with her hand, and the speaker behind her made a swooping sound up the scale, breaking into a chord as her fingers closed on the invisible tone in the air. She bent her knee forward and a soft bass note crept in, strengthening as she tensed the muscles in her

thighs. She added more harmonics with her other hand, then abruptly cocked her body to one side, exploding the sound into a cascade of chords. Barnum sat up straight, the hairs on his arms and spine sitting up with him.

Tympani couldn't see him. She was lost in a world that existed slightly out of phase with the real one, a world where dance was music and her body was the instrument. Her eyeblinks became staccato punctuating phrases and her breathing provided a solid rhythmic base for the nets of sound her arms and legs and fingers were weaving.

To Barnum and Bailey the beauty of it lay in the perfect fitting together of movement and sound. The pair had thought it would be just a novelty, that she would be sweating to twist her body into shapes that were awkward and unnatural to reach the notes she was after. But it wasn't like that. Each element shaped the other. Both the music and the dance were improvised as she went along and were subordinate to no rules but her own internal ones.

When she finally came to rest, balancing on the tips of her peds and letting the sound die away to nothingness, Barnum was almost numb. And he was surprised to hear the sound of hands clapping. He realized it was his own hands, but he wasn't clapping them. It was Bailey. Bailey had never taken over motor control.

They had to have all the details. Bailey was overwhelmed by the new art form and grew so impatient with relaying questions through Barnum that he almost asked to take over Barnum's vocal cords for a while.

Tympani was surprised at the degree of enthusiasm. She was a strong proponent of the synapticon but had not met much success in her efforts to popularize it. It had its limitations, and was viewed as an interesting but passing fad.

"What limitations?" Bailey asked, and Barnum vocalized.

"Basically, it needs free-fall performance to be fully effective. There are residual tones that can't be eliminated when you're standing up in gravity, even on Janus. And I can't stay in the air long enough here. You evidently didn't notice it, but I was unable to introduce many variations under these conditions."

Barnum saw something at once. "Then I should have one installed. That way I can play it as I move through the Ring."

Tympani brushed a strand of hair out of her eyes. She was covered in sweat from her fifteen-minute performance, and her face was flushed. Barnum almost didn't hear her reply, he was so intent on the harmony of motion in that simple movement. And the synapticon was turned off.

"Maybe you should. But I'd wait if I were you." Barnum was about to ask why but she went on quickly. "It isn't an exact instrument yet, but we're working on it, refining it every day. Part of the problem, you see, is that it takes special training to operate it so it produces more than white noise. I wasn't strictly truthful with you when I told you how it works."

"How so?"

"Well, I said it measures tensions in nerves and translates it. Where are most of the nerves in the body?"

Barnum saw it then. "In the brain."

"Right. So mood is even more important in this than in most music. Have you ever worked with an alpha-wave device? By listening to a tone you can control certain functions of your brain. It takes practice. The brain provides the reservoir of tone for the synapticon, modulates the whole composition. If you aren't in control of it, it comes out as noise."

"How long have you been working with it?"

"About three years."

While Barnum and Bailey were working with her, Tympani had to adjust her day and night cycles to fit with his biological processes. The pair spent the periods of sunlight stretched out in Janus's municipal kitchen.

The kitchen was a free service provided by the community, one that was well worth the cost, since without it paired humans would find it impossible to remain on Janus for more than a few days. It was a bulldozed plain, three kilometers square, marked off in a grid with sections one hundred meters on an

edge. Barnum and Bailey didn't care for it—none of the pairs liked it much—but it was the best they could do in a gravity field.

No closed ecology is truly closed. The same heat cannot be reused endlessly, as raw materials can. Heat must be added, energy must be pumped in somewhere along the line to enable the plant component of the pair to synthesize the carbohydrates needed by the animal component. Bailey could use some of the low-level heat generated when Barnum's body broke down these molecules, but that process would soon lead to ecological bankruptcy.

The symb's solution was photosynthesis, like any other plant's, though the chemicals Bailey employed for it bore only a vague resemblance to chlorophyll. Photosynthesis requires large amounts of plant surface, much more than is available on an area the size of a human. And the intensity of sunlight at Saturn's orbit was only one hundredth what it was at Earth's.

Barnum walked carefully along one of the white lines of the grid. To his left and right, humans were reclining in the centers of the large squares. They were enclosed in only the thinnest coating of symb; the rest of the symb's mass was spread in a sheet of living film, almost invisible except as a sheen on the flat ground. In space, this sunflower was formed by spinning slowly and letting centrifugal force form the large parabolic organ. Here it lay inert on the ground, pulled out by mechanical devices at the corners of the square. Symb's did not have the musculature to do it themselves.

No part of their stay on Janus made them yearn for the Rings as much as the kitchen. Barnum reclined in the middle of an empty square and let the mechanical claws fit themselves to Bailey's outer tegument. They began to pull, slowly, and Bailey was stretched.

In the Ring they were never more than ten kilometers from the Upper Half. They could drift up there and deploy the sunflower, dream away a few hours, then use the light pressure to push them back into the shaded parts of the Ring. It was nice; it was not exactly sleep, not exactly anything in human experience. It was plant consciousness, a dreamless, simple awareness of the universe, unencumbered with thought processes.

Barnum grumbled now as the sunflower was spread on the ground around them. Though the energy-intake phase of their existence was not sleep, several days of trying to accomplish it in gravity left Barnum with symptoms very like lack of sleep. They were both getting irritable. They were eager to return to weightlessness.

He felt the pleasant lethargy creep over him. Beneath him, Bailey was extending powerful rootlets into the naked rock, using acid compounds to eat into it and obtain the small amounts of replacement mass the pair needed.

"So when are we going?" Bailey asked, quietly.

"Any day, now. Any day." Barnum was drowsy. He could feel the sun starting to heat the fluid in Bailey's sunflower. He was like a daisy nodding lazily in a green pasture.

"I guess I don't need to point it out, but the transcription is complete. There's no need for us to stay."

"I know."

That night Tympani danced again. She made it slow, with none of the flying leaps and swelling crescendos of the first time. And slowly, almost imperceptibly, a theme crept in. It was changed, rearranged; it was a run here and a phrase there. It never quite became melodic, as it was on the tape, but that was only right. It had been scored for strings, brass, and many other instruments but they hadn't written in a tympani part. She had to transpose for her instrument. It was still contrapunctual.

When she was done she told them of her most successful concert, the one that had almost captured the public fancy. It had been a duet, she and her partner playing the same synapticon while they made love.

The first and second movements had been well received.

"Then we reached the finale," she remembered, wryly, "and we suddenly lost sight of the harmonies and it sounded like, well, one reviewer mentioned 'the death agonies of a hyena.' I'm afraid we didn't hear it."

"Who was it? Ragtime?"

She laughed. "Him? No, he doesn't know anything about music. He makes love all right, but he

couldn't do it in three-quarter time. It was Myers, the guy who invented the synapticon. But he's more of an engineer than a musician. I haven't really found a good partner for that, and anyway, I wouldn't do it in public again. Those reviews hurt."

"But I get the idea you feel the ideal conditions for making music with it would be a duet, in free fall, while making love."

She snorted. "Did I say that?" She was quiet for a long time.

"Maybe it is," she finally conceded. She sighed. "The nature of the instrument is such that the most powerful music is made when the body is most in tune with its surroundings, and I can't think of a better time than when I'm approaching an orgasm."

"Why didn't it work, then?"

"Maybe I shouldn't say this, but Myers blew it. He got excited, which is the whole point, of course, but he couldn't control it. There I was, tuned like a Stradivarius, feeling heavenly harps playing inside me, and he starts blasting out a jungle rhythm on a kazoo. I'm not going through that again. I'll stick to the traditional ballet like I did tonight."

"Tympani," Barnum blurted, "I could make love in three-quarter time."

She got up and paced around the room, looking at him from time to time. He couldn't see through her eyes, but felt uncomfortably aware that she saw a grotesque green blob with a human face set high up in a mass of putty. He felt a twinge of resentment for Bailey's exterior. Why couldn't she see him? He was in there, buried alive. For the first time he felt almost imprisoned. Bailey cringed away from the feeling.

"Is that an invitation?" she asked.

"Yes."

"But you don't have a synapticon."

"Me and Bailey talked it over. He thinks he can function as one. After all, he does much the same thing every second of our lives. He's very adept at rearranging nerve impulses, both in my brain and my body. He more or less lives in my nervous system."

She was momentarily speechless.

"You say you can make music... and hear it, without an instrument at all? Bailey does this for you?"

"Sure. We just hadn't thought of routing body movements through the auditory part of the brain. That's what you're doing."

She opened her mouth to say something, then closed it again. She seemed undecided about what to do.

"Tympani, why don't you pair up and go out into the Ring? Wait a minute; hear us out. You told me that my music was great and you think it might even sell. How did I do that? Do you ever think about it?"

"I think about it a lot," she muttered, looking away from him.

"When I came here I didn't even know the names of the notes that were in my head. I was ignorant. I still don't know much. But I write music. And you, you know more about music than anyone I've ever met; you love it, you play it with beauty and skill. But what do you create?"

"I've written things," she said, defensively. "Oh, all right. They weren't any good. I don't seem to have the talent in that direction."

"But I'm proof that you don't need it. I didn't write that music; neither did Bailey. We watched it and listened to it happening all around us. You can't imagine what it's like out there. It's all the music you ever heard."

At first consideration it seemed logical to many that the best art in the system should issue from the Rings of Saturn. Not until humanity reaches Beta Lyrae or farther will a more beautiful place to live be found. Surely an artist could draw endless inspiration from the sights to be seen in the Ring. But artists are rare. How could the Ring produce art in every human who lived there?

The artistic life of the solar system had been dominated by Ringers for over a century. If it was the heroic scale of the Rings and their superb beauty that had caused this, one might expect the art produced to be mainly heroic in nature and beautiful in tone and execution. Such had never been the case. The paintings, poetry, writing, and music of the Ringers covered the entire range of human experience and then went a step beyond.

A man or a woman would arrive at Janus for any of a variety of reasons, determined to abandon his or her former life and pair with a symb. About a dozen people departed like that each day, not to be heard of for up to a decade. They were a reasonable cross section of the race, ranging from the capable to the helpless, some of them kind and others cruel. There were geniuses among them, and idiots. They were precisely as young, old, sympathetic, callous, talented, useless, vulnerable, and fallible as any random sample of humanity must be. Few of them had any training or inclination in the fields of painting or music or writing.

Some of them died. The Rings, after all, were hazardous. These people had no way of learning how to survive out there except by trying and succeeding. But most came back. And they came back with pictures and songs and stories.

Agency was the only industry on Janus. It took a special kind of agent, because few Ringers could walk into an office and present a finished work of any kind. A literary agent had the easiest job. But a tinpanalleycat had to be ready to teach some rudiments of music to the composer who knew nothing about notation.

The rewards were high. Ringer art was statistically about ten times more likely to sell than art from anywhere else in the system. Better yet, the agent took nearly all the profits instead of a commission, and the artists were never pressuring for more. Ringers had little use for money. Often, an agent could retire on the proceeds of one successful sale.

But the fundamental question of why Ringers produced art was unanswered.

Barnum didn't know. He had some ideas, partially confirmed by Bailey. It was tied up in the blending of the human and symb mind. A Ringer was more than a human, and yet still human. When combined with a symb, something else was created. It was not under their control. The best way Barnum had been able to express it to himself was by saying that this meeting of two different kinds of mind set up a tension at the junction. It was like the addition of amplitudes when two waves meet head on. That tension was mental, and fleshed itself with the symbols that were lying around for the taking in the mind of the human. It had to use human symbols because the intellectual life of a symb starts at the moment it comes in contact with a human brain. The symb has no brain of its own and has to make do with using the human brain on a time-sharing basis.

Barnum and Bailey did not worry about the source of their inspiration. Tympani worried about it a lot. She resented the fact that the muse which had always eluded her paid such indiscriminate visits to human-symb pairs. She admitted to them that she thought it unfair, but refused to give them an answer when asked why she would not take the step pairing herself.

But Barnum and Bailey were offering her an alternative, a way to sample what it was like to be paired without actually taking that final step.

In the end, her curiosity defeated her caution. She agreed to make love with them, with Bailey functioning as a living synapticon.

Barnum and Bailey reached Tympani's apartment and she held the door for them. Inside, she dialed all the furniture into the floor, leaving a large, bare room with white walls.

"What do I do?" she asked in a small voice. Barnum reached out and took her hand, which melted into the substance of Bailey.

"Give me your other hand." She did so, and watched stoically as the green stuff crept up her hands and arms. "Don't look at it," Barnum advised, and she obeyed.

He felt air next to his skin as Bailey began manufacturing an atmosphere inside himself and inflating like a balloon. The green sphere got larger, hiding Barnum completely and gradually absorbing Tympani. In five minutes the featureless green ball filled the room.

"I'd never seen that," she said, as they stood holding hands.

"Usually we do it only in space."

"What comes next?"

"Just hold still." She saw him glance over her shoulder, and started to turn. She thought better of it and tensed, knowing what was coming.

A slim tendril had grown out of the inner surface of the symb and groped its way toward the computer

terminal at the back of her head. She cringed as it touched her, then relaxed as it wormed its way in.

"How's the contact?" Barnum asked Bailey.

"Just a minute. I'm still feeling it out." The symb had oozed through the microscopic entry points at the rear of the terminal and was following the network of filaments that extended through her cerebrum. Reaching the end of one, Bailey would probe further, searching for the loci he knew so well in Barnum.

"They're slightly different," he told Barnum. "I'll have to do a little testing to be sure I'm at the right spots."

Tympani jumped, then looked down in horror as her arms and legs did a dance without her volition.

"Tell him to stop that!" she shrieked, then gasped as Bailey ran through a rapid series of memory-sensory loci; in almost instantaneous succession she experienced the smell of an orange blossom, the void of the womb, an embarrassing incident as a child, her first free fall. She tasted a meal eaten fifteen years ago. It was like spinning a radio dial through the frequencies, getting fragments of a thousand unrelated songs, and yet being able to hear each of them in its entirety. It lasted less than a second and left her weak. But the weakness was illusory, too, and she recovered and found herself in Barnum's arms.

"Make him stop it," she demanded, struggling away from him.

"It's over," he said.

"Well, almost," Bailey said. The rest of the process was conducted beneath her conscious level. "I'm in," he told Barnum. "I can't guarantee how well this will work. I wasn't built for this sort of thing, you know. I need a larger entry point than that terminal, more like the one I sank into the top of your head."

"Is there any danger to her?"

"Nope, but there's a chance I'll get overloaded and have to halt the whole thing. There's going to be a lot of traffic over that little tendril and I can't be sure it'll handle the load."

"We'll just have to do our best."

They faced each other. Tympani was tense and stony-eyed.

"What's next?" she asked again, planting her feet on the thin but springy and warm surface of Bailey.

"I was hoping you'd do the opening bars. Give me a lead to follow. You've done this once, even it it didn't work."

"All right. Take my hands..."

Barnum had no idea how the composition would start. She chose a very subdued tempo. It was not a dirge; in fact, in the beginning it had no tempo at all. It was a free-form tone poem. She moved with a glacial slowness that had none of the loose sexuality he had expected. Barnum watched, and heard a deep undertone develop and knew it as the awakening awareness in his own mind. It was his first response.

Gradually, as she began to move in his direction, he essayed some movement. His music added itself to hers but it remained separate and did not harmonize. They were sitting in different rooms, hearing each other through the walls.

She reached down and touched his leg with her fingertips. She drew her hand slowly along him and the sound was like fingernails rasping on a blackboard. It clashed, it grated, it tore at his nerves. It left him shaken, but he continued with the dance.

Again she touched him, and the theme repeated itself. A third time, with the same results. He relaxed into it, understood it as a part of their music, harsh as it was. It was her tension.

He knelt in front of her and put his hands to her waist. She turned, slowly, making a sound like a rusty metal plate rolling along a concrete floor. She kept spinning and the tone began to modulate and acquire a rhythm. It throbbed, syncopated, as a function of their heartbeats. Gradually the tones began to soften and blend. Tympani's skin was glistening with sweat as she turned faster. Then, at a signal he never consciously received, Barnum lifted her in the air and the sounds cascaded around them as they embraced. She kicked her legs joyously and it combined with the thunderous bass protest of his straining leg muscles to produce an airborne series of chromatics. It reached a crescendo that was impossible to sustain, then tapered off as her feet touched the floor and they collapsed into each other. The sounds muttered to themselves, unresolved, as they cradled each other and caught their breath.

"Now we're in tune, at least," Tympani whispered, and the symb-synapticon picked up the nerve impulses in her mouth and ears and tongue as she said it and heard it, and mixed it with the impulses from Barnum's ears. The result was a vanishing series of arpeggios constructed around each word that echoed around them for minutes. She laughed to hear it, and that was music even without the dressings.

The music had never stopped. It still inhabited the space around them, gathering itself into dark pools around their feet and pulsing in a diminishing allegretto with their hissing breath.

"It's gotten dark," she whispered, afraid to brave the intensity of sound if she were to speak aloud. Her words wove around Barnum's head as he lifted his eyes to look around them. "There are things moving around out there," she said. The tempo increased slightly as her heart caught on the dark-on-dark outlines she sensed.

"The sounds are taking shape," Barnum said. "Don't be afraid of them. It's in your mind."

"I'm not sure I want to see that deeply into my mind."

As the second movement started, stars began to appear over their heads. Tympani lay supine on a surface that was beginning to yield beneath her, like sand or some thick liquid. She accepted it. She let it conform to her shoulder blades as Barnum coaxed music from her body with his hands. He found handfuls of pure, bell-like tones, unencumbered with timbre or resonance, existing by themselves. Putting his lips to her, he sucked out a mouthful of chords which he blew out one by one, where they clustered like bees around his nonsense words, ringing change after change on the harmonies in his voice.

She stretched her arms over her head and bared her teeth, grabbing at the sand that was now as real to her touch as her own body was. Here was the sexuality Barnum had sought. Brash and libidinous as a goddess in the Hindu pantheon, her body shouted like a Dixieland clarinet and the sounds caught on the waving tree limbs overhead and thrashed about like tattered sheets. Laughing, she held her hands before her face and watched as sparks of blue and white fire arced across her fingertips. The sparks leaped out to Barnum and he glowed where they touched him.

The universe they were visiting was an extraordinarily cooperative one. When the sparks jumped from Tympani's hand into the dark, cloud-streaked sky, bolts of lightning came skittering back at her. They were awesome, but not fearsome. Tympani knew them to be productions of Bailey's mind. But she liked them. When the tornadoes formed above her and writhed in a dance around her head, she liked that, too.

The gathering storm increased as the tempo of their music increased, in perfect step. Gradually, Tympani lost track of what was happening. The fire in her body was transformed into madness: a piano rolling down a hillside or a harp being used as a trampoline. There was the drunken looseness of a slide trombone played at the bottom of a well. She ran her tongue over his cheek and it was the sound of beads of oil falling on a snare drum. Barnum sought entrance to the concert hall, sounding like a head-on collision of harpsichords.

Then someone pulled the plug on the turntable motor and the tape was left to thread its way through the heads at a slowly diminishing speed as they rested. The music gabbled insistently at them, reminding them that this could only be a brief intermission, that they were in the command of forces beyond themselves. They accepted it, Tympani sitting lightly in Barnum's lap, facing him, and allowing herself to be cradled in his arms.

"Why the pause?" Tympani asked, and was delighted to see her words escape her mouth not in sound, but in print. She touched the small letters as they fluttered to the ground.

"Bailey requested it," Barnum said, also in print. "His circuits are overloading." His words orbited twice around his head, then vanished.

"And why the skywriting?"

"So as not to foul the music with more words."

She nodded, and rested her head on his shoulder again.

Barnum was happy. He gently stroked her back, producing a warm, fuzzy rumble. He shaped the contours of the sound with his fingertips. Living in the Ring, he was used to the feeling of triumphing over something infinitely vast. With the aid of Bailey he could scale down the mighty Ring until it was within the scope of a human mind. But nothing he had ever experienced rivaled the sense of power he felt in touching Tympani and getting music.



A breeze was starting to eddy around them. It rippled the leaves of the tree that arched over them. The lovers had stayed planted on the ground during the height of the storm; now the breeze lifted them into the air and wafted them into the gray clouds.

Tympani had not noticed it. When she opened her eyes, all she knew was that they were back in limbo again, alone with the music. And the music was beginning to build.

The last movement was both more harmonious and less varied. They were finally in tune, acknowledging the baton of the same conductor. The piece they were extemporizing was jubilant. It was noisy and broad, and gave signs of becoming Wagnerian. But somewhere the gods were laughing.

Timpani flowed with it, letting it become her. Barnum was sketching out the melody line while she was content to supply the occasional appoggiatura, the haunting nuance that prevented it from becoming ponderous.

The clouds began to withdraw, slowly revealing the new illusion that Bailey had moved them to. It was hazy. But it was vast. Tympani opened her eyes and saw -the view from the Upper Half, only a few kilometers above the plane of the Rings. Below her was an infinite golden surface and above her were stars. Her eyes were drawn to the plane, down there... It was thin. Insubstantial. One could see right through it. Shielding her eyes from the glare of the sun (and introducing a forlorn minor theme into the music) she peered into the whirling marvel they had taken her out here to see, and her ears were filled with the shrieks of her unspoken fear as Bailey picked it up. There were stars down there, all around her and moving toward her, and she was moving through them, and they were beginning to revolve, and -the inner surface of Bailey. Above her unseeing eyes, a slim green tendril, severed, was writhing back into the wall. It disappeared.

"Burnt out."

"Are you all right?" Barnum asked him.

"I'm all right. Burnt out. You felt it. I warned you the connection might not handle the traffic."

Barnum consoled him. "We never expected that intensity." He shook his head, trying to clear the memory of that awful moment. He had his fears, but evidently no phobias. Nothing had ever gripped him the way the Rings had gripped Tympani. He gratefully felt Bailey slip in and ease the pain back into a corner of his mind where he needn't look at it. Plenty of time for that later, on the long, silent orbits they would soon be following...

Tympani was sitting up, puzzled, but beginning to smile. Barnum wished Bailey could give him a report on her mental condition, but the connection was broken. Shock? He'd forgotten the symptoms.

"I'll have to find out for myself," he told Bailey.

"She looks all right to me," Bailey said. "I was calming her as the contact was breaking. She might not remember much."

She didn't. Mercifully, she remembered the happiness but had only a vague impression of the fear at the end. She didn't want to look at it, which was just as well. There was no need for her to be tantalized or taunted by something she could never have.

They made love there inside Bailey. It was quiet and deep, and lasted a long time. What lingering hurts there were found healing in that gentle silence, punctuated only by the music of their breathing.

Then Bailey slowly retracted around Barnum, contracting their universe down to man-size and forever excluding Tympani.

It was an awkward time for them. Barnum and Bailey were due at the catapult in an hour. All three knew that Tympani could never follow them, but they didn't speak of it. They promised to remain friends, and knew it was empty.

Tympani had a financial statement which she handed to Barnum.

"Two thousand, minus nineteen ninety-five for the pills." She dropped the dozen small pellets into his other hand. They contained the trace elements the pair could not obtain in the Rings, and constituted the only reason they ever needed to visit Janus.

"Is that enough?" Tympani asked, anxiously.

Barnum looked at the sheet of paper. He had to think hard to recall how important money was to single humans. He had little use for it. His bank balance would keep him in supplement pills for thousands

of years if he could live that long, even if he never came back to sell another song. And he understood now why there was so little repeat business on Janus. Pairs and humans could not mix. The only common ground was art, and even there the single humans were driven by monetary pressures alien to pairs.

"Sure, that's fine," he said, and tossed the paper aside. "It's more than I need."

Tympani was relieved.

"I know that of course," she said, feeling guilty. "But I always feel like an exploiter. It's not very much. Rag says this one could really take off and we could get rich. And that's all you'll ever get out of it."

Barnum knew that, and didn't care. "It's really all we need," he repeated. "I've already been paid in the only coin I value, which is the privilege of knowing you."

They left it at that.

The countdown wasn't a long one. The operators of the cannon tended to herd the pairs through the machine like cattle through a gate. But it was plenty of time for Barnum and Bailey, on stretched-time, to embed Tympani in amber.

"Why?" Barnum asked at one point. "Why her? Where does the fear come from?"

"I saw some things," Bailey said, thoughtfully. "I was going to probe, but then I hated myself for it. I decided to leave her private traumas alone."

The count was ticking slowly down to the firing signal, and a bass, mushy music began to play in Barnum's ears.

"Do you still love her?" Barnum asked.

"More than ever."

"So do I. It feels good, and it hurts. I suppose we'll get over it. But from now on, we'd better keep our world down to a size we can handle. What is that music, anyway?"

"A send-off," Bailey said. He accelerated them until they could hear it. "It's coming over the radio. A circus march."

Barnum had no sooner recognized it than he felt the gentle but increasing push of the cannon accelerating him up the tube. He laughed, and the two of them shot out of the bulging brass pipe of the Pearly Gates calliope. They made a bull's-eye through a giant orange smoke ring, accompanied by the strains of "Thunder and Blazes."

## **IN THE HALL OF THE MARTIAN KINGS**

It took perseverance, alertness, and a willingness to break the rules to watch the sunrise in Tharsis Canyon. Matthew Crawford shivered in the dark, his suit heater turned to emergency setting, his eyes trained toward the east. He knew he had to be watchful. Yesterday he had missed it entirely, snatched away from it by a long, unavoidable yawn. His jaw muscles stretched, but he controlled this yawn and kept his eyes firmly open.

And there it was. Like the lights in a theater after the show is over: just a quick brightening, a splash of localized bluish-purple over the canyon rim, and he was surrounded by footlights. Day had come, the truncated Martian day that would never touch the blackness over his head.

This day, like the nine before it, illuminated a Tharsis radically changed from what it had been over the last sleepy ten thousand years. Wind erosion of rocks can create an infinity of shapes, but it never gets around to carving out a straight line or a perfect arc. The human encampment below him broke up the jagged lines of the rocks with regular angles and curves.

The camp was anything but orderly. No one would get the impression that any care had been taken in the haphazard arrangement of dome, lander, crawlers, crawler tracks, and scattered equipment. It had grown, as all human base camps seem to grow, without pattern. He was reminded of the footprints around Tranquillity Base, though on a much larger scale.

Tharsis Base sat on a wide ledge about halfway up from 112 John Varley the uneven bottom of the Tharsis arm of the Great Rift Valley. The site had been chosen because it was a smooth area, allowing easy access up a gentle slope to the flat plains of the Tharsis Plateau, while at the same time only a kilometer from the valley floor. No one could agree which area was most worthy of study: plains or

canyon. So this site had been chosen as a compromise. What it meant was that the exploring parties had to either climb up or go down, because there wasn't a damn thing worth seeing near the camp. Even the exposed layering and its areological records could not be seen without a half-kilometer crawler ride up to the point where Crawford had climbed to watch the sunrise.

He examined the dome as he walked back to camp. There was a figure hazily visible through the plastic. At this distance he would have been unable to tell who it was if it weren't for the black face. He saw her step up to the dome wall and wipe a clear circle to look through. She spotted his bright red suit and pointed at him. She was suited except for her helmet, which contained her radio. He knew he was in trouble. He saw her turn away and bend to the ground to pick up her helmet, so she could tell him what she thought of people who disobeyed her orders, when the dome shuddered like a jellyfish.

An alarm started in his helmet, flat and strangely soothing coming from the tiny speaker. He stood there for a moment as a perfect smoke ring of dust billowed up around the rim of the dome. Then he was running.

He watched the disaster unfold before his eyes, silent except for the rhythmic beat of the alarm bell in his ears. The dome was dancing and straining, trying to fly. The floor heaved up in the center, throwing the black woman to her knees. In another second the interior was a whirling snowstorm. He skidded on the sand and fell forward, got up in time to see the fiberglass ropes on the side nearest him snap free from the steel spikes anchoring the dome to the rock.

The dome now looked like some fantastic Christmas ornament, filled with snowflakes and the flashing red and blue lights of the emergency alarms. The top of the dome In the Hall of the Martian Kings 113 heaved over away from him, and the floor raised itself high in the air, held down only by the unbroken anchors on the side farthest from him. There was a gush of snow and dust; then the floor settled slowly back to the ground. There was no motion now but the leisurely folding of the depressurized dome roof as it settled over the structures inside.

The crawler skidded to a stop, nearly rolling over, beside the deflated dome. Two pressure-suited figures got out. They started for the dome, hesitantly, in fits and starts. One grabbed the other's arm and pointed to the lander. The two of them changed course and scrambled up the rope ladder hanging over the side.

Crawford was the only one to look up when the lock started cycling. The two people almost tumbled over each other coming out of the lock. They wanted to do something, and quickly, but didn't know what. In the end, they just stood there, silently twisting their hands and looking at the floor. One of them took off her helmet. She was a large woman, in her thirties, with red hair shorn off close to the scalp.

"Matt, we got here as-" She stopped, realizing how obvious it was. "How's Lou?"

"Lou's not going to make it." He gestured to the bunk where a heavysset man lay breathing raggedly into a clear plastic mask. He was on pure oxygen. There was blood seeping from his ears and nose.

"Brain damage?"

Crawford nodded. He looked around at the other occupants of the room. There was the Surface Mission Commander, Mary Lang, the black woman he had seen inside the dome just before the blowout. She was sitting on the edge of Lou Prager's cot, her head cradled in her hands. In a way, she was a more shocking sight than Lou. No one who knew her would have thought she could be brought to this limp state of apathy. She had not moved for the last hour.

Sitting on the floor huddled in a blanket was Martin Ralston, the chemist. His shirt was bloody, and there was 114 JohnVarley dried blood all over his face and hands from the nosebleed he'd only recently gotten under control, but his eyes were alert. He shivered, looking from Lang, his titular leader, to Crawford, the only one who seemed calm enough to deal with anything. He was a follower, reliable but unimaginative.

Crawford looked back to the newest arrivals. They were Lucy Stone McKillian, the redheaded ecologist, and Song Sue Lee, the exobiologist. They still stood numbly by the air lock, unable as yet to come to grips with the fact of fifteen dead men and women beneath the dome outside.

"What do they say on the Burroughs'?" McKillian asked, tossing her helmet on the floor and squatting tiredly against the wall. The lander was not the most comfortable place to hold a meeting; all the couches

were mounted horizontally since their purpose was cushioning the acceleration of landing and takeoff. With the ship sitting on its tail, this made ninety percent of the space in the lander useless. They were all gathered on the circular bulkhead at the rear of the life system, just forward of the fuel tank.

"We're waiting for a reply," Crawford said. "But I can sum up what they're going to say: not good. Unless one of you two has some experience in Mars-lander handling that you've been concealing from us."

Neither of them bothered to answer that. The radio in the nose sputtered, then clanged for their attention. Crawford looked over at Lang, who made no move to go answer it. He stood and swarmed up the ladder to sit in the copilot's chair. He switched on the receiver.

"Commander Lang?"

"No, this is Crawford again. Commander Lang is... indisposed. She's busy with Lou, trying to do something."

"That's no use. The doctor says it's a miracle he's still breathing. If he wakes up at all, he won't be anything like you knew him. The telemetry shows nothing like the normal brain wave. Now I've got to talk to Commander Lang. Have her come up." The voice of Mission Commander Weinstein was accustomed to command, and about as emotional as a weather report.

In the Hall of the Martian Kings 115 "Sir, I'll ask her, but I don't think she'll come. This is still her operation, you know." He didn't give Weinstein time to reply to that. Weinstein had been trapped by his own seniority into commanding the Edgar Rice Burroughs, the orbital ship that got them to Mars and had been intended to get them back. Command of the Podkayne, the disposable lander that would make the lion's share of the headlines, had gone to Lang. There was little friendship between the two, especially when Weinstein fell to brooding about the very real financial benefits Lang stood to reap by being the first woman on Mars, rather than the lowly mission commander. He saw himself as another Michael Collins.

Crawford called down to Lang, who raised her head enough to mumble something.

"What'dshesay?"

"She said take a message." McKillian had been crawling up the ladder as she said this. Now she reached him and said in a lower voice, "Matt, she's pretty broken up. You'd better take over for now."

"Right, I know." He turned back to the radio, and McKillian listened over his shoulder as Weinstein briefed them on the situation as he saw it. It pretty much jibed with Crawford's estimation, except at one crucial point. He signed off and they joined the other survivors.

He looked around at the faces of the others and decided it wasn't the time to speak of rescue possibilities. He didn't relish being a leader. He was hoping Lang would recover soon and take the burden from him. In the meantime he had to get them started on something. He touched McKillian gently on the shoulder and motioned her to the lock.

"Let's go get them buried," he said. She squeezed her eyes shut, forcing out tears, then nodded.

It wasn't a pretty job. Halfway through it, Song came down the ladder with the body of Lou Prager.

"Let's go over what we've learned. First, now that Lou's dead there's very little chance of ever lifting off. That is, unless Mary thinks she can absorb everything she needs

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116 John Varley to know about piloting the Podkayne from those printouts Weinstein sent down. How about it, Mary?"

Mary Lang was lying sideways across the improvised cot that had recently held the Podkayne pilot, Lou Prager. Her head was nodding listlessly against the aluminum hull plate behind her; her chin was on her chest. Her eyes were half-open.

Song had given her a sedative from the dead doctor's supplies on the advice of the medic aboard the E.R.B. It had enabled her to stop fighting so hard against the screaming panic she wanted to unleash. It hadn't improved her disposition. She had quit, she wasn't going to do anything for anybody.

When the blowout started, Lang had snapped on her helmet quickly. Then she had struggled against the blizzard and the undulating dome bottom, heading for the roofless framework where the other

members of the expedition were sleeping. The blowout was over in ten seconds, and she then had the problem of coping with the collapsing roof, which promptly buried her in folds of clear plastic. It was far too much like one of those nightmares of running knee-deep in quicksand. She had to fight for every meter, but she made it.

She made it in time to see her shipmates of the last six months gasping soundlessly and spouting blood from all over their faces as they fought to get into their pressure suits. It was a hopeless task to choose which two or three to save in the time she had. She might have done better but for the freakish nature of her struggle to reach them; she was in shock and half believed it was only a nightmare. So she grabbed the nearest, who happened to be Doctor Ralston. He had nearly finished donning his suit, so she slapped his helmet on him and moved to the next one. It was Luther Nakamura, and he was not moving. Worse, he was only half-suited. Pragmatically she should have left him and moved on to save the ones who still had a chance. She knew it now, but didn't like it any better than she had liked it then.

While she was stuffing Nakamura into his suit, Crawford arrived. He had walked over the folds of plastic until In the Hall of the Martian Kings 117 he reached the dormitory, then sliced through it with the laser he normally used to vaporize rock samples.

And he had had time to think about the problem of whom to save. He went straight to Lou Prager and finished suiting him up. But it was already too late. He didn't know if it would have made any difference if Mary Lang had tried to save him first.

Now she lay on the bunk, her feet sprawled carelessly in front of her. She slowly shook her head back and forth.

"You sure?" Crawford prodded her, hoping to get a rise, a show of temper, anything.

"I'm sure," she mumbled. "You people know how long they trained Lou to fly this thing? And he almost cracked it up as it was. I... ah, nuts. It isn't possible."

"I refuse to accept that as a final answer," he said. "But in the meantime we should explore the possibilities if what Mary says is true."

Ralston laughed. It wasn't a bitter laugh; he sounded genuinely amused. Crawford plowed on.

"Here's what we know for sure. The E.R.B. is useless to us. Oh, they'll help us out with plenty of advice, maybe more than we want, but any rescue is out of the question."

"We know that," McKillian said. She was tired and sick from the sight of the faces of her dead friends. "What's the use of all this talk?"

"Wait a moment," Song broke in. "Why can't they... I mean they have plenty of time, don't they? They have to leave in six months, as I understand it, because of the orbital elements, but in that time-"

"Don't you know anything about spaceships?" McKillian shouted. Song went on, unperturbed.

"I do know enough to know the Edgar is not equipped for an atmosphere entry. My idea was, not to bring down the whole ship, but only what's aboard the ship that we need. Which is a pilot. Might that be possible?"

Crawford ran his hands through his hair, wondering what to say. That possibility had been discussed, and was being studied. But it had to be classed as extremely remote.

"You're right," he said. "What we need is a pilot, and 118 John Varley that pilot is Commander Weinstein. Which presents problems legally, if nothing else. He's the captain of a ship and should not leave it. That's what kept him on the Edgar in the first place. But he did have a lot of training on the lander simulator back when he was so sure he'd be picked for the ground team. You know Winey, always the instinct to be the one-man show. So if he thought he could do it, he'd be down here in a minute to bail us out and grab the publicity. I understand they're trying to work out a heat-shield parachute system from one of the drop capsules that were supposed to ferry down supplies to us during the stay here. But it's very risky. You don't modify an aerodynamic design lightly, not one that's supposed to hit the atmosphere at ten-thousand-plus kilometers. So I think we can rule that out. They'll keep working on it, but when it's done, Winey won't step into the damn thing. He wants to be a hero, but he wants to live to enjoy it, too."

There had been a brief lifting of spirits among Song, Ralston, and McKillian at the thought of a possible rescue. The more they thought about it, the less happy they looked. They all seemed to agree with Crawford's assessment.

"So we'll put that one in the Fairy Godmother file and forget about it. If it happens, fine. But we'd better assume that it won't. As you may know, the E.R.B.-Podkayne are the only ships in existence that can reach Mars and land on it. One other pair is in the congressional funding stage. Winey talked to Earth and thinks there'll be a speedup in the preliminary paper work and the thing'll start building in a year. The launch was scheduled for five years from now, but it might get as much as a year's boost. It's a rescue mission now, easier to sell. But the design will need modification, if only to include five more seats to bring us all back. You can bet on there being more modifications when we send in our report on the blowout. So we'd better add another six months to the schedule."

McKillian had had enough. "Matt, what the hell are you talking about? Rescue mission? Damn it, you know as well as I that if they find us here, we'll be long dead. We'll probably be dead in another year." i In the Hall of the Martian Kings 119 "That's where you're wrong. We'll survive."

"How?"

"I don't have the faintest idea." He looked her straight in the eye as he said this. She almost didn't bother to answer, but curiosity got the best of her.

"Is this just a morale session? Thanks, but I don't need it. I'd rather face the situation as it is. Or do you really have something?"

"Both. I don't have anything concrete except to say that we'll survive the same way humans have always survived: by staying warm, by eating, by drinking. To that list we have to add 'by breathing.' That's a hard one, but other than that we're no different than any other group of survivors in a tough spot. I don't know what we'll have to do, specifically, but I know we'll find the answers."

"Or die trying," Song said.

"Or die trying." He grinned at her. She at least had grasped the essence of the situation. Whether survival was possible or not, it was necessary to maintain the illusion that it was. Otherwise, you might as well cut your throat. You might as well not even be born, because life is an inevitably fatal struggle to survive.

"What about air?" McKillian asked, still unconvinced.

"I don't know," he told her cheerfully. "It's a tough problem, isn't it?"

"What about water?"

"Well, in that valley there's a layer of permafrost about twenty meters down."

She laughed. "Wonderful. So that's what you want us to do? Dig down there and warm the ice with our pink little hands? It won't work, I tell you."

Crawford waited until she had run through a long list of reasons why they were doomed. Most of them made a great deal of sense. When she was through, he spoke softly.

"Lucy, listen to yourself."

"I'm just-"

"You're arguing on the side of death. Do you want to die? Are you so determined that you won't listen to someone who says you can live?" 120 John Varley She was quiet for a long time, then shuffled her feet awkwardly. She glanced at him, then at Song and Ralston. They were waiting, and she had to blush and smile slowly at them.

"You're right. What do we do first?"

"Just what we were doing. Taking stock of our situation. We need to make a list of what's available to us. We'll write it down on paper, but I can give you a general rundown." He counted off the points on his fingers.

"One, we have food for twenty people for three months. That comes to about a year for the five of us. With rationing, maybe a year and a half. That's assuming all the supply capsules reach us all right. In addition, the Edgar is going to clean the pantry to the bone, give us everything they can possibly spare, and send it to us in the three spare capsules. That might come to two years, or even three.

"Two, we have enojagh water to last us forever if the recyclers keep going. That'll be a problem, because our reactor will run out of power in two years. We'll need another power source, and maybe another water source.

"The oxygen problem is about the same. Two years at the outside. We'll have to find a way to

conserve it a lot more than we're doing. Offhand, I don't know how. Song, do you have any ideas?"

She looked thoughtful, which produced two vertical punctuation marks between her slanted eyes.

"Possibly a culture of plants from the Edgar. If we could rig some way to grow plants in Martian sunlight and not have them killed by the ultraviolet..."

McKillian looked horrified, as any good ecologist would.

"What about contamination?" she asked. "What do you think that sterilization was for before we landed? Do you want to louse up the entire ecological balance of Mars? No one would ever be sure if samples in the future were real Martian plants or mutated Earth stock."

"What ecological balance?" Song shot back. "You know as well as I do that this trip has been nearly a zero. A few anaerobic bacteria, a patch of lichen, both barely distinguishable from Earth forms--"

In the Hall of the Martian Kings 121 "That's just what I mean. You import Earth forms now, and we'll never tell the difference."

"But it could be done, right? With the proper shielding so the plants won't be wiped out before they ever sprout, we could have a hydroponics plant functioning--"

"Oh, yes, it could be done. I can see three or four dodges right now. But you're not addressing the main question, which is--"

"Hold it," Crawford said. "I just wanted to know if you had any ideas." He was secretly pleased at the argument; it got them both thinking along the right lines, moved them from the deadly apathy they must guard against.

"I think this discussion has served its purpose, which was to convince everyone here that survival is possible." He glanced uneasily at Lang, still nodding, her eyes glassy as she saw her teammates die before her eyes.

"I just want to point out that instead of an expedition, we are now a colony. Not in the usual sense of planning to stay here forever, but all our planning will have to be geared to that fiction. What we're faced with is not a simple matter of stretching supplies until rescue comes. Stopgap measures are not likely to do us much good. The answers that will save us are the long-term ones, the sort of answers a colony would be looking for. About two years from now we're going to have to be in a position to survive with some sort of life-style that could support us forever. We'll have to fit into this environment where we can and adapt it to us where we can't. For that, we're better off than most of the colonists of the past, at least for the short term. We have a large supply of everything a colony needs: food, water, tools, raw materials, energy, brains, and women. Without these things, no colony has much of a chance. All we lack is a regular resupply from the home country, but a really good group of colonists can get along without that. What do you say? Are you all with me?"

Something had caused Mary Lang's eyes to look up. It was a reflex by now, a survival reflex conditioned by a lifetime of fighting her way to the top. It took root in her again and pulled her erect on the bed, then to her feet. 122 John Varley She fought off the effects of the drug and stood there, eyes bleary but aware.

"What makes you think that women are a natural resource, Crawford?" she said, slowly and deliberately.

"Why, what I meant was that without the morale uplift provided by members of the opposite sex, a colony will lack the push needed to make it."

"That's what you meant, all right. And you meant women, available to the real colonists as a reason to live. I've heard it before. That's a male-oriented way to look at it, Crawford." She was regaining her stature as they watched, seeming to grow until she dominated the group with the intangible power that marks a leader. She took a deep breath and came fully awake for the first time that day.

"We'll stop that sort of thinking right now. I'm the mission commander. I appreciate your taking over while I was... how did you say it? Indisposed. But you should pay more attention to the social aspects of our situation. If anyone is a commodity here, it's you and Ralston, by virtue of your scarcity. There will be some thorny questions to resolve there, but for the meantime we will function as a unit, under my command. We'll do all we can to minimize social competition among the women for the men. That's the way it must be. Clear?"

She was answered by nods of the head. She did not acknowledge it but plowed right on.

"I wondered from the start why you were along, Crawford." She was pacing slowly back and forth in the crowded space. The others got out of her way almost without thinking, except for Ralston, who still huddled under his blanket. "A historian? Sure, it's a fine idea, but pretty impractical. I have to admit that I've been thinking of you as a luxury, and about as useful as the nipples on a man's chest. But I was wrong. All the NASA people were wrong. The Astronaut Corps fought like crazy to keep you off this trip. Time enough for that on later flights. We were blinded by our loyalty to the test-pilot philosophy of space flight. We wanted as few scientists as possible and as many astronauts as we could manage. We don't like to In the Hall of the Martian Kings 123 think of ourselves as ferry-boat pilots. I think we demonstrated during Apollo that we could handle science jobs as well as anyone. We saw you as a kind of insult, a slap in the face by the scientists in Houston to show us how low our stock has fallen."

"If I might be able to-"

"Shut up. But we were wrong. I read in your resume that you were quite a student of survival. What's your honest assessment of our chances?"

Crawford shrugged, uneasy at the question. He didn't know if it was the right time to even speculate that they might fail.

"Tell me the truth."

"Pretty slim. Mostly the air problem. The people I've read about never sank so low that they had to worry about where their next breath was coming from."

"Have you ever heard of Apollo Thirteen?"

He smiled at her. "Special circumstances. Short-term problems."

"You're right, of course. And in the only two other real space emergencies since that time, all hands were lost." She turned and scowled at each of them in turn.

"But we're not going to lose." She dared any of them to disagree, and no one was about to. She relaxed and resumed her stroll around the room. She turned to Crawford again.

"I can see I'll be drawing on your knowledge a lot in the years to come. What do you see as the next order of business?"

Crawford relaxed. The awful burden of responsibility, which he had never wanted, was gone. He was content to follow her lead.

"To tell you the truth, I was wondering what to say next. We have to make a thorough inventory. I guess we should start on that."

"That's fine, but there is an even more important order of business. We have to go out to the dome and find out what the hell caused the blowout. The damn thing should not have blown; it's the first of its type to do so. And from the bottom. But it did blow, and we should know why, or 124 JohnVarley we're ignoring a fact about Mars that might still kill us. Let's do that first. Ralston, can you walk?"

When he nodded, she sealed her helmet and started into the lock. She turned and looked speculatively at Crawford.

"I swear, man, if you had touched me with a cattle prod you couldn't have got a bigger rise out of me than you did with what you said a few minutes ago. Do I dare ask?"

Crawford was not about to answer. He said, with a perfectly straight face, "Me? Maybe you should just assume I'm a chauvinist."

"We'll see, won't we?"

"What is that stuff?"

Song Sue Lee was on her knees, examining one of the hundreds of short, stiff spikes extruding from the ground. She tried to scratch her head but was frustrated by her helmet.

"It looks like plastic. But I have a strong feeling it's the higher life form Lucy and I were looking for yesterday."

"And you're telling me those little spikes are what poked holes in the dome bottom? I'm not buying that."

Song straightened up, moving stiffly. They had all worked hard to empty out the collapsed dome and peel back the whole, bulky mess to reveal the ground it had covered. She was tired and stepped out of



character for a moment to snap at Mary Lang.

"I didn't tell you that. We pulled the dome back and found spikes. It was your inference that they poked holes in the bottom."

"I'm sorry," Lang said, quietly. "Go on with what you were saying."

"Well," Song admitted, "it wasn't a bad inference, at that. But the holes I saw were not punched through. They were eaten away." She waited for Lang to protest that the dome bottom was about as chemically inert as any plastic yet devised. But Lang had learned her lesson. And she had a talent for facing facts.

"So. We have a thing here that eats plastic. And seems In the Hall of the Martian Kings 125 to be made of plastic, into the bargain. Any ideas why it picked this particular spot to grow, and no other?"

"I have an idea on that," McKillian said. "I've had it in mind to do some studies around the dome to see if the altered moisture content we've been creating here had any effect on the spores in the soil. See, we've been here nine days, spouting out water vapor, carbon dioxide, and quite a bit of oxygen. Not much, but maybe more than it seems, considering the low concentrations that are naturally available. We've altered the biome. Does anyone know where the exhaust air from the dome was expelled?"

Lang raised her eyebrows. "Yes, it was under the dome. The air we exhausted was warm, you see, and it was thought it could be put to use one last time before we let it go, to warm the floor of the dome and decrease heat loss."

"And the water vapor collected on the underside of the dome when it hit the cold air. Right. Do you get the picture?"

"I think so," Lang said. "It was so little water, though. You know we didn't want to waste it; we condensed it out until the air we exhausted was dry as a bone."

"For Earth, maybe. Here it was a torrential rainfall. It reached seeds or spores in the ground and triggered them to start growing. We're going to have to watch it when we use anything containing plastic. What does that include?"

Lang groaned. "All the air lock seals, for one thing." There were grimaces from all of them at the thought of that. "For another, a good part of our suits. Song, watch it, don't step on that thing. We don't know how powerful it is or if it'll eat the plastic in your boots, but we'd better play it safe. How about it, Ralston? Think you can find out how bad it is?"

"You mean identify the solvent these things use? Probably, if we can get some sort of work space and I can get to my equipment."

"Mary," McKillian said, "it occurs to me that I'd better start looking for airborne spores. If there are some, it 126 John Varley could mean that the air lock on the Podkayne is vulnerable. Even thirty meters off the ground."

"Right. Get on that. Since we're sleeping in it until we can find out what we can do on the ground, we'd best be sure it's safe. Meantime, we'll all sleep in our suits." There were helpless groans at this, but no protests. McKillian and Ralston headed for the pile of salvaged equipment, hoping to rescue enough to get started on their analyses. Song knelt again and started digging around one of the ten-centimeter spikes.

Crawford followed Lang back toward the Podkayne.

"Mary, I wanted... is it all right if I call you Mary?"

"I guess so. I don't think 'Commander Lang' would wear well over five years. But you'd better still think commander."

He considered it. "All right, Commander Mary." She punched him playfully. She had barely known him before the disaster. He had been a name on a roster, and a sore spot in the estimation of the Astronaut Corps. But she had borne him no personal malice, and now found herself beginning to like him.

"What's on your mind?"

"Ah, several things. But maybe it isn't my place to bring them up now. First, I want to say that if you're... ah, concerned, or doubtful of my support or loyalty because I took over command for a while... earlier today, well..."

"Well?"

"I just wanted to tell you that I have no ambitions in that direction," he finished lamely.

She patted him on the back. "Sure, I know. You forget, I read your dossier. It mentioned several interesting episodes that I'd like you to tell me about someday, from your 'soldier-of-fortune' days."

"Hell, those were grossly overblown. I just happened to get into some scrapes and managed to get out of them."

"Still, it got you picked for this mission out of hundreds of applicants. The thinking was that you'd be a wild card, a man of action with proven survivability. Maybe it worked out. But the other thing I remember on your card was that In the Hall of the Martian Kings 127 you're not a leader, that you're a loner who'll cooperate with a group and be no discipline problem, but you work better alone. Want to strike out on your own?"

He smiled at her. "No, thanks. But what you said is right. I have no hankering to take charge of anything. But I do have some knowledge that might prove useful."

"And we'll use it. You just speak up. I'll be listening." She started to say something, then thought of something else. "Say, what are your ideas on a woman bossing this project? I've had to fight that all the way from my Air Force days. So if you have any objections you might as well tell me up front."

He was genuinely surprised. "You didn't take that crack seriously, did you? I might as well admit it. It was intentional, like that cattle prod you mentioned. You looked like you needed a kick in the ass."

"And thank-you. But you didn't answer my question."

"Those who lead, lead," he said, simply. "I'll follow you as long as you keep leading."

"As long as it's in the direction you want?" She laughed, and poked him in the ribs. "I see you as my grand vizier, the man who holds the arcane knowledge and advises the regent. I think I'll have to watch out for you. I know a little history myself."

Crawford couldn't tell how serious she was. He shrugged it off.

"What I really wanted to talk to you about is this: you said you couldn't fly this ship. But you were not yourself, you were depressed and feeling hopeless. Does that still stand?"

"It stands. Come on up and I'll show you why."

In the pilot's cabin, Crawford was ready to believe hex Like all flying machines since the days of the wind sock and open cockpit, this one was a mad confusion of dials, switches, and lights, designed to awe anyone who knew nothing about it. He sat in the copilot's chair and listened to her.

"We had a backup pilot, of course. You may be surprised to learn that it wasn't me. It was Dorothy Cantrell, and she's dead. Now I know what everything does on this 128 John Varley board, and I can cope with most of it easily. What I don't know, I could learn. Some of the systems are computer-driven; give it the right program and it'll fly itself, in space." She looked longingly at the controls, and Crawford realized that, like Weinstein, she didn't relish giving up the fun of flying to boss a gang of explorers. She was a former test pilot, and above all things she loved flying. She patted an array of hand controls on her right side. There were more like them on the left.

"This is what would kill us, Crawford. What's your first name? Matt. Matt, this baby is a flyer for the first forty thousand meters. It doesn't have the juice to orbit on the jets alone. The wings are folded up now. You probably didn't see them on the way in, but you saw the models. They're very light, supercritical, and designed for this atmosphere. Lou said it was like flying a bathtub, but it flew. And it's a skill, almost an art. Lou practiced for three years on the best simulators we could build and still had to rely on things you can't learn in a simulator. And he barely got us down in one piece. We didn't noise it around, but it was a damn close thing. Lou was young; so was Cantrell. They were both fresh from flying. They flew every day, they had the feel for it. They were tops." She slumped back into her chair. "I haven't flown anything but trainers for eight years."

Crawford didn't know if he should let it drop.

"But you were one of the best. Everyone knows that. You still don't think you could do it?"

She threw up her hands. "How can I make you understand? This is nothing like anything I've ever flown. You might as well..." She groped for a comparison, trying to coax it out with gestures in the air. "Listen. Does the fact that someone can fly a biplane, maybe even be the best goddam biplane pilot that ever was, does that mean they're qualified to fly a helicopter?"

"I don't know."

"It doesn't. Believe me."

"All right. But the fact remains that you're the closest thing on Mars to a pilot for the Podkayne. I think you should consider that when you're deciding what we should do in the Hall of the Martian Kings 129 do." He shut up, afraid to sound like he was pushing her.

She narrowed her eyes and gazed at nothing.

"I have thought about it." She waited for a long time. "I think the chances are about a thousand to one against us if I try to fly it. But I'll do it, if we come to that. And that's your job. Showing me some better odds. If you can't, let me know."

Three weeks later, the Tharsis Canyon had been transformed into a child's garden of toys. Crawford had thought of no better way to describe it. Each of the plastic spikes had blossomed into a fanciful windmill, no two of them just alike. There were tiny ones, with the vanes parallel to the ground and no more than ten centimeters tall. There were derricks of spidery plastic struts that would not have looked too out of place on a Kansas farm. Some of them were five meters high. They came in all colors and many configurations, but all had vanes covered with a transparent film like cellophane, and all were spinning into colorful blurs in the stiff Martian breeze. Crawford thought of an industrial park built by gnomes. He could almost see them trudging through the spinning wheels.

Song had taken one apart as well as she could. She was still shaking her head in disbelief. She had not been able to excavate the long, insulated taproot, but she could infer how deep it went. It extended all the way down to the layer of permafrost, twenty meters down.

The ground between the windmills was coated in shimmering plastic. This was the second part of the plants' ingenious solution to survival on Mars. The windmills utilized the energy in the wind, and the plastic coating on the ground was in reality two thin sheets of plastic with a space between for water to circulate. The water was heated by the sun then pumped down to the permafrost, melting a little more of it each time.

"There's still something missing from our picture," Song had told them the night before when she delivered her summary of what she had learned. "Marty hasn't been able to find a mechanism that would permit these things to grow by ingesting sand and rock and turning it into 130 JohnVarley plasticlike materials. So we assume there is a reservoir of something like crude oil down there, maybe frozen in with the water."

"Where would that have come from?" Lang had asked.

"You've heard of the long-period Martian seasonal theories? Well, part of it is more than a theory. The combination of the Martian polar inclination, the precessional cycle, and the eccentricity of the orbit produces seasons that are about twelve thousand years long. We're in the middle of winter, though we landed in the nominal 'summer.' It's been theorized that if there were any Martian life, it would have adapted to these longer cycles. It hibernates in spores during the cold cycle, when the water and carbon dioxide freeze out at the poles, then comes out when enough ice melts to permit biological processes. We seem to have fooled these plants; they thought summer was here when the water vapor content went up around the camp."

"So what about the crude?" Ralston asked. He didn't completely believe that part of the model they had evolved. He was a laboratory chemist, specializing in inorganic compounds. The way these plants produced plastics without high heat, through purely catalytic interactions, had him confused and defensive. He wished the crazy windmills would go away.

"I think I can answer that," McKillian said. "These organisms barely scrape by in the best of times. The ones that have made it waste nothing. It stands to reason that any really ancient deposits of crude oil would have been exhausted in only a few of these cycles. So it must be that what we're thinking of as crude oil must be something a little different. It has to be the remains of the last generation."

"But how did the remains get so far below ground?" Ralston asked. "You'd expect them to be high up. The winds couldn't bury them that deep in only twelve thousand years."

"You're right," said McKillian. "I don't really know. But I have a theory. Since these plants waste nothing, why not conserve their bodies when they die? They sprouted In the Hall of the Martian Kings

131 from the ground; isn't it possible they could withdraw when things start to get tough again? They'd leave spores behind them as they retreated, distributing them all through the soil. That way, if the upper ones blew away or were sterilized by the ultraviolet, the ones just below them would still thrive when the right conditions returned. When they reached the permafrost, they'd decompose into this organic slush we've postulated, and... well, it does get a little involved, doesn't it?"

"Sounds all right to me," Lang assured her. "It'll do for a working theory. Now what about airborne spores?"

It turned out that they were safe from that danger. There were spores in the air now, but they were not dangerous to the colonists. The plants attacked only certain kinds of plastics, and then only in certain stages of their lives. Since they were still changing, it bore watching, but the air locks and suits were secure. The crew was enjoying the luxury of sleeping without their suits.

And there was much work to do. Most of the physical sort devolved on Crawford and, to some extent, on Lang. It threw them together a lot. The other three had to be free to pursue their researches, as it had been decided that only in knowing their environment would they stand a chance.

Crawford and Lang had managed to salvage most of the dome. Working with patching kits and lasers to cut the tough material, they had constructed a much smaller dome. They erected it on an outcropping of bare rock, rearranged the exhaust to prevent more condensation on the underside, and added more safety features. They now slept in a pressurized building inside the dome, and one of them stayed awake on watch at all times. In drills, they had come from a deep sleep to full pressure integrity in thirty seconds. They were not going to get caught again.

Crawford looked away from the madly whirling rotors of the windmill farm. He was with the rest of the crew, sitting in the dome with his helmet off. That was as far as Lang would permit anyone to go except in the cramped sleeping quarters. Song Sue Lee was at the radio giving her report to the Edgar Rice Burroughs. In her hand was 132 JohnVarley one of the pump modules she had dissected out of one of the plants. It consisted of a half-meter set of eight blades that turned freely on teflon bearings. Below it were various tiny gears and the pump itself. She twirled it idly as she spoke.

"I don't really get it," Crawford admitted, talking quietly to Lucy McKillian. "What's so revolutionary about little windmills?"

"It's just a whole new area," McKillian whispered back. "Think about it. Back on Earth, nature never got around to inventing the wheel. I've sometimes wondered why not. There are limitations, of course, but it's such a good idea. Just look what we've done with it. But all motion in nature is confined to up and down, back and forth, in and out, or squeeze and relax. Nothing on Earth goes round and round, unless we built it. Think about it."

Crawford did, and began to see the novelty of it. He tried in vain to think of some mechanism in an animal or plant of Earthly origin that turned and kept on turning forever. He could not.

Song finished her report and handed the mike to Lang. Before she could start, Weinstein came on the line.

"We've had a change in plan up here," he said, with no preface. "I hope this doesn't come as a shock. If you think about it, you'll see the logic in it. We're going back to Earth in seven days."

It didn't surprise them too much. The Burroughs had given them just about everything it could in the form of data and supplies. There was one more capsule load due; after that, its presence would only be a frustration to both groups. There was a great deal of irony in having two such powerful ships so close to each other and so helpless to do anything concrete. It was telling on the crew of the Burroughs.

"We've recalculated everything based on the lower mass without the twenty of you and the six tons of samples we were allowing for. By using the fuel we would have ferried down to you for takeoff, we can make a faster orbit down toward Venus. The departure date for that orbit is seven In the Hall of the Martian Kings 133 days away. We'll rendezvous with a drone capsule full of supplies we hadn't counted on." And besides, Lang thought to herself, it's much more dramatic. Plunging sunward on the chancy cometary orbit, their pantries stripped bare, heading for the fateful rendezvous...

"I'd like your comments," he went on. "This isn't absolutely final yet."

They all looked at Lang. They were reassured to find her calm and unshaken.

"I think it's the best idea. One thing; you've given up on any thoughts of me flying the Podkayne?"

"No insult intended, Mary," Weinstein said, gently. "But, yes, we have. It's the opinion of the people Earth-side that you couldn't do it. They've tried some experiments, coaching some very good pilots and putting them into the simulators. They can't do it, and we don't think you could, either."

"No need to sugarcoat it. I know it as well as anyone. But even a billion-to-one shot is better than nothing. I take it they think Crawford is right, that survival is at least theoretically possible?"

There was a long hesitation. "I guess that's correct. Mary, I'll be frank. I don't think it's possible. I hope I'm wrong, but I don't expect-"

"Thank you, Winey, for the encouraging words. You always did know what it takes to buck a person up. By the way, that other mission, the one where you were going to ride a meteorite down here to save our asses, that's scrubbed, too?"

The assembled crew smiled, and Song gave a high-pitched cheer. Weinstein was not the most popular man on Mars.

"Mary, I told you about that already," he complained. It was a gentle complaint, and, even more significant, he had not objected to the use of his nickname. He was being gentle with the condemned. "We worked on it around the clock. I even managed to get permission to turn over command temporarily. But the mock-ups they made Earth-side didn't survive the reentry. It was the best we could do. I couldn't risk the entire mission on a configuration the people back on Earth wouldn't certify."

"I know. I'll call you back tomorrow." She switched the set off and sat back on her heels. "I swear, if the Earth-side tests on a roll of toilet paper didn't... he wouldn't..." She cut the air with her hands. "What am I saying? That's petty. I don't like him, but he's right." She stood up, puffing out her cheeks as she exhaled a pent-up breath.

"Come on, crew, we've got a lot of work."

They named their colony New Amsterdam, because of the windmills. The name whirligig was the one that stuck on the Martian plants, though Crawford held out for a long time in favor of spinnaker.

They worked all day and tried their best to ignore the Burroughs overhead. The messages back and forth were short and to the point. Helpless as the mother ship was to render them more aid, they knew they would miss it when it was gone. So the day of departure was a stiff, determinedly nonchalant affair. They all made a big show of going to bed hours before the scheduled breakaway.

When he was sure the others were asleep, Crawford opened his eyes and looked around the darkened barracks. It wasn't much in the way of a home; they were crowded against each other on rough pads made of insulating material. The toilet facilities were behind a flimsy barrier against one wall, and smelled. But none of them would have wanted to sleep outside in the dome, even if Lang had allowed it.

The only light came from the illuminated dials that the guard was supposed to watch all night. There was no one sitting in front of them. Crawford assumed the guard had gone to sleep. He would have been upset, but there was no time. He had to suit up, and he welcomed the chance to sneak out. He began furtively to don his pressure suit.

As a historian, he felt he could not let such a moment slip by unobserved. Silly, but there it was. He had to be out there, watch it with his own eyes. It didn't matter if he never lived to tell about it; he must record it.

In the Hall of the Martian Kings 135 Someone sat up beside him. He froze, but it was too late. She rubbed her eyes and peered into the darkness.

"Matt?" she yawned. "What's... what is it? Is something-"

"Shh. I'm going out. Go back to sleep. Song?"

"Um hmmm." She stretched, dug her knuckles fiercely into her eyes, and smoothed her hair back from her face. She was dressed in a loose-fitting ship suit, a gray piece of dirty cloth that badly needed washing, as did all their clothes. For a moment, as he watched her shadow stretch and stand up, he wasn't interested in the Burroughs. He forced his mind away from her.

"I'm going with you," she whispered.

"All right. Don't wake the others."

Standing just outside the air lock was Mary Lang. She turned as they came out, and did not seem surprised.

"Were you the one on duty?" Crawford asked her.

"Yeah. I broke my own rule. But so did you two. Consider yourselves on report." She laughed and beckoned them over to her. They linked arms and stood staring up at the sky.

"How much longer?" Song asked, after some time had passed.

"Just a few minutes. Hold tight." Crawford looked over to Lang and thought he saw tears, but he couldn't be sure in the dark.

There was a tiny new star, brighter than all the rest, brighter than Phobos. It hurt to look at it, but none of them looked away. It was the fusion drive of the Edgar Rice Burroughs, heading sunward, away from the long winter on Mars. It stayed on for long minutes, then sputtered and was lost. Though it was warm in the dome, Crawford was shivering. It was ten minutes before any of them felt like facing the barracks.

They crowded into the air lock, carefully not looking at each other's faces as they waited for the automatic machinery. The inner door opened and Lang pushed forward-and right back into the air lock. Crawford had a glimpse of Ralston and Lucy McKillian; then Mary shut the door. 136 John Varley "Some people have no poetry in their souls," Mary said.

"Or too much," Song giggled.

"You people want to take a walk around the dome with me? Maybe we could discuss ways of giving people a little privacy."

The inner lock door was pulled open, and there was McKillian, squinting into the bare bulb that lighted the lock while she held her shirt in front of her with one hand.

"Come on in," she said, stepping back. "We might as well talk about this." They entered, and McKillian turned on the light and sat down on her mattress. Ralston was blinking, nervously tucked into his pile of blankets. Since the day of the blowout he never seemed to be warm enough.

Having called for a discussion, McKillian proceeded to clam up. Song and Crawford sat on their bunks, and eventually, as the silence stretched tighter, they all found themselves looking to Lang.

She started stripping out of her suit. "Well, I guess that takes care of that. So glad to hear all your comments. Lucy, if you were expecting some sort of reprimand, forget it. We'll take steps first thing in the morning to provide some sort of privacy for that, but, no matter what, we'll all be pretty close in the years to come. I think we should all relax. Any objections?" She was half out of her suit when she paused to scan them for comments. There were none. She stripped to her skin and reached for the light.

"In a way it's about time," she said, tossing her clothes in a corner. "The only thing to do with these clothes is burn them. We'll all smell better for it. Song, you take the watch." She flicked out the lights and reclined heavily on her mattress.

There was much rustling and squirming for the next few minutes as they got out of their clothes. Song brushed against Crawford in the dark and they murmured apologies. Then they all bedded down in their own bunks. It was several tense, miserable hours before anyone got to sleep.

In the Hall of the Martian Kings 137 The week following the departure of the Burroughs was one of hysterical overreaction by the New Amster-damites. The atmosphere was forced and false; an eat-drink-and-be-merry feeling pervaded everything they did.

They built a separate shelter inside the dome, not really talking aloud about what it was for. But it did not lack for use. Productive work suffered as the five of them frantically ran through all the possible permutations of three women and two men. Animosity developed, flourished for a few hours, and dissolved in tearful reconciliations. Three ganged up on two, two on one, one declared war on all the other four. Ralston and Song announced an engagement, which lasted ten hours. Crawford nearly came to blows with Lang, aided by McKillian. McKillian renounced men forever and had a brief, tempestuous affair with Song. Then Song discovered McKillian with Ralston, and Crawford caught her on the rebound, only to be thrown over for Ralston.

Mary Lang let it work itself out, only interfering when it got violent. She herself was not immune to the frenzy but managed to stay aloof from most of it. She went to the shelter with whoever asked her, trying

not to play favorites, and gently tried to prod them back to work. As she told McKillian toward the end of the week, "At least we're getting to know one another."

Things did settle down, as Lang had known they would. They entered their second week alone in virtually the same position they had been in when they started: no romantic entanglements firmly established. But they knew each other a lot better, were relaxed in the close company of each other, and were supported by a new framework of friendships. They were much closer to being a team. Rivalries never died out completely, but they no longer dominated the colony. Lang worked them harder than ever, making up for the lost time.

Crawford missed most of the interesting work, being more suited for the semiskilled manual labor that never seemed to be finished. So he and Lang had to learn about the new discoveries at the nightly briefings in the shelter. He remembered nothing about any animal life being discovered, and so when he saw something crawling through the whirligig garden, he dropped everything and started toward it.

At the edge of the garden he stopped, remembering the order from Lang to stay out unless collecting samples. He watched the thing-~~bug?~~ ~~turtle?~~ for a moment, satisfied himself that it wouldn't get too far away at its creeping pace, and hurried off to find Song.

"You've got to name it after me," he said as they hurried back to the garden. "That's my right, isn't it, as the discoverer?"

"Sure," Song said, peering along his pointed finger. "Just show me the damn thing and I'll immortalize you."

The thing was twenty centimeters long, almost round, dome-shaped. It had a hard shell on top.

"I don't know quite what to do with it," Song admitted. "If it's the only one, I don't dare dissect it, and maybe I shouldn't even touch it."

"Don't worry, there's another over behind you." Now that they were looking for them, they quickly spied four of the creatures. Song took a sample bag from her pouch and held it open in front of the beast. It crawled halfway into the bag, then seemed to think something was wrong. It stopped, but Song nudged it in and picked it up. She peered at the underside and laughed in wonder.

"Wheels," she said. "The thing runs on wheels."

"I don't know where it came from," Song told the group that night. "I don't even quite believe in it. It'd make a nice educational toy for a child, though. I took it apart into twenty or thirty pieces, put it back together, and it still runs. It has a high-impact polystyrene carapace, non-toxic paint on the outside-

"Not really polystyrene," Ralston interjected.

"... and I guess if you kept changing the batteries it would run forever. And it's nearly polystyrene, that's what you said."

"Were you serious about the batteries?" Lang asked.

"I'm not sure. Marty thinks there's a chemical metabolism in the upper part of the shell, which I haven't explored in the Hall of the Martian Kings yet. But I can't really say if it's alive in the sense we use. I mean, it runs on wheels. It has three wheels, suited for sand, and something that's a cross between a rubber-band drive and a mainspring. Energy is stored in a coiled muscle and released slowly. I don't think it could travel more than a hundred meters. Unless it can re-coil the muscle, and I can't tell how that might be done."

"It sounds very specialized," McKillian said thoughtfully. "Maybe we should be looking for the niche it occupies. The way you describe it, it couldn't function without help from a symbiote. Maybe it fertilizes the plants, like bees, and the plants either donate or are robbed of the power to wind the spring. Did you look for some mechanism the bug could use to steal energy from the rotating gears in the whirligigs?"

"That's what I want to do in the morning," Song said. "Unless Mary will let us take a look tonight?" She said it hopefully, but without real expectation. Mary Lang shook her head decisively.

"It'll keep. It's cold out there, baby."

A new exploration of the whirligig garden the next day revealed several new species, including one more thing that might be an animal. It was a flying creature, the size of a fruit fly, that managed to glide from plant to plant when the wind was down by means of a freely rotating set of blades, like an autogiro.

Crawford and Lang hung around as the scientists looked things over. They were not anxious to get back to the task that had occupied them for the last two weeks: bringing the Podkayne to a horizontal position without wrecking her. The ship had been rigged with stabilizing cables soon after landing, and provision had been made in the plans to lay the ship on its side in the event of a really big windstorm. But the plans had envisioned a work force of twenty, working all day with a maze of pulleys and gears. It was slow work and could not be rushed. If the ship were to tumble and lose pressure, they didn't have a prayer.

So they welcomed an opportunity to tour fairyland. The 140 John Varley place was even more bountiful than the last time Crawford had taken a look. There were thick vines that Song assured him were running with water, hot and cold, and various other fluids. There were more of the tall variety of derrick, making the place look like a pastel oil field.

They had little trouble finding where the matthews came from. They found dozens of twenty-centimeter lumps on the sides of the large derricks. They evidently grew from them like tumors and were released when they were ripe. What they were for was another matter. As well as they could discover, the matthews simply crawled in a straight line until their power ran out. If they were wound up again, they would crawl further. There were dozens of them lying motionless in the sand within a hundred-meter radius of the garden.

Two weeks of research left them knowing no more. They had to abandon the matthews for the time, as another enigma had cropped up which demanded their attention.

This time Crawford was the last to know. He was called on the radio and found the group all squatting in a circle around a growth in the graveyard.

The graveyard, where they had buried their fifteen dead crewmates on the first day of the disaster, had sprouted with life during the week after the departure of the Burroughs. It was separated from the original site of the dome by three hundred meters of blowing sand. So Mc-Killian assumed this second bloom was caused by the water in the bodies of the dead. What they couldn't figure out was why this patch should differ so radically from the first one.

There were whirligigs in the second patch, but they lacked the variety and disorder of the originals. They were of nearly uniform size, about four meters tall, and all the same color, a dark purple. They had pumped water for two weeks, then stopped. When Song examined them, she reported the bearings were frozen, dried out. They seemed to have lost the plasticizer that kept the structures fluid and living. The water in the pipes was frozen. Though In the Hall of the Martian Kings 141 she would not commit herself in the matter, she felt they were dead. In their place was a second network of pipes which wound around the derricks and spread transparent sheets of film to the sunlight, heating the water which circulated through them. The water was being pumped, but not by the now-familiar system of windmills. Spaced along each of the pipes were expansion-contraction pumps with valves very like those in a human heart.

The new marvel was a simple affair in the middle of that living petrochemical complex. It was a short plant that sprouted up half a meter, then extruded two stalks parallel to the ground. At the end of each stalk was a perfect globe, one gray, one blue. The blue one was much larger than the gray one.

Crawford looked at it briefly, then squatted down beside the rest, wondering what all the fuss was about. Everyone looked very solemn, almost scared.

"You called me over to see this?"

Lang looked at him, and something in her face made him nervous.

"Look at it, Matt. Really look at it." So he did, feeling foolish, wondering what the joke was. He noticed a white patch near the top of the largest globe. It was streaked, like a glass marble with swirls of opaque material in it. It looked very familiar, he realized, with the hair on the back of his neck starting to stand up.

"It turns," Lang said quietly. "That's why Song noticed it. She came by here one day and it was in a different position than it had been."

"Let me guess," he said, much more calmly than he felt. "The little one goes around the big one, right?"

"Right. And the little one keeps one face turned to the big one. The big one rotates once in twenty-four hours. It has an axial tilt of twenty-three degrees."



"It's a... what's the word? Orrery. It's an orrery." Crawford had to stand up and shake his head to clear it.

"It's funny," Lang said, quietly. "I always thought it would be something flashy, or at least obvious. An alien artifact mixed in with cave-man bones, or a spaceship en- 142 John Varley tering the system. I guess I was thinking in terms of pottery shards and atom bombs."

"Well, that all sounds pretty ho-hum to me up against this" Song said. "Do you... do you realize... what are we talking about here? Evolution, or... or engineering? Is it the plants themselves that did this, or were they made to do it by whatever built them? Do you see what I'm talking about? I've felt funny about those wheels for a long time. I just won't believe they'd evolve naturally."

"What do you mean?"

"I mean I think these plants we've been seeing were designed to be the way they are. They're too perfectly adapted, too ingenious to have just sprung up in response to the environment." Her eyes seemed to wander, and she stood up and gazed into the valley below them. It was as barren as anything that could be imagined: red and yellow and brown rock outcroppings and tumbled boulders. And in the foreground, the twirling colors of the whirligigs.

"But why this thing?" Crawford asked, pointing to the impossible artifact-plant. "Why a model of the Earth and Moon? And why right here, in the graveyard?"

"Because we were expected," Song said, still looking away from them. "They must have watched Earth, during the last summer season. I don't know; maybe they even went there. If they did, they would have found men and women like us, hunting and living in caves. Building fires, using clubs, chipping arrowheads. You know more about it than I do, Matt."

"Who are they?" Ralston asked. "You think we're going to be meeting some Martians? People? I don't see how. I don't believe it."

"I'm afraid I'm skeptical, too," Lang said. "Surely there must be some other way to explain it."

"No! There's no other way. Oh, not people like us, maybe. Maybe we're seeing them right now, spinning like crazy." They all looked uneasily at the whirligigs. "But I think they're not here yet. I think we're going to see, over the next few years, increasing complexity in these plants and animals as they build up a biome here and get ready for the builders. Think about it. When summer comes, the In the Hall of the Martian Kings 143 conditions will be very different. The atmosphere will be almost as dense as ours, with about the same partial pressure of oxygen. By then, thousands of years from now, these early forms will have vanished. These things are adapted for low pressure, no oxygen, scarce water. The later ones will be adapted to an environment much like ours. And that's when we'll see the makers, when the stage is properly set." She sounded almost religious when she said it.

Lang stood up and shook Song's shoulder. Song came slowly back to them and sat down, still blinded by a private vision. Crawford had a glimpse of it himself, and it scared him. And a glimpse of something else, something that could be important but kept eluding him.

"Don't you see?" she went on, calmer now. "It's too pat, too much of a coincidence. This thing is like a... a headstone, a monument. It's growing right here in the graveyard, from the bodies of our friends. Can you believe in that as just a coincidence?"

Evidently no one could. But at the same time Crawford could see no reason why it should have happened the way it did.

It was painful to leave the mystery for later, but there was nothing to be done about it. They could not bring themselves to uproot the thing, even when five more like it sprouted in the graveyard. There was a new consensus among them to leave the Martian plants and animals alone. Like nervous atheists, most of them didn't believe Song's theories but had an uneasy feeling of trespassing when they went through the gardens. They felt subconsciously that it might be better to leave them alone in case they turned out to be private property.

And for six months, nothing really new cropped up among the whirligigs. Song was not surprised. She said it supported her theory that these plants were there only as caretakers to prepare the way for the less hardy, air-breathing varieties to come. They would warm the soil and bring the water closer to the surface, then disappear when their function was over.

The three scientists allowed their studies to slide as it 144 John Varley became more important to provide for the needs of the moment. The dome material was weakening as the temporary patches lost strength, so a new home was badly needed. They were dealing daily with slow leaks, any of which could become a major blowout.

The Podkayne was lowered to the ground, and sadly decommissioned. It was a bad day for Mary Lang, the worst since the day of the blowout. She saw it as a necessary but infamous thing to do to a proud flying machine. She brooded about it for a week, becoming short-tempered and almost unapproachable. Then she asked Crawford to join her in the private shelter. It was the first time she had asked any of the other four. They lay in each other's arms for an hour, and Lang quietly sobbed on his chest. Crawford was proud that she had chosen him for her companion when she could no longer maintain her tough, competent show of strength. In a way, it was a strong thing to do, to expose weakness to the one person among the four who might possibly be her rival for leadership. He did not betray the trust. In the end, she was comforting him.

After that day Lang was ruthless in gutting the old Podkayne. She supervised the ripping out of the motors to provide more living space, and only Crawford saw what it was costing her. They drained the fuel tanks and stored the fuel in every available container they could scrounge. It would be useful later for heating and for recharging batteries. They managed to convert plastic packing crates into fuel containers by lining them with sheets of the double-walled material the whirligigs used to heat water. They were nervous at this vandalism, but had no other choice. They kept looking nervously at the graveyard as they ripped up meter-square sheets of it.

They ended up with a long cylindrical home, divided into two small sleeping rooms, a community room, and a laboratory-storehouse-workshop in the old fuel tank. Crawford and Lang spent the first night together in the "penthouse," the former cockpit, the only room with windows.

In the Hall of the Martian Kings 145 Lying there wide awake on the rough mattress, side by side in the warm air with Mary Lang, whose black leg was a crooked line of shadow lying across his body; looking up through the port at the sharp, unwinking stars- with nothing done yet about the problems of oxygen, food, and water for the years ahead and no assurance he would live out the night on a planet determined to kill him-Crawford realized he had never been happier in his life.

On a day exactly eight months after the disaster, two discoveries were made. One was in the whirligig garden and concerned a new plant that was bearing what might be fruit. They were clusters of grape-sized white balls, very hard and fairly heavy. The second discovery was made by Lucy McKillian and concerned the absence of an event that up to that time had been as regular as the full moon.

"I'm pregnant," she announced to them that night, causing Song to delay her examination of the white fruit.

It was not unexpected; Lang had been waiting for it to happen since the night the Burroughs left. But she had not worried about it. Now she must decide what to do.

"I was afraid that might happen," Crawford said. "What do we do, Mary?"

"Why don't you tell me what you think? You're the survival expert. Are babies a plus or a minus in our situation?"

"I'm afraid I have to say they're a liability. Lucy will be needing extra food during her pregnancy, and afterward, and it will be an extra mouth to feed. We can't afford the strain on our resources." Lang said nothing, waiting to hear from McKillian.

"Now wait a minute. What about all this line about 'colonists' you've been feeding us ever since we got stranded here? Who ever heard of a colony without babies? If we don't grow, we stagnate, right? We have to have children." She looked back and forth from Lang to Crawford, her face expressing formless doubts. 146 John Varley "We're in special circumstances, Lucy," Crawford explained. "Sure, I'd be all for it if we were better off. But we can't be sure we can even provide for ourselves, much less a child. I say we can't afford children until we're established."

"Do you want the child, Lucy?" Lang asked quietly.

McKillian didn't seem to know what she wanted. "No. I... but, yes. Yes, I guess I do." She looked at them, pleading for them to understand.

"Look, I've never had one, and never planned to. I'm thirty-four years old and never, never felt the lack. I've always wanted to go places, and you can't with a baby. But I never planned to become a colonist on Mars, either. I... things have changed, don't you see? I've been depressed." She looked around, and Song and Ralston were nodding sympathetically. Relieved to see that she was not the only one feeling the oppression, she went on, more strongly. "I think if I go another day like yesterday and the day before-and today-I'll end up screaming. It seems so pointless, collecting all that information, for what?"

"I agree with Lucy," Ralston said, surprisingly. Crawford had thought he would be the only one immune to the inevitable despair of the castaway. Ralston in his laboratory was the picture of carefree detachment, existing only to observe.

"So do I," Lang said, ending the discussion. But she explained her reasons to them.

"Look at it this way, Matt. No matter how we stretch our supplies, they won't take us through the next four years. We either find a way of getting what we need from what's around us, or we all die. And if we find a way to do it, then what does it matter how many of us there are? At the most, this will push our deadline a few weeks or a month closer, the day we have to be self-supporting."

"I hadn't thought of it that way," Crawford admitted.

"But that's not important. The important thing is what you said from the first, and I'm surprised you didn't see it. If we're a colony, we expand. By definition. Historian, what happened to colonies that failed to expand?"

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"Don't rub it in."

"They died out. I know that much. People, we're not intrepid space explorers anymore. We're not the career men and women we set out to be. Like it or not, and I suggest we start liking it, we're pioneers trying to live in a hostile environment. The odds are very much against us, and we're not going to be here forever, but like Matt said, we'd better plan as if we were. Comment?"

There was none, until Song spoke up, thoughtfully.

"I think a baby around here would be fun. Two should be twice as much fun. I think I'll start. Come on, Marty."

"Hold on, honey," Lang said, dryly. "If you conceive now, I'll be forced to order you to abort. We have the chemicals for it, you know."

"That's discrimination."

"Maybe so. But just because we're colonists doesn't mean we have to behave like rabbits. A pregnant woman will have to be removed from the work force at the end of her term, and we can only afford one at a time. After Lucy has hers, then come ask me again. But watch Lucy carefully, dear. Have you really thought what it's going to take? Have you tried to visualize her getting into her pressure suit in six or seven months?"

From their expressions, it was plain that neither Song nor McKillian had thought of it.

"Right," Lang went on. "It'll be literal confinement for her, right here in the Poddy. Unless we can rig something for her, which I seriously doubt. Still want to go through with it, Lucy?"

"Can I have a while to think it over?"

"Sure. You have about two months. After that, the chemicals aren't safe."

"I'd advise you to do it," Crawford said. "I know my opinion means nothing after shooting my mouth off. I know I'm a fine one to talk; I won't be cooped up in here. But the colony needs it. We've all felt it: the lack of a direction or a drive to keep going. I think we'd get it back if you went through with this."

McKillian tapped her teeth thoughtfully with the tip of a finger. 148 John Varley "You're right," she said. "Your opinion doesn't mean anything." She slapped his knee delightedly when she saw him blush. "I think it's yours, by the way. And I think I'll go ahead and have it."

The penthouse seemed to have gone to Lang and Crawford as an unasked-for prerogative. It just became a habit, since they seemed to have developed a bond between them and none of the other three complained. Neither of the other women seemed to be suffering in any way. So Lang left it at that. What went on between the three of them was of no concern to her as long as it stayed happy.

Lang was leaning back in Crawford's arms, trying to decide if she wanted to make love again, when a gunshot rang out in the Podkayne.

She had given a lot of thought to the last emergency, which she still saw as partly a result of her lag in responding. This time she was through the door almost before the reverberations had died down, leaving Crawford to nurse the leg she had stepped on in her haste.

She was in time to see McKillian and Ralston hurrying into the lab at the back of the ship. There was a red light flashing, but she quickly saw it was not the worst it could be; the pressure light still glowed green. It was the smoke detector. The smoke was coming from the lab.

She took a deep breath and plunged in, only to collide with Ralston as he came out, dragging Song. Except for a dazed expression and a few cuts, Song seemed to be all right. Crawford and McKillian joined them as they lay her on the bunk.

"It was one of the fruit," she said, gasping for breath and coughing. "I was heating it in a beaker, turned away, and it blew. I guess it sort of stunned me. The next thing I knew, Marty was carrying me out here. Hey, I have to get back in there! There's another one... it could be dangerous, and the damage, I have to check on that-" She struggled to get up but Lang held her down.

"You take it easy. What's this about another one?"

"I had it clamped down, and the drill-did I turn it on In the Hall of the Martian Kings 149 or not? I can't remember. I was after a core sample. You'd better take a look. If the drill hits whatever made the other one explode, it might go off."

"I'll get it," McKillian said, turning toward the lab.

"You'll stay right here," Lang barked. "We know there's not enough power in them to hurt the ship, but it could kill you if it hit you right. We stay right here until it goes off. The hell with the damage. And shut that door, quick!"

Before they could shut it they heard a whistling, like a teakettle coming to boil, then a rapid series of clangs. A tiny white ball came through the doorway and bounced off three walls. It moved almost faster than they could follow. It hit Crawford on the arm, then fell to the floor where it gradually skittered to a stop. The hissing died away, and Crawford picked it up. It was lighter than it had been. There was a pinhole drilled in one side. The pinhole was cold when he touched it with his fingers. Startled, thinking he was burned, he stuck his finger in his mouth, then sucked on it absently long after he knew the truth.

"These 'fruit' are full of compressed gas," he told them. "We have to open up another, carefully this time. I'm almost afraid to say what gas I think it is, but I have a hunch that our problems are solved."

By the time the rescue expedition arrived, no one was calling it that. There had been the little matter of a long, brutal war with the Palestinian Empire, and a growing conviction that the survivors of the First Expedition had not had any chance in the first place. There had been no time for luxuries like space travel beyond the Moon and no billions of dollars to invest while the world's energy policies were being debated in the Arabian desert with tactical nuclear weapons.

When the ship finally did show up, it was no longer a NASA ship. It was sponsored by the fledgling International Space Agency. Its crew came from all over Earth. Its drive was new, too, and a lot better than the old one. 150 John Varley As usual, war had given research a kick in the pants. Its mission was to take up the Martian exploration where the first expedition had left off and, incidentally, to recover the remains of the twenty Americans for return to Earth.

The ship came down with an impressive show of flame and billowing sand, three kilometers from Tharsis Base.

The captain, an Indian named Singh, got his crew started on erecting the permanent buildings, then climbed into a crawler with three officers for the trip to Tharsis. It was almost exactly twelve Earth years since the departure of the Edgar Rice Burroughs.

The Podkayne was barely visible behind a network of multicolored vines. The vines were tough enough to frustrate the rescuers' efforts to push through and enter the old ship. But both lock doors were open, and sand had drifted in rippled waves through the opening. The stern of the ship was nearly buried.

Singh told his people to stop, and he stood back admiring the complexity of the life in such a barren place. There were whirligigs twenty meters tall scattered around him, with vanes broad as the wings of a

cargo aircraft.

"We'll have to get cutting tools from the ship," he told his crew. "They're probably in there. What a place this is! I can see we're going to be busy." He walked along the edge of the dense growth, which now covered several acres. He came to a section where the predominant color was purple. It was strangely different from the rest of the garden. There were tall whirligig derricks but they were frozen, unmoving. And covering all the derricks was a translucent network of ten-centimeter-wide strips of plastic, which was thick enough to make an impenetrable barrier. It was like a cobweb made of flat, thin material instead of fibrous spider silk. It bulged outward between all the cross braces of the whirligigs.

"Hello, can you hear me now?"

Singh jumped, then turned around, looked at the three officers. They were looking as surprised as he was.

"Hello, hello, hello? No good on this one, Mary. Want me to try another channel?"

In the Hall of the Martian Kings 151 "Wait a moment. I can hear you. Where are you?"

"Hey, he hears me! Uh, that is, this is Song Sue Lee, and I'm right in front of you. If you look real hard into the webbing, you can just make me out. I'll wave my arms. See?"

Singh thought he saw some movement when he pressed his face to the translucent web. The web resisted his hands, pushing back like an inflated balloon.

"I think I see you." The enormity of it was just striking him. He kept his voice under tight control as his officers rushed up around him, and managed not to stammer. "Are you well? Is there anything we can do?"

There was a pause. "Well, now that you mention it, you might have come on time. But that's water through the pipes, I guess. If you have some toys or something, it might be nice. The stories I've told little Billy of all the nice things you people were going to bring! There's going to be no living with him, let me tell you."

This was getting out of hand for Captain Singh.

"Ms. Song, how can we get in there with you?"

"Sorry. Go to your right about ten meters, where you see the steam coming from the web. There, see it?" They did, and as they looked, a section of the webbing was pulled open and a rush of warm air almost blew them over. Water condensed out of it on their faceplates, and suddenly they couldn't see very well.

"Hurry, hurry, step in! We can't keep it open too long!" They groped their way in, scraping frost away with their hands. The web closed behind them, and they were standing in the center of a very complicated network made of single strands of the webbing material. Singh's pressure gauge read 30 millibars.

Another section opened up and they stepped through it. After three more gates were passed, the temperature and pressure were nearly Earth-normal. And they were standing beside a small oriental woman with skin tanned almost black. She had no clothes on, but seemed adequately dressed in a brilliant smile that dimpled her 152 John Varley mouth and eyes. Her hair was streaked with gray. She would be-Singh stopped to consider-forty-one years old.

"This way," she said, beckoning them into a tunnel formed from more strips of plastic. They twisted around through a random maze, going through more gates that opened when they neared them, sometimes getting on their knees when the clearance was low. They heard the sound of children's voices.

They reached what must have been the center of the maze and found the people everyone had given up on. Eighteen of them. The children became very quiet and stared solemnly at the new arrivals, while the other four adults...

The adults were standing separately around the space while tiny helicopters flew around them, wrapping them from head to toe in strips of webbing like human maypoles.

"Of course we don't know if we would have made it without the assist from the Martians," Mary Lang was saying, from her perch on an orange thing that might have been a toadstool. "Once we figured out what was happening here in the graveyard, there was no need to explore alternative ways of getting food, water, and oxygen. The need just never arose. We were provided for."

She raised her feet so a group of three gawking women from the rescue ship could get by. They were letting them come through in groups of five very hour. They didn't dare open the outer egress more often than that, and Lang was wondering if it was too often. The place was crowded, and the kids were nervous. But better to have the crew satisfy their curiosity in here where we can watch them, she reasoned, than have them messing things up outside.

The inner nest was free-form. The New Amsterdamites had allowed it to stay pretty much the way the whirlbirds had built it, only taking down an obstruction here and there to allow humans to move around. It was a maze of gauzy walls and plastic struts, with clear plastic pipes run- in the Hall of the Martian Kings 153 ning all over and carrying fluids of pale blue, pink, gold, and wine. Metal spigots from the Podkayne had been inserted in some of the pipes. McKillian was kept busy refilling glasses for the visitors, who wanted to sample the antifreeze solution that was fifty percent ethanol. It was good stuff, Captain Singh reflected as he drained his third glass, and that was what he still couldn't understand.

He was having trouble framing the questions he wanted to ask, and he realized he'd had too much to drink. The spirit of celebration, the rejoicing at finding these people here past any hope-one could hardly stay aloof from it. But he refused a fourth drink regretfully.

"I can understand the drink," he said, carefully. "Ethanol is a simple compound and could fit into many different chemistries. But it's hard to believe that you've survived eating the food these plants produced for you."

"Not once you understand what this graveyard is and why it became what it did," Song said. She was sitting cross-legged on the floor nursing her youngest, Ethan.

"First you have to understand that all this you see," she waved around at the meters of hanging soft sculpture, nearly causing Ethan to lose the nipple, "was designed to contain beings who are no more adapted to this Mars than we are. They need warmth, oxygen at fairly high pressures, and free water. It isn't here now, but it can be created by properly designed plants. They engineered these plants to be triggered by the first signs of free water and to start building places for them to live while they waited for full summer to come. When it does, this whole planet will bloom. Then we can step outside without wearing suits or carrying airberries."

"Yes, I see," Singh said. "And it's all very wonderful, almost too much to believe." He was distracted for a moment, looking up to the ceiling where the airberries- white spheres about the size of bowling balls-hung in clusters from the pipes that supplied them with high-pressure oxygen.

"I'd like to see that process from the start," he said. "Where you suit up for the outside, I mean." 154 John Varley "We were suiting up when you got here. It takes about half an hour, so we couldn't get out in time to meet you."

"How long are those... suits good for?"

"About a day," Crawford said. "You have to destroy them to get out of them. The plastic strips don't cut well, but there's another specialized animal that eats that type of plastic. It's recycled into the system. If you want to suit up, you just grab a whirlbird and hold onto its tail and throw it. It starts spinning as it flies, and wraps the end product around you. It takes some practice, but it works. The stuff sticks to itself, but not to us. So you spin several layers, letting each one dry, then hook up an airberry, and you're inflated and insulated."

"Marvelous," Singh said, truly impressed. He had seen the tiny whirlbirds weaving the suits, and the other ones, like small slugs, eating them away when the colonists saw they wouldn't need them. "But without some sort of exhaust, you wouldn't last long. How is that accomplished?"

"We use the breather valves from our old suits," McKillian said. "Either the plants that grow valves haven't come up yet or we haven't been smart enough to recognize them. And the insulation isn't perfect. We only go out in the hottest part of the day, and our hands and feet tend to get cold. But we manage."

Singh realized he had strayed from his original question.

"But what about the food? Surely it's too much to expect these Martians to eat the same things we do. Wouldn't you think so?"

"We sure did, and we were lucky to have Marty Ralston along. He kept telling us the fruits in the graveyard were edible by humans. Fats, starches, proteins; all identical to the ones we brought along.

The clue was in the orrery, of course."

Lang pointed to the twin globes in the middle of the room, still keeping perfect Earth time.

"It was a beacon. We figured that out when we saw they grew only in the graveyard. But what was it telling us? We felt it meant that we were expected. Song felt that from the start, and we all came to agree with her. But we In the Hall of the Martian Kings 155 didn't realize just how much they had prepared for us until Marty started analyzing the fruits and nutrients here.

"Listen, these Martians-and I can see from your look that you still don't really believe in them, but you will if you stay here long enough-they know genetics. They really know it. We have a thousand theories about what they may be like, and I won't bore you with them yet, but this is one thing we do know. They can build anything they need, make a blueprint in DNA, encapsulate it in a spore and bury it, knowing exactly what will come up in forty thousand years. When it starts to get cold here and they know the cycle's drawing to an end, they seed the planet with the spores and... do something. Maybe they die, or maybe they have some other way of passing the time. But they know they'll return.

"We can't say how long they've been prepared for a visit from us. Maybe only this cycle; maybe twenty cycles ago. Anyway, at the last cycle they buried the kind of spores that would produce these little gizmos." She tapped the blue ball representing the Earth with one foot.

"They triggered them to be activated only when they encountered certain conditions. Maybe they knew exactly what it would be; maybe they only provided for a likely range of possibilities. Song thinks they've visited us, back in the Stone Age. In some ways it's easier to believe than the alternative. That way they'd know our genetic structure and what kinds of food we'd eat, and could prepare.

" 'Cause if they didn't visit us, they must have prepared other spores. Spores that would analyze new proteins and be able to duplicate them. Further than that, some of the plants might have been able to copy certain genetic material if they encountered any. Take a look at that pipe behind you." Singh turned and saw a pipe about as thick as his arm. It was flexible, and had a swelling in it that continuously pulsed in expansion and contraction.

"Take that bulge apart and you'd be amazed at the resemblance to a human heart. So there's another significant fact; this place started out with whirligigs, but later modified itself to use human heart pumps from the genetic 156 John Varley information taken from the bodies of the men and women •we buried" She paused to let that sink in, then went on with a slightly bemused smile.

"The same thing for what we eat and drink. That liquor you drank, for instance. It's half alcohol, and that's probably what it would have been without the corpses. But the rest of it is very similar to hemoglobin. It's sort of like fermented blood. Human blood."

Singh was glad he had refused the fourth drink. One of his crew members quietly put his glass down.

"I've never eaten human flesh," Lang went on, "but I think I know what it must taste like. Those vines to your right; we strip off the outer part and eat the meat underneath. It tastes good. I wish we could cook it, but we have nothing to burn and couldn't risk it with the high oxygen count, anyway."

Singh and everyone else was silent for a while. He found he really was beginning to believe in the Martians. The theory seemed to cover a lot of otherwise inexplicable facts.

Mary Lang sighed, slapped her thighs, and stood up. Like all the others, she was nude and seemed totally at home that way. None of them had worn anything but a Martian pressure suit for eight years. She ran her hand lovingly over the gossamer wall, the wall that had provided her and her fellow colonists and their children protection from the cold and the thin air for so long. Singh was struck by her easy familiarity with what seemed to him outlandish surroundings. She looked at home. He couldn't imagine her anywhere else.

He looked at the children. One wide-eyed little girl of eight years was kneeling at his feet. As his eyes fell on her, she smiled tentatively and took his hand.

"Did you bring any bubblegum?" the girl asked.

He smiled at her. "No, honey, but maybe there's some in the ship." She seemed satisfied. She would wait to experience the wonders of Earthly science.

"We were provided for," Mary Lang said, quietly. "They knew we were coming and they altered their plans to fit us in." She looked back to Singh. "It would have In the Hall of the Martian Kings 157

happened even without the blowout and the burials. The same sort of thing was happening around the Podkayne, too, triggered by our waste, urine and feces and such. I don't know if it would have tasted quite as good in the food department, but it would have sustained life."

Singh stood up. He was moved, but did not trust himself to show it adequately. So he sounded rather abrupt, though polite.

"I suppose you'll be anxious to go to the ship," he said. "You're going to be a tremendous help. You know so much of what we were sent here to find out. And you'll be quite famous when you get back to Earth. Your back pay should add up to quite a sum."

There was a silence, then it was ripped apart by Lang's huge laugh. She was joined by the others, and the children, who didn't know what they were laughing about but enjoyed the break in the tension.

"Sorry, Captain. That was rude. But we're not going back."

Singh looked at each of the adults and saw no trace of doubt. And he was mildly surprised to find that the statement did not startle him.

"I won't take that as your final decision," he said. "As you know, we'll be here six months. If at the end of that time any of you want to go, you're still citizens of Earth."

"We are? You'll have to brief us on the political situation back there. We were United States citizens when we left. But it doesn't matter. You won't get any takers, though we appreciate the fact that you came. It's nice to know we weren't forgotten." She said it with total assurance, and the others were nodding. Singh was uncomfortably aware that the idea of a rescue mission had died out only a few years after the initial tragedy. He and his ship were here now only to explore.

Lang sat back down and patted the ground around her, ground that was covered in a multiple layer of the Martian pressure-tight web, the kind of web that would have been made only by warm-blooded, oxygen-breathing, water-economy beings who needed protection for their bodies until the full bloom of summer. 158 John Varley "We like it here. It's a good place to raise a family, not like Earth the last time I was there. And it couldn't be much better now, right after another war. And we can't leave, even if we wanted to." She flashed him a dazzling smile and patted the ground again.

"The Martians should be showing up any time now. And we aim to thank them."

## IN THE BOWL

John Varley is from Texas. He lived in California most of his adult life and now makes his home in Oregon with his family. He started writing science fiction in 1973, is thirty years old, and one of the most interesting of the newer writers. A large number of people have been predicting great things for John Varley. He has the narrative gift which is to say that it is impossible to start reading him without getting caught up in the action behind his words. This, by itself, has always been an ability much prized among story tellers. But John Varley has something else. His thinking is the thinking of the seventies; and the ideas, the themes and concepts of his stories are those of the 1970's. "In the Bowl"-the story by him that follows-is a thematic story, but in typical Varley fashion, it is a thematic story that will pick you up by the ears and carry you away.

Never buy anything at a secondhand organ bank. And while I'm handing out good advice, don't outfit yourself for a trip to Venus until you get to Venus.

I wish I had waited. But while shopping around at Coprates a few weeks before my vacation, I happened on this little shop and was talked into an infraeye at a very good price. What I should have asked myself was what was an infraeye doing on Mars in the first place?

Think about it. No one wears them on Mars. If you want to see at night, it's much cheaper to buy a snooperscope. That way you can take the damn thing off when the sun comes up. So this eye must have come back with a tourist from Venus. And there's no telling how long it sat there in the vat until this sweet-talking old guy gave me his line about how it belonged to a nice little old schoolteacher who never... ah, well. You've probably heard it before.

If only the damn thing had gone on the blink before I left Venusburg. You know Venusburg: town of steamy swamps and sleazy hotels where you can get mugged as you walk down the public streets, lose a



fortune at the gaming tables, buy any pleasure in the known universe, hunt the prehistoric monsters that wallow in the fetid marshes that are. just a swampbuggy ride out of town. You do? Then you should know that after hours -when they turn all the holos off and the place reverts to an ordinary cluster of silvery domes sitting in darkness and eight hundred degree temperature and pressure enough to give you a sinus headache just thinking about it, when they shut off all the tourist razzle-dazzle -it's no trouble to find your way to one of the rental agencies around the spaceport and get medical work done. They'll accept Martian money. Your Solar Express Card is honored. Just walk right in, no waiting.

However...

I had caught the daily blimp out of Venusburg just hours after I touched down, happy as a clam, my infraeye working beautifully. By the time I landed in Cui-Cui Town, I was having my first inklings of trouble. Barely enough to notice; just the faintest hazing in the right-side peripheral vision. I shrugged it off. I had only three hours in Cui-Cui before the blimp left for Last Chance. I wanted to look around. I had no intention of wasting my few hours in a body shop getting my eye fixed. If it was still acting up at Last Chance, then I'd see about it.

Cui-Cui was more to my liking than Venusburg. There was not such a cast-of-thousands feeling there. On the streets of Venusburg the chances are about ten to one against meeting a real human being; everyone else is a holo put there to spice up the image and help the streets look not quite so empty. I quickly tired of toot-suited pimps that I could see right through trying to sell me boys and girls of all ages. What's the point? Just try to touch one of those beautiful people.

In Cui-Cui the ratio was closer to fifty-fifty. And the theme was not decadent corruption, but struggling frontier. The streets were very convincing mud, and the wooden storefronts were tastefully done. I didn't care for the eight-legged dragons with eyestalks that constantly lumbered through the place, but I understand they are a memorial to the fellow who named the town That's all right, but I doubt if he would have liked to have one of the damn things walk through him like a twelve-ton tank made of pixie dust.

I barely had time to get my feet "wet" in the "puddles" before the blimp was ready to go again. And the eye trouble had cleared up. So I was off to Last Chance.

I should have taken a cue from the name of the town. And I had every opportunity to do so. While there, I made my last purchase of supplies for the bush. I was going out where there were no air stations on every corner, and so I decided I could use a tagalong.

Maybe you've never seen one. They're modern science's answer to the backpack. Or maybe to the mule train, though in operation you're sure to be reminded of the safari bearers in old movies, trudging stolidly along behind the White Hunter with bales of supplies on their heads. The thing is a pair of metal legs exactly as long as your legs, with equipment on the top and an umbilical cord attaching the contraption to your lower spine. What it does is provide you with the capability of living on the surface for four weeks instead of the five days you get from your Venus-lung. The medico who sold me mine had me laying right there on his table with my back laid open so he could install the tubes that carry air from the tanks in the tagalong into my Venus-lung. It was a golden opportunity to ask him to check the eye. He probably would have, because while he was hooking me up he inspected and tested my lung and charged me nothing. He wanted to know where I bought it, and I told him Mars. He clucked, and said it seemed all right: He warned me not to ever let the level of oxygen in the lung get too low, to always charge it up before I left a pressure dome, even if I was only going out for a few minutes. I assured him that I knew all that and would be careful. So he connected the nerves into a metal socket in the small of my back and plugged the tagalong into it. He tested it several ways and said the job was done.

And I didn't ask him to look at the eye. I just wasn't thinking about the eye then. I'd not even gone out on the surface yet. So I'd no real occasion to see it in action. Oh, things looked a little different, even in visible light. There were different colors and very few shadows, and the image I got out of the infraeye was fuzzier than the one from the other eye. I could close one eye, then the other, and see a real difference. But I wasn't thinking about it.

So I boarded the blimp the next day for the weekly scheduled flight to Lodestone, a company mining town close to the Fahrenheit Desert. Though how they were able to distinguish a desert from anything else on Venus was still a mystery to me. I was enraged to find that, though the blimp left half-loaded, I

had to pay two fares: one for me, and one for my tagalong. I thought briefly of carrying the damn thing in my lap but gave it up after a ten-minute experiment in the depot. It was full of sharp edges and poking angles, and the trip was going to be a long one. So I paid. But the extra expense had knocked a large hole in my budget.

From Cui-Cui the steps got closer together and harder to reach. CuiCui is two thousand kilometers from Venusburg, and it's another thousand to Lodestone. After that the passenger service is spotty. I did find out how Venusians defined a desert, though. A desert is a place not yet inhabited by human beings. So long as I was still able to board a scheduled blimp, I wasn't there yet.

The blimps played out on me in a little place called Prosperity. Population seventy-five humans and one otter. I thought the otter was a holo playing in the pool in the town square. The place didn't look prosperous enough to afford a real pool like that with real water. But it was. It was a transient town catering to prospectors. I understand that a town like that can vanish overnight if the prospectors move on. The owners of the shops just pack up and haul the whole thing away. The ratio of the things you see in a frontier town to what really is there is something like a hundred to one.

I learned with considerable relief that the only blimps I could catch out of Prosperity were headed in the direction I had come from. There was nothing at all going the other way. I was happy to hear that and felt it was only a matter of chartering a ride into the desert. Then my eye faded out entirely.

I remember feeling annoyed; no, more than annoyed. I was really angry. But I was still viewing it as a nuisance rather than a disaster. It was going to be a matter of some lost time and some wasted money.

I quickly learned otherwise. I asked the ticket seller (this was in a saloon-drugstore-arcade; there was no depot in Prosperity) where I could find someone who'd sell and install an infraeye. He laughed at me.

"Not out here you won't, brother," he said. "Never have had anything like that out here. Used to be a medico in Ellsworth, three stops back on the local blimp, but she moved back to Venusburg a year ago. Nearest thing now is in Last Chance."

I was stunned. I knew I was heading out for the dead lands, but it had never occurred to me that any place would be lacking in something so basic as a medico. Why, you might as well not sell food or air as not sell medicinal services. People might actually die out here. I wondered if the planetary government knew about this disgusting situation.

Whether they did or not, I realized that an incensed letter to them would do me no good. I was in a bind. Adding quickly in my head, I soon discovered that the cost of flying back to Last Chance and buying a new eye would leave me without enough money to return to Prosperity and still make it back to Venusburg. My entire vacation was about to be ruined just because I tried to cut some corners buying a used eye.

"What's the matter with the eye?" the man asked me.

"Huh? Oh, I don't know. I mean, it's just stopped working. I'm blind in it, that's what's wrong." I grasped at a straw, seeing the way he was studying my eye.

"Say, you don't know anything about it, do you?"

He shook his head and smiled ruefully at me. "Naw, Just a little here and there. I was thinking if it was the muscles that was giving you trouble, bad tracking or something like that--"

"No. No vision at all."

"Too bad. Sounds like a shot nerve to me. I wouldn't try to fool around with that. I'm just a tinkerer." He clucked his tongue sympathetically. "You want that ticket back to Last Chance?"

I didn't know what I wanted just then. I had planned this trip for two years. I almost bought the ticket, then thought what the hell. I was here, and I should at least look around before deciding what to do. Maybe there was someone here who could help me. I turned back to ask the clerk if he knew anyone, but he answered before I got it out.

"I don't want to raise your hopes too much," he said, rubbing his chin with a broad hand. "Like I say, it's not for sure, but--" "Yes, what is it?"

"Well, there's a kid lives around here who's pretty crazy about medico stuff. Always tinkering around, doing odd jobs for people, fixing herself up; you know the type. The trouble is she's pretty loose in her ways. You might end up worse when she's through with you than when you started."

"I don't see how," I said. "It's not working at all; what could she do to make it any worse?"

He shrugged. "It's your funeral. You can, probably find her hanging around the square. If she's not there, check the bars. Her name's Ember. She's got a pet otter that's always with her. But you'll know her when you see her."

Finding Ember was no problem. I simply backtracked to the square and there she was, sitting on the stone rim of the fountain. She was trailing her toes in the water. Her otter was playing on a small waterslide, looking immensely pleased to have found the only open body of water within a thousand kilometers.

"Are you Ember?" I asked, sitting down beside her.

She looked up at me with that unsettling stare a Venusian can inflict on a foreigner. It comes of having one blue or brown eye and one that is all red, with no white. T looked that way myself, but I didn't have to look at it.

"What if I am?"

Her apparent age was about ten or eleven. Intuitively, I felt that it was probably very close to her actual age. Since she was supposed to be handy at medicanics, I could have been wrong. She had done some work on herself, but of course there was no way of telling how extensive it might have been. Mostly it seemed to be cosmetic. She had no hair on her head. She had replaced it with a peacock fan of feathers that kept falling into her eyes. Her scalp skin had been transplanted to her lower legs and forearms, and the hair there was long, blonde, and flowing. From the contours of her face I was sure that her skull was a mass of file marks and bone putty from where she'd fixed the understructure to reflect the face she wished to wear.

"I was told that you know a little medicanics. You see, this eye has"

She snorted. "I don't know who would have told you that. I know a hell of a lot about medicine. I'm not just a backyard tinkerer. Come on, Malibu."

She started to get up, and the otter looked back and forth between us. I don't think he was ready to leave the pool.

"Wait a minute. I'm sorry if I hurt your feelings. Without knowing anything about you I'll admit that you must know more about it than anyone else in town."

She sat back down, finally had to grin at me.

"So you're in a spot, right? It's me or no one. Let me guess: you're here on vacation, that's obvious. And either time or money is preventing you from going back to Last Chance for professional work." She looked me up and down. "I'd say it was money."

"You hit it. Will you help me?"

"That depends." She moved closer and squinted into my infraeye. She put her hands on my cheeks to hold my head steady. There was nowhere for me to look but her face. There were no scars visible on her; at least she was that good. Her upper canines were about five millimeters longer than the rest of her teeth.

"Hold still. Where'd you get this?"

"Mars. "

"Thought so. It's a Gloom Piercer, made by Northern Bio. Cheap model; they peddle 'em mostly to tourists. Maybe ten, twelve years old."

"Is it the nerve? The guy I talked to-"

"Nope." She leaned back and resumed splashing her feet in the water. "Retina. The right side is detached, and it's flopped down over the fovea. Probably wasn't put on very tight in the first place. They don't make those things to last more than a year."

I sighed and slapped my knees with my palms. I stood up, held out my hand to her.

"Well, I guess that's that. Thanks for your help."

She was surprised. "Where you going?"

"Back to Last Chance, then to Mars to sue a certain organ bank. There are laws for this sort of thing on Mars."

"Here, too. But why go back? I'll fix it for you."

We were in her workshop, which doubled as her bedroom and kitchen. It was just a simple dome without a single holo. It was refreshing after the ranch-style houses that seemed to be the rage in Prosperity. I don't wish to sound chauvinistic, and I realize that Venusians need some sort of visual stimulation, living as they do in a cloud-covered desert. Still, the emphasis on illusion there was never to my liking. Ember lived next door to a man who lived in a perfect replica of the Palace at Versailles. She told me that when he shut his holo generators off the residue of his real possessions would have fit in a knapsack. Including the holo generator.

"What brings you to Venus?"

"Tourism."

She looked at me out of the corner of her eye as she swabbed my face with nerve deadener. I was stretched out on the floor, since there was no furniture in the room except a few work tables.

"All right. But we don't get many tourists this far out. If it's none of my business, just say so."

"It's none of your business."

She sat up. "Fine. Fix your own eye." She waited with a half smile on her face. I eventually had to smile, too. She went back to work, selecting a spoon-shaped tool from a haphazard pile at her knees.

"I'm an amateur geologist. Rock hound, actually. I work in an office, and weekends I get out in the country and hike around. The rocks are an excuse to get me out there, I guess."

She popped the eye out of its socket and reached in with one finger to deftly unhook the metal connection along the optic nerve. She held the eyeball up to the light and peered into the lens.

"You can get up now. Pour some of this stuff into the socket and squint down on it." I did as she asked and followed her to the workbench.

She sat on a stool and examined the eye more closely. Then she stuck a syringe into it and drained out the aqueous humor, leaving the orb looking like a turtle egg that's dried in the sun. She sliced it open and started probing carefully. The long hairs on her forearms kept getting in the way. So she paused and tied them back with rubber bands.

"Rock hound," she mused. "You must be here to get a look at the blast jewels."

"Right. Like I said, I'm strictly a small-time geologist. But I read about them and saw one once in a jeweler's shop in Phobos. So I saved up and came to Venus to try: and find one of my own."

"That should be no problem. Easiest gems to find in the known universe. Too bad. People out here were hoping they could get rich off them." She shrugged. "Not that there's not some money to be made off them. Just not the fortune everybody was hoping for. Funny; they're as rare as diamonds used to be, and to make it even better, they don't duplicate in the lab the way diamonds do. Oh, I guess they could make 'em, but it's way too much trouble." She was using a tiny device to staple the detached retina back onto the rear surface of the eye.

"Go on."

"Huh?"

"Why can't they make them in the lab?"

She laughed. "You are an amateur geologist. Like I said, they could, but it'd cost too much. They're a blend of a lot of different elements. A lot of aluminum, I think. That's what makes rubies red, right?"

"Yes."

"It's the other impurities that make them so pretty. And you have to make them in high pressure and heat, and they're so unstable that they usually blow before you've got the right mix. So it's cheaper to go out and pick 'em up."

"And the only place to pick them up is in the middle of the Fahrenheit Desert."

"Right." She seemed to be finished with her stapling. She straightened up to survey her work with a critical eye. She frowned, then sealed up the incision she had made and pumped the liquid back in. She mounted it in a caliper and aimed a laser at it, then shook her head when she read some figures on a readout by the laser.

"It's working," she said. "But you really got a lemon. The iris is out of true. It's an ellipse, about .24 eccentric. It's going to get worse. See that brown discoloration on the left side? That's progressive decay in the muscle tissue, poisons accumulating in it. And you're a dead cinch for cataracts in about four

months."

I couldn't see what she was talking about, but I pursed my lips as if I did.

"But will it last that long?"

She smirked at me. "Are you looking for a six-month warranty? Sorry, I'm not a member of the VMA. But if it isn't legally binding, I guess I'd feel safe in saying it ought to last that long. Maybe."

"You sure go out on a limb, don't you?"

"It's good practice. We future medicos must always be on the alert for malpractice suits. Lean over here and I'll put it in."

"What I was wondering," I said, as she hooked it up and eased- -it -back into the socket, "is whether I'd be safe going out in the desert for four weeks with this eye."

"No," she said promptly, and I felt a great weight of disappointment. "Nor with any eye," she quickly added. "Not if you're going alone."

"I see. But you think the eye would hold up?"

"Oh, sure. But you wouldn't. That's why you're going to take me up on my astounding offer and let me be your guide through the desert."

I snorted. "You think so? Sorry, this is going to be a solo expedition. I planned it that way from the first. That's what I go out rock hunting for in the first place: to be alone." I dug my credit meter out of my pouch. "Now, how much do I owe you?"

She wasn't listening but was resting her chin on her palm and looking wistful.

"He goes out so he can be alone, did you hear that, Malibu?" The otter looked up at her from his place on the floor. "Now take me, for instance. Me, I know what being alone is all about. It's the crowds and big 4 cities I crave. Right, old buddy?" The otter kept looking, at her, obviously ready to agree to anything.

"I suppose so," I said. "Would a hundred be all right?" That was about half what a registered medico A would have charged me, but like I said, I was running short.

"You're not going to let me be your guide? Final word?" ` a "No. Final. Listen, it's not you, it's just " j "I know. You want to be alone. No charge. Come on, Malibu." She got up and headed for the door. 4 Then she turned around.

"I'll be seeing you," she said, and winked at me.

It didn't take me too long to understand what the e wink had been all about. I can see the obvious on the 1 third or fourth go-around The fact was that Prosperity was considerably be- R mused to have a tourist in its midst. There wasn't a rental agency or hotel in the entire town. I had thought of that but hadn't figured it would be too hard to find.` someone willing to rent his private skycycle if the price. was right. I'd been saving out a large chunk of cash for the purpose of meeting extortionate demands in that department. I felt sure the locals would be only too willing to soak a tourist.

But they weren't taking. Just about everyone had a skycycle, and absolutely everyone who had one was uninterested in renting it. They were a necessity to anyone who worked out of town, which everyone did, and they were hard to get. Freight schedules were as spotty as the passenger service. And every person who turned me down had a helpful suggestion to make. As I say, after the fourth or fifth such suggestion I found myself back in the town square. She was sitting just as she had been the first time, trailing her feet in the water. Malibu never seemed to tire of the waterslide.

"Yes," she said, without looking up. "It so happens that I do have a skycycle for rent."

I was exasperated, but I had to cover it up. She had me over the proverbial barrel.

"Do you always hang around here?" I asked. "People tell me to see you about a skycycle and tell me to look here, almost like you and this fountain are a hyphenated word. What else do you do?"

She fixed me with a haughty glare. "I repair eyes for dumb tourists. I also do body work for everyone in town at only twice what it would cost them in Last Chance. And I do it damn well, too, though those rubes'd be the last to admit it. No doubt Mr. Lamara at the ticket station told you scandalous lies about my skills. They resent it because I'm taking advantage of the cost and time it would take them to get to Last Chance and pay merely inflated prices, instead of the outrageous ones I charge them."

I had to smile, though I was sure I was about to become the object of some outrageous prices myself.

She was a shrewd operator.

"How old are you?" I found myself asking, then almost bit my tongue. The last thing a proud and independent child likes to discuss is age. But she surprised me.

"In mere chronological time, eleven Earth years.

That's just over six of your years. In real, internal time, of course, I'm ageless."

"Of course. Now about that cycle..."

"Of course. But I evaded your earlier question. What I do besides sit here is irrelevant, because while sitting here I am engaged in contemplating eternity. I'm diving into my navel, hoping to learn the true depth of the womb. In short, I'm doing my yoga exercises." She looked thoughtfully out over the water to her pet. "Besides, it's the only pool in a thousand kilometers." She grinned at me and dived fiat over the water. She cut it like a knife blade and torpedoed out to her otter, who set up a happy racket of barks.

When she surfaced near the middle of the pool, out by the jets and falls, I called to her.

"What about the cycle?"

She cupped her ear, though she was only about fifteen meters away.

"I said what about the cycle?"

"I can't hear you," she mouthed. "You'll have to come out here."

I stepped into the pool, grumbling to myself. I could see that her price included more than just money.

"I can't swim," I warned.

"Don't worry, it won't get much deeper than that." It was up to my chest. I sloshed out until I was on tiptoe, then grabbed at a jutting curlicue on the fountain. I hauled myself up and sat on the wet Venusian marble with water trickling down my legs.

Ember was sitting at the bottom of the waterslide, thrashing her feet in the water. She was leaning flat against the smooth rock. The water that sheeted over the rock made a bow wave at the crown of her head. Beads of water ran off her head feathers. Once again she made me smile. If charm could be sold, she could have been wealthy. What am I talking about? Nobody ever sells anything but charm, in one way or another. I got a grip on myself before she tried to sell me the north and south poles. In no time at all I was able to see her as an avaricious, cunning little guttersnipe again.

"One billion Solar Marks per hour, not a penny less," she said from that sweet little mouth.

There was no point in negotiating from an offer like that.

"You brought me out here to hear that? I'm really disappointed in you. I didn't take you for a tease, I really didn't. I thought we could do business. I-

"Well, if that offer isn't satisfactory, try this one. Free of charge, except for oxygen and food and water." She waited, threshing the water with her feet.

Of course there would be some teeth in that. In an intuitive leap of truly cosmic scale, a surmise worthy of an Einstein, I saw the string. She saw me make that leap, knew I didn't like where I had landed, and her teeth flashed at me. So once again, and not for the last time, I had to either strangle her or smile at her. I smiled. I don't know how, but she had this knack of making her opponents like her even as she screwed them.

"Are you a believer in love at first sight?" I asked her, hoping to throw her off guard. Not a chance.

"Maudlin wishful thinking, at best," she said. "You have not bowled me over, Mister-

"Kiku."

"Nice. Martian name?"

"I suppose so. I never really thought of it. I'm not rich, Ember."

"Certainly not. You wouldn't have put yourself in my hands if you were."

"Then why are you so attracted to me? Why are you so determined to go with me, when all I want from you is to rent your cycle? If I was that charming, I would have noticed it by now."

"Oh, I don't know," she said, with one eyebrow climbing up her forehead. "There's something about you that I find absolutely fascinating. Irresistible, even." She pretended to swoon.

"Want to tell me what it is?"

She shook her head "Let that be my little secret for now."

I was beginning to suspect she was attracted to me by the shape of my neck-so she could sink her

teeth into it and drain my blood. I decided to let it lie. Hopefully she'd tell me more in the days ahead. Because it looked like there would be days together, many of them.

"When can you be ready to leave?"

"I packed right after I fixed your eye. Let's get going."

Venus is spooky. I thought and thought, and that's the best way I can describe it.

It's spooky partly because of the way you see it. Your right eye-the one that sees what's called visible light-shows you only a small circle of light that's illuminated by your hand torch. Occasionally there's a glowing spot of molten metal in the distance, but it's far too dim to see by. Your infraeye pierces those shadows and gives you a blurry picture of what lies outside the torchlight, but I would have almost rather been blind.

There's no good way to describe how this dichotomy affects your mind. One eye tells you that everything beyond a certain point is shadowy, while the other shows you what's in those shadows. Ember says that after a while your brain can blend the two pictures as easily as it does for binocular vision. I never reached that point. The whole time I was there I was trying to reconcile the two pictures.

I don't like standing in the bottom of a bowl a thousand kilometers wide. That's what you see. No matter how high you climb or how far you go, you're still standing in the bottom of that bowl. It has something to do with the bending of the light rays by the thick atmosphere, if I understand Ember correctly.

Then there's the sun. When I was there it was night time, which means that the sun was a squashed ellipse hanging just above the horizon in the east, where it had set weeks and weeks ago. Don't ask me to explain it. All I know is that the sun never sets on Venus. Never, no matter where you are. It just gets flatter and flatter and wider and wider until it oozes around to the north or south, depending on where you are;- becoming a flat, bright line of light until it begins pulling itself back together in the west, where it's going to rise in a few weeks.

Ember says that at the equator it becomes a complete circle for a split second when it's actually directly underfoot. Like the lights of a terrific stadium. All this happens up at the rim of the bowl you're standing in, about ten degrees above the theoretical horizon. It's another refraction effect.

You don't see it in your left eye. Like I said, the clouds keep out virtually all of the visible light. It's in your right eye. The color is what I got to think of as infrablue.

It's quiet. You begin to miss the sound of your own breathing, and if you think about that too much, you begin to wonder why you aren't breathing. You know, of course, except the hindbrain, which never likes it at all. It doesn't matter to the automatic nervous system that your Venus-lung is dribbling oxygen directly into your bloodstream; those circuits aren't made to understand things; they are primitive and very wary of improvements. So I was plagued by a feeling of suffocation, which was my medulla getting even with me, I guess.

I was also pretty nervous about the temperature and pressure. Silly, I know. Mars would kill me just as dead without a suit, and do it more slowly and painfully into the bargain. If my suit failed here, I doubt if I'd have felt anything. It was just the thought of that incredible pressure being held one millimeter away from my fragile skin by a force field that, physically speaking, isn't even there. Or so Ember told me. She might have been trying to get my goat. I mean, lines of magnetic force have no physical reality, but they're there, aren't they?

I kept my mind off it. Ember was there and she knew about such things.

What she couldn't adequately explain to me was why a skycycle didn't have a motor. I thought about that a lot, sitting on the saddle and pedaling my ass off with, nothing to look at but Ember's silver-plated buttocks.

She had a tandem cycle, which meant four seats; two for us and two for our tagalongs. I sat behind Ember, and the tagalongs sat in two seats off to our right. Since they aped our leg movements with exactly the same force we applied, what we had was a four human power cycle.

"I can't figure out for the life of me," I said on our first day out, "what would have been so hard about mounting an engine on this thing and using some of the surplus power from our packs."

"Nothing hard about it, lazy," she said, without turning around. "Take my advice as a fledgling medico;

this is much better for you. If you use the muscles you're wearing, they'll last you a lot longer. It makes you feel healthier and keeps you out of the clutches of money-grubbing medicos. I know. Half my work is excising fat from flabby behinds and digging varicose veins out of legs. Even out here, people don't get more than twenty years' use of their legs before they're ready for a trade-in. That's pure waste."

"I think I should have had a trade-in before we left. I'm about done in. Can't we call it a day?"

She tut-tutted, but touched a control and began spilling hot gas from the balloon over our heads. The steering vanes sticking out at our sides tilted, and we started a slow spiral to the ground.

We landed at the bottom of the bowl-my first experience with it, since all my other views of Venus had been from the air where it isn't so noticeable. I stood looking at it and scratching my head while Ember turned on the tent and turned off the balloon.

The Venusians use null fields for just about everything. Rather than try to cope with a technology that must stand up to the temperature and pressure extremes, they coat everything in a null field and let it go at that. The balloon on the cycle was nothing but a standard globular field with a discontinuity at the bottom for the air heater. The cycle body was protected with the same kind of field that Ember and I wore, the kind that follows the surface at a set distance. The tent was a hemispherical field with a fiat floor. '

It simplified a lot of things. Airlocks, for instance. What we did was to simply walk into the tent. Our suit fields vanished as they were absorbed into the tent field. To leave one need merely walk through the wall again, and the suit would form around you.

I plopped myself down on the floor and tried to turn my hand torch off. To my surprise, I found that it wasn't built to turn off. Ember turned on the campfire and noticed my puzzlement.

"Yes, it is wasteful," she conceded. "There's something in a Venusian that hates to turn out a light. You won't find a light switch on the entire planet. You may not believe this, but I was shocked silly a few years ago when I heard about light switches. The idea had never occurred to me. See what a provincial I am?"

That didn't sound like her. I searched her face for clues to what had brought on such a statement, but I could find nothing. She was sitting in front of the campfire with Malibu on her lap, preening her feathers.

I gestured at the fire, which was a beautifully executed holo of snapping, crackling logs with a heater concealed in the center of it.

"Isn't that an uncharacteristic touch? Why didn't you bring a fancy house, like the ones in town?"

"I like the fire. I don't like phony houses."

"Why not?"

She shrugged. She was thinking of other things. I tried another tack.

"Does your mother mind you going into the desert with strangers?"

She shot me a look I couldn't read.

"How should I know? I don't live with her. I'm emancipated. I think she's in Venusburg." I had obviously touched a tender area, so I went cautiously.

"Personality conflicts?"

She shrugged again, not wanting to get into it.

"No. Well, yes, in a way. She wouldn't emigrate from Venus.- I wanted to leave and she wanted to stay. Our interests didn't coincide. So we went our own ways. I'm working my way toward passage off-planet."

"How close are you?"

"Closer than you might think." She- seemed to be weighing something in her mind, sizing me up. I could hear the gears grind and the cash register bells cling as she studied my face. Then I felt 'the charm start up again, like the flicking of one of those nonexistent light switches.

"See, I'm as close as I've ever been to getting off Venus. In a few weeks, I'll be there. As soon as we get back with some blast jewels. Because you're going to adopt me."

I think I was getting used to her. I wasn't rocked by that, though it was nothing like what I had expected to hear. I had been thinking vaguely along the lines of blast jewels. She picks some up along with me, sells them, and buys a ticket off-planet, right?

That was silly, of course. She didn't need me to get blast jewels. She was the guide, not I, and it was



her cycle. She could get as many jewels as she wanted, and probably already had. This scheme had to have something to do with me, personally, as I had known back in town and forgotten about. There was something she wanted from me.

"That's why you had to go with me? That's the fatal attraction? I don't understand."

"Your passport. I'm in love with your passport. On the blank labeled 'citizenship' it says 'Mars.' Under age it says, oh... about seventy-three." She was within a year, though I keep my appearance at about thirty.

"\$o?"

"So, my dear Kiku, you are visiting a planet which is groping its way into the stone age. A medieval planet, Mr. Kiku, that sets the age of majority at thirteen-a capricious and arbitrary figure, as I'm sure you'll agree. The laws of this planet state that certain rights of free citizens are withheld from minor citizens. Among these are liberty, the pursuit of happiness, and the ability to get out of the goddam place!" She startled me with her fury, coming so hard on the heels of her usual amusing glibness. Her fists were clenched. Malibu, sitting in her lap, looked sadly up at his friend, then over to me.

She quickly brightened and bounced up to prepare dinner. She would not respond to my questions. The subject was closed for the day.

I was ready to turn back the next day. Have you ever had stiff legs? Probably not; if you go in for that sort of thing-heavy physical labor-you are probably one of those health nuts and keep yourself in shape. I wasn't in shape, and I thought I'd die. For a panicky moment I thought I was dying.

Luckily, Ember had anticipated it. She knew I was a desk jockey, and she knew how pitifully under-conditioned Martians tend to be. Added to the sedentary life styles of most modern people, we Martians come off even worse than the majority because Mars' gravity never gives us much of a challenge no matter how hard we try. My leg muscles were like soft noodles.

She gave me an old-fashioned massage and a newfangled injection that killed off the accumulated poisons. In an hour I began to take a flickering interest in the trip. So she loaded me onto the cycle and we started off on another leg of the journey.

There's no way to measure the passage of time. The sun gets flatter and wider, but it's much too slow to see. Sometime that day we passed a tributary of the Reynolds Wrap River. It showed up as a bright line in my right eye, as a crusted, sluggish semi-glacier in my left. Molten aluminum, I was told. Malibu knew what it was, and barked plaintively for us to stop so he could go for a slide. Ember wouldn't let him.

You can't get lost on Venus, not if you can still see. The river had been visible since we left Prosperity, though I hadn't known what it was. We could still see the town behind us and the mountain range in front of us and even the desert. It was a little ways up the slope of the bowl. Ember said that meant it was still about three -days' journey away from us. It takes practice to judge distance. Ember kept trying to point out Venusburg, which was several thousand kilometers behind us. She said it was easily visible as a tiny point on a clear day. I never spotted it.

We talked a lot as we pedaled. There wash nothing else to do and, besides, she was fun to talk to. She told me more of her plan for getting off Venus and filled my head with her naive ideas of what other planets were like.

It was a subtle selling campaign. We started off with her being the advocate for her crazy plan. At some point it evolved into an assumption. She took it as settled that I would adopt her and take her to Mars with me. I half believed it myself.

On the fourth day I began to notice that the bowl was getting higher in front of us. I didn't know what was causing it until Ember called a halt and we hung there in the air. We were facing a solid line of rock that sloped gradually upward to a point about fifty meters higher than we were.

"What's the matter?" I asked, glad of the rest.

"The mountains are higher," she said matter-of-factly. "Let's turn to the right and see if we can find a pass."

"Higher? What are you talking about?"

"Higher. You know, taller, sticking up more than they did the last time I was around, of slightly greater

magnitude in elevation, bigger than-

"I know the definition of higher," I said. "But why? Are you sure?"

"Of course I'm sure. The air heater for the balloon is going fiat-out; we're as high as we can go. The last time I came through here, it was plenty to get me across. But not today."

"Why?"

"Condensation. The topography can vary quite a bit here. Certain metals and rocks are molten on Venus. They boil off on a hot day, and they can condense on the mountain tops where it's cooler. Then: they melt when it warms up and flow back. to the valleys."

"You mean you brought me here in the middle of winter?"

She threw me a withering glance.

"You're the one who booked passage for winter. Besides, it's night, and it's not even midnight yet. I hadn't thought the mountains would be this high for another week."

"Can't we get around?"

She surveyed the slope critically.

"There's a permanent pass about five hundred kilometers to the east. But that would take us another week. Do you want to?"

"What's the alternative?"

"Parking the cycle here and going on foot. The desert is just over this range. With any luck we'll see our first jewels today."

I was realizing that I knew far too little about Venus to make a good decision. I had finally admitted to myself that I was lucky to have Ember along to keep me out of trouble.

"We'll do what you think best."

"All right. Turn hard left and we'll park."

We tethered the cycle by a long tungsten-alloy rope. The reason for that, I learned, was to prevent it from being buried in case there was more condensation while we were gone. It floated at the end of the cable with its heaters going full blast. And we started up the mountain.

Fifty meters doesn't sound like much. And it's not, on level ground. Try it sometime on a seventy-five degree slope. Luckily for us, Ember had seen this possibility and come prepared with alpine equipment. She sank pitons here and there and kept us together with ropes and pulleys. I followed her lead, staying slightly behind her tagalong. It was uncanny how that thing followed her up, placing its feet in precisely the spot she had stepped. Behind me, my tagalong was doing the same thing. Then there was Malibu, almost running along, racing back to see how we were doing, going to the top and chattering about what was on the other side.

I don't suppose it would have been much for a mountain climber. Personally I'd have preferred to slide on down the mountainside and call it quits. I would have, but Ember just kept going up. I don't think I've ever been so tired as the moment when we reached the top and stood looking over the desert.

Ember pointed ahead of us.

"There's one of the jewels going off now," she said.

"Where?" I asked, barely interested. I could see nothing.

"You missed it. It's down lower. They don't form up this high. Don't worry, you'll see more by and by."

And down we went. This wasn't too hard. Ember set the example by sitting down in a smooth place and letting go. Malibu was close behind her, squealing happily as he bounced and rolled down the slippery rock face. I saw Ember hit a bump and go flying in the air to come down on her head. Her suit was already stiffened. She continued to bounce her way down, frozen in a sitting position.

I followed them down in the same way. I didn't much care for the idea of bouncing around like that, but I cared even less for a slow, painful descent. It wasn't too bad. You don't feel much after your suit freezes in impact mode. It expands slightly away from your skin and becomes harder than metal, cushioning you from anything but the most severe blows that could bounce your brain against your skull and give you internal injuries. We never got going nearly fast enough, for that.

Ember helped me up at the bottom after my suit unfroze. She looked like she had enjoyed the ride. I

hadn't. One bounce seemed to have impacted my back slightly. I didn't tell her about it but just started off after her, feeling a pain with each step.

"Where on Mars do you live?" she asked brightly "Uh? Oh, at Coprates. That's on the northern slope of the Canyon."

"Yes, I know. Tell me more about it. Where will we live? Do you have a surface apartment, or are you stuck down in the underground? I can hardly wait to see the place."

She was getting on my nerves. Maybe it was just the lower-back pain.

"What makes you think you're going with me?"

"But of course you're taking me back. You said, just-2' "I said nothing of the sort. If I had a recorder I could prove it to you. No, our conversations over the last days have been a series of monologues. You tell me what fun you're going to have when we get to Mars, and I just grunt something. That's because I haven't the heart, or haven't had the heart, to tell you what a hare-brained scheme you're talking about."

I think I had finally managed to drive a barb into her. At any rate, she didn't say anything for a while. She was realizing that she had overextended herself and was counting the spoils before the battle was won.

"What's hare-brained about it?" she said at last.

"Just everything."

"No, come on, tell me."

"What makes you think I want a daughter?"

She seemed relieved. "Oh, don't worry about that I won't be any trouble. As soon as we land, you can file dissolution papers. I won't contest it. In fact, I can sign a binding agreement not to contest anything before you even adopt me. This is strictly a business arrangement, Kiku. You don't have to worry about being a mother to me. I don't need one. I'll-

"What makes you think it's just a business arrangement to me?" I exploded. "Maybe I'm old-fashioned. Maybe I've got funny ideas. But I won't enter into an adoption of convenience. I've already had my one child, and I was a good parent. I won't adopt you just to get you to Mars. That's my final word."

She was studying my face. I think she decided I meant it.

"I can offer you twenty thousand Marks."

I swallowed hard

"Where did you get that kind of money?"

"I told you I've been soaking the good people of Prosperity. What the hell is there for me to spend it on out here? I've been putting it away for an emergency like this. Up against an unfeeling Neanderthal with funny ideas about right and wrong, who-

"That's enough of that." I'm ashamed to say that I was tempted. It's unpleasant to find that what you had thought of as moral scruples suddenly seem not quite so important in the face of a stack of money. But I was helped along by my backache and the nasty mood it had given me.

"You think you can buy me. Well, I'm not for sale. I told you, I think it's wrong."

"Well, damn you, Kiku, damn you to hell." She stomped her foot hard on the ground, and her tagalong redoubled the gesture. She was going to go on damning me, but we were blasted by an explosion as her foot hit the ground.

It had been quiet before, as I said. There's no wind, no animals, hardly anything to make a sound on Venus. But when a sound gets going, watch out. That thick atmosphere is murder. I thought my head was going to come off. The sound waves battered against our suits, partially stiffening them. The only thing that saved us from deafness was the millimeter of low-pressure air between the suit field and our eardrums. It cushioned the shock enough that we were left with just a ringing in our ears.

"What was that?" I asked.

Ember sat down on the ground. She hung her head, uninterested in anything but her own disappointment.

"Blast jewel," she said. "Over that way." She pointed, and I could see a dull glowing spot about a kilometer off. There were dozens of smaller points of light-infralight-scattered around the spot.

"You mean you set it off just by stomping the ground?"

She shrugged. "They're unstable. They're full of nitroglycerine, as near as anyone can figure."

"Well, let's go pick up the pieces."

"Go ahead." She was going limp on me. And she stayed that way, no matter how I cajoled her. By the time I finally got her on her feet, the glowing spots were gone, cooled off. We'd never find them now. She wouldn't talk to me as we continued down into the valley. All the rest of the day we were accompanied by distant gunshots.

We didn't talk much the next day. She tried several times to reopen the negotiations, but I made it clear that my mind was made up. I pointed out to her that I had rented her cycle and services according to the terms she had set. Absolutely free, she had said, except for consumables, which I had paid for. There had been no mention of adoption. If there had, I assured her, I would have turned her down just as I was doing now. Maybe I even believed it.

That was during the short time the morning after our argument when it seemed like she was having no more to do with the trip. She just sat there in the tent while I made breakfast. When it came time to go, she pouted and said she wasn't going looking for blast jewels, that she'd just as soon stay right there or turn around.

After I pointed out our verbal contract, she reluctantly got up. She didn't like it, but honored her word.

Hunting blast jewels proved to be a big anticlimax. I'd had visions of scouring the countryside for days. Then the exciting moment of finding one. Eureka! I'd have howled. The reality was nothing like that. Here's how you hunt blast jewels: you stomp down hard on the ground, wait a few seconds, then move on and stomp again. When you see and hear an explosion, you simply walk to where it occurred and pick them up. They're scattered all over, lit up in the infrared bands from the heat of the explosion. They might as well have had neon arrows flashing over them. Big adventure.

When we found one, we'd pick it up and pop it into a cooler mounted on our tagalongs. They are formed by the pressure of the explosion, but certain parts of them are volatile at Venus temperatures. These elements will boil out and leave you with a grayish powder in about three hours if you don't cool them down. I don't know why they lasted as long as they did. They were considerably hotter than the air when we picked them up. So I thought they should have melted right off.

Ember said it was the impaction of the crystalline lattice that gave the jewels the temporary strength to outlast the temperature. Things behave differently in the temperature and pressure extremes of Venus. As they cooled off, the lattice was weakened and a progressive decay set in. That's why it was important to get them as soon as possible after the explosion to get unflawed gems.

We spent the whole day at that. Eventually we collected about ten kilos of gems, ranging from pea size to a few the size of an apple.

I sat beside the campfire and examined them that night: Night by my watch, anyway. Another thing I was beginning to miss was the twenty-five-hour cycle of night and day. And while I was at it, moons. It would have cheered me up considerably to spot Diemos or Phobos that night. But the sun just squatted up there in the horizon, moving slowly to the north in preparation for its transition to the morning sky.

The jewels were beautiful, I'll say that much for them. They were a wine-red color, tinged with brown. But when the light caught them right, there was no predicting what I might see. Most of the raw gems were coated with a dull substance that hid their full glory. I experimented with chipping some of them. What was left behind when I flaked off the patina was a slippery surface that sparkled even in candlelight. Ember showed me how to suspend them from a string and strike them. Then they would ring like tiny bells, and every once in a while one would shed all its imperfections and emerge as a perfect eight-sided equilateral.

I was cooking for myself that day. Ember had cooked from the first, but she no longer Teemed interested in buttering me up.

"I hired on as a guide," she pointed out, with considerable venom. "Webster's defines guide as—"

"I know what a guide is."

"—and it says nothing about cooking. Will you marry me?"

"No." I wasn't even surprised.

"Same reasons?"

"Yes. I won't enter into an agreement like that lightly. Besides, you're too young."

"Legal age is twelve. I'll be twelve in one week."

"That's too young. On Mars you must be fourteen."

"What a dogmatist. You're not kidding, are you? Is it really fourteen?"

That's typical of her lack of knowledge of the place she was trying so hard to get to. I don't know where she got her ideas about Mars. I finally concluded that she made them up whole in her daydreams.

We ate the meal I prepared in silence, toying with our collection of jewels. I estimate that I had about a thousand Marks worth of uncut stones. And I was getting tired of the Venusian bush. I figured on spending another day collecting, then heading back for the cycle. It would probably be a relief for both of us. Ember could start laying traps for the next stupid tourist to reach town, or even head for Venusburg and try in earnest.

When I thought of that, I wondered why she was still out here. If she had the money to pay the tremendous bribe she had offered me, why wasn't she in town where the tourists were as thick as flies? I was going to ask her that. But she came up to me and sat down very close.

"Would you like to make love?" she asked.

I'd had about enough inducements. I snorted, got up, and walked through the wall of the tent.

Once outside, I regretted it. My back was hurting something terrible, and I belatedly realized that my inflatable mattress would not go through the wall of the tent. If I got it through somehow, it would only burn up. But I couldn't back out after walking out; I like that. I felt committed. Maybe I couldn't think straight because of the backache; I don't know. Anyway, I picked out a soft-looking spot of ground and lay down.

I can't say it was all that soft.

I came awake in the haze of pain. I knew, without trying, that if I moved I'd get a knife in my back. Naturally I wasn't anxious to try.

My arm was lying on something soft. I moved my head-confirming my suspicions about the knife-and I saw that it was Ember. She was asleep, lying on her back. Malibu was curled up in her arm.

She was a silver-plated doll, with her mouth open and a look of relaxed vulnerability on her face. I felt a smile growing on my lips, just like the ones she had coaxed out of me back in Prosperity. I wondered why I'd been treating her so badly. At least it seemed to me that morning that I'd been treating her badly. Sure, she'd used me and tricked me and seemed to want to use me again. But what had she hurt? Who was suffering for it? I couldn't think of anyone at the moment. I resolved to apologize to her when she woke up and try to start over again. Maybe we could even reach some sort of accommodation on this adoption business.

And while I was at it, maybe I could unbend enough to ask her to take a look at my back. I hadn't even mentioned it to her, probably for fear of getting deeper in her debt. I was sure she wouldn't have taken payment for it in cash. She preferred flesh.

I was about to awaken her, but I happened to glance on my other side. There was something there. I almost didn't recognize it for what it was.

It was three meters away, growing from the cleft of two rocks. It was globular, half a meter across, and glowing a dull-reddish color. - It looked like a soft gelatin.

It was a blast jewel, before the blast.

I was afraid to talk, then remembered that talking would not affect the atmosphere around me and could not set off the explosion. I had a radio transmitter in my throat and a receiver in my ear. That's how you talk on Venus; you subvocalize and people can hear you.

Moving very carefully, I reached over and gently touched Ember on the shoulder.

She came awake quietly, stretched, and started to get up.

"Don't move," I said, in what I hoped was a whisper. It's hard to do when you're subvocalizing, but I wanted to impress on her that something was wrong.

She came alert, but didn't move.

"Look over to your right. Move very slowly. Don't scrape against the ground or anything. I don't know

what to do."

She looked, said nothing.

"You're not alone, Kiku," she finally whispered. "This is one I never heard of."

"How did it happen?"

"It must have formed during the night. No one knows much about how they form or how long it takes. No one's ever been closer than about five hundred meters to one. They always explode before you can get that close. Even the vibrations from the prop of a cycle will set them off before you can get close enough to see them."

"So what do we do?"

She looked at me. It's hard to read expressions on a reflective face, but I think she was scared. I know I was.

"I'd say sit tight."

"How dangerous is this?"

"Brother. I don't know. There's going to be quite a bang when that monster goes off. Our suits will protect us from most of it. But it's going to lift us and accelerate us very fast. That kind of sharp acceleration can mess up your insides. I'd say a concussion at the very least"

I gulped. "Then-"

"Just sit tight. I'm thinking."

So was I. I was frozen there with a hot knife somewhere in my back. I knew I'd have to squirm sometime.

The damn thing was moving.

I blinked, afraid to rub my eyes, and looked again. No, it wasn't. Not on the outside anyway. It was more like the movement you can see inside a living cell beneath a microscope. Internal flows, exchanges of fluids from here to there. I watched it and was hypnotized.

There were worlds in the jewel. There was ancient Barsoom of my childhood fairy tales; there was Middle Earth with brooding castles and sentient forests. The jewel was a window into something unimaginable, a place where there were no questions and no emotions but a vast awareness. It was dark and wet without menace. It was growing, and yet complete as it came into being. It was bigger than this ball of hot mud called Venus and had its roots down in the core of the planet. There was no corner of the universe that it did not reach.

It was aware of me. I felt it touch me and felt no surprise. It examined me in passing but was totally uninterested. I posed no questions for it, whatever it was. It already knew me and had always known me.

I felt an overpowering attraction. The thing was exerting no influence on me; the attraction was a yearning within me. I was reaching for a completion that the jewel possessed and I knew I could never have. Life would always be a series of mysteries for me. For the jewel, there was nothing but awareness. Awareness of everything.

I wrenched my eyes away at the last possible instant. I was covered in sweat, and I knew I'd look back in a moment. It was the most beautiful thing I will ever see "Kiku, listen to me."

"What?" I remembered Ember as from a huge distance.

"Listen. Wake up. Don't look at that thing."

"Ember, do you see anything? Do you feel something?"

"I see something. I... I don't want to talk about it. I can't talk about it. Wake up, Kiku, and don't look back."

I felt like I was already a pillar of salt; so why not look back? I knew that my life would never be quite like what it had been. It was like some sort of involuntary religious conversion, as if all of a sudden I knew what the universe was for. The universe was a beautiful silk-lined box for the display of the jewel I had just beheld.

"Kiku, that thing should already have gone off. We shouldn't be here. I moved when I woke up. I tried to sneak up on one before and got five hundred meters away from it. I set my foot down soft enough to walk on water, and it blew. So this thing can't be here."

"That's nice," I said. "How do we cope with the fact that it is here?"

"All right, all right, it is here. But it must not be finished. It must not have enough nitro in it yet to blow up. Maybe we can get away."

I looked back at it, then away again. It was like my eyes were welded to it with elastic bands; they'd stretch enough to let me turn away, but they kept pulling me back.

"I'm not sure I want to."

"I know," she whispered. "I.. hold on, don't look back. We have to get away."

"Listen," I said, looking at her with an act of will. "Maybe one of us can get away. Maybe both. But it's more important that you not be injured. If I'm hurt, you can maybe fix me up. If you're hurt, you'll probably die, and if we're both hurt, we're dead."

"Yeah. So?"

"So, I'm the closest to the jewel. You can start backing away from it first, and I'll follow you. I'll shield you from the worst of the blast, if it goes off. How does that sound?"

"Not too good." But she thought it over and could see no flaws in my reasoning. I think she didn't relish being the protected instead of the heroine. Childish, but natural. She proved her maturity by bowing to the inevitable.

"All right. I'll try to get ten meters from it. I'll let you know when I'm there, and you can move back. I think we can survive it at ten meters."

"Twenty."

"But... oh, all right. Twenty. Good luck, Kiku. I think I love you." She paused. "Uh, Kiku?"

"What is it? You should get moving. We don't know how long it'll stay stable."

"All right. But I have to say this. My offer last night, the one that got you so angry?"

"Yeah?"

"Well, it wasn't meant as a bribe. I mean, like the twenty thousand Marks. I just... well, I don't know much about that yet. I guess it was the wrong time?"

"Yeah, but don't worry about it. Just get moving."

She did, a centimeter at a time. It was lucky that neither of us had to worry about holding our breath. I think the tension would have been unbearable.

And I looked back. I couldn't help it. I was in the sanctuary of a cosmic church when I heard her calling me. I don't know what sort of power she used to reach me where I was. She was crying.

"Kiku, please listen to me."

"Huh? Oh, what is it?"

She sobbed in relief. "Oh, Christ, I've been calling you for an hour. Please come on. Over here. I'm back far enough."

My head was foggy. "Oh, Ember, there's no hurry I want to look at it just another minute. Hang on."

"No! If you don't start moving right this minute, I'm coming back and I'll drag you out."

"You can't do-Oh. All right, I'm coming." I looked over at her sitting on her knees. Malibu was beside her. The little otter was staring in my direction. I looked at her and took a sliding step, scuttling on my back. My back was not something to think about.

I got two meters back, then three. I had to stop to rest. I looked at the jewel, then back at Ember. It was hard to tell which drew me the strongest. I must have reached a balance point. I could have gone either way.

Then a small silver streak came at me, running as fast as it could go. It reached me and dived across.

"Malibu!" Ember screamed. I turned. The otter seemed happier than I ever saw him, even in the waterslide in town. He leaped, right at the jewel...

Regaining consciousness was a very gradual business. There was no dividing line between different states of awareness for two reasons: I was deaf, and I was blind. So I cannot say when I went from dreams to reality; the blend was too uniform, there wasn't enough change to notice.

I don't remember learning that I was deaf and blind. I don't remember learning the hand-spelling language that Ember talked to me with. The first rational moment that I can recall as such was when Ember was telling me her plans to get back to Prosperity.

I told her to do whatever she felt best, that she was in complete control. I was desolated to realize that

I was not where I had thought I was. My dreams had been of Barsoom. I thought I had become a blast jewel and had been waiting in a sort of detached ecstasy for the moment of explosion.

She operated on my left eye and managed to restore some vision. I could see things that were a meter from my face, hazily. Everything else was shadows. At least she was able to write things on sheets of paper and hold them up for me to see. It made things quicker. I learned that she was deaf, too. And Malibu was dead. Or might be. She had put him in the cooler and thought she might be able to patch him up when she got back. If not, she could always make another otter.

I told her about my back. She was shocked to hear that-I had hurt it on the slide down the mountain, but she had sense enough not to scold me about it. It was short work to fix it up. Nothing but a bruised disc, she told me.

It would be tedious to describe all of our trip back. It was difficult, because neither of us knew much about blindness. But I was able to adjust pretty quickly.

Being led by the hand was easy enough, and I stumbled only rarely after the first day. On the second day we scaled the mountains, and my tagalong malfunctioned. Ember discarded it and we traded off with hers. We could only do it when I was sitting still, as hers was made for a much shorter person. If I tried to walk with it, it quickly fell behind and jerked me off balance.

Then it was a matter of being set on the cycle and pedaling. There was nothing to do but pedal. I missed the talking we did on the way out. I missed the blast jewel. I wondered if I'd ever adjust to life without it.

But the memory had faded when we arrived back at Prosperity. I don't think the human mind can really contain something of that magnitude. It was slipping away from me by the hour, like a dream fades away in the morning. I found it hard to remember what it was that was so great about the experience. To this day, I can't really tell about it except in riddles. I'm left with shadows. I feel like an earthworm who has been shown a sunset and has no place to store the memory.

Back in town it was a simple matter for Ember to restore our hearing. She just didn't happen to be carrying any spare eardrums in her first-aid kit.

"It was an oversight," she told me. "Looking back, it seems obvious that the most likely injury from a blast jewel would be burst eardrums. I just didn't think."

"Don't worry about it. You did beautifully."

She grinned at me. "Yes, I did, didn't I?"

The vision was a larger problem. She didn't have any spare eyes and no one in town was willing to sell one of theirs at any price. She gave me one of hers as a temporary measure. She kept her infraeye and took to wearing an eye patch over the other. It made her look bloodthirsty. She told me to buy another at Venusburg, as our blood types weren't much of a match. My body would reject it in about three weeks.

The day came for the weekly departure of the blimp to Last Chance. We were sitting in her workshop, facing each other with our legs crossed and the pile of blast jewels between us.

They looked awful. Oh, they hadn't changed. We had even polished them up until they sparkled three times as much as they had back in the firelight of our tent. But now we could see them for the rotten, yellowed, broken fragments of bone that they were. We had told no one what we had seen out in the Fahrenheit Desert. There was no way to check on it, and all our experience had been purely subjective. Nothing that would stand up in a laboratory. We were the only ones who knew their true nature. Probably we would always remain the only ones. What could we tell anyone?

"What do you think will happen?" I asked.

She looked at me keenly. "I think you already know that."

"Yeah." Whatever they were, however they survived and reproduced, the one fact we knew for sure was that they couldn't survive within a hundred kilometers of a city. Once there had been blast jewels in the very spot where we were sitting. And humans do expand. Once again, we would not know what we were destroying.

I couldn't keep the jewels. I felt like a ghoul. I tried to give them to Ember, but she wouldn't have them either.



"Shouldn't we tell someone?" Ember asked.

"Sure. Tell anyone you want. Don't expect people to start tiptoeing until you can prove something to them. Maybe not even then."

"Well, it looks like I'm going to spend a few more years tiptoeing. I find I just can't bring myself to stomp on the ground."

I was puzzled. "Why? You'll be on Mars. I don't think the vibrations will travel that far."

She stared at me. "What's this?"

There was a brief confusion; then I found myself apologizing profusely to her, and she was laughing and telling me what a dirty rat I was, then taking it back and saying I could play that kind of trick on her any time I wanted. It was a misunderstanding. I honestly thought I had told her about my change of heart while I was deaf and blind. It must have been a dream, because she hadn't gotten it and had assumed the answer was a permanent no. She had said nothing about adoption since the explosion.

"I couldn't bring myself to pester you about it any more, after what you did for me," she said, breathless with excitement. "I owe you a lot, maybe my life. And I used you badly when you first got here."

I denied it, and told her I had thought she was not talking about it because she thought it was in the bag.

"When did you change your mind?" she asked.

I thought back. "At first I thought it was while you were caring for me when I was so helpless. Now I can recall when it was. It was shortly after I walked out of the tent for that last night on the ground."

She couldn't find anything to say about that. She just beamed at me. I began to wonder what sort of papers I'd be signing when we got to Venusburg: adoption, or marriage contract.

I didn't worry about it. It's uncertainties like that which make life interesting. We got up together, leaving the pile of jewels on the floor. Walking softly, we hurried out to catch the blimp.

## **LOLLIPOP AND THE TAR BABY**

"ZZZZELLO. ZZZ. HELLO. HELLO." Someone was speaking to Xanthia from the end of a ten-kilometer metal pipe, shouting to be heard across a roomful of gongs and cymbals being knocked over by angry giant bees. She had never heard such interference.

"Hello?" she repeated. "What are you doing on my wavelength?"

"Hello." The interference was still there, but the voice was slightly more distinct. "Wavelength. Searching, searching wavelength... get best reception with... Hello? Listening?"

"Yes, I'm listening. You're talking over... My radio isn't even..." She banged the radio panel with her palm in the ancient ritual humans employ when their creations are being balky. "My goddamn radio isn't even on. Did you know that?"

It was a relief to feel anger boiling up inside her. Anything was preferable to feeling lost and silly.

"Not necessary."

"What do you mean, not-who are you?"

"Who. Having... I'm, pronoun, yes, I'm having difficulty. Bear with. Me? Yes, pronoun. Bear with me. I'm not who. What. What am I?"

"All right. What are you?"

"Spacetime phenomenon. I'm gravity and causality-sink. Black hole."

Xanthia did not need black holes explained to her. She had spent her entire eighteen years hunting them, along with her clone-sister, Zoetrope. But she was not used to having them talk to her.

"Assuming for the moment that you really are a black hole," she said, beginning to wonder if this might be some elaborate trick played on her by Zoe, "just taking that as a tentative hypothesis-how are you able to talk to me?"

There was a sound like an attitude thruster going off, a rumbling pop. It was repeated.

"I manipulate spacetime framework... no, please hold line... the line. I manipulate the spacetime framework with controlled gravity waves projected in narrow... a narrow cone. I direct at the speaker in

your radio. You hear. Me."

"What was that again?" It sounded like a lot of crap to her.

"I elaborate. I will elaborate. I cut through space itself, through-hold the line, hold the line, reference." There was a sound like a tape reeling rapidly through playback heads. "This is the BBC," said a voice that was recognizably human, but blurred by static. The tape whirred again, "gust the third, in the year of our Lord nineteen fifty-seven. Today in-" Once again the tape hunted.

"chelson-Morley experiment disproved the existence of the ether, by ingeniously arranging a rotating prism-" Then the metallic voice was back.

"Ether. I cut through space itself, through a-hold the line." This time the process was shorter. She heard a fragment of what sounded like a video adventure serial. "Through a spacewarp made through the ductile etheric continuum-"

"Hold on there. That's not what you said before."

"I was elaborating."

"Go on. Wait, what were you doing? With that tape business?"

The voice paused, and when the answer came the line had cleared up quite a bit.

But the voice still didn't sound human. Computer?

"I am not used to speech. No need for it. But I have learned your language by listening to radio transmissions. I speak to you through use of indeterminate statistical concatenations. Gravity waves and probability, which is not the same thing in a causality singularity, enables a nonrational event to take place."

"Zoe, this is really you, isn't it?"

Xanthia was only eighteen Earth-years old, on her first long orbit into the space beyond Pluto, the huge cometary zone where space is truly flat. Her whole life had been devoted to learning how to find and capture black holes, but one didn't come across them very often. Xanthia had been born a year after the beginning of the voyage and had another year to go before the end of it. In her whole life she had seen and talked to only one other human being, and that was Zoe, who was one hundred and thirty-five years old and her identical twin.

Their home was the Shirley Temple, a fifteen-thousand-tonne fusion-drive ship registered out of Lowell, Pluto. Zoe owned Shirley free and clear; on her first trip, many years ago, she had found a scale-five hole and had become instantly rich. Most hole hunters were not so lucky.

Zoe was also unusual in that she seemed to thrive on solitude. Most hunters who made a strike settled down to live in comfort, buy a large company or put the money into safe investments and live off the interest. They were unwilling or unable to face another twenty years alone. Zoe had gone out again, and a third time after the second trip had proved fruitless. She had found a hole on her third trip, and was now almost through her fifth.

But for some reason she had never adequately explained to Xanthia, she had wanted a companion this time. And what better company than herself? With the medical facilities aboard Shirley she had grown a copy of herself and raised the little girl as her daughter.

Xanthia squirmed around in the control cabin of The Good Ship Lollipop, stuck her head through the hatch leading to the aft exercise room, and found nothing.

What she had expected, she didn't know. Now she crouched in midair with a screwdriver, attacking the service panels that protected the radio assembly.

"What are you doing by yourself?" the voice asked.

"Why don't you tell me, Zoe?" she said, lifting the panel off and tossing it angrily to one side. She peered into the gloomy interior, wrinkling her nose at the smell of oil and paraffin. She shone her pencil-beam into the space, flicking it from one component to the next, all as familiar to her as neighborhood corridors would be to a planet-born child. There was nothing out of place, nothing that shouldn't be there. Most of it was sealed into plastic blocks to prevent moisture or dust from getting to critical circuits. There were no signs of tampering.

"I am failing to communicate. I am not your mother, I am a gravity and causality-"

"She's not my mother," Xanthia snapped.

"My records show that she would dispute you."

Xanthia didn't like the way the voice said that. But she was admitting to herself that there was no way Zoe could have set this up. That left her with the alternative: she really was talking to a black hole.

"She's not my mother," Xanthia repeated. "And if you've been listening in, you know why I'm out here in a lifeboat. So why do you ask?"

"I wish to help you. I have heard tension building between the two of you these last years. You are growing up."

Xanthia settled back in the control chair. Her head did not feel so good.

Hole hunting was a delicate economic balance, a tightrope walked between the needs of survival and the limitations of mass. The initial investment was tremendous and the return was undependable, so the potential hole hunter had to have a line to a source of speculative credit or be independently wealthy.

No consortium or corporation had been able to turn a profit at the business by going at it in a big way. The government of Pluto maintained a monopoly on the use of one-way robot probes, but they had found over the years that when a probe succeeded in finding a hole, a race usually developed to see who would reach it and claim it first. Ships sent after such holes had a way of disappearing in the resulting fights, far from law and order.

The demand for holes was so great that an economic niche remained which was filled by the solitary prospector, backed by people with tax write-offs to gain.

Prospectors had a ninety percent bankruptcy rate. But as with gold and oil in earlier days, the potential profits were huge, so there was never a lack of speculators.

Hole hunters would depart Pluto and accelerate to the limits of engine power, then coast for ten to fifteen years, keeping an eye on the mass detector.

Sometimes they would be half a light-year from Sol before they had to decelerate and turn around. Less mass equalled more range, so the solitary hunter was the rule.

Teaming of ships had been tried, but teams that discovered a hole seldom came back together. One of them tended to have an accident. Hole hunters were a greedy lot, self-centered and self-sufficient.

Equipment had to be reliable. Replacement parts were costly in terms of mass, so the hole hunter had to make an agonizing choice with each item. Would it be better to leave it behind and chance a possibly fatal failure, or take it along, decreasing the range, and maybe miss the glory hole that is sure to be lurking just one more AU away? Hole hunters learned to be handy at repairing, jury-rigging, and bashing, because in twenty years even fail-safe triplicates can be on their last legs.

Zoe had sweated over her faulty mass detector before she admitted it was beyond her skills. Her primary detector had failed ten years into the voyage, and the second one had begun to act up six years later. She tried to put together one functioning detector with parts cannibalized from both. She nursed it along for a year with the equivalents of bobby pins and bubblegum. It was hopeless.

But Shirley Temple was a palace among prospecting ships. Having found two holes in her career, Zoe had her own money. She had stocked spare parts, beefed up the drive, even included that incredible luxury, a lifeboat.

The lifeboat was sheer extravagance, except for one thing. It had a mass detector as part of its astrogational equipment. She had bought it mainly for that reason, since it had only an eighteen-month range and would be useless except at the beginning and end of the trip, when they were close to Pluto. It made extensive use of plug-in components, sealed in plastic to prevent tampering or accidents caused by inexperienced passengers. The mass detector on board did not have the range or accuracy of the one on Shirley. It could be removed or replaced, but not recalibrated.

They had begun a series of three-month loops out from the mother ship. Xanthia had flown most of them earlier, when Zoe did not trust her to run Shirley. Later they had alternated.

"And that's what I'm doing out here by myself," Xanthia said. "I have to get out beyond ten million kilometers from Shirley so its mass doesn't affect the detector. My instrument is calibrated to ignore only the mass of this ship, not Shirley. I stay out here for three months, which is a reasonably safe time for the life systems on Lollipop, and time to get pretty lonely. Then back for refueling and supplying."

"The Lollipop?"

Xanthia blushed. "Well, I named this lifeboat that, after I started spending so much time on it. We have a tape of Shirley Temple in the library, and she sang this song, see-"

"Yes, I've heard it. I've been listening to radio for a very long time. So you no longer believe this is a trick by your mother?"

"She's not..." Then she realized she had referred to Zoe in the third person again.

"I don't know what to think," she said, miserably. "Why are you doing this?"

"I sense that you are still confused. You'd like some proof that I am what I say I am. Since you'll think of it in a minute, I might as well ask you this question. Why do you suppose I haven't yet registered on your mass detector?"

Xanthia jerked in her seat, then was brought up short by the straps. It was true, there was not the slightest wiggle on the dials of the detector.

"All right, why haven't you?" She felt a sinking sensation. She was sure the punchline came now, after she'd shot off her mouth about Lollipop-her secret from Zoe-and made such a point of the fact that Zoe was not her mother. It was her own private rebellion, one that she had not had the nerve to face Zoe with.

Now she's going to reveal herself and tell me how she did it, and I'll feel like a fool, she thought.

"It's simple," the voice said. "You weren't in range of me yet. But now you are.

Take a look."

The needles were dancing, giving the reading of a scale-seven hole. A scale seven would mass about a tenth as much as the asteroid Ceres.

"Mommy, what is a black hole?"

The little girl was seven years old. One day she would call herself Xanthia, but she had not yet felt the need for a name and her mother had not seen fit to give her one. Zoe reasoned that you needed two of something before you needed names.

There was only one other person on Shirley. There was no possible confusion.

When the girl thought about it at all, she assumed her name must be Hey, or Darling.

She was a small child, as Zoe had been. She was recapitulating the growth Zoe had already been through a hundred years ago. Though she didn't know it, she was pretty: dark eyes with an oriental fold, dark skin, and kinky blonde hair. She was a genetic mix of Chinese and Negro, with dabs of other races thrown in for seasoning.

"I've tried to explain that before," Zoe said. "You don't have the math for it yet. I'll get you started on spacetime equations, then in about a year you'll be able to understand."

"But I want to know now." Black holes were a problem for the child. From her earliest memories the two of them had done nothing but hunt them, yet they never found one. She'd been doing a lot of reading-there was little else to do-and was wondering if they might inhabit the same category where she had tentatively placed Santa Claus and leprechauns.

"If I try again, will you go to sleep?"

"I promise."

So Zoe launched into her story about the Big Bang, the time in the long-ago when little black holes could be formed.

"As far as we can tell, all the little black holes like the ones we hunt were made in that time. Nowadays other holes can be formed by the collapse of very large stars. When the fires burn low and the pressures that are trying to blow the star apart begin to fade, gravity takes over and starts to pull the star in on itself." Zoe waved her hands in the air, forming cups to show bending space, flailing out to indicate pressures of fusion. These explanations were almost as difficult for her as stories of sex had been for earlier generations. The truth was that she was no relativist and didn't really grasp the slightly incredible premises behind black-hole theory. She suspected that no one could really visualize one, and if you can't do that, where are you? But she was practical enough not to worry about it.

"And what's gravity? I forgot." The child was rubbing her eyes to stay awake.

She struggled to understand but already knew she would miss the point yet another time.

"Gravity is the thing that holds the universe together. The glue, or the rivets.

It pulls everything toward everything else, and it takes energy to fight it and overcome it. It feels like when we boost the ship, remember I pointed that out to you?"

"Like when everything wants to move in the same direction?"

"That's right. So we have to be careful, because we don't think about it much.

We have to worry about where things are because when we boost, everything will head for the stern. People on planets have to worry about that all the time.

They have to put something strong between themselves and the center of the planet, or they'll go down."

"Down." The girl mused over that word, one that had been giving her trouble as long as she could remember, and thought she might finally have understood it.

She had seen pictures of places where down was always the same direction, and they were strange to the eye. They were full of tables to put things on, chairs to sit in, and funny containers with no tops. Five of the six walls of rooms on planets could hardly be used at all. One, the "floor," was called on to take all the use.

"So they use their legs to fight gravity with?" She was yawning now.

"Yes. You've seen pictures of the people with the funny legs. They're not so funny when you're in gravity. Those flat things on the ends are called feet. If they had peds like us, they wouldn't be able to walk so good. They always have to have one foot touching the floor, or they'd fall toward the surface of the planet."

Zoe tightened the strap that held the child to her bunk, and fastened the velcro patch on the blanket to the side of the sheet, tucking her in. Kids needed a warm, snug place to sleep. Zoe preferred to float free in her own bedroom, tucked into a fetal position and drifting.

"G'night, Mommy."

"Good night. You get some sleep, and don't worry about black holes."

But the child dreamed of them, as she often did. They kept tugging at her, and she would wake breathing hard and convinced that she was going to fall into the wall in front of her.

"You don't mean it? I'm rich!"

Xanthia looked away from the screen. It was no good pointing out that Zoe had always spoken of the trip as a partnership. She owned Shirley and Lollipop.

"Well, you too, of course. Don't think you won't be getting a real big share of the money. I'm going to set you up so well that you'll be able to buy a ship of your own, and raise little copies of yourself if you want to."

Xanthia was not sure that was her idea of heaven, but said nothing.

"Zoe, there's a problem, and I... well, I was-" But she was interrupted again by Zoe, who would not hear Xanthia's comment for another thirty seconds.

"The first data is coming over the telemetry channel right now, and I'm feeding it into the computer. Hold on a second while I turn the ship. I'm going to start decelerating in about one minute, based on these figures. You get the refined data to me as soon as you have it."

There was a brief silence.

"What problem?"

"It's talking to me, Zoe. The hole is talking to me."

This time the silence was longer than the minute it took the radio signal to make the round trip between ships. Xanthia furtively thumbed the contrast knob, turning her sister-mother down until the screen was blank. She could look at the camera and Zoe wouldn't know the difference.

Damn, damn, she thinks I've flipped. But I had to tell her.

"I'm not sure what you mean."

"Just what I said. I don't understand it, either. But it's been talking to me for the last hour, and it says the damndest things."

There was another silence.

"All right. When you get there, don't do anything, repeat, anything, until I arrive. Do you understand?"

"Zoe, I'm not crazy. I'm not."

Then why am I crying?

"Of course you're not, baby, there's an explanation for this and I'll find out what it is as soon as I get there. You just hang on. My first rough estimate puts me alongside you about three hours after you're stationary relative to the hole."

Shirley and Lollipop, traveling parallel courses, would both be veering from their straight-line trajectories to reach the hole. But Xanthia was closer to it; Zoe would have to move at a more oblique angle and would be using more fuel.

Xanthia thought four hours was more like it.

"I'm signing off," Zoe said. "I'll call you back as soon as I'm in the groove."

Xanthia hit the off button on the radio and furiously unbuckled her seatbelt.

Damn Zoe, damn her, damn her, damn her. Just sit tight, she says. I'll be there to explain the unexplainable. It'll be all right.

She knew she should start her deceleration, but there was something she must do first.

She twisted easily in the air, grabbing at braces with all four hands, and dived through the hatch to the only other living space in Lollipop: the exercise area.

It was cluttered with equipment that she had neglected to fold into the walls, but she didn't mind; she liked close places. She squirmed through the maze like a fish gliding through coral, until she reached the wall she was looking for. It had been taped over with discarded manual pages, the only paper she could find on Lollipop. She started ripping at the paper, wiping tears from her cheeks with one ped as she worked. Beneath the paper was a mirror.

How to test for sanity? Xanthia had not considered the question; the thing to do had simply presented itself and she had done it. Now she confronted the mirror and searched for... what? Wild eyes? Froth on the lips?

What she saw was her mother.

Xanthia's life had been a process of growing slowly into the mold Zoe represented. She had known her pug nose would eventually turn down. She had known what baby fat would melt away. Her breasts had grown just into the small cones she knew from her mother's body and no farther.

She hated looking in mirrors.

Xanthia and Zoe were small women. Their most striking feature was the frizzy dandelion of yellow hair, lighter than their bodies. When the time had come for naming, the young clone had almost opted for Dandelion until she came upon the word xanthic in a dictionary. The radio call-letters for Lollipop happened to be X-A-N, and the word was too good to resist. She knew, too, that Orientals were thought of as having yellow skin, though she could not see why.

Why had she come here, of all places? She strained toward the mirror, fighting her repulsion, searching her face for signs of insanity. The narrow eyes were a little puffy, and as deep and expressionless as ever. She put her hands to the glass, startled in the silence to hear the multiple clicks as the long nails just missed touching the ones on the other side. She was always forgetting to trim them.

Sometimes, in mirrors, she knew she was not seeing herself. She could twitch her mouth, and the image would not move. She could smile, and the image would frown.

It had been happening for two years, as her body put the finishing touches on its eighteen-year process of duplicating Zoe. She had not spoken of it, because it scared her.

"And this is where I come to see if I'm sane," she said aloud, noting that the lips in the mirror did not move. "Is she going to start talking to me now?" She waved her arms wildly, and so did Zoe in the mirror. At least it wasn't that bad yet; it was only the details that failed to match: the small movements, and especially the facial expressions. Zoe was inspecting her dispassionately and did not seem to like what she saw. That small curl at the edge of the mouth, the almost brutal narrowing of the eyes...

Xanthia clapped her hands over her face, then peeked out through the fingers.

Zoe was peeking out, too. Xanthia began rounding up the drifting scraps of paper and walling her twin in again with new bits of tape.

The beast with two backs and legs at each end writhed, came apart, and resolved into Xanthia and Zoe, drifting, breathing hard. They caromed off the walls like monkeys, giving up their energy, gradually

getting breath back under control.

Golden, wet hair and sweaty skin brushed against each other again and again as they came to rest.

Now the twins floated in the middle of the darkened bedroom. Zoe was already asleep, tumbling slowly with that total looseness possible only in free fall.

Her leg rubbed against Xanthia's belly and her relative motion stopped. The leg was moist. The room was close, thick with the smell of passion. The recirculators whined quietly as they labored to clear the air.

Pushing one finger gently against Zoe's ankle, Xanthia turned her until they were face to face. Frizzy blonde hair tickled her nose, and she felt warm breath on her mouth.

Why can't it always be like this?

"You're not my mother," she whispered. Zoe had no reaction to this heresy.

"You're not."

Only in the last year had Zoe admitted the relationship was much closer. Xanthia was now fifteen.

And what was different? Something, there had to be something beyond the mere knowledge that they were not mother and child. There was a new quality in their relationship, growing as they came to the end of the voyage. Xanthia would look into those eyes where she had seen love and now see only blankness, coldness.

"Oriental inscrutability?" she asked herself, half-seriously. She knew she was hopelessly unsophisticated. She had spent her life in a society of two. The only other person she knew had her own face. But she had thought she knew Zoe. Now she felt less confident with every glance into Zoe's face and every kilometer passed on the way to Pluto.

Pluto.

Her thoughts turned gratefully away from immediate problems and toward that unimaginable place. She would be there in only four more years. The cultural adjustments she would have to make were staggering. Thinking about that, she felt a sensation in her chest that she guessed was her heart leaping in anticipation. That's what happened to characters in tapes when they got excited, anyway. Their hearts were forever leaping, thudding, aching, or skipping beats.

She pushed away from Zoe and drifted slowly to the viewport. Her old friends were all out there, the only friends she had ever known, the stars. She greeted them all one by one, reciting childhood mnemonic riddles and rhymes like bedtime prayers.

It was a funny thought that the view from her window would terrify many of those strangers she was going to meet on Pluto. She'd read that many tunnel-raised people could not stand open spaces. What it was that scared them, she could not understand. The things that scared her were crowds, gravity, males, and mirrors.

"Oh, damn. Damn! I'm going to be just hopeless. Poor little idiot girl from the sticks, visiting the big city." She brooded for a time on all the thousands of things she had never done, from swimming in the gigantic underground disneylands to seducing a boy.

"To being a boy." It had been the source of their first big argument. When Xanthia had reached adolescence, the time when children want to begin experimenting, she had learned from Zoe that Shirley Temple did not carry the medical equipment for sex changes. She was doomed to spend her critical formative years as a sexual deviate, a unisex.

"It'll stunt me forever," she had protested. She had been reading a lot of pop psychology at the time.

"Nonsense," Zoe had responded, hard-pressed to explain why she had not stocked a viro-genetic imprinter and the companion Y-alyzer. Which, as Xanthia pointed out, any self-respecting home surgery kit should have.

"The human race got along for millions of years without sex changing," Zoe had said. "Even after the Invasion. We were a highly technological race for hundreds of years before changing. Billions of people lived and died in the same sex."

"Yeah, and look what they were like."

Now, for another of what seemed like an endless series of nights, sleep was eluding her. There was the worry of Pluto, and the worry of Zoe and her strange behavior, and no way to explain anything in her

small universe which had become unbearably complicated in the last years.

I wonder what it would be like with a man?

Three hours ago Xanthia had brought Lollipop to a careful rendezvous with the point in space her instruments indicated contained a black hole. She had long since understood that even if she ever found one she would never see it, but she could not restrain herself from squinting into the starfield for some evidence.

It was silly; though the hole massed ten to the fifteenth tonnes (the original estimate had been off one order of magnitude) it was still only a fraction of a millimeter in diameter. She was staying a good safe hundred kilometers from it.

Still, you ought to be able to sense something like that, you ought to be able to feel it.

It was no use. This hunk of space looked exactly like any other.

"There is a point I would like explained," the hole said. "What will be done with me after you have captured me?"

The question surprised her. She still had not got around to thinking of the voice as anything but some annoying aberration like her face in the mirror. How was she supposed to deal with it? Could she admit to herself that it existed, that it might even have feelings?

"I guess we'll just mark you, in the computer, that is. You're too big for us to haul back to Pluto. So we'll hang around you for a week or so, refining your trajectory until we know precisely where you're going to be, then we'll leave you. We'll make some maneuvers on the way in so no one could retrace our path and find out where you are, because they'll know we found a big one when we get back."

"How will they know that?"

"Because we'll be renting... well, Zoe will be chartering one of those big monster tugs, and she'll come out here and put a charge on you and tow you... say, how do you feel about this?" "Are you concerned with the answer?"

The more Xanthia thought about it, the less she liked it. If she really was not hallucinating this experience, then she was contemplating the capture and imprisonment of a sentient being. An innocent sentient being who had been wandering around the edge of the system, suddenly to find him or herself...

"Do you have a sex?"

"No."

"All right, I guess I've been kind of short with you. It's just because you did startle me, and I didn't expect it, and it was all a little alarming."

The hole said nothing.

"You're a strange sort of person, or whatever," she said.

Again there was a silence.

"Why don't you tell me more about yourself? What's it like being a black hole, and all that?" She still couldn't fight down the ridiculous feeling those words gave her.

"I live much as you do, from day to day. I travel from star to star, taking about ten million years for the trip. Upon arrival, I plunge through the core of the star. I do this as often as is necessary, then I depart by a slingshot maneuver through the heart of a massive planet. The Tunguska Meteorite, which hit Siberia in 1908, was a black hole gaining momentum on its way to Jupiter, where it could get the added push needed for solar escape velocity."

One thing was bothering Xanthia. "What do you mean, 'as often as is necessary'?"

"Usually five or six thousand passes is sufficient."

"No, no. What I meant is why is it necessary? What do you get out of it?"

"Mass," the hole said. "I need to replenish my mass. The Relativity Laws state that nothing can escape from a black hole, but the Quantum Laws, specifically the Heisenberg Uncertainty Principle, state that below a certain radius the position of a particle cannot be determined. I lose mass constantly through tunneling. It is not all wasted, as I am able to control the direction and form of the escaping mass, and to use the energy that results to perform functions that your present-day physics says are impossible."

"Such as?" Xanthia didn't know why, but she was getting nervous.

"I can exchange inertia for gravity, and create energy in a variety of ways."



"So you can move yourself."

"Slowly."

"And you eat..."

"Anything."

Xanthia felt a sudden panic, but she didn't know what was wrong. She glanced down at her instruments and felt her hair prickle from her wrists and ankles to the nape of her neck.

The hole was ten kilometers closer than it had been.

"How could you do that to me?" Xanthia raged. "I trusted you, and that's how you repaid me, by trying to sneak up on me and... and-"

"It was not intentional. I speak to you by means of controlled gravity waves. To speak to you at all, it is necessary to generate an attractive force between us.

You were never in any danger."

"I don't believe that," Xanthia said angrily. "I think you're doubletalking me.

I don't think gravity works like that, and I don't think you really tried very hard to tell me how you talk to me, back when we first started." It occurred to her now, also, that the hole was speaking much more fluently than in the beginning. Either it was a very fast learner, or that had been intentional.

The hole paused. "This is true," it said.

She pressed her advantage. "Then why did you do it?"

"It was a reflex, like blinking in a bright light, or drawing one's hand back from a fire. When I sense matter, I am attracted to it."

"The proper cliché would be 'like a moth to a flame.' But you're not a moth, and I'm not a flame. I don't believe you. I think you could have stopped yourself if you wanted to."

Again the hole hesitated. "You are correct."

"So you were trying to...?"

"I was trying to eat you."

"Just like that? Eat someone you've been having a conversation with?"

"Matter is matter," the hole said, and Xanthia thought she detected a defensive note in its voice.

"What do you think of what I said we're going to do with you? You were going to tell me, but we got off on that story about where you came from."

"As I understand it, you propose to return for me. I will be towed to near Pluto's orbit, sold, and eventually come to rest in the heart of an orbital power station, where your species will feed matter into my gravity well, extracting power cheaply from the gravitational collapse."

"Yeah, that's pretty much it."

"It sounds ideal. My life is struggle. Failing to find matter to consume would mean loss of mass until I am smaller than an atomic nucleus. The loss rate would increase exponentially, and my universe would disappear. I do not know what would happen beyond that point. I have never wished to find out."

How much could she trust this thing? Could it move very rapidly? She toyed with the idea of backing off still further. The two of them were now motionless relative to each other, but they were both moving slowly away from the location she had given Zoe.

It didn't make sense to think it could move in on her fast. If it could, why hadn't it? Then it could eat her and wait for Zoe. to arrive-Zoe, who was helpless to detect the hole with her broken mass detector.

She should relay the new vectors to Zoe. She tried to calculate where her twin would arrive, but was distracted by the hole speaking.

"I would like to speak to you now of what I initially contacted you for.

Listening to Pluto radio, I have become aware of certain facts that you should know, if, as I suspect, you are not already aware of them. Do you know of Clone Control Regulations?"

"No, what are they?" Again, she was afraid without knowing why.

The genetic statutes, according to the hole, were the soul of simplicity. For three hundred years, people had been living just about forever. It had become necessary to limit the population. Even if everyone had only one child-the Birthright-population would still grow. For a while, clones had been a loophole.

No more. Now, only one person had the right to any one set of genes. If two possessed them, one was excess, and was summarily executed.

"Zoe has prior property rights to her genetic code," the hole concluded. "This is backed up by a long series of court decisions."

"So I'm-

"Excess."

Zoe met her at the airlock as Xanthia completed the docking maneuver. She was smiling, and Xanthia felt the way she always did when Zoe smiled these days: like a puppy being scratched behind the ears. They kissed, then Zoe held her at arm's length.

"Let me look at you. Can it only be three months? You've grown, my baby."

Xanthia blushed. "I'm not a baby anymore, Mother." But she was happy. Very happy.

"No. I should say not." She touched one of Xanthia's breasts, then turned her around slowly. "I should say not. Putting on a little weight in the hips, aren't we?"

"And the bosom. One inch while I was gone. I'm almost there." And it was true.

At sixteen, the young clone was almost a woman.

"Almost there," Zoe repeated, and glanced away from her twin. But she hugged her again, and they kissed, and began to laugh as the tension was released.

They made love, not once and then to bed, but many times, feasting on each other. One of them remarked-Xanthia could not remember who because it seemed so accurate that either of them might have said it-that the only good thing about these three-month separations was the homecoming.

"You did very well," Zoe said, floating in the darkness and sweet exhausted atmosphere of their bedroom many hours later. "You handled the lifeboat like it was part of your body. I watched the docking. I wanted to see you make a mistake, I think, so I'd know I still have something on you." Her teeth showed in the starlight, rows of lights below the sparkles of her eyes and the great dim blossom of her hair.

"Ah, it wasn't that hard," Xanthia said, delighted, knowing full well that it was that hard.

"Well, I'm going to let you handle it again the next swing. From now on, you can think of the lifeboat as your ship. You're the skipper."

It didn't seem like the time to tell her that she already thought of it that way. Nor that she had christened the ship.

Zoe laughed quietly. Xanthia looked at her.

"I remember the day I first boarded my own ship," she said. "It was a big day for me. My own ship."

"This is the way to live," Xanthia agreed. "Who needs all those people? Just the two of us. And they say hole hunters are crazy. I... wanted to..." The words stuck in her throat, but Xanthia knew this was the time to get them out, if there ever would be a time. "I don't want to stay too long at Pluto, Mother. I'd like to get right back out here with you." There, she'd said it.

Zoe said nothing for a long time.

"We can talk about that later."

"I love you, Mother," Xanthia said, a little too loudly.

"I love you, too, baby," Zoe mumbled. "Let's get some sleep, okay?"

She tried to sleep, but it wouldn't happen. What was wrong?

Leaving the darkened room behind her, she drifted through the ship, looking for something she had lost, or was losing, she wasn't sure which. What had happened, after all? Certainly nothing she could put her finger on. She loved her mother, but all she knew was that she was choking on tears.

In the water closet, wrapped in the shower bag with warm water misting around her, she glanced in the mirror.

"Why? Why would she do a thing like that?"

"Loneliness. And insanity. They appear to go together. This is her solution. You are not the first clone she has made."

She had thought herself beyond shock, but the clarity that simple declarative sentence brought to her mind was explosive. Zoe had always needed the companionship Xanthia provided. She needed a child

for diversion in the long, dragging years of a voyage; she needed someone to talk to. Why couldn't she have brought a dog? She saw herself now as a shipboard pet, and felt sick. The local leash laws would necessitate the destruction of the animal before landing.

Regrettable, but there it was. Zoe had spent the last year working up the courage to do it.

How many little Xanthias? They might even have chosen that very name; they would have been that much like her. Three, four? She wept for her forgotten sisters.

Unless...

"How do I know you're telling me the truth about this? How could she have kept it from me? I've seen tapes of Pluto. I never saw any mention of this."

"She edited those before you were born. She has been careful. Consider her position: there can be only one of you, but the law does not say which it has to be. With her death, you become legal. If you had known that, what would life have been like in Shirley Temple?"

"I don't believe you. You've got something in mind, I'm sure of it."

"Ask her when she gets here. But be careful. Think it out, all the way through."

She had thought it out. She had ignored the last three calls from Zoe while she thought. All the options must be considered, all the possibilities planned for.

It was an impossible task; she knew she was far too emotional to think clearly, and there wasn't time to get herself under control.

But she had done what she could. Now The Good Ship Lollipop, outwardly unchanged, was a ship of war.

Zoe came backing in, riding the fusion torch and headed for a point dead in space relative to Xanthia. The fusion drive was too dangerous for Shirley to complete the rendezvous; the rest of the maneuver would be up to Lollipop.

Xanthia watched through the telescope as the drive went off. She could see Shirley clearly on her screen, though the ship was fifty kilometers away.

Her screen lit up again, and there was Zoe. Xanthia turned her own camera on.

"There you are," Zoe said. "Why wouldn't you talk to me?"

"I didn't think the time was ripe."

"Would you like to tell me how come this nonsense about talking black holes?"

"What's gotten into you?"

"Never mind about that. There never was a hole, anyway. I just needed to talk to you about something you forgot to erase from the tape library in the Lol-... in the lifeboat. You were pretty thorough with the tapes in Shirley, but you forgot to take the same care here. I guess you didn't think I'd ever be using it. Tell me, what are Clone Control Regulations?"

The face on the screen was immobile. Or was it a mirror, and was she smiling?

Was it herself, or Zoe she watched? Frantically, Xanthia thumbed a switch to put her telescope image on the screen, wiping out the face. Would Zoe try to talk her way out of it? If she did, Xanthia was determined to do nothing at all.

There was no way she could check out any lie Zoe might tell her, nothing she could confront Zoe with except a fantastic story from a talking black hole.

Please say something. Take the responsibility out of my hands. She was willing to die, tricked by Zoe's fast talk, rather than accept the hole's word against Zoe's.

But Zoe was acting, not talking, and the response was exactly what the hole had predicted. The attitude control jets were firing, Shirley Temple was pitching and yawing slowly, the nozzles at the stern hunting for a speck in the telescope screen. When the engines were aimed, they would surely be fired, and Xanthia and the whole ship would be vaporized.

But she was ready. Her hands had been poised over the thrust controls. Lollipop had a respectable acceleration, and every gee of it slammed her into the couch as she scooted away from the danger spot.

Shirley's fusion engines fired, and began a deadly hunt. Xanthia could see the thin, incredibly hot stream playing around her as Zoe made finer adjustments in her orientation. She could only evade it for a short time, but that was all she needed.

Then the light went out. She saw her screen flare up as the telescope circuit became overloaded with an immense burst of energy. And it was over. Her radar screen showed nothing at all.

"As I predicted," the hole said.

"Why don't you shut up?" Xanthia sat very still, and trembled.

"I shall, very soon. I did not expect to be thanked. But what you did, you did for yourself."

"And you, too, you... you ghoul! Damn you, damn you to hell." She was shouting through her tears. "Don't think you've fooled me, not completely, anyway. I know what you did, and I know how you did it."

"Do you?" The voice was unutterably cool and distant. She could see that now the hole was out of danger, it was rapidly losing interest in her.

"Yes, I do. Don't tell me it was coincidence that when you changed direction it was just enough to be near Zoe when she got here. You had this planned from the start."

"From much further back than you know," the hole said. "I tried to get you both, but it was impossible. The best I could do was take advantage of the situation as it was."

"Shut up, shut up."

The hole's voice was changing from the hollow, neutral tones to something that might have issued from a tank of liquid helium. She would never have mistaken it for human.

"What I did, I did for my own benefit. But I saved your life. She was going to try to kill you. I maneuvered her into such a position that, when she tried to turn her fusion drive on you, she was heading into a black hole she was powerless to detect."

"You used me."

"You used me. You were going to imprison me in a power station."

"But you said you wouldn't mind! You said it would be the perfect place."

"Do you believe that eating is all there is to life? There is more to do in the wide universe than you can even suspect. I am slow. It is easy to catch a hole if your mass detector is functioning: Zoe did it three times. But I am beyond your reach now."

"What do you mean? What are you going to do? What am I going to do?" That question hurt so much that Xanthia almost didn't hear the hole's reply.

"I am on my way out. I converted Shirley into energy; I absorbed very little mass from her. I beamed the energy very tightly, and am now on my way out of your system. You will not see me again. You have two options. You can go back to Pluto and tell everyone what happened out here. It would be necessary for scientists to rewrite natural laws if they believed you. It has been done before, but usually with more persuasive evidence. There will be questions asked concerning the fact that no black hole has ever evaded capture, spoken, or changed velocity in the past. You can explain that when a hole has a chance to defend itself, the hole hunter does not survive to tell the story."

"I will. I will tell them what happened!" Xanthia was eaten by a horrible doubt.

Was it possible there had been a solution to her problem that did not involve Zoe's death? Just how badly had the hole tricked her?

"There is a second possibility," the hole went on, relentlessly. "Just what are you doing out here in a lifeboat?"

"What am I... I told you, we had..." Xanthia stopped. She felt herself choking.

"It would be easy to see you as crazy. You discovered something in Lollipop's library that led you to know you must kill Zoe. This knowledge was too much for you. In defense, you invented me to trick you into doing what you had to do.

Look in the mirror and tell me if you think your story will be believed. Look closely, and be honest with yourself."

She heard the voice laugh for the first time, from down in the bottom of its hole, like a voice from a well. It was an extremely unpleasant sound.

Maybe Zoe had died a month ago, strangled or poisoned or slashed with a knife.

Xanthia had been sitting in her lifeboat, catatonic, all that time, and had constructed this episode to justify the murder. It had been self-defense, which was certainly a good excuse, and a very convenient

one.

But she knew. She was sure, as sure as she had ever been of anything, that the hole was out there, that everything had happened as she had seen it happen. She saw the flash again in her mind, the awful flash that had turned Zoe into radiation. But she also knew that the other explanation would haunt her for the rest of her life.

"I advise you to forget it. Go to Pluto, tell everyone that your ship blew up and you escaped and you are Zoe. Take her place in the world, and never, never speak of talking black holes."

The voice faded from her radio. It did not speak again.

After days of numb despair and more tears and recriminations than she cared to remember, Xanthia did as the hole had predicted. But life on Pluto did not agree with her. There were too many people, and none of them looked very much like her. She stayed long enough to withdraw Zoe's money from the bank and buy a ship, which she named Shirley Temple. It was massive, with power to blast to the stars if necessary. She had left something out there, and she meant to search for it until she found it again.

### **THE MANHATTAN PHONE BOOK (ABRIDGED)**

This is the best story and the worst story anybody ever wrote.

There's lots of ways to judge the merit of a story, right? One of them is, are there a lot of people in it, and are they real. Well, this story has more people in it than any story in the history of the world. The Bible? Forget it. Ten thousand people, tops. (I didn't count, but I suspect it's less than that, even with all the begats.) And real? Each and every character is a certified living human being. You can fault me on depth of characterization, no question about it. If I'd had the time and space, I could have told you a lot more about each of these people... but a writer has dramatic constraints to consider. If only I had more room. Wow! What stories you'd hear!

Admittedly, the plot is skimpy. You can't have everything. The strength of this story is its people. I'm in it. So are you.

It goes like this:

Jerry L. Aab moved to New York six years ago from his home in Valdosta, Georgia. He still speaks with a Southern accent, but he's gradually losing it. He's married to a woman named Elaine, and things haven't been going too well for the Aab family. Their second child died, and Elaine is pregnant again. She thinks Jerry is seeing another woman. He isn't, but she's talking divorce.

Roger Aab isn't related to Jerry. He's a native New Yorker. He lives in a third-floor walk-up at 1 Maiden Lane. It's his first place; Roger is just nineteen, a recent high school graduate, thinking about attending City College. Right now, while he makes up his mind, he works in a deli and tries to date Linda Cooper, who lives two blocks away. He hasn't really decided what to do with his life yet, but is confident a decision will come.

Kurt Aach is on parole. He served two years in Attica, upstate, for armed robbery. It wasn't his first stretch. He had vague ideas of going straight when he got out. If he could join the merchant marine he figures he just might make it, but the lousy jobs he's been offered so far aren't worth the trouble. He just bought a .38 Smith and Wesson from a guy on the docks. He cleans and oils it a lot.

Robert Aach is Kurt's older brother. He never visited Kurt in prison because he hates the worthless bum. When he thinks of his brother, he hopes the state will bring back the electric chair real soon. He has a wife and three kids. They like to go to Florida when he gets a vacation.

Adrienne Aaen has worked at the Woolworths on East 14th Street since she was twenty-one. She's pushing sixty now, and will be retired soon, involuntarily. She never married. She has a sour disposition, mostly because of her feet, which have hurt for forty years. She has a cat and a parakeet. The cat is too lazy to chase the bird. Adrienne has managed to save a little money. Every night she thanks God for all her blessings, and the City of New York for rent control.

Molly Aagard is thirty and works for the New York Transit Police. She rides the subway every day. She's charged with stopping the serious crimes that infest the underground city, and she works very hard at it. She hates the wall-to-wall graffiti that blooms in every car like a malignant fungus.

Irving Aagard is no relation. He's fifty-five and owns an Oldsmobile dealership in New Jersey. People ask him why he lives in Manhattan, and he is always puzzled by the question. Would they rather he lived in Jersey, for chrissake? To Irving, Manhattan is the only place to live. He has enough money to send his three kids-Gerald, Morton, and Barbara-to good schools. He frets about crime, but no more than anyone else.

Sheila Aagre is a seventeen-year-old streetwalker from St. Paul. Her life isn't so great, but it's better than Minnesota. She uses heroin, but knows she can stop whenever she wants to.

Theodore Aaker and his wife, Beatrice, live in a fine apartment a block away from the Dakota, where John Lennon was killed. They went out that night and stood in the candlelight vigil, remembering Woodstock, remembering the summer of love in Haight-Ashbury. Theodore sometimes wonders how and why he got into stocks and bonds. Beatrice is pregnant with their first child. She is deciding how much time she should take off from her law practice. It's a hard question. (162,000 characters omitted) Clemanzo Cruz lives on East 120th Street. He's unemployed and has been since he arrived from Puerto Rico. He hangs out in a bar at the corner of Lexington and 122nd. He didn't used to drink much back in San Juan but now that's about all he does. It's been fifteen years. You might say he is discouraged. His wife, Ilona, goes to work at five P.M. at the Empire State Building, where she scrubs floors and toilets. She's been mugged a dozen times on the way home on the number 6 Lexington local.

Zelda Cruz shares an apartment with two other secretaries. Even with roommates it's hard to make ends meet with New York rents the way they are. She always has a date Saturday night-she's quite a beauty-and she swings very hard, but Sunday morning always finds her at early mass at St. Patrick's. There's this guy who she thinks may ask her to get married. She's decided she'll say yes. She's tired of sharing an apartment. She hopes he won't beat her up.

Richard Cruzado drives a cab. He's a good-natured guy. He's been known to take fares into darkest Brooklyn. His wife's name is Sabina. She's always after him to buy a house in Queens. He thinks one of these days he will. They have six children, and life is tough for them in Manhattan. Those houses out in Queens have back yards, pools, you name it. (1,250,000 characters omitted) Ralph Zzyzmjac changed his name two years ago. His real name is Ralph Zyzzmjac. A friend persuaded him to add a z to be the last guy in the phone book. He's a bachelor, a librarian working for the City of New York. For a good time he goes to the movies, alone. He's sixty-one.

Edward Zzzzyniewski is crazy. He's been in and out of Bellevue. He spends most of his time thinking about that bastard Zzyzmjac, who two years ago knocked him out of last place, his only claim to fame. He broods about him-a man he's never met-fantasizing that Zzyzmjac is out to get him. Lasf year he added two z's to his name. Now he's thinking about stealing a march on that bastard Zzyzmjac. He's sure Zzyzmjac is adding two more z's this year, so he's going to add seven. Ed Zzzzzzzzzayniewski. That'd be nice, he decides.

Then one day seventeen thermonuclear bombs exploded in the air over Manhattan, The Bronx, and Staten Island, too. They had a yield of between five and twenty megatons each. This was more than enough to kill everyone in this story. Most of them died instantly. A few lingered for minutes or hours, but they all died, just like that. I died. So did you.

I was lucky. In less time than it takes for one neuron to nudge another I was turned into radioactive atoms, and so was the building I was in, and the ground beneath me to a depth of three hundred meters. In a millisecond it was all as sterile as Edward Teller's soul.

You had a tougher time of it. You were in a store, standing near a window. The huge pressure wave turned the glass into ten thousand slivers of pain, one thousand of which tore the flesh from your body. One sliver went into your left eye. You were hurled to the back of the store, breaking a lot of bones and suffering internal injuries, but you still lived. There was a big piece of plate glass driven through your body. The bloody point emerged from your back. You touched it carefully, trying to pull it out, but it hurt too much.

On the piece of glass was a rectangular decal and the message "Mastercard Gladly Accepted."

The store caught fire around you, and you started to cook slowly. You had time to think "Is this what I pay taxes for?" and then you died.

This story is brought to you courtesy of The Phone Company. Copies of this story can be found near every telephone in Manhattan, and thousands of stories just like it have been compiled for every community in the United States. They make interesting reading. I urge you to read a few pages every night. Don't forget that many wives are listed only under their husband's name. And there are the children to consider: very few have their own phone. Many people—such as single women—pay extra for an unlisted number. And there are the very poor, the transients, the street people, and folks who were unable to pay the last bill. Don't forget any of them as you read the story. Read as much or as little as you can stand, and ask yourself if this is what you want to pay your taxes for. Maybe you'll stop.

Aw, c'mon, I hear you protest. Somebody will survive.

Perhaps. Possibly. Probably.

But that's not the point. We all love after-the-bomb stories. If we didn't, why would there be so many of them? There's something attractive about all those people being gone, about wandering in a depopulated world, scrounging cans of Campbell's pork and beans, defending one's family from marauders. Sure, it's horrible, sure we weep for all those dead people. But some secret part of us thinks it would be good to survive, to start all over.

Secretly, we know we'll survive. All those other folks will die. That's what after-the-bomb stories are all about.

All those after-the-bomb stories are lies. Lies, lies, lies.

This is the only true after-the-bomb story you will ever read.

Everybody dies. Your father and mother are decapitated and crushed by a falling building. Rats eat their severed heads. Your husband is disemboweled. Your wife is blinded, flash-burned, and gropes along a street of cinders until fear-crazed dogs eat her alive. Your brother and sister are incinerated in their homes, their bodies turned into fine powdery ash by firestorms. Your children... ah, I'm sorry, I hate to tell you this, but your children live a long time. Three eternal days. They spend those days puking their guts out, watching the flesh fall from their bodies, smelling the gangrene in their lacerated feet, and asking you why it happened. But you aren't there to tell them. I already told you how you died.

It's what you pay your taxes for.

## OPTIONS

Cleo hated breakfast.

Her energy level was lowest in the morning, but not so the children's. There was always some school crisis, something that had to be located at the last minute, some argument that had to be settled.

This morning it was a bowl of cereal spilled in Lilli's lap. Cleo hadn't seen it happen; her attention had been diverted momentarily by Feather, her youngest.

And of course it had to happen after Lilli was dressed.

"Mom, this was the last outfit I had."

"Well, if you wouldn't use them so hard they might last more than three days, and if you didn't..." She stopped before she lost her temper. "Just take it off and go as you are."

"But Mom, nobody goes to school naked. Nobody. Give me some money and I'll stop at the store on—"

Cleo raised her voice, something she tried never to do. "Child, I know there are kids in your class whose parents can't afford to buy clothes at all."

"All right, so the poor kids don't—"

"That's enough. You're late already. Get going."

Lilli stalked from the room. Cleo heard the door slam.

Through it all Jules was an island of calm at the other end of the table, his nose in his newspaper, sipping his second cup of coffee. Cleo glanced at her own bacon and eggs cooling on the plate, poured herself a first cup of coffee, then had to get up and help Paul find his other shoe.

By then Feather was wet again, so she put her on the table and peeled off the sopping diaper.

"Hey, listen to this," Jules said. "The City Council today passed without objection an ordinance

requiring-' "

"Jules, aren't you a little behind schedule?"

He glanced at his thumbnail. "You're right. Thanks." He finished his coffee, folded his newspad and tucked it under his arm, bent over to kiss her, then frowned.

"You really ought to eat more, honey," he said, indicating the untouched eggs. "Eating for two, you know. Bye now."

"Good-bye," Cleo said, through clenched teeth. "And if I hear that 'eating for two' business again, Ill..." But he was gone.

She had time to scorch her lip on the coffee, then was out the door, hurrying to catch the train.

There were seats on the sun car, but of course Feather was with her and the UV wasn't good for her tender skin. After a longing look at the passengers reclining with the dark cups strapped over their eyes-and a rueful glance down at her own pale skin-Cleo boarded the next car and found a seat by a large man wearing a hardhat. She settled down in the cushions, adjusted the straps on the carrier slung in front of her, and let Feather have a nipple. She unfolded her newspad and spread it out in her lap.

"Cute," the man said. "How old is he?"

"She," Cleo said, without looking up. "Eleven days." And five hours and thirty-six minutes...

She shifted in the seat, pointedly turning her shoulder to him, and made a show of activating her newspad and scanning the day's contents. She did not glance up as the train left the underground tunnel and emerged on the gently rolling, airless plain of Mendeleev. There was little enough out there to interest her, considering she made the forty-minute commute to Hartman Crater twice a day. They had discussed moving to Hartman, but Jules liked living in King City near his work, and of course the kids would have missed all their school friends.

There wasn't much in the news storage that morning. When the red light flashed, she queried for an update. The pad printed some routine city business. Three sentences into the story she punched the reject key.

There was an Invasion Centennial parade listed for 1900 hours that evening. Parades bored her, and so did the Centennial. If you've heard one speech about how liberation of Earth is just around the corner if we all pull together, you've heard them all. Semantic content zero, nonsense quotient high.

She glanced wistfully at sports, noting that the J Sector jumpball team was doing poorly without her in the intracity tournament. Cleo's small stature and powerful legs had served her well as a starting sprint-wing in her playing days, but it just didn't seem possible to make practices anymore.

As a last resort, she called up the articles, digests, and analysis listings, the newspad's Sunday Supplement and Op-Ed department. A title caught her eye, and she punched it up.

Changing: The Revolution in Sex Roles (Or, Who's on Top?) Twenty years ago, when cheap and easy sex changes first became available to the general public, it was seen as the beginning of a revolution that would change the shape of human society in ways impossible to foresee. Sexual equality is one thing, the sociologists pointed out, but certain residual inequities-based on biological imperatives or on upbringing, depending on your politics-have proved impossible to weed out. Changing was going to end all that. Men and women would be able to see what it was like from the other side of the barrier that divides humanity. How could sex roles survive that?

Ten years later the answer is obvious. Changing had appealed only to a tiny minority. It was soon seen as a harmless aberration, practiced by only 1 per cent of the population. Everyone promptly forgot about the tumbling of barriers.

But in the intervening ten years a quieter revolution has been building. Almost unnoticed on the broad scale because it is an invisible phenomenon (how do you know the next woman you meet was not a man last week?), changing has been gaining growing, matter-of-fact acceptance among the children of the generation that rejected it. The chances are now better than even that you know someone who has had at least one sex change. The chances are better than one out of fifteen that you yourself have changed; if you are under twenty, the chance is one in three.

The article went on to describe the underground society which was springing up around changing. Changers tended to band together, frequenting their own taprooms, staging their own social events,



remaining aloof from the larger society which many of them saw as outmoded and irrelevant. Changers tended to marry other changers. They divided the child-bearing equally, each preferring to mother only one child. The author viewed this tendency with alarm, since it went against the socially approved custom of large families. Changers reported that the time for that was the past, pointing out that Luna had been tamed long ago. They quoted statistics proving that at present rates of expansion, Luna's population would be in the billions in an amazingly short time.

There were interviews with changers, and psychological profiles. Cleo read that the males had originally been the heaviest users of the new technology, stating sexual reasons for their decision, and the change had often been permanent. Today, the changer was slightly more likely to have been born female, and to give social reasons, the most common of which was pressure to bear children. But the modern changer committed him/herself to neither role. The average time between changes in an individual was two years, and declining.

Cleo read the whole article, then thought about using some of the reading references at the end. Not that much of it was really new to her. She had been aware of changing, without thinking about it much. The idea had never attracted her, and Jules was against it. But for some reason it had struck a chord this morning.

Feather had gone to sleep. Cleo carefully pulled the blanket down around the child's face, then wiped milk from her nipple. She folded her newspad and stowed it in her purse, then rested her chin on her palm and looked out the window for the rest of the trip.

Cleo was chief on-site architect for the new Food Systems, Inc., plantation that was going down in Hartman. As such, she was in charge of three junior architects, five construction bosses, and an army of drafters and workers. It was a big project, the biggest Cleo had ever handled.

She liked her work, but the best part had always been being there on the site when things were happening, actually supervising construction instead of running a desk. That had been difficult in the last months of carrying Feather, but at least there were maternity pressure suits. It was even harder now.

She had been through it all before, with Lilli and Paul. Everybody works. That had been the rule for a century, since the Invasion. There was no labor to spare for babysitters, so having children meant the mother or father must do the same job they had been doing before, but do it while taking care of the child. In practice, it was usually the mother, since she had the milk.

Cleo had tried leaving Feather with one of the women in the office, but each had her own work to do, and not unreasonably felt Cleo should bear the burden of her own offspring. And Feather never seemed to respond well to another person. Cleo would return from her visit to the site to find the child had been crying the whole time, disrupting everyone's work. She had taken Feather in a crawler a few times, but it wasn't the same.

That morning was taken up with a meeting. Cleo and the other section chiefs sat around the big table for three hours, discussing ways of dealing with the cost overrun, then broke for lunch only to return to the problem in the afternoon. Cleo's back was aching and she had a headache she couldn't shake, so Feather chose that day to be cranky. After ten minutes of increasingly hostile looks, Cleo had to retire to the booth with Leah Farnham, the accountant, and her three-year-old son, Eddie. The two of them followed the proceedings through earphones while trying to cope with their children and make their remarks through throat mikes. Half the people at the conference table either had to turn around when she spoke, or ignore her, and Cleo was hesitant to force them to that choice. As a result, she chose her remarks with extreme care. More often, she said nothing.

There was something at the core of the world of business that refused to adjust to children in the board room, while appearing to make every effort to accommodate the working mother. Cleo brooded about it, not for the first time.

But what did she want? Honestly, she could not see what else could be done. It certainly wasn't fair to disrupt the entire meeting with a crying baby. She wished she knew the answer. Those were her friends out there, yet her feeling of alienation was intense, staring through the glass wall that Eddie was smudging with his dirty fingers.

Luckily, Feather was a perfect angel on the trip home. She gurgled and smiled toothlessly at a woman

who had stopped to admire her, and Cleo warmed to the infant for the first time that day. She spent the trip playing games with her, surrounded by the approving smiles of other passengers.

"Jules, I read the most interesting article on the pad this morning." There, it was out, anyway. She had decided the direct approach would be best.

"Hmm?"

"It was about changing. It's getting more and more popular."

"Is that so?" He did not look up from his book.

Jules and Cleo were in the habit of sitting up in bed for a few hours after the children were asleep. They spurned the video programs that were designed to lull workers after a hard day, preferring to use the time to catch up on reading, or to talk if either of them had anything to say. Over the last few years, they had read more and talked less.

Cleo reached over Feather's crib and got a packet of dope-sticks. She flicked one to light with her thumbnail, drew on it, and exhaled a cloud of lavender smoke. She drew her legs up under her and leaned back against the wall.

"I just thought we might talk about it. That's all."

Jules put his book down. "All right. But what's to talk about? We're not into that."

She shrugged and picked at a cuticle. "I know. We did talk about it, way back. I just wondered if you still felt the same, I guess." She offered him the stick and he took a drag.

"As far as I know, I do," he said easily. "It's not something I spend a great deal of thought on. What's the matter?" He looked at her suspiciously. "You weren't having any thoughts in that direction, were you?"

"Well, no, not exactly. No. But you really ought to read the article. More people are doing it. I just thought we ought to be aware of it."

"Yeah, I've heard that," Jules conceded. He laced his hands behind his head. "No way to tell unless you've worked with them and suddenly one day they've got a new set of equipment." He laughed "First time it was sort of hard for me to get used to. Now I hardly ever think about it."

"Me, either."

"They don't cause any problem," Jules said with an air of finality, "Live and let live."

"Yeah." Cleo smoked in silence for a time and let Jules get back to his reading, but she still felt uncomfortable. "Jules?"

"What is it now?"

"Don't you ever wonder what it would be like?"

He sighed and closed his book, then turned to face her.

"I don't quite understand you tonight," he said.

"Well, maybe I don't either, but we could talk-"

"Listen. Have you thought about what it would do to the kids? I mean, even if I was willing to seriously consider it, which I'm not."

"I talked to Lilli about that. Just theoretically, you understand. She said she had two teachers who changed, and one of her best friends used to be a boy. There's quite a few kids at school who've changed. She takes it in stride."

"Yes, but she's older. What about Paul? What would it do to his concept of himself as a young man? I'll tell you, Cleo, in the back of my mind I keep thinking this business is a little sick. I feel it would have a bad effect on the children."

"Not according to-"

"Cleo, Cleo. Let's not get into an argument. Number one, I have no intention of getting a change, now or in the future. Two, if only one of us was changed, it would sure play hell with our sex life, wouldn't it? And three, I like you too much as you are." He leaned over and began to kiss her.

She was more than a little annoyed, but said nothing as his kisses became more intense. It was a damnably effective way of shutting off debate. And she could not stay angry: she was responding in spite of herself, easily, naturally.

It was as good as it always was with Jules. The ceiling, so familiar, once again became a calming

blankness that absorbed her thoughts.

No, she had no complaints about being female, no sexual dissatisfactions. It was nothing as simple as that.

Afterward she lay on her side with her legs drawn up, her knees together. She faced Jules, who absently stroked her leg with one hand. Her eyes were closed, but she was not sleepy. She was savoring the warmth she cherished so much after sex; the slipperiness between her legs, holding his semen inside.

She felt the bed move as he shifted his weight.

"You did make it, didn't you?"

She opened one eye enough to squint at him.

"Of course I did. I always do. You know I never have any trouble in that direction."

He relaxed back onto the pillow. "I'm sorry for... well, for springing on you like that."

"It's okay. It was nice."

"I had just thought you might have been... faking it. I'm not sure why I would think that."

She opened the other eye and patted him gently on the cheek.

"Jules, I'd never be that protective of your poor ego. If you don't satisfy me, I promise you'll be the second to know."

He chuckled, then turned on his side to kiss her.

"Good night, babe."

"G'night."

She loved him. He loved her. Their sex life was good-with the slight mental reservation that he always seemed to initiate it-and she was happy with her body.

So why was she still awake three hours later?

Shopping took a few hours on the vidphone Saturday morning. Cleo bought the household necessities for delivery that afternoon, then left the house to do the shopping she fancied: going from store to store, looking at things she didn't really need.

Feather was with Jules on Saturdays. She savored a quiet lunch alone at a table in the park plaza, then found herself walking down Brazil Avenue in the heart of the medical district. On impulse, she stepped into the New Heredity Body Salon.

It was only after she was inside that she admitted to herself she had spent most of the morning arranging for the impulse.

She was on edge as she was taken down a hallway to a consulting room, and had to force a smile for the handsome young man behind the desk. She sat, put her packages on the floor, and folded her hands in her lap. He asked what he could do for her.

"I'm not actually here for any work," she said. "I wanted to look into the costs, and maybe learn a little more about the procedures involved in changing."

He nodded understandingly, and got up.

"There's no charge for the initial consultation," he said. "We're happy to answer your questions. By the way, I'm Marion, spelled with an 'O' this month." He smiled at her and motioned for her to follow him. He stood her in front of a full-length mirror mounted on the wall.

"I know it's hard to make that first step. It was hard for me, and I do it for a living. So we've arranged this demonstration that won't cost you anything, either in money or worry. It's a nonthreatening way to see some of what it's all about, but it might startle you a little, so be prepared." He touched a button in the wall beside the mirror, and Cleo saw her clothes fade away. She realized it was not really a mirror, but a holographic screen linked to a computer.

The computer introduced changes in the image. In thirty seconds she faced a male stranger. There was no doubt the face was her own, but it was more angular, perhaps a little larger in its underlying bony structure. The skin on the stranger's jaw was rough, as if it needed shaving.

The rest of the body was as she might expect, though overly muscled for her tastes. She did little more than glance at the penis; somehow that didn't seem to matter so much. She spent more time studying the hair on the chest, the tiny nipples, and the ridges that had appeared on the hands and feet. The image mimicked her every movement.

"Why all the brawn?" she asked Marion. "If you're trying to sell me on this, you've taken the wrong approach."

Marion punched some more buttons. "I didn't choose this image," he explained. "The computer takes what it sees, and extrapolates. You're more muscular than the average woman. You probably exercise. This is what a comparable amount of training would have produced with male hormones to fix nitrogen in the muscles. But we're not bound by that."

The image lost about eight kilos of mass, mostly in the shoulders and thighs. Cleo felt a little more comfortable, but still missed the smoothness she was accustomed to seeing in her mirror.

She turned from the display and went back to her chair. Marion sat across from her and folded his hands on the desk.

"Basically, what we do is produce a cloned body from one of your own cells. Through a process called Y-Recombinant Viral Substitution we remove one of your X chromosomes and replace it with a Y.

"The clone is forced to maturity in the usual way, which takes about six months. After that, it's just a simple non-rejection-hazard brain transplant. You walk in as a woman, and leave an hour later as a man. Easy as that."

Cleo said nothing, wondering again what she was doing here.

"From there we can modify the body. We can make you taller or shorter, rearrange your face, virtually anything you like." He raised his eyebrows, then smiled ruefully and spread his hands.

"All right, Ms. King," he said. "I'm not trying to pressure you. You'll need to think about it. In the meantime, there's a process that would cost you very little, and might be just the thing to let you test the waters. Am I right in thinking your husband opposes this?"

She nodded, and he looked sympathetic.

"Not uncommon, not uncommon at all," he assured her. "It brings out castration fears in men who didn't even suspect they had them. Of course, we do nothing of the sort. His male body would be kept in a tank, ready for him to move back into whenever he wanted to."

Cleo shifted in her chair. "What was this process you were talking about?"

"Just a bit of minor surgery. It can be done in ten minutes, and corrected in the same time before you even leave the office if you find you don't care for it. It's a good way to get husbands thinking about changing; sort of a signal you can send him. You've heard of the androgynous look. It's in all the fashion tapes. Many women, especially if they have large breasts like you do, find it an interesting change."

"You say it's cheap? And reversible?"

"All our processes are reversible. Changing the size or shape of breasts is our most common body operation."

Cleo sat on the examining table while the attendant gave her a quick physical.

"I don't know if Marion realized you're nursing," the woman said. "Are you sure this is what you want?"

How the hell should I know? Cleo thought. She wished the feeling of confusion and uncertainty would pass.

"Just do it."

Jules hated it.

He didn't yell or slam doors or storm out of the house; that had never been his style. He voiced his objections coldly and quietly at the dinner table, after saying practically nothing since she walked in the door.

"I just would like to know why you thought you should do this without even talking to me about it. I don't demand that you ask me, just discuss it with me."

Cleo felt miserable, but was determined not to let it show. She held Feather in her arm, the bottle in her other hand, and ignored the food cooling on her plate. She was hungry but at least she was not eating for two.

"Jules, I'd ask you before I rearrange the furniture. We both own this apartment. I'd ask you before I put Lilli or Paul in another school. We share the responsibility for their upbringing. But I don't ask you

when I put on lipstick or cut my hair. It's my body."

"I like it, Mom," Lilli said. "You look like me."

Cleo smiled at her, reached over and tousled her hair.

"What do you like?" Paul asked, around a mouthful of food.

"See?" said Cleo. "It's not that important."

"I don't see how you can say that. And I said you didn't have to ask me. I just would... you should have... I should have known."

"It was an impulse, Jules."

"An impulse. An impulse." For the first time, he raised his voice, and Cleo knew how upset he really was. Lilli and Paul fell silent, and even Feather squirmed.

But Cleo liked it. Oh, not forever and ever: as an interesting change. It gave her a feeling of freedom to be that much in control of her body, to be able to decide how large she wished her breasts to be. Did it have anything to do with changing? She really didn't think so. She didn't feel the least bit like a man.

And what was a breast, anyway? It was anything from a nipple sitting flush with the rib cage to a mammoth hunk of fat and milk gland. Cleo realized Jules was suffering from the more-is-better syndrome, thinking of Cleo's action as the removal of her breasts, as if they had to be large to exist at all. What she had actually done was reduce their size.

No more was said at the table, but Cleo knew it was for the children's sake. As soon as they got into bed, she could feel the tension again.

"I can't understand why you did it now. What about Feather?"

"What about her?"

"Well, do you expect me to nurse her?"

Cleo finally got angry. "Damn it, that's exactly what I expect you to do. Don't tell me you don't know what I'm talking about. You think it's all fun and games, having to carry a child around all day because she needs the milk in your breasts?"

"You never complained before."

"I..." She stopped. He was right, of course. It amazed even Cleo that this had all come up so suddenly, but here it was, and she had to deal with it. They had to deal with it.

"That's because it isn't an awful thing. It's great to nourish another human being at your breast. I loved every minute of it with Lilli. Sometimes it was a headache, having her there all the time, but it was worth it. The same with Paul." She sighed. "The same with Feather, too, most of the time. You hardly think about it."

"Then why the revolt now? With no warning?"

"It's not a revolt, honey. Do you see it as that? I just... I'd like you to try it. Take Feather for a few months. Take her to work like I do. Then you'd... you'd see a little of what I go through." She rolled on her side and playfully punched his arm, trying to lighten it in some way. "You might even like it. It feels real good."

He snorted. "I'd feel silly."

She jumped from the bed and paced toward the living room, then turned, more angry than ever. "Silly? Nursing is silly? Breasts are silly? Then why the hell do you wonder why I did what I did?"

"Being a man is what makes it silly," he retorted. "It doesn't look right. I almost laugh every time I see a man with breasts. The hormones mess up your system, I heard, and-"

"That's not true! Not anymore. You can lactate-"

"-and besides, it's my body, as you pointed out. I'll do with it what pleases me."

She sat on the edge of the bed with her back to him. He reached out and stroked her, but she moved away.

"All right," she said. "I was just suggesting it. I thought you might like to try it. I'm not going to nurse her. She goes on the bottle from now on."

"If that's the way it has to be."

"It is. I want you to start taking Feather to work with you. Since she's going to be a bottle baby, it hardly matters which of us cares for her. I think you owe it to me, since I carried the burden alone with

Lilli and Paul."

"All right."

She got into bed and pulled the covers up around her, her back to him. She didn't want him to see how close she was to tears.

But the feeling passed. The tension drained from her, and she felt good. She thought she had won a victory, and it was worth the cost. Jules would not stay angry at her.

She fell asleep easily, but woke up several times during the night as Jules tossed and turned.

He did adjust to it. It was impossible for him to say so all at once, but after a week without lovemaking he admitted grudgingly that she looked good. He began to touch her in the mornings and when they kissed after getting home from work. Jules had always admired her slim muscularity, her athlete's arms and legs. The slim chest looked so natural on her, it fit the rest of her so well that he began to wonder what all the fuss had been about.

One night while they were clearing the dinner dishes, Jules touched her nipples for the first time in a week. He asked her if it felt any different.

"There is very little feeling anywhere but the nipples," she pointed out, "no matter how big a woman is. You know that."

"Yeah, I guess I do."

She knew they would make love that night and determined it would be on her terms.

She spent a long time in the bathroom, letting him get settled with his book, then came out and took it away. She got on top of him and pressed close, kissing and tickling his nipples with her fingers.

She was aggressive and insistent. At first he seemed reluctant, but soon he was responding as she pressed her lips hard against his, forcing his head back into the pillow.

"I love you," he said, and raised his head to kiss her nose. "Are you ready?"

"I'm ready." He put his arms around her and held her close, then rolled over and hovered above her.

"Jules. Jules. Stop it." She squirmed onto her side, her legs held firmly together.

"What's wrong?"

"I want to be on top tonight."

"Oh. All right." He turned over again and reclined passively as she repositioned herself. Her heart was pounding. There had been no reason to think he would object—they had made love in any and all positions, but basically the exotic ones were a change of pace from the "natural" one with her on her back. Tonight she had wanted to feel in control.

"Open your legs, darling," she said, with a smile. He did, but didn't return the smile. She raised herself on her hands and knees and prepared for the tricky insertion.

"Cleo."

"What is it? This will take a little effort, but I think I can make it worth your while, so if you'd just—"

"Cleo, what the hell is the purpose of this?"

She stopped dead and let her head sag between her shoulders.

"What's the matter? Are you feeling silly with your feet in the air?"

"Maybe. Is that what you wanted?"

"Jules, humiliating you was the farthest thing from my mind."

"Then what was on your mind? It's not like we've never done it this way before. It's—"

"Only when you chose to do so. It's always your decision."

"It's not degrading to be on the bottom."

"Then why were you feeling silly?"

He didn't answer, and she wearily lifted herself away from him, sitting on her knees at his feet. She waited, but he didn't seem to want to talk about it.

"I've never complained about the position," she ventured. "I don't have any complaints about it. It works pretty well." Still he said nothing. "All right. I wanted to see what it looked like from up there. I was tired of looking at the ceiling. I was curious."

"And that's why I felt silly. I never minded you being on top before, have I? But before... well, it's never been in the context of the last couple of weeks. I know what's on your mind."

"And you feel threatened by it. By the fact that I'm curious about changing, that I want to know what it's like to take charge. You know I can't-and wouldn't if I could-force a change on you."

"But your curiosity is wrecking our marriage."

She felt like crying again, but didn't let it show except for a trembling of the lower lip. She didn't want him to try and soothe her; that was all too likely to work, and she would find herself on her back with her legs in the air. She looked down at the bed and nodded slowly, then got up. She went to the mirror and took the brush, began running it through her hair.

"What are you doing now? Can't we talk about this?"

"I don't feel much like talking right now." She leaned forward and examined her face as she brushed, then dabbed at the corners of her eyes with a tissue. "I'm going out. I'm still curious."

He said nothing as she started for the door.

"I may be a little late."

The place was called Oophyte. The capital "O" had a plus sign hanging from it, and an arrow in the upper right side. The sign was built so that the symbols revolved; one moment the plus was inside and the arrow out, the next moment the reverse.

Cleo moved in a pleasant haze across the crowded dance floor, pausing now and then to draw on her dopestick. The air in the room was thick with lavender smoke, illuminated by flashing blue lights. She danced when the mood took her. The music was so loud that she didn't have to think about it; the noise gripped her bones, animated her arms and legs. She glided through a forest of naked skin, feeling the occasional roughness of a paper suit and, rarely, expensive cotton clothing. It was like moving underwater, like wading through molasses.

She saw him across the floor, and began moving in his direction. He took no notice of her for some time, though she danced right in front of him. Few of the dancers had partners in more than the transitory sense. Some were celebrating life, others were displaying themselves, but all were looking for partners, so eventually he realized she had been there an unusual length of time. He was easily as stoned as she was.

She told him what she wanted.

"Sure. Where do you want to go? Your place?"

She took him down the hall in back and touched her credit bracelet to the lock on one of the doors. The room was simple, but clean.

He looked a lot like her phantom twin in the mirror, she noted with one part of her mind. It was probably why she had chosen him. She embraced him and lowered him gently to the bed.

"Do you want to exchange names?" he asked. The grin on his face kept getting sillier as she toyed with him.

"I don't care. Mostly I think I want to use you."

"Use away. My name's Saffron."

"I'm Cleopatra. Would you get on your back, please?"

He did, and they did. It was hot in the little room, but neither of them minded it. It was healthy exertion, the physical sensations were great, and when Cleo was through she had learned nothing. She collapsed on top of him. He did not seem surprised when tears began falling on his shoulder.

"I'm sorry," she said, sitting up and getting ready to leave.

"Don't go," he said, putting his hand on her shoulder. "Now that you've got that out of your system, maybe we can make love."

She didn't want to smile, but she had to, then she was crying harder, putting her face to his chest and feeling the warmth of his arms around her and the hair tickling her nose. She realized what she was doing, and tried to pull away.

"For God's sake, don't be ashamed that you need someone to cry on."

"It's weak. I... I just didn't want to be weak."

"We're all weak."

She gave up struggling and nestled there until the tears stopped. She sniffed, wiped her nose, and faced him.

"What's it like? Can you tell me?" She was about to explain what she meant, but he seemed to understand.

"It's like... nothing special."

"You were born female, weren't you? I mean, I thought I might be able to tell."

"It's no longer important how I was born. I've been both. It's still me, on the inside. You understand?"

"I'm not sure I do."

They were quiet for a long time. Cleo thought of a thousand things to say, questions to ask, but could do nothing.

"You've been coming to a decision, haven't you?" he said, at last. "Are you any closer after tonight?"

"I'm not sure."

"It's not going to solve any problems, you know. It might even create some."

She pulled away from him and got up. She shook her hair and wished for a comb.

"Thank you, Cleopatra," he said.

"Oh. Uh, thank you..." She had forgotten his name. She smiled again to cover her embarrassment, and shut the door behind her.

"Hello?"

"Yes. This is Cleopatra King. I had a consultation with one of your staff. I believe it was ten days ago."

"Yes, Ms. King. I have your file. What can I do for you?"

She took a deep breath. "I want you to start the clone. I left a tissue sample."

"Very well, Ms. King. Did you have any instructions concerning the chromosome donor?"

"Do you need consent?"

"Not as long as there's a sample in the bank."

"Use my husband, Jules La Rhin. Security number 4454390."

"Very good. We'll be in contact with you."

Cleo hung up the phone and rested her forehead against the cool metal. She should never get this stoned, she realized. What had she done?

But it was not final. It would be six months before she had to decide if she would ever use the clone. Damn Jules. Why did he have to make such a big thing of it?

Jules did not make a big thing of it when she told him what she had done. He took it quietly and calmly, as if he had been expecting it.

"You know I won't follow you in this?"

"I know you feel that way. I'm interested to see if you change your mind."

"Don't count on it. I want to see if you change yours."

"I haven't made up my mind. But I'm giving myself the option."

"All I ask is that you bear in mind what this could do to our relationship. I love you, Cleo. I don't think that will ever change. But if you walk into this house as a man, I don't think I'll be able to see you as the person I've always loved."

"You could if you were a woman."

"But I won't be."

"And I'll be the same person I always was." But would she be? What the hell was wrong? What had Jules ever done that he should deserve this? She made up her mind never to go through with it, and they made love that night and it was very, very good.

But somehow she never got around to calling the vivarium and telling them to abort the clone. She made the decision not to go through with it a dozen times over the next six months, and never had the clone destroyed.

Their relationship in bed became uneasy as time passed. At first, it was good. Jules made no objections when she initiated sex, and was willing to do it any way she preferred. Once that was accomplished she no longer cared whether she was on top or underneath. The important thing had been having the option of making love when she wanted to, the way she wanted to.

"That's what this is all about," she told him one night, in a moment of clarity when everything seemed to make sense except his refusal to see things from her side. "It's the option I want. I'm not unhappy being a



female. I don't like the feeling that there's anything I can't be. I want to know how much of me is hormones, how much is genetics, how much is upbringing. I want to know if I feel more secure being aggressive as a man, because I don't most of the time, as a woman. Or do men feel the same insecurities I feel? Would Cleo the man feel free to cry? I don't know any of those things."

"But you said it yourself. You'll still be the same person."

They began to drift apart in small ways. A few weeks after her outing to Oophyte she returned home one Sunday afternoon to find him in bed with a woman. It was not like him to do it like that; their custom had been to bring lovers home and introduce them, to keep it friendly and open. Cleo was amused, because she saw it as his way of getting back at her for her trip to the encounter bar.

So she was the perfect hostess, joining them in bed, which seemed to disconcert Jules. The woman's name was Harriet, and Cleo found herself liking her. She was a changer-something Jules had not known or he certainly would not have chosen her to make Cleo feel bad. Harriet was uncomfortable when she realized why she was there. Cleo managed to put her at ease by making love to her, something that surprised Cleo a little and Jules considerably, since she had never done it before.

Cleo enjoyed it; she found Harriet's smooth body to be a whole new world. And she felt she had neatly turned the tables on Jules, making him confront once more the idea of his wife in the man's role.

The worst part was the children. They had discussed the possible impending change with Lilli and Paul.

Lilli could not see what all the fuss was about; it was a part of her life, something that was all around her which she took for granted as something she herself would do when she was old enough. But when she began picking up the concern from her father, she drew subtly closer to her mother. Cleo was tremendously relieved. She didn't think she could have held to it in the face of Lilli's displeasure. Lilli was her first born, and though she hated to admit it and did her best not to play favorites, her darling. She had taken a year's leave from her job at appalling expense to the household budget so she could devote all her time to her infant daughter. She often wished she could somehow return to those simpler days, when motherhood had been her whole life.

Feather, of course, was not consulted. Jules had assumed the responsibility for her nurture without complaint, and seemed to be enjoying it. It was fine with Cleo, though it maddened her that he was so willing about taking over the mothering role without being willing to try it as a female. Cleo loved Feather as much as the other two, but sometimes had trouble recalling why they had decided to have her. She felt she had gotten the procreative impulse out of her system with Paul, and yet there Feather was.

Paul was the problem.

Things could get tense when Paul expressed doubts about how he would feel if his mother were to become a man. Jules's face would darken and he might not speak for days. When he did speak, often in the middle of the night when neither of them could sleep, it would be in a verbal explosion that was as close to violence as she had ever seen him.

It frightened her, because she was by no means sure of herself when it came to Paul. Would it hurt him? Jules spoke of gender identity crises, of the need for stable role models, and finally, in naked honesty, of the fear that his son would grow up to be somehow less than a man.

Cleo didn't know, but cried herself to sleep over it many nights. They had read articles about it and found that psychologists were divided. Traditionalists made much of the importance of sex roles, while changers felt sex roles were important only to those who were trapped in them; with the breaking of the sexual barrier, the concept of roles vanished.

The day finally came when the clone was ready. Cleo still did not know what she should do.

"Are you feeling comfortable now? Just nod if you can't talk."

"Wha..."

"Relax. It's all over. You'll be feeling like walking in a few minutes. We'll have someone take you home. You may feel drunk for a while, but there's no drugs in your system."

"Wha... happen?"

"It's over. Just relax."

Cleo did, curling up in a ball. Eventually he began to laugh.

Drunk was not the word for it. He sprawled on the bed, trying on pronouns for size. It was all so funny. He was on his back with his hands in his lap. He giggled and rolled back and forth, over and over, fell on the floor in hysterics.

He raised his head.

"Is that you, Jules?"

"Yes, it's me." He helped Cleo back onto the bed, then sat on the edge, not too near, but not unreachably far away. "How do you feel?"

He snorted. "Drunker 'n a skunk." He narrowed his eyes, forced them to focus on Jules. "You must call me Leo now. Cleo is a woman's name. You shouldn't have called me Cleo then."

"All right, I didn't call you Cleo, though."

"You didn't? Are you sure?"

"I'm very sure it's something I wouldn't have said."

"Oh. Okay." He lifted his head and looked confused for a moment. "You know what? I'm gonna be sick."

Leo felt much better an hour later. He sat in the living room with Jules, both of them on the big pillows that were the only furniture.

They spoke of inconsequential matters for a time, punctuated by long silences. Leo was no more used to the sound of his new voice than Jules was.

"Well," Jules said, finally, slapping his hands on his knees and standing up. "I really don't know what your plans are from here. Did you want to go out tonight? Find a woman, see what it's like?"

Leo shook his head. "I tried that out as soon as I got home," he said. "The male orgasm, I mean."

"What was it like?"

He laughed. "Certainly you know that by now."

"No, I meant, after being a woman—"

"I know what you mean." He shrugged. "The erection is interesting. So much larger than what I'm used to. Otherwise..." He frowned for a moment. "A lot the same. Some different. More localized. Messier."

"Um." Jules looked away, studying the electric fireplace as if seeing it for the first time. "Had you planned to move out? It isn't necessary, you know. We could move people around. I can go in with Paul, or we could move him in with me in... in our old room. You could have his." He turned away from Leo, and put his hand to his face.

Leo ached to get up and comfort him, but felt it would be exactly the wrong thing to do. He let Jules get himself under control.

"If you'll have me, I'd like to continue sleeping with you."

Jules said nothing, and didn't turn around.

"Jules, I'm perfectly willing to do whatever will make you most comfortable. There doesn't have to be any sex. Or I'd be happy to do what I used to do when I was in late pregnancy. You wouldn't have to do anything at all."

"No sex," he said.

"Fine, fine. Jules, I'm getting awfully tired. Are you ready to sleep?"

There was a long pause, then he turned and nodded.

They lay quietly, side by side, not touching. The lights were out; Leo could barely see the outline of Jules's body. After a long time, Jules turned on his side.

"Cleo, are you in there? Do you still love me?"

"I'm here," she said. "I love you. I always will."

Jules jumped when Leo touched him, but made no objection. He began to cry, and Leo held him close. They fell asleep in each other's arms.

The Oophyte was as full and noisy as ever. It gave Leo a headache.

He did not like the place any more than Cleo had, but it was the only place he knew to find sex partners quickly and easily, with no emotional entanglements and no long process of seduction. Everyone there was available; all one needed to do was ask. They used each other for sexual calisthenics just one step removed from masturbation, cheerfully admitted the fact, and took the position that if you didn't

approve, what were you doing there? There were plenty of other places for romance and relationships.

Leo didn't normally approve of it-not for himself, though he cared not at all what other people did for amusement. He preferred to know someone he bedded.

But he was here tonight to learn. He felt he needed the practice. He did not buy the argument that he would know just what to do because he had been a woman and knew what they liked. He needed to know how people reacted to him as a male.

Things went well. He approached three women and was accepted each time. The first was a mess-so that's what they meant by too soon!-and she was rather indignant about it until he explained his situation. After that she was helpful and supportive.

He was about to leave when he was propositioned by a woman who said her name was Lynx. He was tired, but decided to go with her.

Ten frustrating minutes later she sat up and moved away from him. "What are you here for, if that's all the interest you can muster? And don't tell me it's my fault."

"I'm sorry," he said. "I forgot. I thought I could... well, I didn't realize I had to be really interested before I could perform."

"Perform? That's a funny way to put it."

"I'm sorry." He told her what the problem was, how many times he had made love in the last two hours. She sat on the edge of the bed and ran her hands through her hair, frustrated and irritable.

"Well, it's not the end of the world. There's plenty more out there. But you could give a girl a warning. You didn't have to say yes back there."

"I know. It's my fault. I'll have to learn to judge my capacity, I guess. It's just that I'm used to being able to, even if I'm not particularly-"

Lynx laughed. "What am I saying? Listen to me. Honey. I used to have the same problem myself. Weeks of not getting it up. And I know it hurts."

"Well," Leo said. "I know what you're feeling like, too. It's no fun."

Lynx shrugged. "In other circumstances, yeah. But like I said, the woods are full of 'em tonight. I won't have any problem." She put her hand on his cheek and pouted at him. "Hey, I didn't hurt your poor male ego, did I?"

Leo thought about it, probed around for bruises, and found none.

"No."

She laughed. "I didn't think so. Because you don't have one. Enjoy it, Leo. A male ego is something that has to be grown carefully, when you're young. People have to keep pointing out what you have to do to be a man, so you can recognize failure when you can't 'perform' How come you used that word?"

"I don't know. I guess I was just thinking of it that way."

"Trying to be a quote man unquote. Leo, you don't have enough emotional investment in it. And you're lucky. It took me over a year to shake mine. Don't be a man. Be a male human, instead. The switchover's a lot easier that way."

"I'm not sure what you mean."

She patted his knee. "Trust me. Do you see me getting all upset because I wasn't sexy enough to turn you on, or some such garbage? No. I wasn't brought up to worry that way. But reverse it. If I'd done to you what you just did to me, wouldn't something like that have occurred to you?"

"I think it would. Though I've always been pretty secure in that area."

"The most secure of us are whimpering children beneath it, at least some of the time. You understand that I got upset because you said yes when you weren't ready? And that's all I was upset about? It was impolite, Leo. A male human shouldn't do that to a female human. With a man and a woman, it's different. The poor fellow's got a lot of junk in his head, and so does the woman, so they shouldn't be held responsible for the tricks their egos play on them."

Leo laughed. "I don't know if you're making sense at all. But I like the sound of it. 'Male human.' Maybe I'll see the difference one day."

Some of the expected problems never developed.

Paul barely noticed the change. Leo had prepared himself for a traumatic struggle with his son, and it

never came. If it changed Paul's life at all, it was in the fact that he could now refer to his maternal parent as Leo instead of mother.

Strangely enough, it was Lilli who had the most trouble at first. Leo was hurt by it, tried not to show it, and did everything he could to let her adjust gradually. Finally she came to him one day about a week after the change. She said she had been silly, and wanted to know if she could get a change, too, since one of her best friends was getting one. Leo talked her into remaining female until after the onset of puberty. He told her he thought she might enjoy it.

Leo and Jules circled each other like two tigers in a cage, unsure if a fight was necessary but ready to start clawing out eyes if it came to it. Leo didn't like the analogy; if he had still been a female tiger, he would have felt sure of the outcome. But he had no wish to engage in a dominance struggle with Jules.

They shared an apartment, a family, and a bed. They were elaborately polite, but touched each other only rarely, and Leo always felt he should apologize when they did. Jules would not meet his eyes; their gazes would touch, then rebound like two cork balls with identical static charges.

But eventually Jules accepted Leo. He was "that guy who's always around" in Jules' mind. Leo didn't care for that, but saw it as progress. In a few more days Jules began to discover that he liked Leo. They began to share things, to talk more. The subject of their previous relationship was taboo for a while. It was as if Jules wanted to know Leo from scratch, not acknowledging there had ever been a Cleo who had once been his wife.

It was not that simple; Leo would not let it be. Jules sometimes sounded like he was mourning the passing of a loved one when he hesitantly began talking about the hurt inside him. He was able to talk freely to Leo, and it was in a slightly different manner from the way he had talked to Cleo. He poured out his soul. It was astonishing to Leo that there were so many bruises on it, so many defenses and insecurities. There was buried hostility which Jules had never felt free to tell a woman.

Leo let him go on, but when Jules started a sentence with, "I could never tell this to Cleo," or, "Now that she's gone," Leo would go to him, take his hand, and force him to look.

"I'm Cleo," he would say. "I'm right here, and I love you."

They started doing things together. Jules took him to places Cleo had never been. They went out drinking together and had a wonderful time getting sloshed. Before, it had always been dinner with a few drinks or dopesticks, then a show or concert. Now they might come home at 0200 harmonizing loud enough to get thrown in jail. Jules admitted he hadn't had so much fun since his college days.

Socializing was a problem. Few of their old friends were changers, and neither of them wanted to face the complications of going to a party as a couple. They couldn't make friends among changers, because Jules correctly saw he would be seen as an outsider.

So they saw a lot of men. Leo had thought he knew all of Jules' close friends, but found he had been wrong. He saw a side of Jules he had never seen before: more relaxed in ways, some of his guardedness gone, but with other defenses in place. Leo sometimes felt like a spy, looking in on a stratum of society he had always known was there, but he had never been able to penetrate. If Cleo had walked into the group its structure would have changed subtly; she would have created a new milieu by her presence, like light destroying the atom it was meant to observe.

After his initial outing to the Oophyte, Leo remained celibate for a long time. He did not want to have sex casually; he wanted to love Jules. As far as he knew, Jules was abstaining, too.

But they found an acceptable alternative in double-dating. They shopped around together for a while, taking out different women and having a lot of fun without getting into sex, until each settled on a woman he could have a relationship with. Jules was with Diane, a woman he had known at work for many years. Leo went out with Harriet.

The four of them had great times together, Leo loved being a pal to Jules, but would not let it remain simply that. He took to reminding Jules that he could do this with Cleo, too. What Leo wanted to emphasize was that he could be a companion, a buddy, a confidant no matter which sex he was. He wanted to combine the best of being a woman and being a man, be both things for Jules, fulfill all his needs. But it hurt to think that Jules would not do the same for him.

"Well, hello, Leo. I didn't expect to see you today."

"Can I come in, Harriet?"

She held the door open for him.

"Can I get you anything? Oh, yeah, before you go any further, that 'Harriet' business is finished. I changed my name today. It's Joule from now on. That's spelled j-o-u-l-e."

"Okay, Joule. Nothing for me, thanks." He sat on her couch.

Leo was not surprised at the new name. Changers had a tendency to get away from "name" names. Some did as Cleo had done by choosing a gender equivalent or a similar sound. Others ignored gender connotations and used the one they had always used. But most eventually chose a neutral word, according to personal preference.

"Jules, Julia," he muttered.

"What was that?" Joule's brow wrinkled slightly.

"Did you come here for mothering? Things going badly?"

Leo slumped down and contemplated his folded hands.

"I don't know. I guess I'm depressed. How long has it been now? Five months? I've learned a lot, but I'm not sure just what it is. I feel like I've grown. I see the world... well, I see things differently, yes. But I'm still basically the same person."

"In the sense that you're the same person at thirty-three as you were at ten?"

Leo squirmed. "Okay. Yeah, I've changed. But it's not any kind of reversal. Nothing turned topsy-turvy. It's an expansion. It's not a new viewpoint. It's like filling something up, moving out into unused spaces. Becoming..." His hands groped in the air, then fell back into his lap. "It's like a completion."

Joule smiled. "And you're disappointed? What more could you ask?"

Leo didn't want to get into that just yet. "Listen to this, and see if you agree. I always saw male and female-whatever that is, and I don't know if the two really exist other than physically and don't think it's important anyway... I saw those qualities as separate. Later, I thought of them like Siamese twins in everybody's head. But the twins were usually fighting, trying to cut each other off. One would beat the other down, maim it, throw it in a cell, and never feed it, but they were always connected and the beaten-down one would make the winner pay for the victory.

"So I wanted to try and patch things up between them. I thought I'd just introduce them to each other and try to referee, but they got along a lot better than I expected. In fact, they turned into one whole person, and found they could be very happy together. I can't tell them apart anymore. Does that make any sense?"

Joule moved over to sit beside him.

"It's a good analogy, in its way. I feel something like that, but I don't think about it anymore. So what's the problem? You just told me you feel whole now."

Leo's face controlled. "Yes. I do. And if I am, what does that make Jules?" He began to cry, and Joule let him get it out, just holding his hand. She thought he'd better face it alone, this time. When he had calmed down, she began to speak quietly.

"Leo, Jules is happy as he is. I think he could be much happier, but there's no way for us to show him that without having him do something he fears so much. It's possible that he will do it someday, after more time to get used to it. And it's possible that he'll hate it and run screaming back to his manhood. Sometimes the maimed twin can't be rehabilitated."

She sighed heavily, and got up to pace the room.

"There's going to be a lot of this in the coming years," she said. "A lot of broken hearts. We're not really very much like them, you know. We get along better. We're not angels, but we may be the most civilized, considerate group the race has yet produced. There are fools and bastards among us, just like the one-sexers, but I think we tend to be a little less foolish, and a little less cruel. I think changing is here to stay.

"And what you've got to realize is that you're lucky. And so is Jules. It could have been much worse. I know of several broken homes just among my own friends. There's going to be many more before society has assimilated this. But your love for Jules and his for you has held you together. He's made a

tremendous adjustment, maybe as big as the one you made. He likes you. In either sex. Okay, so you don't make love to him as Leo. You may never reach that point."

"We did. Last night." Leo shifted on the couch. "I... I got mad. I told him if he wanted to see Cleo, he had to learn to relate to me, because I'm me, dammit."

"I think that might have been a mistake."

Leo looked away from her. "I'm starting to think so, too."

"But I think the two of you can patch it up, if there's any damage. You've come through a lot together."

"I didn't mean to force anything on him, I just got mad."

"And maybe you should have. It might have been just the thing. You'll have to wait and see."

Leo wiped his eyes and stood up.

"Thanks, Harr... sorry. Joule. You've helped me. I... uh, I may not be seeing you as often for a while."

"I understand. Let's stay friends, okay?" She kissed him, and he hurried away.

She was sitting on a pillow facing the door when he came home from work, her legs crossed, elbows resting on her knee with a dopestick in her hand. She smiled at him.

"Well, you're home early. What happened?"

"I stayed home from work." She nearly choked, trying not to laugh. He threw his coat to the closet and hurried into the kitchen. She heard something being stirred, then the sound of glass shattering. He burst through the doorway.

"Cleo!"

"Darling, you look so handsome with your mouth hanging open."

He shut it, but still seemed unable to move. She went to him, feeling tingling excitement in her loins like the return of an old friend. She put her arms around him, and he nearly crushed her. She loved it.

He drew back slightly and couldn't seem to get enough of her face, his eyes roaming every detail.

"How long will you stay this way?" he asked. "Do you have any idea?"

"I don't know. Why?"

He smiled, a little sheepishly. "I hope you won't take this wrong. I'm so happy to see you. Maybe I shouldn't say it... but no, I think I'd better. I like Leo. I think I'll miss him, a little."

She nodded. "I'm not hurt. How could I be?" She drew away and led him to a pillow. "Sit down, Jules. We have to have a talk." His knees gave way under him and he sat, looking up expectantly.

"Leo isn't gone, and don't you ever think that for a minute. He's right here." She thumped her chest and looked at him defiantly. "He'll always be here. He'll never go away."

"I'm sorry, Cleo, I-"

"No. don't talk yet. It was my own fault, but I didn't know any better. I never should have called myself Leo. It gave you an easy out. You didn't have to face Cleo being a male. I'm changing all that. My name is Nile. N-i-l-e. I won't answer to anything else."

"All right. It's a nice name."

"I thought of calling myself Lion. For Leo the lion. But I decided to be who I always was, the queen of the Nile, Cleopatra. For old time's sake."

He said nothing, but his eyes showed his appreciation.

"What you have to understand is that they're both gone, in a sense. You'll never be with Cleo again. I look like her now. I resemble her inside, too, like an adult resembles the child. I have a tremendous amount in common with what she was. But I'm not her."

He nodded. She sat beside him and took his hand.

"Jules, this isn't going to be easy. There are things I want to do, people I want to meet. We're not going to be able to share the same friends. We could drift apart because of it. I'm going to have to fight resentment because you'll be holding me back. You won't let me explore your female side like I want to. You're going to resent me because I'll be trying to force you into something you think is wrong for you. But I want to try and make it work."

He let out his breath. "God, Cl... Nile. I've never been so scared in my life. I thought you were leading up to leaving me."

She squeezed his hand. "Not if I can help it. I want each of us to try and accept the other as they are. For me, that includes being male whenever I feel like it. It's all the same to me, but I know it's going to be hard for you."

They embraced, and Jules wiped his tears on her shoulder, then faced her again.

"I'll do anything and everything in my power, up to-

She put her finger to her lips. "I know. I accept you that way. But I'll keep trying to convince you."

## OVERDRAWN AT THE MEMORY BANK

It was schoolday at the Kenya disneyland. Five nine-year-olds were being shown around the medico section where Fingal lay on the recording table, the top of his skull removed, looking up into a mirror. Fingal was in a bad mood (hence the trip to the disneyland) and could have done without the children. Their teacher was doing his best, but who can control five nine-year-olds?

"What's the big green wire do, teacher?" asked a little girl, reaching out one grubby hand and touching Fingal's brain where the main recording wire clamped to the built-in terminal.

"Lupus, I told you you weren't to touch anything. And look at you, you didn't wash your hands." The teacher took the child's hand and pulled it away.

"But what does it matter? You told us yesterday that the reason no one cares about dirt like they used to is dirt isn't dirty anymore."

"I'm sure I didn't tell you exactly that. What I said was that when humans were forced off Earth, we took the golden opportunity to wipe out all harmful germs. When there were only three thousand people alive on the moon after the Occupation it was easy for us to sterilize everything. So the medico doesn't need to wear gloves like surgeons used to, or even wash her hands. There's no danger of infection. But it isn't polite. We don't want this man to think we're being impolite to him, just because his nervous system is disconnected and he can't do anything about it, do we?"

"No, teacher."

"What's a surgeon?"

"What's 'infection'?"

Fingal wished the little perishers had chosen another day for their lessons, but as the teacher had said, there was very little he could do. The medico had turned his motor control over to the computer while she took the reading. He was paralyzed. He eyed the little boy carrying the carved stick, and hoped he didn't get a notion to poke him in the cerebrum with it. Fingal was insured, but who needs the trouble?

"All of you stand back a little so the medico can do her work. That's better. Now, who can tell me what the big green wire is? Destry?"

Destry allowed as how he didn't know, didn't care, and wished he could get out of here and play spat ball. The teacher dismissed him and went on with the others.

"The green wire is the main sounding electrode," the teacher said. "It's attached to a series of very fine wires in the man's head, like the ones you have, which are implanted at birth. Can anyone tell me how the recording is made?"

The little girl with the dirty hands spoke up.

"By tying knots in string."

The teacher laughed, but the medico didn't. She had heard it all before. So had the teacher, of course, but that was why he was a teacher. He had the patience to deal with children, a rare quality now that there were so few of them.

"No, that was just an analogy. Can you all say analogy?"

"Analogy," they chorused.

"Fine. What I told you is that the chains of FPNA are very much like strings with knots tied in them. If you make up a code with every millimeter and every knot having a meaning, you could write words in string by tying knots in it. That's what the machine does with the FPNA. Now... can anyone tell me what FPNA stands for?"

"Ferro-Photo-Nucleic Acid," said the girl, who seemed to be the star pupil.

"That's right, Lupus. It's a variant on DNA, and it can be knotted by magnetic fields and light, and made to go through chemical changes. What the medico is doing now is threading long strings of FPNA into the tiny tubes that are in the man's brain. When she's done, she'll switch on the machine and the current will start tying knots. And what happens then?"

"All his memories go into the memory cube," said Lupus.

"That's right. But it's a little more complicated than that. You remember what I told you about a divided cipher? The kind that has two parts, neither of which is any good without the other? Imagine two of the strings, each with a lot of knots in them. Well, you try to read one of them with your decoder, and you find out that it doesn't make sense. That's because whoever wrote it used two strings, with knots tied in different places. They only make sense when you put them side by side and read them that way. That's how this decoder works, but the medico uses twenty-five strings. When they're all knotted the right way and put into the right openings in that cube over there," he pointed to the pink cube on the medico's bench, "they'll contain all this man's memories and personality. In a way, he'll be in the cube, but he won't know it, because he's going to be an African lion today."

This excited the children, who would much rather be stalking the Kenya savanna than listening to how a multi-holo was taken. When they quieted down the teacher went on, using analogies that got more strained by the minute.

"When the strings are in... class, pay attention. When they're in the cube, a current sets them in place. What we have then is a multi-holo. Can anyone tell me why we can't just take a tape recording of what's going on in this man's brain, and use that?"

One of the boys answered, for once.

"Because memory isn't... what's that word?"

"Sequential?"

"Yeah, that's it. His memories are stashed all over his brain and there's no way to sort them out. So this recorder takes a picture of the whole thing at once, like a hologram. Does that mean you can cut the cube in half and have two people?"

"No, but that's a good question. This isn't that sort of hologram. This is something like... like when you press your hand into clay, but in four dimensions. If you chip off a part of the clay after it's dried, you lose part of the information, right? Well, this is sort of like that. You can't see the imprint because it's too small, but everything the man ever did and saw and heard and thought will be in the cube."

"Would you move back a little?" asked the medico. The children in the mirror over Fingal's head shuffled back and became more than just heads with shoulders sticking out. The medico adjusted the last strand of FPNA suspended in Fingal's cortex to the close tolerances specified by the computer.

"I'd like to be a medico when I grow up," said one boy.

"I thought you wanted to go to college and study to be a scientist."

"Well, maybe. But my friend is teaching me to be a medico. It looks a lot easier."

"You should stay in school, Destry. I'm sure your parent will want you to make something of yourself." The medico fumed silently. She knew better than to speak up—education was a serious business and interference with the duties of a teacher carried a stiff fine. But she was obviously pleased when the class thanked her and went out the door, leaving dirty footprints behind them.

She viciously flipped a switch, and Fingal found he could breathe and move the muscles in his head.

"Lousy conceited college graduate," she said. "What the hell's wrong with getting your hands dirty, I ask you?" She wiped the blood from her hands onto her blue smock.

"Teachers are the worst," Fingal said.

"Ain't it the truth? Well, being a medico is nothing to be ashamed of. So I didn't go to college, so what? I can do my job, and I can see what I've done when I'm through. I always did like working with my hands. Did you know that being a medico used to be one of the most respected professions there was?"

"Really?"

"Fact. They had to go to college for years and years, and they made a hell of a lot of money, let me tell you."



Fingal said nothing, thinking she must be exaggerating. What was so tough about medicine? Just a little mechanical sense and a steady hand, that was all you needed. Fingal did a lot of maintenance on his body himself, going to the shop only for major work. And a good thing, at the prices they charged. It was not the sort of thing one discussed while lying helpless on the table, however.

"Okay, that's done." She pulled out the modules that contained the invisible FPNA and set them in the developing solution. She fastened Fingal's skull back on and tightened the recessed screws set into the bone. She turned his motor control back over to him while she sealed his scalp back into place. He stretched and yawned. He always grew sleepy in the medico's shop; he didn't know why.

"Will that be all for today, sir? We've got a special on blood changes, and since you'll just be lying there while you're out doppling in the park, you might as well-

"No, thanks. I had it changed a year ago. Didn't you read my history?"

She picked up the card and glanced at it. "So you did. Fine. You can get up now, Mr. Fingal." She made a note on the card and set it down on the table. The door opened and a small face peered in.

"I left my stick," said the boy. He came in and started looking under things, to the annoyance of the medico. She attempted to ignore the boy as she took down the rest of the information she needed.

"And are you going to experience this holiday now, or wait until your double has finished and play it back then?"

"Huh? Oh, you mean... yes, I see. No, I'll go right into the animal. My psychiatrist advised me to come out here for my nerves, so it wouldn't do me much good to wait it out, would it?"

"No, I suppose it wouldn't. So you'll be sleeping here while you doppel in the park. Hey!" She turned to confront the little boy, who was poking his nose into things he should stay away from. She grabbed him and pulled him away.

"You either find what you're looking for in one minute or you get out of here, you see?" He went back to his search, giggling behind his hand and looking for more interesting things to fool around with.

The medico made a check on the card, glanced at the glowing numbers on her thumbnail and discovered her shift was almost over. She connected the memory cube through a machine to a terminal in the back of Fingal's head.

"You've never done this before, right? We do this to avoid blank spots, which can be confusing sometimes. The cube is almost set, but now I'll add the last ten minutes to the record at the same time I put you to sleep. That way you'll experience no disorientation, you'll move through a dream state to full awareness of being in the body of a lion. Your body will be removed and taken to one of our slumber rooms while you're gone. There's nothing to worry about."

Fingal wasn't worried, just tired and tense. He wished she would go on and do it and stop talking about it. And he wished the little boy would stop pounding his stick against the table leg. He wondered if his headache would be transferred to the lion.

She turned him off.

They hauled his body away and took his memory cube to the installation room. The medico chased the boy into the corridor and hosed down the recording room. Then she was off to a date she was already late for.

The employees of Kenya Disneyland installed the cube into a metal box set into the skull of a full-grown African lioness. The social structure of lions being what it was, the proprietors charged a premium for the use of a male body, but Fingal didn't care one way or the other.

A short ride in an underground railroad with the sedated body of the Fingal-lioness, and he was deposited beneath the blazing sun of the Kenya savanna. He awoke, sniffed the air, and felt better immediately.

The Kenya Disneyland was a total environment buried twenty kilometers beneath Mare Moscoviense on the far side of Luna. It was roughly circular, with a radius of two hundred kilometers. From the ground to the "sky" was two kilometers except over the full-sized replica of Kilimanjaro, where it bulged to allow clouds to form in a realistic manner over the snowcap.

The illusion was flawless. The curve of the ground was consistent with the curvature of the Earth, so that the horizon was much more distant than anything Fingal was used to. The trees were real, and so

were all the animals. At night an astronomer would have needed a spectroscope to distinguish the stars from the real thing.

Fingal certainly couldn't spot anything wrong. Not that he wanted to. The colors were strange but that was from the limitations of feline optics. Sounds were much more vivid, as were smells. If he'd thought about it, he would have realized the gravity was much too weak for Kenya. But he wasn't thinking; he'd come here to avoid that.

It was hot and glorious. The dry grass made no sound as he walked over it on broad pads. He smelled antelope, wildebeest, and... was that baboon? He felt pangs of hunger but he really didn't want to hunt. But he found the lioness body starting on a stalk anyway.

Fingal was in an odd position. He was in control of the lioness, but only more or less. He could guide her where he wanted to go, but he had no say at all over instinctive behaviors. He was as much a pawn to these as the lioness was. In one sense, he was the lioness; when he wished to raise a paw or turn around, he simply did it. The motor control was complete. It felt great to walk on all fours, and it came as easily as breathing. But the scent of the antelope went on a direct route from the nostrils to the lower brain, made a connection with the rumblings of hunger, and started him on the stalk.

The guidebook said to surrender to it. Fighting it wouldn't do anyone any good, and could frustrate you. If you were paying to be a lion, read the chapter on "Things to Do," you might as well be one, not just wear the body and see the sights.

Fingal wasn't sure he liked this as he came downwind of the antelope and crouched behind a withered clump of scrub. He pondered it while he sized up the dozen or so animals grazing just a few meters from him, picking out the small, the weak, and the young with a predator's eye. Maybe he should back out now and go on his way. These beautiful creatures were not harming him. The Fingal part of him wished mostly to admire them, not eat them.

Before he quite knew what had happened, he was standing triumphant over the bloody body of a small antelope. The others were just dusty trails in the distance.

It had been incredible!

The lioness was fast, but might as well have been moving in slow motion compared to the antelope. Her only advantage lay in surprise, confusion, and quick, all-out attack. There had been the lifting of a head; ears had flicked toward the bush he was hiding in, and he had exploded. Ten seconds of furious exertion and he bit down on a soft throat, felt the blood gush and the dying kicks of the hind legs under his paws. He was breathing hard and the blood coursed through his veins. There was only one way to release the tension.

He threw his head back and roared his bloodlust.

He'd had it with lions at the end of the weekend. It wasn't worth it for the few minutes of exhilaration at the kill. It was a life of endless stalking, countless failures, then a pitiful struggle to get a few bites for yourself from the kill you had made. He found to his chagrin that his lioness was very low in the dominance order. When he got his kill back to the pride-he didn't know why he had dragged it back but the lioness seemed to know-it was promptly stolen from him. He/she sat back helplessly and watched the dominant male take his share, followed by the rest of the pride. He was left with a dried haunch four hours later, and had to contest even that with vultures and hyenas. He saw what the premium payment was for. That male had it easy.

But he had to admit that it had been worth it. He felt better; his psychiatrist had been right. It did one good to leave the insatiable computers at his office for a weekend of simple living. There were no complicated choices to be made out here. If he was in doubt, he listened to his instincts. It was just that the next time, he'd go as an elephant. He'd been watching them. All the other animals pretty much left them alone, and he could see why. To be a solitary bull, free to wander where he wished with food as close as the nearest tree branch...

He was still thinking about it when the collection crew came for him.

He awoke with the vague feeling that something was wrong. He sat up in bed and looked around him. Nothing seemed to be out of place. There was no one in the room with him. He shook his head to clear it.

It didn't do any good. There was still something wrong. He tried to remember how he had gotten there, and laughed at himself. His own bedroom! What was so remarkable about that?

But hadn't there been a vacation, a weekend trip? He remembered being a lion, eating raw antelope meat, being pushed around within the pride, fighting it out with the other females and losing and retiring to rumble to him/herself.

Certainly he should have come back to human consciousness in the disneyland medical section. He couldn't remember it. He reached for his phone, not knowing who he wished to call. His psychiatrist, perhaps, or the Kenya office.

"I'm sorry, Mr. Fingal," the phone told him. "This line is no longer available for outgoing calls. If you'll-" "Why not?" he asked, irritated and confused. "I paid my bill."

"That is of no concern to this department, Mr. Fingal. And please do not interrupt. It's hard enough to reach you. I'm fading, but the message will be continued if you look to your right." The voice and the power hum behind it faded. The phone was dead.

Fingal looked to his right and jerked in surprise. There was a hand, a woman's hand, writing on his wall. The hand faded out at the wrist.

"Mene, Mene..." it wrote, in thin letters of fire. Then the hand waved in irritation and erased that with its thumb. The wall was smudged with soot where the words had been.

"You're projecting, Mr. Fingal," the hand wrote, quickly etching out the words with a manicured nail. "That's what you expected to see." The hand underlined the word "expected" three times. "Please cooperate, clear your mind, and see what is there, or we're not going to get anywhere. Damn, I've about exhausted this medium."

And indeed it had. The writing had filled the wall and the hand was now down near the floor. The apparition wrote smaller and smaller in an effort to get it all in.

Fingal had an excellent grasp on reality, according to his psychiatrist. He held tightly onto that evaluation like a talisman as he leaned closer to the wall to read the last sentence.

"Look on your bookshelf," the hand wrote. "The title is Orientation in your Fantasy World."

Fingal knew he had no such book, but could think of nothing better to do.

His phone didn't work, and if he was going through a psychotic episode he didn't think it wise to enter the public corridor until he had some idea of what was going on. The hand faded out, but the writing continued to smolder.

He found the book easily enough. It was a pamphlet, actually, with a gaudy cover. It was the sort of thing he had seen in the outer offices of the Kenya disneyland, a promotional booklet. At the bottom it said, "Published under the auspices of the Kenya computer; A. Joachim, operator." He opened it and began to read.

## CHAPTER ONE

"Where Am I?"

You're probably wondering by now where you are. This is an entirely healthy and normal reaction, Mr. Fingal. Anyone would wonder, when beset by what seem to be paranormal manifestations, if his grasp on reality had weakened. Or, in simple language, "Am I nuts, or what?"

No, Mr. Fingal, you are not nuts. But you are not, as you probably think, sitting on your bed, reading a book. It's all in your mind. You are still in the Kenya disneyland. More specifically, you are contained in the memory cube we took of you before your weekend on the savanna. You see, there's been a big goof-up.

## CHAPTER TWO

"What Happened?"

We'd like to know that, too, Mr. Fingal. But here's what we do know. Your body has been misplaced. Now, there's nothing to worry about, we're doing all we can to locate it and find out how it

happened, but it will take some time. Maybe it's small consolation, but this has never happened before in the seventy-five years we've been operating, and as soon as we find out how it happened this time, you can be sure we'll be careful not to let it happen again. We're pursuing several leads at this time, and you can rest easy that your body will be returned to you intact just as soon as we locate it.

You are awake and aware right now because we have incorporated your memory cube into the workings of our H-210 computer, one of the finest holo-memory systems available to modern business. You see, there are a few problems.

### **CHAPTER THREE**

"What Problems?"

It's kind of hard to put in terms you'd understand, but let's take a crack at it, shall we?

The medium we use to record your memories isn't the one you've probably used yourself as insurance against accidental death. As you must know, that system will store your memories for up to twenty years with no degradation or loss of information, and is quite expensive. The system we use is a temporary one, good for two, five, fourteen, or twenty-eight days, depending on the length of your stay. Your memories are put in the cube, where you might expect them to remain static and unchanging, as they do in your insurance recording. If you thought that, you would be wrong, Mr. Fingal. Think about it. If you die, your bank will immediately start a clone from the plasm you stored along with the memory cube. In six months, your memories would be played back into the clone and you would awaken, missing the memories that were accumulated in your body from the time of your last recording. Perhaps this has happened to you. If it has, you know the shock of awakening from the recording process to be told that it is three or four years later, and that you had died in that time.

In any case, the process we use is an ongoing one, or it would be worthless to you. The cube we install in the African animal of your choice is capable of adding the memories of your stay in Kenya to the memory cube. When your visit is over, these memories are played back into your brain and you leave the Disneyland with the exciting, educational, and refreshing experiences you had as an animal, though your body never left our slumber room. This is known as "doppling," from the German doppelganger.

Now, to the problems we talked about. Thought we'd never get around to them, didn't you?

First, since you registered for a weekend stay, the medico naturally used one of the two-day cubes as part of our budget-excursion fare. These cubes have a safety factor, but aren't much good beyond three days at best. At the end of that time the cube would start to deteriorate. Of course, we fully expect to have you installed in your own body before then. Additionally, there is the problem of storage. Since these ongoing memory cubes are intended to be in use all the time your memories are stored in them, it presents certain problems when we find ourselves in the spot we are now in. Are you following me, Mr. Fingal? While the cube has already passed its potency for use in coexisting with a live host, like the lioness you just left, it must be kept in constant activation at all times or loss of information results. I'm sure you wouldn't want that to happen, would you? Of course not. So what we have done is to "plug you in" to our computer, which will keep you aware and healthy and guard against the randomizing of your memory nexi. I won't go into that; let it stand that randomizing is not the sort of thing you'd like to have happen to you.

### **CHAPTER FOUR**

"So What Gives, Huh?"

I'm glad you asked that. (Because you did ask that, Mr. Fingal. This booklet is part of the analogizing process that I'll explain further down the page.) Life in a computer is not the sort of thing you could just jump into and hope to retain the world-picture compatibility so necessary for sane functioning in this complex society. This has been tried, so take our word for it. Or rather, my word. Did I introduce myself? I'm Apollonia Joachim, First Class Operative for the DataSafe computer trouble-shooting firm. You've probably never heard of us, even though you do work with computers.

Since you can't just become aware in the baffling, on-and-off world that passes for reality in a data system, your mind, in cooperation with an analogizing program I've given the computer, interprets things in ways that seem safe and comfortable to it. The world you see around you is a figment of your imagination. Of course, it looks real to you because it comes from the same part of the mind that you normally use to interpret reality. If we wanted to get philosophical about it, we could probably argue all day about what constitutes reality and why the one you are perceiving now is any less real than the one you are used to. But let's not get into that, all right?

The world will likely continue to function in ways you are accustomed for it to function. It won't be exactly the same. Nightmares, for instance. Mr. Fingal, I hope you aren't the nervous type, because your nightmares can come to life where you are. They'll seem quite real. You should avoid them if you can, because they can do you real harm. I'll say more about this later if I need to. For now, there's no need to worry.

## CHAPTER FIVE

"What Do I Do Now?"

I'd advise you to continue with your normal activities. Don't be alarmed at anything unusual. For one thing, I can only communicate with you by means of paranormal phenomena. You see, when a message from me is fed into the computer, it reaches you in a way your brain is not capable of dealing with. Naturally, your brain classifies this as an unusual event and fleshes the communication out in unusual fashion. Most of the weird things you see, if you stay calm and don't let your own fears out of the closet to persecute you, will be me. Otherwise, I anticipate that your world should look, feel, taste, sound, and smell pretty normal. I've talked to your psychiatrist. He assures me that your world-grasp is strong. So sit tight. We'll be working hard to get you out of there.

## CHAPTER SIX

"Help!"

Yes, we'll help you. This is a truly unfortunate thing to have happened, and of course we will refund all your money promptly. In addition, the lawyer for Kenya wants me to ask you if a lump sum settlement against all future damages is a topic worthy of discussion. You can think about it; there's no hurry.

In the meantime, I'll find ways to answer your questions. It might become unwieldy the harder your mind struggles to normalize my communications into things you are familiar with. That is both your greatest strength—the ability of your mind to bend the computer world it doesn't wish to see into media you are familiar with—and my biggest handicap. Look for me in tea leaves, on billboards, on holovision; anywhere! It could be exciting if you get into it.

Meanwhile, if you have received this message you can talk to me by filling in the attached coupon and dropping it in the mail-tube. Your reply will probably be waiting for you at the office. Good luck!

Yes! I received your message and am interested in the exciting opportunities in the field of computer living! Please send me, without cost or obligation, your exciting catalog telling me how I can move up to the big, wonderful world outside!

NAME

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ADDRESS

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I.D.

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Fingal fought the urge to pinch himself. If what this booklet said was true-and he might as well believe it-it would hurt and he would not wake up. He pinched himself anyway. It hurt.

If he understood this right, everything around him was the product of his imagination. Somewhere, a woman was sitting at a computer input and talking to him in normal language, which came to his brain in the form of electron pulses it could not cope with and so edited into forms he was conversant with. He was analogizing like mad. He wondered if he had caught it from the teacher, if analogies were contagious.

"What the hell's wrong with a simple voice from the air?" he wondered aloud. He got no response, and was rather glad. He'd had enough mysteriousness for now. And on second thought, a voice from the air would probably scare the pants off him.

He decided his brain must know what it was doing. After all, the hand startled him but he hadn't panicked. He could see it, and he trusted his visual sense more than he did voices from the air, a classical sign of insanity if ever there was one.

He got up and went to the wall. The letters of fire were gone, but the black smudge of the erasure was still there. He sniffed it: carbon. He fingered the rough paper of the pamphlet, tore off a corner, put it in his mouth and chewed it. It tasted like paper.

He sat down and filled out the coupon and tossed it to the mail-tube.

Fingal didn't get angry about it until he was at the office. He was an easygoing person, slow to boil. But he finally reached a point where he had to say something.

Everything had been so normal he wanted to laugh. All his friends and acquaintances were there, doing exactly what he would have expected them to be doing. What amazed and bemused him was the number and variety of spear carriers, minor players in this internal soap opera. The extras that his mind had cooked up to people the crowded corridors, like the man he didn't know who had bumped into him on the tube to work, apologized, and disappeared, presumably back into the bowels of his imagination.

There was nothing he could do to vent his anger but test the whole absurd setup. There was doubt lingering in his mind that the whole morning had been a fugue, a temporary lapse into dreamland. Maybe he'd never gone to Kenya, after all, and his mind was playing tricks on him. To get him there, or keep him away? He didn't know, but he could worry about that if the test failed.

He stood up at his desk terminal, which was in the third column of the fifteenth row of other identical desks, each with its diligent worker. He held up his hands and whistled. Everyone looked up.

"I don't believe in you," he screeched. He picked up a stack of tapes on his desk and hurled them at Felicia Nahum at the desk next to his. Felicia was a good friend of his, and she registered the proper shock until the tapes hit her. Then she melted. He looked around the room and saw that everything had stopped like a freeze-frame in a motion picture.

He sat down and drummed his fingers on his desk top. His heart was pounding and his face was flushed. For an awful moment he had thought he was wrong. He began to calm down, glancing up every few seconds to be sure the world really had stopped.

In three minutes he was in a cold sweat. What the hell had he proved? That this morning had been real, or that he really was crazy? It dawned on him that he would never be able to test the assumptions under which he lived.

A line of print flashed across his terminal.

"But when could you ever do so, Mr. Fingal?"

"Ms. Joachim?" he shouted, looking around him. "Where are you? I'm afraid."

"You mustn't be," the terminal printed. "Calm yourself. You have a strong sense of reality, remember? Think about this: even before today, how could you be sure the world you saw was not the result of catatonic delusions? Do you see what I mean? The question 'What is reality?' is, in the end, unanswerable. We all must accept at some point what we see and are told, and live by a set of untested and untestable assumptions. I ask you to accept the set I gave you this morning because, sitting here in the computer room where you cannot see me, my world picture tells me that they are the true set. On the

other hand, you could believe that I'm deluding myself, that there's nothing in the pink cube I see and that you're a spear carrier in my dream. Does that make you more comfortable?"

"No," he mumbled, ashamed of himself. "I see what you mean. Even if I am crazy, it would be more comfortable to go along with it than to keep fighting it."

"Perfect, Mr. Fingal. If you need further illustrations you could imagine yourself locked in a straitjacket. Perhaps there are technicians laboring right now to correct your condition, and they are putting you through this psychodrama as a first step. Is that any more attractive?"

"No, I guess it isn't."

"The point is that it's as reasonable an assumption as the set of facts I gave you this morning. But the main point is that you should behave the same whichever set is true. Do you see? To fight it in the one case will only cause you trouble, and in the other, would impede the treatment I realize I'm asking you to accept me on faith. And that's all I can give you."

"I believe in you," he said. "Now, can you start everything going again?"

"I told you I'm not in control of your world. In fact, it's a considerable obstacle to me, seeing as I have to talk to you in these awkward ways. But things should get going on their own as soon as you let them. Look up."

He did, and saw the normal hum and bustle of the office. Felicia was there at her desk, as though nothing had happened. Nothing had. Yes, something had, after all. The tapes were scattered on the floor near his desk, where they had fallen. They had unreeled in an unruly mess.

He started to pick them up, then saw they weren't as messy as he had thought. They spelled out a message in coils of tape.

"You're back on the track," it said.

For three weeks Fingal was a very good boy. His co-workers, had they been real people, might have noticed a certain standoffishness in him, and his social life at home was drastically curtailed. Otherwise, he behaved exactly as if everything around him were real.

But his patience had limits. This had already dragged on for longer than he had expected. He began to fidget at his desk, let his mind wander. Feeding information into a computer can be frustrating, unrewarding, and eventually stultifying. He had been feeling it even before his trip to Kenya; it had been the cause of his trip to Kenya. He was sixty-eight years old, with centuries ahead of him, and stuck in a ferro-magnetic rut. Longlife could be a mixed blessing when you felt boredom creeping up on you.

What was getting to him was the growing disgust with his job. It was bad enough when he merely sat in a real office with two hundred real people, shoveling slightly unreal data into a much-less-than-real-to-his-senses computer. How much worse now, when he knew that the data he handled had no meaning to anyone but himself, was nothing but occupational therapy created by his mind and a computer program to keep him busy while Joachim searched for his body.

For the first time in his life he began punching some buttons for himself. Under slightly less stress he would have gone to see his psychiatrist, the approved and perfectly normal thing to do. Here, he knew he would only be talking to himself. He failed to perceive the advantages of such an idealized psychoanalytic process; he'd never really believed that a psychiatrist did little but listen in the first place.

He began to change his own life when he became irritated with his boss. She pointed out to him that his error index was on the rise, and suggested that he shape up or begin looking for another source of employment.

This enraged him. He'd been a good worker for twenty-five years. Why should she take that attitude when he was just not feeling himself for a week or two?

Then he was angrier than ever when he thought about her being merely a projection of his own mind. Why should he let her push him around?

"I don't want to hear it," he said. "Leave me alone. Better yet, give me a raise in salary."

"Fingal," she said promptly, "you've been a credit to your section these last weeks. I'm going to give you a raise."

"Thank you. Go away." She did, by dissolving into thin air. This really made his day. He leaned back in his chair and thought about his situation for the first time since he was young.

He didn't like what he saw.

In the middle of his ruminations, his computer screen lit up again.

"Watch it, Fingal," it read. "That way lies catatonia."

He took the warning seriously, but didn't intend to abuse the newfound power. He didn't see why judicious use of it now and then would hurt anything. He stretched, and yawned broadly. He looked around, suddenly hating the office with its rows of workers indistinguishable from their desks. Why not take the day off?

On impulse, he got up and walked the few steps to Felicia's desk.

"Why don't we go to my house and make love?" he asked her.

She looked at him in astonishment, and he grinned. She was almost as surprised as when he had hurled the tapes at her.

"Is this a joke? In the middle of the day? You have a job to do, you know. You want to get us fired?"

He shook his head slowly. "That's not an acceptable answer."

She stopped, and rewound from that point. He heard her repeat her last sentences backwards, then she smiled.

"Sure, why not?" she said.

Felicia left afterwards in the same slightly disconcerting way his boss had left earlier, by melting into the air. Fingal sat quietly in his bed, wondering what to do with himself. He felt he was getting off to a bad start if he intended to edit his world with care.

His telephone rang.

"You're damn right," said a woman's voice, obviously irritated with him. He sat up straight.

"Apollonia?"

"Ms. Joachim to you, Fingal. I can't talk long; this is quite a strain on me. But listen to me, and listen hard. Your navel is very deep, Fingal. From where you're standing, it's a pit I can't even see the bottom of. If you fall into it I can't guarantee to pull you out."

"But do I have to take everything as it is? Aren't I allowed some self-improvement?"

"Don't kid yourself. That wasn't self-improvement. That was sheer laziness. It was nothing but masturbation, and while there's nothing wrong with that, if you do it to the exclusion of all else, your mind will grow in on itself. You're in grave danger of excluding the external universe from your reality."

"But I thought there was no external universe for me here."

"Almost right. But I'm feeding you external stimuli to keep you going. Besides, it's the attitude that counts. You've never had trouble finding sexual partners; why do you feel compelled to alter the odds now?"

"I don't know," he admitted. "Like you said, laziness, I guess."

"That's right. If you want to quit your job, feel free. If you're serious about self-improvement, there are opportunities available to you there. Search them out. Look around you, explore. But don't try to meddle in things you don't understand. I've got to go now. I'll write you a letter if I can, and explain more."

"Wait! What about my body? Have they made any progress?"

"Yes, they've found out how it happened. It seems..." Her voice faded out, and he switched off the phone.

The next day he received a letter explaining what was known so far. It seemed that the mix-up had resulted from the visit of the teacher to the medico section on the day of his recording. More specifically, the return of the little boy after the others had left. They were sure now that he had tampered with the routing card that told the attendants what to do with Fingal's body. Instead of moving it to the slumber room, which was a green card, they had sent it somewhere-no one knew where yet-for a sex change, which was a blue card. The medico, in her haste to get home for her date, had not noticed the switch. Now the body could be in any of several thousand medico shops in Luna. They were looking for it, and for the boy.

Fingal put the letter down and did some hard thinking.

Joachim had said there were opportunities for him in the memory banks. She had also said that not everything he saw was his own projections. He was receiving, was capable of receiving, external stimuli.



Why was that? Because he would tend to randomize without them, or some other reason? He wished the letter had gone into that.

In the meantime, what did he do?

Suddenly he had it. He wanted to learn about computers. He wanted to know what made them tick, to feel a sense of power over them. It was particularly strong when he thought about being a virtual prisoner inside one. He was like a worker on an assembly line. All day long he labors, taking small parts off a moving belt and installing them on larger assemblies. One day, he happens to wonder who puts the parts on the belt. Where do they come from? How are they made? What happens after he installs them?

He wondered why he hadn't thought of it before.

The admissions office of the Lunar People's Technical School was crowded. He was handed a form and told to fill it out. It looked bleak. The spaces for "previous experience" and "aptitude scores" were almost blank when he was through with them. All in all, not a very promising application. He went to the desk and handed the form to the man sitting at the terminal.

The man fed it into the computer, which promptly decided Fingal had no talent for being a computer repairperson. He started to turn away when his eye was caught by a large poster behind the man. It had been there on the wall when he came in, but he hadn't read it.

## **LUNA NEEDS**

### **COMPUTER TECHNICIANS.**

#### **THIS MEANS YOU,**

#### **MR. FINGAL!**

Are you dissatisfied with your present employment? Do you feel you were cut out for better things? Then today may be your lucky day. You've come to the right place, and if you grasp this golden opportunity you will find doors opening that were closed to you.

Act, Mr. Fingal. This is the time. Who's to check up on you? Just take that stylus and fill in the application any old way you want. Be grandiose, be daring! The fix is in, and you're on your way to

#### **BIG MONEY!**

The secretary saw nothing unusual in Fingal's coming to the desk a second time, and didn't even blink when the computer decided he was eligible for the accelerated course.

It wasn't easy at first. He really did have little aptitude for electronics, but aptitude is a slippery thing. His personality matrix was as flexible now as it would ever be. A little effort at the right time would go a long way toward self-improvement. What he kept telling himself was that everything that made him what he was, was etched in that tiny cube wired in to the computer, and if he was careful he could edit it.

Not radically, Joachim told him in a long, helpful letter later in the week. That way led to complete disruption of the FPNA matrix and catatonia, which in this case would be distinguishable from death only to a hair splitter.

He thought a lot about death as he dug into the books. He was in a strange position. The being known as Fingal would not die in any conceivable outcome of this adventure. For one thing, his body was going toward a sex change and it was hard to imagine what could happen to it that would kill it. Whoever had custody of it now would be taking care of it just as well as the medicos in the slumber room would have. If Joachim was unsuccessful in her attempt to keep him aware and sane in the memory bank, he would merely awake and remember nothing from the time he fell asleep on the table.

If, by some compounded unlikelihood, his body was allowed to die, he had an insurance recording safe in the vault of his bank. The recording was three years old. He would awaken in the newly grown clone body knowing nothing of the last three years, and would have a fantastic story to listen to as he was

brought up to date.

But none of that mattered to him. Humans are a time-binding species, existing in an eternal now. The future flows through them and becomes the past, but it is always the present that counts. The Fingal of three years ago was not the Fingal in the memory bank. The simple fact about immortality by memory recording was that it was a poor solution. The three-dimensional cross section that was the Fingal of now must always behave as if his life depended on his actions, for he would feel the pain of death if it happened to him. It was small consolation to a dying man to know that he would go on, several years younger and less wise. If Fingal lost out here, he would die, because with memory recording he was three people: the one who lived now, the one lost somewhere on Luna, and the one potential person in the bank vault. They were really no more than close relatives.

Everyone knew this, but it was so much better than the alternative that few people rejected it. They tried not to think about it and were generally successful. They had recordings made as often as they could afford them. They heaved a sigh of relief as they got onto the table to have another recording taken, knowing that another chunk of their lives was safe for all time. But they awaited the awakening nervously, dreading being told that it was now twenty years later because they had died sometime after the recording and had to start all over. A lot can happen in twenty years. The person in the new clone body might have to cope with a child he or she had never seen, a new spouse, or the shattering news that his or her employment was now the function of a machine.

So Fingal took Joachim's warnings seriously. Death was death, and though he could cheat it, death still had the last laugh. Instead of taking your whole life from you, death now only claimed a percentage, but in many ways it was the most important percentage.

He enrolled in classes. Whenever possible, he took the ones that were available over the phone lines so he needn't stir from his room. He ordered his food and supplies by phone and paid his bills by looking at them and willing them out of existence. It could have been intensely boring, or it could have been wildly interesting. After all, it was a dream world, and who doesn't think of retiring into fantasy from time to time? Fingal certainly did, but firmly suppressed the idea when it came. He intended to get out of this dream.

For one thing, he missed the company of other people. He waited for the weekly letters from Apollonia (she now allowed him to call her by her first name) with a consuming passion and devoured every word. His file of such letters bulged. At lonely moments he would pull one out at random and read it again and again.

On her advice, he left the apartment regularly and stirred around more or less at random. During these outings he had wild adventures. Literally. Apollonia hurled the external stimuli at him during these times and they could be anything from *The Mummy's Curse* to *Custer's Last Stand* with the original cast. It beat hell out of the movies. He would just walk down the public corridors and open a door at random. Behind it might be King Solomon's mines or the sultan's harem. He endured them all stoically. He was unable to get any pleasure from sex. He knew it was a one-handed exercise, and it took all the excitement away.

His only pleasure came in his studies. He read everything he could about computer science and came to stand at the head of his class. And as he learned, it began to occur to him to apply his knowledge to his own situation.

He began seeing things around him that had been veiled before. Patterns. The reality was starting to seep through his illusions. Every so often he would look up and see the faintest shadow of the real world of electron flow and fluttering circuits he inhabited. It scared him at first. He asked Apollonia about it on one of his dream journeys, this time to Coney Island in the mid-twentieth century. He liked it there. He could lie on the sand and talk to the surf. Overhead, a skywriter's plane spelled out the answers to his questions. He studiously ignored the brontosaurus rampaging through the roller coaster off to his right.

"What does it mean, O Goddess of Transistoria, when I begin to see circuit diagrams on the walls of my apartment? Overwork?"

"It means the illusion is beginning to wear thin," the plane spelled out over the next half-hour. "You're adapting to the reality you have been denying. It could be trouble, but we're hot on the trail of your body."

We should have it soon and get you out of there." This had been too much for the plane. The sun was down now, the brontosaurus vanquished and the plane out of gas. It spiraled into the ocean and the crowds surged closer to the water to watch the rescue. Fingal got up and went back to the boardwalk.

There was a huge billboard. He laced his fingers behind his back and read it.

"Sorry for the delay. As I was saying, we're almost there. Give us another few months. One of our agents thinks he will be at the right medico shop in about one week's time. From there it should go quickly. For now, avoid those places where you see the circuits showing through. They're no good for you, take my word for it."

Fingal avoided the circuits as long as he could. He finished his first courses in computer science and enrolled in the intermediate section. Six months rolled by.

His studies got easier and easier. His reading speed was increasing phenomenally. He found that it was more advantageous for him to see the library as composed of books instead of tapes. He could take a book from the shelf, flip through it rapidly, and know everything that was in it. He knew enough now to realize that he was acquiring a facility to interface directly with the stored knowledge in the computer, bypassing his senses entirely. The books he held in his hands were merely the sensual analogs of the proper terminals to touch. Apollonia was nervous about it, but let him go on. He breezed through the intermediate and graduated into the advanced classes.

But he was surrounded by wires. Everywhere he turned, in the patterns of veins beneath the surface of a man's face, in a plate of French fries he ordered for lunch, in his palmprints, overlaying the apparent disorder of a head of blonde hair on the pillow beside him.

The wires were analogs of analogs. There was little in a modern computer that consisted of wiring. Most of it was made of molecular circuits that were either embedded in a crystal lattice or photographically reproduced on a chip of silicon. Visually, they were hard to imagine, so his mind was making up these complex circuit diagrams that served the same purpose but could be experienced directly.

One day he could resist it no longer. He was in the bathroom, on the traditional place for the pondering of the imponderable. His mind wandered, speculating on the necessity of moving his bowels, wondering if he might safely eliminate the need to eliminate. His toe idly traced out the pathways of a circuit board incorporated in the pattern of tiles on the floor.

The toilet began to overflow, not with water, but with coins. Bells were ringing happily. He jumped up and watched in bemusement as his bathroom filled with money.

He became aware of a subtle alteration in the tone of the bells. They changed from the merry clang of jackpot to the tolling of a death knell. He hastily looked around for a manifestation. He knew that Apollonia would be angry.

She was. Her hand appeared and began to write on the wall. This time the writing was in his blood. It dripped menacingly from the words.

"What are you doing?" the hand wrote, and having writ, moved on. "I told you to leave the wires alone. Do you know what you've done? You may have wiped the financial records for Kenya. It could take months to straighten them out."

"Well, what do I care?" he exploded. "What have they done for me lately? It's incredible that they haven't located my body by now. It's been a full year."

The hand bunched up in a fist. Then it grabbed him around the throat and squeezed hard enough to make his eyes bulge out. It slowly relaxed. When Fingal could see straight, he backed warily away from it.

The hand fidgeted nervously, drummed its fingers on the floor. It went to the wall again.

"Sorry," it wrote, "I guess I'm getting tired. Hold on."

He waited, more shaken than he remembered being since his odyssey began. There's nothing like a dose of pain, he reflected, to make you realize that it can happen to you.

The wall with the words of blood slowly dissolved into a heavenly panorama. As he watched, clouds streamed by his vantage point and mixed beautifully with golden rays of sunshine. He heard organ music from pipes the size of sequoias.

He wanted to applaud. It was so overdone, and yet so convincing. In the center of the whirling mass of white mist an angel faded in. She had wings and a halo, but lacked the traditional white robe. She was nude, and hair floated around her as if she were under water.

She levitated to him, walking on the billowing clouds, and handed him two stone tablets. He tore his eyes away from the apparition and glanced down at the tablets:

Thou shalt not screw around with things thou dost not understand.

"All right, I promise I won't," he told the angel. "Apollonia, is that you? Really you, I mean?"

"Read the Commandments, Fingal. This is hard on me."

He looked back at the tablets.

Thou shalt not meddle in the hardware systems of the Kenya Corporation, for Kenya shall not hold him indemnifiable who taketh freedoms with its property.

Thou shalt not explore the limits of thy prison. Trust in the Kenya Corporation to extract thee.

Thou shalt not program.

Thou shalt not worry about the location of thy body, for it has been located, help is on the way, the cavalry has arrived, and all is in hand.

Thou shalt meet a tall, handsome stranger who will guide thee from thy current plight.

Thou shalt stay tuned for further developments.

He looked up and was happy to see that the angel was still there.

"I won't, I promise. But where is my body, and why has it taken so long to find it? Can you-?"

"Know thou that appearing like this is a great taxation upon me, Mr. Fingal. I am undergoing strains the nature of which I have not time to reveal to thee. Hold thy horses, wait it out, and thou shalt soon see the light at the end of the tunnel."

"Wait, don't go." She was already starting to fade out.

"I cannot tarry."

"But... Apollonia, this is charming, but why do you appear to me in these crazy ways? Why all the pomp and circumstance? What's wrong with letters?"

She looked around her at the clouds, the sunbeams, the tablets in his hand, and at her body, as if seeing them for the first time. She threw her head back and laughed like a symphony orchestra. It was almost too beautiful for Fingal to bear.

"Me?" she said, dropping the angelic bearing. "Me? I don't pick 'em, Fingal. I told you, it's your head, and I'm just passing through." She arched her eyebrows at him. "And really, sir, I had no idea you felt this way about me. Is it puppy love?" And she was gone, except for the grin.

The grin haunted him for days. He was disgusted with himself about it. He hated to see a metaphor overworked so. He decided his mind was just an inept analogizer.

But everything had its purpose. The grin forced himself to look at his feelings. He was in love, hopelessly, ridiculously, just like a teenager. He got out all his old letters from her and read through them again, searching for the magic words that could have inflicted this on him. Because it was silly. He'd never met her except under highly figurative circumstances. The one time he had seen her, most of what he saw was the product of his own mind.

There were no clues in the letters. Most of them were as impersonal as a textbook, though they tended to be rather chatty. Friendly, yes; but ultimate, poetic, insightful, revealing? No. He failed utterly to put them together in any way that should add up to love, or even a teenage crush.

He attacked his studies with renewed vigor, awaiting the next communication. Weeks dragged by with no word. He called the post office several times, placed personal advertisements in every periodical he could think of, took to scrawling messages on public buildings, sealed notes in bottles and flushed them down the disposal, rented billboards, bought television time. He screamed at the empty walls of his apartment, buttonholed strangers, tapped Morse Code on the water pipes, started rumors in skid-row taprooms, had leaflets published and distributed all over the solar system. He tried every medium he could think of, and could not contact her. He was alone.

He considered the possibility that he had died. In his present situation, it might be hard to tell for sure. He abandoned it as untestable. That line was hazy enough already without his efforts to determine which

side of the life/death dichotomy he inhabited. Besides, the more he thought about existing as nothing more than kinks in a set of macromolecules plugged into a data system, the more it frightened him. He'd survived this long by avoiding such thoughts.

His nightmares moved in on him, set up housekeeping in his apartment. They were a severe disappointment, and confirmed his conclusion that his imagination was not as vivid as it might be. They were infantile boogeymen, the sort that might scare him when glimpsed hazily through the fog of a nightmare, but were almost laughable when exposed to the full light of consciousness. There was a large, talkative snake that was crudely put together, fashioned from the incomplete picture a child might have of a serpent. A toy company could have done a better job. There was a werewolf whose chief claim to dread was a tendency to shed all over Fingal's rugs. There was a woman who consisted mostly of breasts and genitals, left over from his adolescence, he suspected. He groaned in embarrassment every time he looked at her. If he had ever been that infantile he would rather have left the dirty traces of it buried forever.

He kept booting them into the corridor but they drifted in at night like poor relations. They talked incessantly, and always about him. The things they knew! They seemed to have a very low opinion of him. The snake often expressed the opinion that Fingal would never amount to anything because he had so docilely accepted the results of the aptitude tests he took as a child. That hurt, but the best salve for the wound was further study.

Finally a letter came. He winced as soon as he got it open. The salutation was enough to tell him he wasn't going to like it.

Dear Mr. Fingal,

I won't apologize for the delay this time. It seems that most of my manifestations have included an apology and I feel I deserved a rest this time. I can't be always on call. I have a life of my own.

I understand that you have behaved in an exemplary manner since I last talked with you. You have ignored the inner workings of the computer just as I told you to do. I haven't been completely frank with you, and I will explain my reasons.

The hook-up between you and the computer is, and always has been, two-way. Our greatest fear at this end had been that you would begin interfering with the workings of the computer, to the great discomfort of everyone. Or that you would go mad and run amok, perhaps wrecking the entire data system. We installed you in the computer as a humane necessity, because you would have died if we had not done so, though it would have cost you only two days of memories. But Kenya is in the business of selling memories, and holds them to be a sacred trust. It was a mix-up on the part of the Kenya Corporation that got you here in the first place, so we decided we should do everything we could for you.

But it was at great hazard to our operations at this end.

Once, about six months ago, you got tangled in the weather-control sector of the computer and set off a storm over Kilimanjaro that is still not fully under control. Several animals were lost.

I have had to fight the Board of Directors to keep you on-line, and several times the program was almost terminated. You know what that means.

Now, I've leveled with you. I wanted to from the start, but the people who own things around here were worried that you might start fooling around out of a spirit of vindictiveness if you knew these facts, so they were kept from you. You could still do a great deal of damage before we could shut you off. I'm laying it on the line now, with directors chewing their nails over my shoulder. Please stay out of trouble.

On to the other matter.

I was afraid from the outset that what has happened might happen. For over a year I've been your only contact with the world outside. I've been the only other person in your universe. I would have to be an extremely cold, hateful, awful person-which I am not-for you not to feel affection for me under those circumstances. You are suffering from intense sensory deprivation, and it's well known that someone in that state becomes pliable, suggestible, and lonely. You've attached your feelings to me as the only thing around worth caring for.

I've tried to avoid intimacy with you for that reason, to keep things firmly on a last-name basis. But I

relented during one of your periods of despair. And you read into my letters some things that were not there. Remember, even in the printed medium it is your mind that controls what you see. Your censor has let through what it wanted to see and maybe even added some things of its own. I'm at your mercy. For all I know, you may be reading this letter as a passionate affirmation of love. I've added every reinforcement I know of to make sure the message comes through on a priority channel and is not garbled. I'm sorry to hear that you love me. I do not, repeat not, love you in return. You'll understand why, at least in part, when we get you out of there.

It will never work, Mr. Fingal. Give it up.

Apollonia Joachim Fingal graduated first in his class. He had finished the required courses for his degree during the last long week after his letter from Apollonia. It was a bitter victory for him, marching up to the stage to accept the sheepskin, but he clutched it to him fiercely. At least he had made the most of his situation, at least he had not meekly let the wheels of the machine chew him up like a good worker.

He reached out to grasp the hand of the college president and saw it transformed. He looked up and saw the bearded, robed figure flow and writhe and become a tall, uniformed woman. With a surge of joy, he knew who it was. Then the joy became ashes in his mouth, which he hurriedly spit out.

"I always knew you'd choke on a figure of speech," she said, laughing tiredly.

"You're here," he said. He could not quite believe it. He stared dully at her, grasping her hand and the diploma with equal tenacity. She was tall, as the prophecy had said, and handsome. Her hair was cropped short over a capable face, and the body beneath the uniform was muscular. The uniform was open at the throat, and wrinkled. There were circles under her eyes, and the eyes were bloodshot. She swayed slightly on her feet.

"I'm here, all right. Are you ready to go back?" She turned to the assembled students. "How about it, gang? Do you think he deserves to go back?"

The crowd went wild, cheering and tossing mortarboards into the air. Fingal turned dazedly to look at them, with a dawning realization. He looked down at the diploma.

"I don't know," he said. "I don't know. Back to work at the data room?"

She clapped him on the back.

"No. I promise you that."

"But how could it be different? I've come to think of this piece of paper as something... real. Real! How could I have deluded myself like that? Why did I accept it?"

"I helped you along," she said. "But it wasn't all a game. You really did learn all the things you learned. It won't go away when you return. That thing in your hand is imaginary, for sure, but who do you think prints the real ones? You're registered where it counts-in the computer-as having passed all the courses. You'll get a real diploma when you return."

Fingal wavered. There was a tempting vision in his head. He'd been here for over a year and had never really exploited the nature of the place. Maybe that business about dying in the memory bank was all a shuck, another lie invented to keep him in his place. In that case, he could remain here and satisfy his wildest desires, become king of the universe with no opposition, wallow in pleasure no emperor ever imagined. Anything he wanted here he could have, anything at all.

And he really felt he might pull it off. He'd noticed many things about this place, and now had the knowledge of computer technology to back him up. He could squirm around and evade their attempts to erase him, even survive if they removed his cube by programming himself into other parts of the computer. He could do it.

With a sudden insight he realized that he had no desires wild enough to keep him here in his navel. He had only one major desire right now, and she was slowly fading out. A lap dissolve was replacing her with the old college president.

"Coming?" she asked.

"Yes." It was as simple as that. The stage, president students, and auditorium faded out and the computer room at Kenya faded in. Only Apollonia remained constant. He held onto her hand until everything stabilized.

"Whew," she said, and reached around behind her head. She pulled out a wire from her occipital plug

and collapsed into a chair. Someone pulled a similar wire from Fingal's head, and he was finally free of the computer.

Apollonia reached out for a steaming cup of coffee on a table littered with empty cups.

"You were a tough nut," she said. "For a minute I thought you'd stay. It happened once. You're not the first to have this happen to you, but you're no more than the twentieth. It's an unexplored area. Dangerous."

"Really?" he said. "You weren't just saying that?"

"No," she laughed. "Now the truth can be told. It is dangerous. No one had ever survived more than three hours in that kind of cube, hooked into a computer. You went for six. You do have a strong world picture."

She was watching him to see how he reacted to this. She was not surprised to see him accept it readily.

"I should have known that," he said. "I should have thought of it. It was only six hours out here, and more than a year for me. Computers think faster. Why didn't I see that?"

"I helped you not see it," she admitted. "Like the push I gave you not to question why you were studying so hard. Those two orders worked a lot better than some of the orders I gave you."

She yawned again, and it seemed to go on forever.

"See, it was pretty hard for me to interface with you for six hours straight. No one's ever done it before; it can get to be quite a strain. So we've both got something to be proud of."

She smiled at him but it faded when he did not return it.

"Don't look so hurt, Fingal. What is your first name? I knew it, but erased it early in the game."

"Does it matter?"

"I don't know. Surely you must see why I haven't fallen in love with you, though you may be a perfectly lovable person. I haven't had time. It's been a very long six hours, but it was still only six hours. What can I do?"

Fingal's face was going through awkward changes as he absorbed that. Things were not so bleak after all.

"You could go to dinner with me."

"I'm already emotionally involved with someone else, I should warn you of that."

"You could still go to dinner. You haven't been exposed to my new determination. I'm going to really make a case."

She laughed warmly and got up. She took his hand.

"You know, it's possible that you might succeed. Just don't put wings on me again, all right? You'll never get anywhere like that."

"I promise. I'm through with visions-for the rest of my life."

## **THE PERSISTENCE OF VISION**

It was the year of the fourth non-depression. I had recently joined the ranks of the unemployed. The President had told me that I had nothing to fear but fear itself. I took him at his word, for once, and set out to backpack to California.

I was not the only one. The world's economy had been writhing like a snake on a hot griddle for the last twenty years, since the early seventies. We were in a boom-and-bust cycle that seemed to have no end. It had wiped out the sense of security the nation had so painfully won in the golden years after the thirties. People were accustomed to the fact that they could be rich one year and on the breadlines the next. I was on the breadlines in '81, and again in '88. This time I decided to use my freedom from the time clock to see the world. I had ideas of stowing away to Japan. I was forty-seven years old and might not get another chance to be irresponsible.

This was in late summer of the year. Sticking out my thumb along the interstate, I could easily forget that there were food riots back in Chicago. I slept at night on top of my bedroll and saw stars and listened to crickets.

I must have walked most of the way from Chicago to Des Moines. My feet toughened up after a few days of awful blisters. The rides were scarce, partly competition from other hitchhikers and partly the times we were living in. The locals were none too anxious to give rides to city people, who they had heard were mostly a bunch of hunger-crazed potential mass murderers. I got roughed up once and told never to return to Sheffield, Illinois.

But I gradually learned the knack of living on the road. I had started with a small supply of canned goods from the welfare and by the time they ran out, I had found that it was possible to work for a meal at many of the farmhouses along the way.

Some of it was hard work, some of it was only a token from people with a deeply ingrained sense that nothing should come for free. A few meals were gratis, at the family table, with grandchildren sitting around while grandpa or grandma told oft-repeated tales of what it had been like in the Big One back in '29, when people had not been afraid to help a fellow out when he was down on his luck. I found that the older the person, the more likely I was to get a sympathetic ear. One of the many tricks you learn. And most older people will give you anything if you'll only sit and listen to them. I got very good at it.

The rides began to pick up west of Des Moines, then got bad again as I neared the refugee camps bordering the China Strip. This was only five years after the disaster, remember, when the Omaha nuclear reactor melted down and a hot mass of uranium and plutonium began eating its way into the earth, headed for China, spreading a band of radioactivity six hundred kilometers downwind. Most of Kansas City, Missouri, was still living in plywood and sheet-metal shantytowns till the city was rendered habitable again.

The refugees were a tragic group. The initial solidarity people show after a great disaster had long since faded into the lethargy and disillusionment of the displaced person. Many of them would be in and out of hospitals for the rest of their lives. To make it worse, the local people hated them, feared them, would not associate with them. They were modern pariahs, unclean. Their children were shunned. Each camp had only a number to identify it, but the local populace called them all Geigertowns.

I made a long detour to Little Rock to avoid crossing the Strip, though it was safe now as long as you didn't linger. I was issued a pariah's badge by the National Guard—a dosimeter—and wandered from one Geigertown to the next. The people were pitifully friendly once I made the first move, and I always slept indoors. The food was free at the community messes.

Once at Little Rock, I found that the aversion to picking up strangers—who might be tainted with "radiation disease"—dropped off, and I quickly moved across Arkansas, Oklahoma, and Texas. I worked a little here and there, but many of the rides were long. What I saw of Texas was through a car window.

I was a little tired of that by the time I reached New Mexico. I decided to do some more walking. By then I was less interested in California than in the trip itself.

I left the roads and went cross-country where there were no fences to stop me. I found that it wasn't easy, even in New Mexico, to get far from signs of civilization.

Taos was the center, back in the '60's, of cultural experiments in alternative living. Many communes and cooperatives were set up in the surrounding hills during that time. Most of them fell apart in a few months or years, but a few survived. In later years, any group with a new theory of living and a yen to try it out seemed to gravitate to that part of New Mexico. As a result, the land was dotted with ramshackle windmill, solar heating panels, geodesic domes, group marriages, nudists, philosophers, theoreticians, messiahs, hermits, and more than a few just plain nuts.

Taos was great. I could drop into most of the communes and stay for a day or a week, eating organic rice and beans and drinking goat's milk. When I got tired of one, a few hours' walk in any direction would bring me to another. There, I might be offered a night of prayer and chanting or a ritualistic orgy. Some of the groups had spotless barns with automatic milkers for the herds of cows. Others didn't even have latrines; they just squatted. In some, the members dressed like nuns, or Quakers in early Pennsylvania. Elsewhere, they went nude and shaved all their body hair and painted themselves purple. There were all-male and all-female groups. I was urged to stay at most of the former; at the latter, the responses ranged from a bed for the night and good conversation to being met at a barbed-wire fence with a shotgun.



I tried not to make judgments. These people were doing something important, all of them. They were testing ways whereby people didn't have to live in Chicago. That was a wonder to me. I had thought Chicago was inevitable, like diarrhea.

This is not to say they were all successful. Some made Chicago look like Shangri-La. There was one group who seemed to feel that getting back to nature consisted of sleeping in pigshit and eating food a buzzard wouldn't touch. Many were obviously doomed. They would leave behind a group of empty hovels and the memory of cholera.

So the place wasn't paradise, not by a long way. But there were successes. One or two had been there since '63 or '64 and were raising their third generation. I was disappointed to see that most of these were the ones that departed least from established norms of behavior, though some of the differences could be startling. I suppose the most radical experiments are the least likely to bear fruit.

I stayed through the winter. No one was surprised to see me a second time. It seems that many people came to Taos and shopped around. I seldom stayed more than three weeks at any one place, and always pulled my weight. I made many friends and picked up skills that would serve me if I stayed off the roads. I toyed with the idea of staying at one of them forever. When I couldn't make up my mind, I was advised that there was no hurry. I could go to California and return. They seemed sure I would.

So when spring came I headed west over the hills. I stayed off the roads and slept in the open. Many nights I would stay at another commune, until they finally began to get farther apart, then tapered off entirely. The country was not as pretty as before.

Then, three days' leisurely walking from the last commune, I came to a wall.

In 1964, in the United States, there was an epidemic of German measles, or rubella. Rubella is one of the mildest of infectious diseases. The only time it's a problem is when a woman contracts it in the first four months of her pregnancy. It is passed to the fetus, which usually develops complications. These complications include deafness, blindness, and damage to the brain.

In 1964, in the old days before abortion became readily available, there was nothing to be done about it. Many pregnant women caught rubella and went to term. Five thousand deaf-blind children were born in one year. The normal yearly incidence of deaf-blind children in the United States is one hundred and forty.

In 1970 these five thousand potential Helen Kellers were all six years old. It was quickly seen that there was a shortage of Anne Sullivans. Previously, deaf-blind children could be sent to a small number of special institutions.

It was a problem. Not just anyone can cope with a deaf-blind child. You can't tell them to shut up when they moan; you can't reason with them, tell them that the moaning is driving you crazy. Some parents were driven to nervous breakdowns when they tried to keep their children at home.

Many of the five thousand were badly retarded and virtually impossible to reach, even if anyone had been trying. These ended up, for the most part, warehoused in the hundreds of anonymous nursing homes and institutes for "special" children. They were put into beds, cleaned up once a day by a few overworked nurses, and generally allowed the full blessings of liberty: they were allowed to rot freely in their own dark, quiet, private universes. Who can say if it was bad for them? None of them were heard to complain.

Many children with undamaged brains were shuffled in among the retarded because they were unable to tell anyone that they were in there behind the sightless eyes. They failed the batteries of tactile tests, unaware that their fates hung in the balance when they were asked to fit round pegs into round holes to the ticking of a clock they could not see or hear. As a result, they spent the rest of their lives in bed, and none of them complained, either. To protest, one must be aware of the possibility of something better. It helps to have a language, too.

Several hundred of the children were found to have IQ's within the normal range. There were news stories about them as they approached puberty and it was revealed that there were not enough good people to properly handle them. Money was spent, teachers were trained. The education expenditures would go on for a specified period of time, until the children were grown, then things would go back to normal and everyone could congratulate themselves on having dealt successfully with a tough problem.

And indeed, it did work fairly well. There are ways to reach and teach such children. They involve patience, love, and dedication, and the teachers brought all that to their jobs. All the graduates of the special schools left knowing how to speak with their hands. Some could talk. A few could write. Most of them left the institutions to live with parents or relatives, or, if neither was possible, received counseling and help in fitting themselves into society. The options were limited, but people can live rewarding lives under the most severe handicaps. Not everyone, but most of the graduates, were as happy with their lot as could reasonably be expected. Some achieved the almost saintly peace of their role model, Helen Keller. Others became bitter and withdrawn. A few had to be put in asylums, where they became indistinguishable from the others of their group who had spent the last twenty years there. But for the most part, they did well.

But among the group, as in any group, were some misfits. They tended to be among the brightest, the top ten percent in the IQ scores. This was not a reliable rule. Some had unremarkable test scores and were still infected with the hunger to do something, to change things, to rock the boat. With a group of five thousand, there were certain to be a few geniuses, a few artists, a few dreamers, hell-raisers, individualists, movers and shapers, a few glorious maniacs.

There was one among them who might have been President but for the fact that she was blind, deaf, and a woman. She was smart, but not one of the geniuses. She was a dreamer, a creative force, an innovator. It was she who dreamed of freedom. But she was not a builder of fairy castles. Having dreamed it, she had to make it come true.

The wall was made of carefully fitted stone and was about five feet high. It was completely out of context with anything I had seen in New Mexico, though it was built of native rock. You just don't build that kind of wall out there. You use barbed wire if something needs fencing in; but many people still made use of the free range and brands. Somehow it seemed transplanted from New England.

It was substantial enough that I felt it would be unwise to crawl over it. I had crossed many wire fences in my travels and had not gotten in trouble for it yet, though I had some talks with some ranchers. Mostly they told me to keep moving, but didn't seem upset about it. This was different. I set out to walk around it. From the lay of the land, I couldn't tell how far it might reach, but I had time.

At the top of the next rise I saw that I didn't have far to go. The wall made a right-angle turn just ahead. I looked over it and could see some buildings. They were mostly domes, the ubiquitous structure thrown up by communes because of the combination of ease of construction and durability. There were sheep behind the wall, and a few cows. They grazed on grass so green I wanted to go over and roll in it. The wall enclosed a rectangle of green. Outside, where I stood, it was all scrub and sage. These people had access to Rio Grande irrigation water.

I rounded the corner and followed the wall west again.

I saw a man on horseback about the same time he spotted me. He was south of me, outside the wall, and he turned and rode in my direction.

He was a dark man with thick features, dressed in denim and boots with a gray battered stetson. Navaho, maybe. I don't know much about Indians, but I'd heard they were out here.

"Hello," I said when he'd stopped. He was looking me over. "Am I on your land?"

"Tribal land," he said. "Yeah, you're on it."

"I didn't see any signs."

He shrugged.

"It's okay, bud. You don't look like you out to rustle cattle." He grinned at me. His teeth were large and stained with tobacco. "You be camping out tonight?"

"Yes. How much farther does the, uh, tribal land go? Maybe I'll be out of it before tonight?"

He shook his head gravely. "Nah. You won't be off it tomorrow. 'S all right. You make a fire, you be careful, huh?" He grinned again and started to ride off.

"Hey, what is this place?" I gestured to the wall, and he pulled his horse up and turned around again. It raised a lot of dust.

"Why you asking?" He looked a little suspicious.

"I dunno. Just curious. It doesn't look like the other places I've been to. This wall..."

He scowled. "Damn wall." Then he shrugged. I thought that was all he was going to say. Then he went on.

"These people, we look out for 'em, you hear? Maybe we don't go for what they're doin'. But they got it rough, you know?" He looked at me, expecting something. I never did get the knack of talking to these laconic Westerners. I always felt that I was making my sentences too long. They use a shorthand of grunts and shrugs and omitted parts of speech, and I always felt like a dude when I talked to them.

"Do they welcome guests?" I asked. "I thought I might see if I could spend the night."

He shrugged again, and it was a whole different gesture.

"Maybe. They all deaf and blind, you know?" And that was all the conversation he could take for the day. He made a clucking sound and galloped away.

I continued down the wall until I came to a dirt road that wound up the arroyo and entered the wall. There was a wooden gate, but it stood open. I wondered why they took all the trouble with the wall only to leave the gate like that. Then I noticed a circle of narrow-gauge train tracks that came out of the gate, looped around outside it, and rejoined itself. There was a small siding that ran along the outer wall for a few yards.

I stood there a few moments. I don't know what entered into my decision. I think I was a little tired of sleeping out, and I was hungry for a home-cooked meal. The sun was getting closer to the horizon. The land to the west looked like more of the same. If the highway had been visible, I might have headed that way and hitched a ride. But I turned the other way and went through the gate.

I walked down the middle of the tracks. There was a wooden fence on each side of the road, built of horizontal planks, like a corral. Sheep grazed on one side of me. There was a Shetland sheepdog with them, and she raised her ears and followed me with her eyes as I passed, but did not come when I whistled.

It was about half a mile to the cluster of buildings ahead. There were four or five domes made of something translucent, like greenhouses, and several conventional square buildings. There were two windmills turning lazily in the breeze. There were several banks of solar water heaters. These are flat constructions of glass and wood, held off the ground so they can tilt to follow the sun. They were almost vertical now, intercepting the oblique rays of sunset. There were a few trees, what might have been an orchard.

About halfway there I passed under a wooden footbridge. It arched over the road, giving access from the east pasture to the west pasture. I wondered, What was wrong with a simple gate?

Then I saw something coming down the road in my direction. It was traveling on the tracks and it was very quiet. I stopped and waited.

It was a sort of converted mining engine, the sort that pulls loads of coal up from the bottom of shafts. It was battery-powered, and it had gotten quite close before I heard it. A small man was driving it. He was pulling a car behind him and singing as loud as he could with absolutely no sense of pitch.

He got closer and closer, moving about five miles per hour, one hand held out as if he was signaling a left turn. Suddenly I realized what was happening, as he was bearing down on me. He wasn't going to stop. He was counting fenceposts with his hand. I scrambled up the fence just in time. There wasn't more than six inches of clearance between the train and the fence on either side. His palm touched my leg as I squeezed close to the fence, and he stopped abruptly.

He leaped from the car and grabbed me and I thought I was in trouble. But he looked concerned, not angry, and felt me all over, trying to discover if I was hurt. I was embarrassed. Not from the examination; because I had been foolish. The Indian had said they were all deaf and blind but I guess I hadn't quite believed him.

He was flooded with relief when I managed to convey to him that I was all right. With eloquent gestures he made me understand that I was not to stay on the road. He indicated that I should climb over the fence and continue through the fields. He repeated himself several times to be sure I understood, then held on to me as I climbed over to assure himself that I was out of the way. He reached over the fence and held my shoulders, smiling at me. He pointed to the road and shook his head, then pointed to the buildings and nodded. He touched my head and smiled when I nodded. He climbed back onto the engine

and started up, all the time nodding and pointing where he wanted me to go. Then he was off again.

I debated what to do. Most of me said to turn around, go back to the wall by way of the pasture and head back into the hills. These people probably wouldn't want me around. I doubted that I'd be able to talk to them, and they might even resent me. On the other hand, I was fascinated, as who wouldn't be? I wanted to see how they managed it. I still didn't believe that they were all deaf and blind. It didn't seem possible.

The Sheltie was sniffing at my pants. I looked down at her and she backed away, then daintily approached me as I held out my open hand. She sniffed, then licked me. I patted her on the head, and she hustled back to her sheep.

I turned toward the buildings.

The first order of business was money.

None of the students knew much about it from experience, but the library was full of Braille books. They started reading.

One of the first things that became apparent was that when money was mentioned, lawyers were not far away. The students wrote letters. From the replies, they selected a lawyer and retained him.

They were in a school in Pennsylvania at the time. The original pupils of the special schools, five hundred in number, had been narrowed down to about seventy as people left to live with relatives or found other solutions to their special problems. Of those seventy, some had places to go but didn't want to go there; others had few alternatives. Their parents were either dead or not interested in living with them. So the seventy had been gathered from the schools around the country into this one, while ways to deal with them were worked out. The authorities had plans, but the students beat them to it.

Each of them had been entitled to a guaranteed annual income since 1980. They had been under the care of the government, so they had not received it. They sent their lawyer to court. He came back with a ruling that they could not collect. They appealed, and won. The money was paid retroactively, with interest, and came to a healthy sum. They thanked their lawyer and retained a real estate agent. Meanwhile, they read.

They read about communes in New Mexico, and instructed their agent to look for something out there. He made a deal for a tract to be leased in perpetuity from the Navaho nation. They read about the land, found that it would need a lot of water to be productive in the way they wanted it to be.

They divided into groups to research what they would need to be self-sufficient.

Water could be obtained by tapping into the canals that carried it from the reservoirs on the Rio Grande into the reclaimed land in the south. Federal money was available for the project through a labyrinthine scheme involving HEW, the Agriculture Department, and the Bureau of Indian Affairs. They ended up paying little for their pipeline.

The land was arid. It would need fertilizer to be of use in raising sheep without resorting to open range techniques. The cost of fertilizer could be subsidized through the Rural Resettlement Program. After that, planting clover would enrich the soil with all the nitrates they could want.

There were techniques available to farm ecologically, without worrying about fertilizers or pesticides. Everything was recycled. Essentially, you put sunlight and water into one end and harvested wool, fish, vegetables, apples, honey, and eggs at the other end. You used nothing but the land, and replaced even that as you recycled your waste products back into the soil. They were not interested in agribusiness with huge combine harvesters and crop dusters. They didn't even want to turn a profit. They merely wanted sufficiency.

The details multiplied. Their leader, the one who had had the original idea and the drive to put it into action in the face of overwhelming obstacles, was a dynamo named Janet Reilly. Knowing nothing about the techniques generals and executives employ to achieve large objectives, she invented them herself and adapted them to the peculiar needs and limitations of her group. She assigned task forces to look into solutions of each aspect of their project: law, science, social planning, design, buying, logistics, construction. At any one time, she was the only person who knew everything about what was happening. She kept it all in her head; without notes of any kind.

It was in the area of social planning that she showed herself to be a visionary and not just a superb

organizer. Her idea was not to make a place where they could lead a life that was a sightless, soundless imitation of their unafflicted peers. She wanted a whole new start, a way of living that was by and for the deaf-blind, a way of living that accepted no convention just because that was the way it had always been done. She examined every human cultural institution from marriage to indecent exposure to see how it related to her needs and the needs of her friends. She was aware of the peril of this approach, but was undeterred. Her Social Task Force read about every variant group that had ever tried to make it on its own anywhere, and brought her reports about how and why they had failed or succeeded. She filtered this information through her own experiences to see how it would work for her unusual group with its own set of needs and goals.

The details were endless. They hired an architect to put their ideas into Braille blueprints. Gradually the plans evolved. They spent more money. The construction began, supervised on the site by their architect, who by now was so fascinated by the scheme that she donated her services. It was an important break, for they needed someone there whom they could trust. There is only so much that can be accomplished at such a distance.

When things were ready for them to move, they ran into bureaucratic trouble. They had anticipated it, but it was a setback. Social agencies charged with overseeing their welfare doubted the wisdom of the project. When it became apparent that no amount of reasoning was going to stop it, wheels were set in motion that resulted in a restraining order, issued for their own protection, preventing them from leaving the school. They were twenty-one years old by then, all of them, but were judged mentally incompetent to manage their own affairs. A hearing was scheduled.

Luckily, they still had access to their lawyer. He also had become infected with the crazy vision, and put on a great battle for them. He succeeded in getting a ruling concerning the rights of institutionalized persons, later upheld by the Supreme Court, which eventually had severe repercussions in state and county hospitals. Realizing the trouble they were already in regarding the thousands of patients in inadequate facilities across the country, the agencies gave in.

By then, it was the spring of 1988, one year after their target date. Some of their fertilizer had washed away already for lack of erosion-preventing clover. It was getting late to start crops, and they were running short of money. Nevertheless, they moved to New Mexico and began the backbreaking job of getting everything started. There were fifty-five of them, with nine children aged three months to six years.

I don't know what I expected. I remember that everything was a surprise, either because it was so normal or because it was so different. None of my idiot surmises about what such a place might be like proved to be true. And of course I didn't know the history of the place; I learned that later, picked up in bits and pieces.

I was surprised to see lights in some of the buildings. The first thing I had assumed was that they would have no need of them. That's an example of something so normal that it surprised me.

As to the differences, the first thing that caught my attention was the fence around the rail line. I had a personal interest in it, having almost been injured by it. I struggled to understand, as I must if I was to stay even for a night.

The wood fences that enclosed the rails on their way to the gate continued up to a barn, where the rails looped back on themselves in the same way they did outside the wall. The entire line was enclosed by the fence. The only access was a loading platform by the barn, and the gate to the outside. It made sense. The only way a deaf-blind person could operate a conveyance like that would be with assurances that there was no one on the track. These people would never go on the tracks; there was no way they could be warned of an approaching train.

There were people moving around me in the twilight as I made my way into the group of buildings. They took no notice of me, as I had expected. They moved fast; some of them were actually running. I stood still, eyes searching all around me so no one would come crashing into me. I had to figure out how they kept from crashing into each other before I got bolder.

I bent to the ground and examined it. The light was getting bad, but I saw immediately that there were concrete sidewalks crisscrossing the area. Each of the walks was etched with a different sort of pattern in grooves that had been made before the stuff set lines, waves, depressions, patches of rough and smooth.

I quickly saw that the people who were in a hurry moved only on those walkways, and they were all barefoot. It was no trick to see that it was some sort of traffic pattern read with the feet. I stood up. I didn't need to know how it worked. It was sufficient to know what it was and stay off the paths.

The people were unremarkable. Some of them were not dressed, but I was used to that by now. They came in all shapes and sizes, but all seemed to be about the same age except for the children. Except for the fact that they did not stop and talk or even wave as they approached each other, I would never have guessed they were blind. I watched them come to intersections in the pathways-I didn't know how they knew they were there, but could think of several ways-and slow down as they crossed. It was a marvelous system.

I began to think of approaching someone. I had been there for almost half an hour, an intruder. I guess I had a false sense of these people's vulnerability; I felt like a burglar.

I walked along beside a woman for a minute. She was very purposeful in her eyes-ahead stride, or seemed to be. She sensed something, maybe my footsteps. She slowed a little, and I touched her on the shoulder, not knowing what else to do. She stopped instantly and turned toward me. Her eyes were open but vacant. Her hands were all over me, lightly touching my face, my chest, my hands, fingering my clothing. There was no doubt in my mind that she knew me for a stranger, probably from the first tap on the shoulder. But she smiled warmly at me, and hugged me. Her hands were very delicate and warm. That's funny, because they were calloused from hard work. But they felt sensitive.

She made me to understand-by pointing to the building, making eating motions with an imaginary spoon, and touching a number on her watch-that supper was served in an hour, and that I was invited. I nodded and smiled beneath her hands; she kissed me on the cheek and hurried off.

Well. It hadn't been so bad. I had worried about my ability to communicate. Later I found out she learned a great deal more about me than I had known.

I put off going into the mess hall or whatever it was. I strolled around in the gathering darkness looking at their layout. I saw the little Sheltie bringing the sheep back to the fold for the night. She herded them expertly through the open gate without any instructions, and one of the residents closed it and locked them in. The man bent and scratched the dog on the head and got his hand licked. Her chores done for the night, the dog hurried over to me and sniffed my pant leg. She followed me around the rest of the evening.

Everyone seemed so busy that I was surprised to see one woman sitting on a rail fence, doing nothing. I went over to her.

Closer, I saw that she was younger than I had thought. She was thirteen, I learned later. She wasn't wearing any clothes. I touched her on the shoulder, and she jumped down from the fence and went through the same routine as the other woman had, touching me all over with no reserve. She took my hand and I felt her fingers moving rapidly in my palm. I couldn't understand it, but knew what it was. I shrugged, and tried out other gestures to indicate that I didn't speak hand talk. She nodded, still feeling my face with her hands.

She asked me if I was staying to dinner. I assured her that I was. She asked me if I was from a university. And if you think that's easy to ask with only body movements, try it. But she was so graceful and supple in her movements, so deft at getting her meaning across. It was beautiful to watch her. It was speech and ballet at the same time.

I told her I wasn't from a university, and launched into an attempt to tell her a little about what I was doing and how I got there. She listened to me with her hands, scratching her head graphically when I failed to make my meanings clear. All the time the smile on her face got broader and broader, and she would laugh silently at my antics. All this while standing very close to me, touching me. At last she put her hands on her hips.

"I guess you need the practice," she said, "but if it's all the same to you, could we talk mouthtalk for now? You're cracking me up."

I jumped as if stung by a bee. The touching, while something I could ignore for a deaf-blind girl, suddenly seemed out of place. I stepped back a little, but her hands returned to me. She looked puzzled, then read the problem with her hands.

"I'm sorry," she said. "You thought I was deaf and blind. If I'd known I would have told you right off."

"I thought everyone here was."

"Just the parents. I'm one of the children. We all hear and see quite well. Don't be so nervous. If you can't stand touching, you're not going to like it here. Relax, I won't hurt you." And she kept her hands moving over me, mostly my face. I didn't understand it at the time, but it didn't seem sexual. Turned out I was wrong, but it wasn't blatant.

"You'll need me to show you the ropes," she said, and started for the domes. She held my hand and walked close to me. Her other hand kept moving to my face every time I talked.

"Number one, stay off the concrete paths. That's where-"

"I already figured that out."

"You did? How long have you been here?" Her hands searched my face with renewed interest. It was quite dark.

"Less than an hour. I was almost run over by your train."

She laughed, then apologized and said she knew it wasn't funny to me.

I told her it was funny to me now, though it hadn't been at the time. She said there was a warning sign on the gate, but I had been unlucky enough to come when the gate was open-they opened it by remote control before a train started up-and I hadn't seen it.

"What's your name?" I asked her as we neared the soft yellow lights coming from the dining room.

Her hand worked reflexively in mine, then stopped. "Oh, I don't know. I have one; several, in fact. But they're in bodytalk. I'm... Pink. It translates as Pink, I guess."

There was a story behind it. She had been the first child born to the school students. They knew that babies were described as being pink, so they called her that. She felt pink to them. As we entered the hall, I could see that her name was visually inaccurate. One of her parents had been black. She was dark, with blue eyes and curly hair lighter than her skin. She had a broad nose, but small lips.

She didn't ask my name, so I didn't offer it. No one asked my name, in speech, the entire time I was there. They called me many things in bodytalk, and when the children called me it was "Hey, you!" They weren't big on spoken words.

The dining hall was in a rectangular building made of brick. It connected to one of the large domes. It was dimly lighted. I later learned that the lights were for me alone. The children didn't need them for anything but reading. I held Pink's hand, glad to have a guide. I kept my eyes and ears open.

"We're informal," Pink said. Her voice was embarrassingly loud in the large room. No one else was talking at all there were just the sounds of movement and breathing. Several of the children looked up. "I won't introduce you around now. Just feel like part of the family. People will feel you later, and you can talk to them. You can take your clothes off here at the door."

I had no trouble with that. Everyone else was nude, and I could easily adjust to household customs by that time. You take your shoes off in Japan, you take your clothes off in Taos. What's the difference?

Well, quite a bit, actually. There was all the touching that went on. Everybody touched everybody else, as routinely as glancing. Everyone touched my face first, then went on with what seemed like total innocence to touch me everywhere else. As usual, it was not quite what it seemed. It was not innocent, and it was not the usual treatment they gave others in their group. They touched each other's genitals a lot more than they touched mine. They were holding back with me so I wouldn't be frightened. They were very polite with strangers.

There was a long, low table, with everyone sitting on the floor around it. Pink led me to it.

"See the bare strips on the floor? Stay out of them. Don't leave anything in them. That's where people walk. Don't ever move anything. Furniture, I mean. That has to be decided at full meetings, so we'll all know where everything is. Small things, too. If you pick up something, put it back exactly where you found it."

"I understand."

People were bringing bowls and platters of food from the adjoining kitchen. They set them on the table, and the diners began feeling them. They ate with their fingers, without plates, and they did it slowly and lovingly. They smelled things for a long time before they took a bite. Eating was very sensual to these

people.

They were terrific cooks. I have never, before or since, eaten as well as I did at Keller. (That's my name for it, in speech, though their bodytalk name was something very like that. When I called it Keller, everyone knew what I was talking about.) They started off with good, fresh produce, something that's hard enough to find in the cities, and went at the cooking with artistry and imagination. It wasn't like any national style I've eaten. They improvised, and seldom cooked the same thing the same way twice.

I sat between Pink and the fellow who had almost run me down earlier. I stuffed myself disgracefully. It was too far removed from beef jerky and the organic dry cardboard I had been eating for me to be able to resist. I lingered over it, but still finished long before anyone else. I watched them as I sat back carefully and wondered if I'd be sick. (I wasn't, thank God.) They fed themselves and each other, sometimes getting up and going clear around the table to offer a choice morsel to a friend on the other side. I was fed in this way by all too many of them, and nearly popped until I learned a pidgin phrase in handtalk, saying I was full to the brim. I learned from Pink that a friendlier way to refuse was to offer something myself.

Eventually I had nothing to do but feed Pink and look at the others. I began to be more observant. I had thought they were eating in solitude, but soon saw that lively conversation was flowing around the table. Hands were busy, moving almost too fast to see. They were spelling into each other's palms, shoulders, legs, arms, bellies; any part of the body. I watched in amazement as a ripple of laughter spread like falling dominoes from one end of the table to the other as some witticism was passed along the line. It was fast. Looking carefully, I could see the thoughts moving, reaching one person, passed on while a reply went in the other direction and was in turn passed on, other replies originating all along the line and bouncing back and forth. They were a wave form, like water.

It was messy. Let's face it; eating with your fingers and talking with your hands is going to get you smeared with food. But no one minded. I certainly didn't. I was too busy feeling left out. Pink talked to me, but I knew I was finding out what it's like to be deaf. These people were friendly and seemed to like me, but could do nothing about it. We couldn't communicate.

Afterwards, we all trooped outside, except the cleanup crew, and took a shower beneath a set of faucets that gave out very cold water. I told Pink I'd like to help with the dishes, but she said I'd just be in the way. I couldn't do anything around Keller until I learned their very specific ways of doing things. She seemed to be assuming already that I'd be around that long.

Back into the building to dry off, which they did with their usual puppy dog friendliness, making a game and a gift of toweling each other, and then we went into the dome.

It was warm inside, warm and dark. Light entered from the passage to the dining room, but it wasn't enough to blot out the stars through the lattice of triangular panes overhead. It was almost like being out in the open.

Pink quickly pointed out the positional etiquette within the dome. It wasn't hard to follow, but I still tended to keep my arms and legs pulled in close so I wouldn't trip someone by sprawling into a walk space.

My misconceptions got me again. There was no sound but the soft whisper of flesh against flesh, so I thought I was in the middle of an orgy. I had been at them before, in other communes, and they looked pretty much like this. I quickly saw that I was wrong, and only later found out I had been right. In a sense.

What threw my evaluations out of whack was the simple fact that group conversation among these people had to look like an orgy. The much subtler observation that I made later was that with a hundred naked bodies sliding, rubbing, kissing, caressing, all at the same time, what was the point in making a distinction? There was no distinction.

I have to say that I use the noun "orgy" only to get across a general idea of many people in close contact. I don't like the word, it is too ripe with connotations. But I had these connotations myself at the time, so I was relieved to see that it was not an orgy. The ones I had been to had been tedious and impersonal, and I had hoped for better from these people.

Many wormed their way through the crush to get to me and meet me. Never more than one at a time;



they were constantly aware of what was going on and were waiting their turn to talk to me. Naturally, I didn't know it then. Pink sat with me to interpret the hard thoughts. I eventually used her words less and less, getting into the spirit of tactile seeing and understanding. No one felt they really knew me until they had touched every part of my body, so there were hands on me all the time. I timidly did the same.

What with all the touching, I quickly got an erection, which embarrassed me quite a bit. I was berating myself for being unable to keep sexual responses out of it, for not being able to operate on the same intellectual plane I thought they were on, when I realized with some shock that the couple next to me was making love. They had been doing it for the last ten minutes, actually, and it had seemed such a natural part of what was happening that I had known it and not known it at the same time.

No sooner had I realized it than I suddenly wondered if I was right. Were they? It was very slow and the light was bad. But her legs were up, and he was on top of her, that much I was sure of. It was foolish of me, but I really had to know. I had to find out what the hell I was in. How could I give the proper social responses if I didn't know the situation?

I was very sensitive to polite behavior after my months at the various communes. I had become adept at saying prayers before supper in one place, chanting Hare Krishna at another, and going happily nudist at still another. It's called "when in Rome," and if you can't adapt to it you shouldn't go visiting. I would kneel to Mecca, burp after my meals, toast anything that was proposed, eat organic rice and compliment the cook; but to do it right, you have to know the customs. I had thought I knew them, but had changed my mind three times in as many minutes.

They were making love, in the sense that he was penetrating her. They were also deeply involved with each other. Their hands fluttered like butterflies all over each other, filled with meanings I couldn't see or feel. But they were being touched by and were touching many other people around them. They were talking to all these people, even if the message was as simple as a pat on the forehead or arm.

Pink noticed where my attention was. She was sort of wound around me, without really doing anything I would have thought of as provocative. I just couldn't decide. It seemed so innocent, and yet it wasn't.

"That's (-) and (-)," she said, the parentheses indicating a series of hand motions against my palm. I never learned a sound word as a name for any of them but Pink, and I can't reproduce the bodytalk names they had. Pink reached over, touched the woman with her foot, and did some complicated business with her toes. The woman smiled and grabbed Pink's foot, her fingers moving.

"(-) would like to talk with you later," Pink told me. "Right after she's through talking to (-). You met her earlier, remember? She says she likes your hands."

Now this is going to sound crazy, I know. It sounded pretty crazy to me when I thought of it. It dawned on me with a sort of revelation that her word for talk and mine were miles apart. Talk, to her, meant a complex interchange involving all parts of the body. She could read words or emotions in every twitch of my muscles, like a lie detector. Sound, to her, was only a minor part of communication. It was something she used to speak to outsiders. Pink talked with her whole being.

I didn't have the half of it, even then, but it was enough to turn my head entirely around in relation to these people. They talked with their bodies. It wasn't all hands, as I'd thought. Any part of the body in contact with any other was communication, sometimes a very simple and basic sort think of McLuhan's light bulb as the basic medium of information—perhaps saying no more than "I am here." But talk was talk, and if conversation evolved to the point where you needed to talk to another with your genitals, it was still a part of the conversation. What I wanted to know was what were they saying? I knew, even at that dim moment of realization, that it was much more than I could grasp. Sure, you're saying. You know about talking to your lover with your body as you make love. That's not such a new idea. Of course it isn't, but think how wonderful that talk is even when you're not primarily tactile-oriented. Can you carry the thought from there, or are you doomed to be an earthworm thinking about sunsets?

While this was happening to me, there was a woman getting acquainted with my body. Her hands were on me, in my lap when I felt myself ejaculating. It was a big surprise to me, but to no one else. I had been telling everyone around me for many minutes, through signs they could feel with their hands, that it was going to happen. Instantly, hands were all over my body. I could almost understand them as they spelled tender thoughts to me. I got the gist, anyway, if not the words. I was terribly embarrassed for

only a moment, then it passed away in the face of the easy acceptance. It was very intense. For a long time I couldn't get my breath.

The woman who had been the cause of it touched my lips with her fingers. She moved them slowly, but meaningfully I was sure. Then she melted back into the group.

"What did she say?" I asked Pink.

She smiled at me. "You know, of course. If you'd only cut loose from your verbalizing. But, generally, she meant 'How nice for you.' It also translates as 'How nice for me.' And 'me,' in this sense, means all of us. The organism."

I knew I had to stay and learn to speak.

The commune had its ups and downs. They had expected them, in general, but had not known what shape they might take.

Winter killed many of their fruit trees. They replaced them with hybrid strains. They lost more fertilizer and soil in windstorms because the clover had not had time to anchor it down. Their schedule had been thrown off by the court actions, and they didn't really get things settled in a groove for more than a year.

Their fish all died. They used the bodies for fertilizer and looked into what might have gone wrong. They were using a three-stage ecology of the type pioneered by the New Alchemists in the seventies. It consisted of three domed ponds: one containing fish, another with crushed shells and bacteria in one section and algae in another, and a third full of daphnids. The water containing fish waste from the first pond was pumped through the shells and bacteria, which detoxified it and converted the ammonia it contained into fertilizer for the algae. The algae water was pumped into the second pond to feed the daphnids. Then daphnids and algae were pumped to the fish pond as food and the enriched water was used to fertilize greenhouse plants in all of the domes.

They tested the water and the soil and found that chemicals were being leached from impurities in the shells and concentrated down the food chain. After a thorough cleanup, they restarted and all went well. But they had lost their first cash crop.

They never went hungry. Nor were they cold; there was plenty of sunlight year-round to power the pumps and the food cycle and to heat their living quarters. They had built their buildings half-buried with an eye to the heating and cooling powers of convective currents. But they had to spend some of their capital. The first year they showed a loss.

One of their buildings caught fire during the first winter. Two men and a small girl were killed when a sprinkler system malfunctioned. This was a shock to them. They had thought things would operate as advertised. None of them knew much about the building trades, about estimates as opposed to realities. They found that several of their installations were not up to specifications, and instituted a program of periodic checks on everything. They learned to strip down and repair anything on the farm. If something contained electronics too complex for them to cope with, they tore it out and installed something simpler.

Socially, their progress had been much more encouraging. Janet had wisely decided that there would be only two hard and fast objectives in the realm of their relationships. The first was that she refused to be their president, chairwoman, chief, or supreme commander. She had seen from the start that a driving personality was needed to get the planning done and the land bought and a sense of purpose fostered from their formless desire for an alternative. But once at the promised land, she abdicated. From that point they would operate as a democratic communism. If that failed, they would adopt a new approach. Anything but a dictatorship with her at the head. She wanted no part of that.

The second principle was to accept nothing. There had never been a deaf-blind community operating on its own. They had no expectations to satisfy, they did not need to live as the sighted did. They were alone. There was no one to tell them not to do something simply because it was not done.

They had no clearer idea of what their society would be than anyone else. They had been forced into a mold that was not relevant to their needs, but beyond that they didn't know. They would search out the behavior that made sense, the moral things for deaf-blind people to do. They understood the basic principles of morals: that nothing is moral always, and anything is moral under the right circumstances. It all had to do with social context. They were starting from a blank slate, with no models to follow.

By the end of the second year they had their context. They continually modified it, but the basic pattern

was set. They knew themselves and what they were as they had never been able to do at the school. They defined themselves in their own terms.

I spent my first day at Keller in school. It was the obvious and necessary step. I had to learn handtalk.

Pink was kind and very patient. I learned the basic alphabet and practiced hard at it. By the afternoon she was refusing to talk to me, forcing me to speak with my hands. She would speak only when pressed hard, and eventually not at all. I scarcely spoke a single word after the third day.

This is not to say that I was suddenly fluent. Not at all. At the end of the first day I knew the alphabet and could laboriously make myself understood. I was not so good at reading words spelled into my own palm. For a long time I had to look at the hand to see what was spelled. But like any language, eventually you think in it. I speak fluent French, and I can recall my amazement when I finally reached the point where I wasn't translating my thoughts before I spoke. I reached it at Keller in about two weeks.

I remember one of the last things I asked Pink in speech. It was something that was worrying me.

"Pink, am I welcome here?"

"You've been here three days. Do you feel rejected?"

"No, it's not that. I guess I just need to hear your policy about outsiders. How long am I welcome?"

She wrinkled her brow. It was evidently a new question.

"Well, practically speaking, until a majority of us decide we want you to go. But that's never happened. No one's stayed here much longer than a few days. We've never had to evolve a policy about what to do, for instance, if someone who sees and hears wants to join us. No one has, so far, but I guess it could happen. My guess is that they wouldn't accept it. They're very independent and jealous of their freedom, though you might not have noticed it. I don't think you could ever be one of them. But as long as you're willing to think of yourself as a guest, you could probably stay for twenty years."

"You said 'they.' Don't you include yourself in the group?"

For the first time she looked a little uneasy. I wish I had been better at reading body language at the time. I think my hands could have told me volumes about what she was thinking.

"Sure," she said. "The children are part of the group. We like it. I sure wouldn't want to be anywhere else, from what I know of the outside."

"I don't blame you." There were things left unsaid here, but I didn't know enough to ask the right questions. "But it's never a problem, being able to see when none of your parents can? They don't... resent you in any way?"

This time she laughed. "Oh, no. Never that. They're much too independent for that. You've seen it. They don't need us for anything they can't do themselves. We're part of the family. We do exactly the same things they do. And it really doesn't matter. Sight, I mean. Hearing, either. Just look around you. Do I have any special advantages because I can see where I'm going?"

I had to admit that she didn't. But there was still the hint of something she wasn't saying to me.

"I know what's bothering you. About staying here." She had to draw me back to my original question; I had been wandering.

"What's that?"

"You don't feel a part of the daily life. You're not doing your share of the chores. You're very conscientious and you want to do your part. I can tell."

She read me right, as usual, and I admitted it.

"And you won't be able to until you can talk to everybody. So let's get back to your lessons. Your fingers are still very sloppy."

There was a lot of work to be done. The first thing I had to learn was to slow down. They were slow and methodical workers, made few mistakes, and didn't care if a job took all day so long as it was done well. When I was working by myself I didn't have to worry about it: sweeping, picking apples, weeding in the gardens. But when I was on a job that required teamwork I had to learn a whole new pace. Eyesight enables a person to do many aspects of a job at once with a few quick glances. A blind person will take each aspect of the job in turn if the job is spread out. Everything has to be verified by touch. At a bench job, though, they could be much faster than I. They could make me feel as though I was working with my toes instead of fingers.

I never suggested that I could make anything quicker by virtue of my sight or hearing. They quite rightly would have told me to mind my own business. Accepting sighted help was the first step to dependence, and after all, they would still be here with the same jobs to do after I was gone.

And that got me to thinking about the children again. I began to be positive that there was an undercurrent of resentment, maybe unconscious, between the parents and children. It was obvious that there was a great deal of love between them, but how could the children fail to resent the rejection of their talent? So my reasoning went, anyway.

I quickly fit myself into the routine. I was treated no better or worse than anyone else, which gratified me. Though I would never become part of the group, even if I should desire it, there was absolutely no indication that I was anything but a full member. That's just how they treated guests: as they would one of their own number.

Life was fulfilling out there in a way it has never been in the cities. It wasn't unique to Keller, this pastoral peace, but the people there had it in generous helpings. The earth beneath your bare feet is something you can never feel in a city park.

Daily life was busy and satisfying. There were chickens and hogs to feed, bees and sheep to care for, fish to harvest, and cows to milk. Everybody worked: men, women, and children. It all seemed to fit together without any apparent effort. Everybody seemed to know what to do when it needed doing. You could think of it as a well-oiled machine, but I never liked that metaphor, especially for people. I thought of it as an organism. Any social group is, but this one worked. Most of the other communes I'd visited had glaring flaws. Things would not get done because everyone was too stoned or couldn't be bothered or didn't see the necessity of doing it in the first place. That sort of ignorance leads to typhus and soil erosion and people freezing to death and invasions of social workers who take your children away. I'd seen it happen.

Not here. They had a good picture of the world as it is, not the rosy misconceptions so many other utopians labor under. They did the jobs that needed doing.

I could never detail all the nuts and bolts (there's that machine metaphor again) of how the place worked. The fish-cycle ponds alone were complicated enough to overawe me. I killed a spider in one of the greenhouses, then found out it had been put there to eat a specific set of plant predators. Same for the frogs. There were insects in the water to kill other insects; it got to a point where I was afraid to swat a mayfly without prior okay.

As the days went by I was told some of the history of the place. Mistakes had been made, though surprisingly few.

One had been in the area of defense. They had made no provision for it at first, not knowing much about the brutality and random violence that reaches even to the out-of-the-way corners. Guns were the logical and preferred choice out here, but were beyond their capabilities.

One night a carload of men who had had too much to drink showed up. They had heard of the place in town. They stayed for two days, cutting the phone lines and raping many of the women.

The people discussed all the options after the invasion was over, and settled on the organic one. They bought five German shepherds. Not the psychotic wretches that are marketed under the description of "attack dogs," but specially trained ones from a firm recommended by the Albuquerque police. They were trained as both Seeing-Eye and police dogs. They were perfectly harmless until an outsider showed overt aggression, then they were trained, not to disarm, but to go for the throat.

It worked, like most of their solutions. The second invasion resulted in two dead and three badly injured, all on the other side. As a backup in case of a concerted attack, they hired an ex-marine to teach them the fundamentals of close-in dirty fighting. These were not dewy-eyed flower children.

There were three superb meals a day. And there was leisure time, too. It was not all work. There was time to take a friend out and sit in the grass under a tree, usually around sunset, just before the big dinner. There was time for someone to stop working for a few minutes, to share some special treasure. I remember being taken by the hand by one woman whom I must call Tall-one-with-green-eyes to a spot where mushrooms were growing in the cool crawl space beneath the barn. We wriggled under until our faces were buried in the patch, picked a few, and smelled them. She showed me how to smell. I would

have thought a few weeks before that we had ruined their beauty, but after all it was only visual. I was already beginning to discount that sense, which is so removed from the essence of an object. She showed me that they were still beautiful to touch and smell after we had apparently destroyed them. Then she was off to the kitchen with the pick of the bunch in her apron. They tasted all the better that night.

And a man-I will call him Baldy-who brought me a plank he and one of the women had been planing in the woodshop. I touched its smoothness and smelled it and agreed with him how good it was.

And after the evening meal, the Together.

During my third week there I had an indication of my status with the group. It was the first real test of whether I meant anything to them. Anything special, I mean. I wanted to see them as my friends, and I suppose I was a little upset to think that just anyone who wandered in here would be treated the way I was. It was childish and unfair to them, and I wasn't even aware of the discontent until later.

I had been hauling water in a bucket into the field where a seedling tree was being planted. There was a hose for that purpose, but it was in use on the other side of the village. This tree was not in reach of the automatic sprinklers and it was drying out. I had been carrying water to it until another solution was found.

It was hot, around noon. I got the water from a standing spigot near the forge. I set the bucket down on the ground behind me and leaned my head into the flow of water. I was wearing a shirt made of cotton, unbuttoned in the front. The water felt good running through my hair and soaking into the shirt. I let it go on for almost a minute.

There was a crash behind me and I bumped my head when I raised it up too quickly under the faucet. I turned and saw a woman sprawled on her face in the dust. She was turning over slowly, holding her knee. I realized with a sinking feeling that she had tripped over the bucket I had carelessly left on the concrete express lane. Think of it: ambling along on ground that you trust to be free of all obstruction, suddenly you're sitting on the ground. Their system would only work with trust, and it had to be total; everybody had to be responsible all the time. I had been accepted into that trust and I had blown it. I felt sick.

She had a nasty scrape on her left knee that was oozing blood. She felt it with her hands, sitting there on the ground, and she began to howl. It was weird, painful. Tears came from her eyes, then she pounded her fists on the ground, going "Hunnnh, hunnnh, hunnnh!" with each blow. She was angry, and she had every right to be.

She found the pail as I hesitantly reached out for her. She grabbed my hand and followed it up to my face. She felt my face, crying all the time, then wiped her nose and got up. She started off for one of the buildings. She limped slightly.

I sat down and felt miserable. I didn't know what to do.

One of the men came out to get me. It was Big Man. I called him that because he was the tallest person at Keller. He wasn't any sort of policeman, I found out later he was just the first one the injured woman had met. He took my hand and felt my face. I saw tears start when he felt the emotions there. He asked me to come inside with him.

An impromptu panel had been convened. Call it a jury. It was made up of anyone who was handy, including a few children. There were ten or twelve of them. Everyone looked very sad. The woman I had hurt was there, being consoled by three or four people. I'll call her Scar, for the prominent mark on her upper arm.

Everybody kept talking to me in handtalk, you understand how sorry they were for me. They petted and stroked me, trying to draw some of the misery away.

Pink came racing in. She had been sent for to act as a translator if needed. Since this was a formal proceeding it was necessary that they be sure I understood everything that happened. She went to Scar and cried with her for a bit, then came to me and embraced me fiercely, telling me with her hands how sorry she was that this had happened. I was already figuratively packing my bags. Nothing seemed to be left but the formality of expelling me.

Then we all sat together on the floor. We were close, touching on all aides. The hearing began.

Most of it was in handtalk, with Pink throwing in a few words here and there. I seldom knew who said

what, but that was appropriate. It was the group speaking as one. No statement reached me without already having become a consensus.

"You are accused of having violated the rules," said the group, "and of having been the cause of an injury to (the one I called Scar). Do you dispute this? Is there any fact that we should know?"

"No," I told them. "I was responsible. It was my carelessness."

"We understand. We sympathize with you in your remorse, which is evident to all of us. But carelessness is a violation. Do you understand this? This is the offense for which you are (--)." It was a set of signals in shorthand.

"What was that?" I asked Pink.

"Uh... 'brought before us'? 'Standing trial'?" She shrugged, not happy with either interpretation.

"Yes. I understand."

"The facts not being in question, it is agreed that you are guilty." (" 'Responsible,' " Pink whispered in my ear.) "Withdraw from us a moment while we come to a decision."

I got up and stood by the wall, not wanting to look at them as they went back and forth through the joined hands.

There was a burning lump in my throat that I could not swallow. Then I was asked to rejoin the circle.

"The penalty for your offense is set by custom. If it were not so, we would wish we could rule otherwise. You now have the choice of accepting the punishment designated and having the offense wiped away, or of refusing our jurisdiction and withdrawing your body from our land. What is your choice?"

I had Pink repeat this to me, because it was so important that I know what was being offered. When I was sure I had read it right, I accepted their punishment without hesitation. I was very grateful to have been given an alternative.

"Very well. You have elected to be treated as we would treat one of our own who had done the same act. Come to us."

Everyone drew in closer. I was not told what was going to happen. I was drawn in and nudged gently from all directions.

Scar was sitting with her legs crossed more or less in the center of the group. She was crying again, and so was I, I think. It's hard to remember. I ended up face down across her lap. She spanked me.

I never once thought of it as improbable or strange. It flowed naturally out of the situation. Everyone was holding on to me and caressing me, spelling assurances into my palms and legs and neck and cheeks. We were all crying. It was a difficult thing that had to be faced by the whole group.

Others drifted in and joined us. I understood that this punishment came from everyone there, but only the offended person, Scar, did the actual spanking. That was one of the ways I had wronged her, beyond the fact of giving her a scraped knee. I had laid on her the obligation of disciplining me and that was why she had sobbed so loudly, not from the pain of her injury, but from the pain of knowing she would have to hurt me.

Pink later told me that Scar had been the staunchest advocate of giving me the option to stay. Some had wanted to expel me outright, but she paid me the compliment of thinking I was a good enough person to be worth putting herself and me through the ordeal. If you can't understand that, you haven't grasped the feeling of community I felt among these people.

It went on for a long time. It was very painful, but not cruel. Nor was it primarily humiliating. There was some of that, of course. But it was essentially a practical lesson taught in the most direct terms. Each of them had undergone it during the first months, but none recently. You learned from it, believe me.

I did a lot of thinking about it afterward. I tried to think of what else they might have done. Spanking grown people is really unheard of, you know, though that didn't occur to me until long after it had happened. It seemed so natural when it was going on that the thought couldn't even enter my mind that this was a weird situation to be in.

They did something like this with the children, but not as long or as hard. Responsibility was lighter for the younger ones. The adults were willing to put up with an occasional bruise or scraped knee while the children learned.

But when you reached what they thought of as adulthood-which was whenever a majority of the adults thought you had or when you assumed the privilege yourself-that's when the spanking really got serious.

They had a harsher punishment, reserved for repeated or malicious offenses. They had not had to invoke it often. It consisted of being sent to Coventry. No one would touch you for a specified period of time. By the time I heard of it, it sounded like a very tough penalty. I didn't need it explained to me.

I don't know how to explain it, but the spanking was administered in such a loving way that I didn't feel violated. This hurts me as much as it hurts you. I'm doing this for your own good. I love you, that's why I'm spanking you. They made me understand those old clichés by their actions.

When it was over, we all cried together. But it soon turned to happiness. I embraced Scar and we told each other how sorry we were that it had happened. We talked to each other-made love if you like-and I kissed her knee and helped her dress it.

We spent the rest of the day together, easing the pain.

As I became more fluent in handtalk, "the scales fell from my eyes." Daily, I would discover a new layer of meaning that had eluded me before; it was like peeling the skin of an onion to find a new skin beneath it. Each time I thought I was at the core, only to find that there was another layer I could not yet see.

I had thought that learning handtalk was the key to communication with them. Not so. Handtalk was baby talk. For a long time I was a baby who could not even say goo-goo clearly. Imagine my surprise when, having learned to say it, I found that there were syntax, conjunctions, parts of speech, nouns, verbs, tense, agreement, and the subjunctive mood. I was wading in a tide pool at the edge of the Pacific Ocean.

By handtalk I mean the International Manual Alphabet. Anyone can learn it in a few hours or days. But when you talk to someone in speech, do you spell each word? Do you read each letter as you read this? No, you grasp words as entities, hear groups of sounds and see groups of letters as a gestalt full of meaning.

Everyone at Keller had an absorbing interest in language. They each knew several languages-spoken languages-and could read and spell them fluently.

While still children they had understood the fact that handtalk was a way for deaf-blind people to talk to outsiders. Among themselves it was much too cumbersome. It was like Morse Code: useful when you're limited to on-off modes of information transmission, but not the preferred mode. Their ways of speaking to each other were much closer to our type of written or verbal communication, and-dare I say it?-better.

I discovered this slowly, first by seeing that though I could spell rapidly with my hands, it took much longer for me to say something than it took anyone else. It could not be explained by differences in dexterity. So I asked to be taught their shorthand speech. I plunged in, this time taught by everyone, not just Pink.

It was hard. They could say any word in any language with no more than two moving hand positions. I knew this was a project for years, not days. You learn the alphabet and you have all the tools you need to spell any word that exists. That's the great advantage in having your written and spoken speech based on the same set of symbols. Shorthand was not like that at all. It partook of none of the linearity or commonality of handtalk; it was not code for English or any other language; it did not share construction or vocabulary with any other language. It was wholly constructed by the Kellerites according to their needs. Each word was something I had to learn and memorize separately from the handtalk spelling.

For months I sat in the Togethers after dinner saying things like "Me love Scar much much well," while waves of conversation ebbed and flowed and circled around me, touching me only at the edges. But I kept at it, and the children were endlessly patient with me. I improved gradually. Understand that the rest of the conversations I will relate took place in either handtalk or shorthand, limited to various degrees by my fluency. I did not speak nor was I spoken to orally from the day of my punishment.

I was having a lesson in bodytalk from Pink. Yes, we were making love. It had taken me a few weeks to see that she was a sexual being, that her caresses, which I had persisted in seeing as innocent-as I had defined it at the time-both were and weren't innocent. She understood it as perfectly natural that the result

of her talking to my penis with her hands might be another sort of conversation. Though still in the middle flush of puberty, she was regarded by all as an adult and I accepted her as such. It was cultural conditioning that had blinded me to what she was saying.

So we talked a lot. With her, I understood the words and music of the body better than with anyone else. She sang a very uninhibited song with her hips and hands, free of guilt, open and fresh with discovery in every note she touched.

"You haven't told me much about yourself," she said. "What did you do on the outside?" I don't want to give the impression that this speech was in sentences, as I have presented it. We were bodytalking, sweating and smelling each other. The message came through from hands, feet, mouth.

I got as far as the sign for pronoun, first person singular, and was stopped.

How could I tell her of my life in Chicago? Should I speak of my early ambition to be a writer, and how that didn't work out? And why hadn't it? Lack of talent, or lack of drive? I could tell her about my profession, which was meaningless shuffling of papers when you got down to it, useless to anything but the Gross National Product. I could talk of the economic ups and downs that had brought me to Keller when nothing else could dislodge me from my easy sliding through life. Or the loneliness of being forty-seven years old and never having found someone worth loving, never having been loved in return. Of being a permanently displaced person in a stainless-steel society. One-night stands, drinking binges, nine-to-five, Chicago Transit Authority, dark movie houses, football games on television, sleeping pills, the John Hancock Tower where the windows won't open so you can't breathe the smog or jump out. That was me, wasn't it?

"I see," she said.

"I travel around," I said, and suddenly realized that it was the truth.

"I see," she repeated. It was a different sign for the same thing. Context was everything. She had heard and understood both parts of me, knew one to be what I had been, the other to be what I hoped I was.

She lay on top of me, one hand lightly on my face to catch the quick interplay of emotions as I thought about my life for the first time in years. And she laughed and nipped my ear playfully when my face told her that for the first time I could remember, I was happy about it. Not just telling myself I was happy, but truly happy. You cannot lie in bodytalk any more than your sweat glands can lie to a polygraph.

I noticed that the room was unusually empty. Asking around in my fumbling way, I learned that only the children were there.

"Where is everybody?" I asked.

"They are all out\*\*\*," she said. It was like that: three sharp slaps on the chest with the fingers spread. Along with the finger configuration for "verb form, gerund," it meant that they were all out\*\*\*ing. Needless to say, it didn't tell me much.

What did tell me something was her bodytalk as she said it. I read her better than I ever had. She was upset and sad. Her body said something like "Why can't I join them? Why can't I (smell-taste-touch-hear-see) sense with them?" That is exactly what she said. Again, I didn't trust my understanding enough to accept that interpretation. I was still trying to force my conceptions on the things I experienced there. I was determined that she and the other children be resentful of their parents in some way, because I was sure they had to be. They must feel superior in some way, they must feel held back.

I found the adults, after a short search of the area, out in the north pasture. All the parents, none of the children. They were standing in a group with no apparent pattern. It wasn't a circle, but it was almost round. If there was any organization, it was in the fact that everybody was about the same distance from everybody else.

The German shepherds and the Sheltie were out there, sitting on the cool grass facing the group of people. Their ears were perked up, but they were not moving.

I started to go up to the people. I stopped when I became aware of the concentration. They were touching, but their hands were not moving. The silence of seeing all those permanently moving people standing that still was deafening to me.

I watched them for at least an hour. I sat with the dogs and scratched them behind the ears. They did that chop-licking thing that dogs do when they appreciate it, but their full attention was on the group.



It gradually dawned on me that the group was moving. It was very slow, just a step here and another there, over many minutes. It was expanding in such a way that the distance between any of the individuals was the same. Like the expanding universe, where all galaxies move away from all others. Their arms were extended now; they were touching only with fingertips, in a crystal lattice arrangement.

Finally they were not touching at all. I saw their fingers straining to cover distances that were too far to bridge. And still they expanded equilaterally. One of the shepherds began to whimper a little. I felt the hair on the back of my neck stand up. Chilly out here, I thought.

I closed my eyes, suddenly sleepy.

I opened them, shocked. Then I forced them shut. Crickets were chirping in the grass around me.

There was something in the darkness behind my eyeballs. I felt that if I could turn my eyes around I would see it easily, but it eluded me in a way that made peripheral vision seem like reading headlines. If there was ever anything impossible to pin down, much less describe, that was it. It tickled at me for a while as the dogs whimpered louder, but I could make nothing of it. The best analogy I could think of was the sensation a blind person might feel from the sun on a cloudy day.

I opened my eyes again.

Pink was standing there beside me. Her eyes were screwed shut, and she was covering her ears with her hands. Her mouth was open and working silently. Behind her were several of the older children. They were all doing the same thing.

Some quality of the night changed. The people in the group were about a foot away from each other now, and suddenly the pattern broke. They all swayed for a moment, then laughed in that eerie, unselfconscious noise deaf people use for laughter. They fell in the grass and held their bellies, rolled over and over and roared.

Pink was laughing, too. To my surprise, so was I. I laughed until my face and sides were hurting, like I remembered doing sometimes when I'd smoked grass.

### And that was\*\*\*ing.

I can see that I've only given a surface view of Keller. And there are some things I should deal with, lest I foster an erroneous view.

Clothing, for instance. Most of them wore something most of the time. Pink was the only one who seemed temperamentally opposed to clothes. She never wore anything.

No one ever wore anything I'd call a pair of pants. Clothes were loose: robes, shirts, dresses, scarves and such. Lots of men wore things that would be called women's clothes. They were simply more comfortable.

Much of it was ragged. It tended to be made of silk or velvet or something else that felt good. The stereotyped Kellerite would be wearing a Japanese silk robe, hand-embroidered with dragons, with many gaping holes and loose threads and tea and tomato stains all over it while she sloshed through the pigpen with a bucket of slop. Wash it at the end of the day and don't worry about the colors running.

I also don't seem to have mentioned homosexuality. You can mark it down to my early conditioning that my two deepest relationships at Keller were with women: Pink and Scar. I haven't said anything about it simply because I don't know how to present it. I talked to men and women equally, on the same terms. I had surprisingly little trouble being affectionate with the men.

I could not think of the Kellerites as bisexual, though clinically they were. It was much deeper than that. They could not even recognize a concept as poisonous as a homosexuality taboo. It was one of the first things they learned. If you distinguish homosexuality from heterosexuality you are cutting yourself off from communication-full communication-with half the human race. They were pansexual; they could not separate sex from the rest of their lives. They didn't even have a word in shorthand that could translate directly into English as sex. They had words for male and female in infinite variation, and words for degrees and varieties of physical experience that would be impossible to express in English, but all those words included other parts of the world of experience also; none of them walled off what we call sex into its own discrete cubbyhole.

There's another question I haven't answered. It needs answering, because I wondered about it myself when I first arrived. It concerns the necessity for the commune in the first place. Did it really have to be like this? Would they have been better off adjusting themselves to our ways of living?

All was not a peaceful idyll. I've already spoken of the invasion and rape. It could happen again, especially if the roving gangs that operate around the cities start to really rove. A touring group of motorcyclists could wipe them out in a night.

There were also continuing legal hassles. About once a year the social workers descended on Keller and tried to take their children away. They had been accused of everything possible, from child abuse to contributing to delinquency. It hadn't worked so far, but it might someday.

And after all, there are sophisticated devices on the market that allow a blind and deaf person to see and hear a little. They might have been helped by some of those.

I met a deaf-blind woman living in Berkeley once. I'll vote for Keller.

As to those machines...

In the library at Keller there is a seeing machine. It uses a television camera and a computer to vibrate a closely set series of metal pins. Using it, you can feel a moving picture of whatever the camera is pointed at. It's small and light, made to be carried with the pinpricker touching your back. It cost about thirty-five thousand dollars.

I found it in the corner of the library. I ran my finger over it and left a gleaming streak behind as the thick dust came away.

Other people came and went, and I stayed on.

Keller didn't get as many visitors as the other places I had been. It was out of the way.

One man showed up at noon, looked around, and left without a word.

Two girls, sixteen-year-old runaways from California, showed up one night. They undressed for dinner and were shocked when they found out I could see. Pink scared the hell out of them. Those poor kids had a lot of living to do before they approached Pink's level of sophistication. But then Pink might have been uneasy in California. They left the next day, unsure if they had been to an orgy or not. All that touching and no getting down to business, very strange.

There was a nice couple from Santa Fe who acted as a sort of liaison between Keller and their lawyer. They had a nine-year-old boy who chattered endlessly in handtalk to the other kids. They came up about every other week and stayed a few days, soaking up sunshine and participating in the Together every night. They spoke halting shorthand and did me the courtesy of not speaking to me in speech.

Some of the Indians came around at odd intervals. Their behavior was almost aggressively chauvinistic. They stayed dressed at all times in their Levis and boots. But it was evident that they had a respect for the people, though they thought them strange. They had business dealings with the commune. It was the Navahos who trucked away the produce that was taken to the gate every day, sold it, and took a percentage. They would sit and powwow in sign language spelled into hands. Pink said they were scrupulously honest in their dealings.

And about once a week all the parents went out in the field and\*\*\*ed.

I got better and better at shorthand and bodytalk. I had been breezing along for about five months and winter was in the offing. I had not examined my desires as yet, not really thought about what it was I wanted to do with the rest of my life. I guess the habit of letting myself drift was too ingrained. I was there, and constitutionally unable to decide whether to go or to face up to the problem if I wanted to stay for a long, long time.

Then I got a push.

For a long time I thought it had something to do with the economic situation outside. They were aware of the outside world at Keller. They knew that isolation and ignoring problems that could easily be dismissed as not relevant to them was a dangerous course, so they subscribed to the Braille New York Times and most of them read it. They had a television set that got plugged in about once a month. The kids would watch it and translate for their parents.

So I was aware that the non-depression was moving slowly into a more normal inflationary spiral. Jobs were opening up, money was flowing again. When I found myself on the outside again shortly afterward,

I thought that was the reason.

The real reason was more complex. It had to do with peeling off the onion layer of shorthand and discovering another layer beneath it.

I had learned handtalk in a few easy lessons. Then I became aware of shorthand and bodytalk, and of how much harder they would be to learn. Through five months of constant immersion, which is the only way to learn a language, I had attained the equivalent level of a five- or six-year-old in shorthand. I knew I could master it, given time. Bodytalk was another matter. You couldn't measure progress as easily in bodytalk. It was a variable and highly interpersonal language that evolved according to the person, the time, the mood. But I was learning.

Then I became aware of Touch. That's the best I can describe it in a single, unforced English noun. What they called this fourth-stage language varied from day to day, as I will try to explain.

I first became aware of it when I tried to meet Janet Reilly. I now knew the history of Keller, and she figured very prominently in all the stories. I knew everyone at Keller, and I could find her nowhere. I knew everyone by names like Scar, and She-with-the-missing-front-tooth, and Man-with-wiry-hair. These were shorthand names that I had given them myself, and they all accepted them without question. They had abolished their outside names within the commune. They meant nothing to them; they told nothing and described nothing.

At first I assumed that it was my imperfect command of shorthand that made me unable to clearly ask the right question about Janet Reilly. Then I saw that they were not telling me on purpose. I saw why, and I approved, and thought no more about it. The name Janet Reilly described what she had been on the outside, and one of her conditions for pushing the whole thing through in the first place had been that she be no one special on the inside. She melted into the group and disappeared. She didn't want to be found. All right.

But in the course of pursuing the question I became aware that each of the members of the commune had no specific name at all. That is, Pink, for instance, had no less than one hundred and fifteen names, one from each of the commune members. Each was a contextual name that told the story of Pink's relationship to a particular person. My simple names, based on physical descriptions, were accepted as the names a child would apply to people. The children had not yet learned to go beneath the outer layers and use names that told of themselves, their lives, and their relationships to others.

What is even more confusing, the names evolved from day to day. It was my first glimpse of Touch, and it frightened me. It was a question of permutations. Just the first simple expansion of the problem meant there were no less than thirteen thousand names in use, and they wouldn't stay still so I could memorize them. If Pink spoke to me of Baldy, for instance, she would use her Touch name for him, modified by the fact that she was speaking to me and not Short-chubby-man.

Then the depths of what I had been missing opened beneath me and I was suddenly breathless with fear of heights.

Touch was what they spoke to each other. It was an incredible blend of all three other modes I had learned, and the essence of it was that it never stayed the same. I could listen to them speak to me in shorthand, which was the real basis for Touch, and be aware of the currents of Touch flowing just beneath the surface.

It was a language of inventing languages. Everyone spoke their own dialect because everyone spoke with a different instrument: a different body and set of life experiences. It was modified by everything. It would not stand still.

They would sit at the Together and invent an entire body of Touch responses in a night; idiomatic, personal, totally naked in its honesty. And they used it only as a building block for the next night's language.

I didn't know if I wanted to be that naked. I had looked into myself a little recently and had not been satisfied with what I found. The realization that every one of them knew more about it than I, because my honest body had told what my frightened mind had not wanted to reveal, was shattering. I was naked under a spotlight in Carnegie Hall, and all the no-pants nightmares I had ever had came out to haunt me. The fact that they all loved me with all my warts was suddenly not enough. I wanted to curl up in a dark

closet with my ingrown ego and let it fester.

I might have come through this fear. Pink was certainly trying to help me. She told me that it would only hurt for a while, that I would quickly adjust to living my life with my darkest emotions written in fire across my forehead. She said Touch was not as hard as it looked at first, either. Once I learned shorthand and bodytalk, Touch would flow naturally from it like sap rising in a tree. It would be unavoidable, something that would happen to me without much effort at all.

I almost believed her. But she betrayed herself. No, no, no. Not that, but the things in her concerning\*\*\*ing convinced me that if I went through this I would only bang my head hard against the next step up the ladder.

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I had a little better definition now. Not one that I can easily translate into English, and even that attempt will only convey my hazy concept of what it was.

"It is the mode of touching without touching," Pink said, her body going like crazy in an attempt to reach me with her own imperfect concept of what it was, handicapped by my illiteracy. Her body denied the truth of her shorthand definition, and at the same time admitted to me that she did not know what it was herself.

"It is the gift whereby one can expand oneself from the eternal quiet and dark into something else." And again her body denied it. She beat on the floor in exasperation.

"It is an attribute of being in the quiet and dark all the time, touching others. All I know for sure is that vision and hearing preclude it or obscure it. I can make it as quiet and dark as I possibly can and be aware of the edges of it, but the visual orientation of the mind persists. That door is closed to me, and to all the children."

Her verb "to touch" in the first part of that was a Touch amalgam, one that reached back into her memories of me and what I had told her of my experiences. It implied and called up the smell and feel of broken mushrooms in soft earth under the barn with Tall-one-with-green-eyes, she who taught me to feel the essence of an object. It also contained references to our bodytalking while I was penetrating into the dark and wet of her, and her running account to me of what it was like to receive me into herself. This was all one word.

I brooded on that for a long time. What was the point of suffering through the nakedness of Touch, only to reach the level of frustrated blindness enjoyed by Pink?

What was it that kept pushing me away from the one place in my life where I had been happiest?

One thing was the realization, quite late in coming, that can be summed up as "What the hell am I doing here?" The question that should have answered that question was "What the hell would I do if I left?"

I was the only visitor, the only one in seven years to stay at Keller for longer than a few days. I brooded on that. I was not strong enough or confident enough in my opinion of myself to see it as anything but a flaw in me, not in those others. I was obviously too easily satisfied, too complacent to see the flaws that those others had seen.

It didn't have to be flaws in the people of Keller, or in their system. No, I loved and respected them too much to think that. What they had going certainly came as near as anyone ever has in this imperfect world to a sane, rational way for people to exist without warfare and with a minimum of politics. In the end, those two old dinosaurs are the only ways humans have yet discovered to be social animals. Yes, I do see war as a way of living with another; by imposing your will on another in terms so unmistakable that the opponent has to either knuckle under to you, die, or beat your brains out. And if that's a solution to anything, I'd rather live without solutions. Politics is not much better. The only thing going for it is that it occasionally succeeds in substituting talk for fists.

Keller was an organism. It was a new way of relating, and it seemed to work. I'm not pushing it as a solution for the world's problems. It's possible that it could only work for a group with a common self-interest as binding and rare as deafness and blindness. I can't think of another group whose needs are so interdependent.

The cells of the organism cooperated beautifully. The organism was strong, flourishing, and possessed of all the attributes I've ever heard used in defining life except the ability to reproduce. That might have been its fatal flaw, if any. I certainly saw the seeds of something developing in the children.

The strength of the organism was communication. There's no way around it. Without the elaborate and impossible-to-falsify mechanisms for communication built into Keller, it would have eaten itself in pettiness, jealousy, possessiveness, and any dozen other "innate" human defects.

The nightly Together was the basis of the organism. Here, from after dinner till it was time to fall asleep, everyone talked in a language that was incapable of falsehood. If there was a problem brewing, it presented itself and was solved almost automatically. Jealousy? Resentment? Some little festering wrong that you're nursing? You couldn't conceal it at the Together, and soon everyone was clustered around you and loving the sickness away. It acted like white corpuscles, clustering around a sick cell, not to destroy it, but to heal it. There seemed to be no problem that couldn't be solved if it was attacked early enough, and with Touch, your neighbors knew about it before you did and were already laboring to correct the wrong, heal the wound, to make you feel better so you could laugh about it. There was a lot of laughter at the Togethers.

I thought for a while that I was feeling possessive about Pink. I know I had done so a little at first. Pink was my special friend, the one who had helped me out from the first, who for several days was the only one I could talk to. It was her hands that had taught me handtalk. I know I felt stirrings of territoriality the first time she lay in my lap while another man made love to her. But if there was any signal the Kellerites were adept at reading, it was that one. It went off like an alarm bell in Pink, the man, and the women and men around me. They soothed me, coddled me, told me in every language that it was all right, not to feel ashamed. Then the man in question began loving me. Not Pink, but the man. An observational anthropologist would have had subject matter for a whole thesis. Have you seen the films of baboons' social behavior? Dogs do it, too. Many male mammals do it. When males get into dominance battles, the weaker can defuse the aggression by submitting, by turning tail and surrendering. I have never felt so defused as when that man surrendered the object of our clash of wills-Pink-and turned his attention to me. What could I do? What I did was laugh, and he laughed, and soon we were all laughing, and that was the end of territoriality.

That's the essence of how they solved most "human nature" problems at Keller. Sort of like an oriental martial art; you yield, roll with the blow so that your attacker takes a pratfall with the force of the aggression. You do that until the attacker sees that the initial push wasn't worth the effort, that it was a pretty silly thing to do when no one was resisting you. Pretty soon he's not Tarzan of the Apes, but Charlie Chaplin. And he's laughing.

So it wasn't Pink and her lovely body and my realization that she could never be all mine to lock away in my cave and defend with a gnawed-off thighbone. If I'd persisted in that frame of mind she would have found me about as attractive as an Amazonian leech, and that was a great incentive to confound the behaviorists and overcome it.

So I was back to those people who had visited and left, and what did they see that I didn't see?

Well, there was something pretty glaring. I was not part of the organism, no matter how nice the organism was to me. I had no hopes of ever becoming a part, either. Pink had said it in the first week. She felt it herself, to a lesser degree. She could not\*\*\*, though that fact was not going to drive her away from Keller. She had told me that many times in shorthand and confirmed it in bodytalk. If I left, it would be without her.

Trying to stand outside and look at it, I felt pretty miserable. What was I trying to do, anyway? Was my goal in life really to become a part of a deaf-blind commune? I was feeling so low by that time that I actually thought of that as denigrating, in the face of all the evidence to the contrary. I should be out in the real world where the real people lived; not these freakish cripples.

I backed off from that thought very quickly. I was not totally out of my mind, just on the lunatic edges. These people were the best friends I'd ever had, maybe the only ones. That I was confused enough to think that of them even for a second worried me more than anything else. It's possible that it's what pushed me finally into a decision. I saw a future of growing disillusion and unfulfilled hopes. Unless I was

willing to put out my eyes and ears, I would always be on the outside. I would be the blind and deaf one. I would be the freak. I didn't want to be a freak.

They knew I had decided to leave before I did. My last few days turned into a long goodbye, with a loving farewell implicit in every word touched to me. I was not really sad, and neither were they. It was nice, like everything they did. They said goodbye with just the right mix of wistfulness and life-must-go-on, and hope-to-touch-you-again.

Awareness of Touch scratched on the edges of my mind. It was not bad, just as Pink had said. In a year or two I could have mastered it.

But I was set now. I was back in the life groove that I had followed for so long. Why is it that once having decided what I must do, I'm afraid to reexamine my decision? Maybe because the original decision cost me so much that I didn't want to go through it again.

I left quietly in the night for the highway and California. They were out in the fields, standing in that circle again. Their fingertips were farther apart than ever before. The dogs and children hung around the edges like beggars at a banquet. It was hard to tell which looked more hungry and puzzled.

The experiences at Keller did not fail to leave their mark on me. I was unable to live as I had before. For a while I thought I could not live at all, but I did. I was too used to living to take the decisive stop of ending my life. I would wait. Life had brought one pleasant thing to me; maybe it would bring another.

I became a writer. I found I now had a better gift for communicating than I had before. Or maybe I had it now for the first time. At any rate, my writing came together and I sold. I wrote what I wanted to write, and was not afraid of going hungry. I took things as they came.

I weathered the non-depression of '97, when unemployment reached twenty percent and the government once more ignored it as a temporary downturn. It eventually upturned, leaving the jobless rate slightly higher than it had been the time before, and the time before that. Another million useless persons had been created with nothing better to do than shamble through the streets looking for beatings in progress, car smashups, heart attacks, murders, shootings, arson, bombings, and riots: the endlessly inventive street theater. It never got dull.

I didn't become rich, but I was usually comfortable. That is a social disease, the symptoms of which are the ability to ignore the fact that your society is developing weeping pustules and having its brains eaten out by radioactive maggots. I had a nice apartment in Marin County, out of sight of the machine-gun turrets. I had a car, at a time when they were beginning to be luxuries.

I had concluded that my life was not destined to be all I would like it to be. We all make some sort of compromise, I reasoned, and if you set your expectations too high you are doomed to disappointment. It did occur to me that I was settling for something far from "high," but I didn't know what to do about it. I carried on with a mixture of cynicism and optimism that seemed about the right mix for me. It kept my motor running, anyway.

I even made it to Japan, as I had intended in the first place.

I didn't find someone to share my life. There was only Pink for that, Pink and all her family, and we were separated by a gulf I didn't dare cross. I didn't even dare think about her too much. It would have been very dangerous to my equilibrium. I lived with it, and told myself that it was the way I was. Lonely.

The years rolled on like a caterpillar tractor at Dachau, up to the penultimate day of the millennium.

San Francisco was having a big bash to celebrate the year 2000. Who gives a shit that the city is slowly falling apart, that civilization is disintegrating into hysteria? Let's have a party!

I stood on the Golden Gate Dam on the last day of 1999. The sun was setting in the Pacific, on Japan, which had turned out to be more of the same but squared and cubed with neo-samurai. Behind me the first bombshells of a firework celebration of holocaust tricked up to look like festivity competed with the flare of burning buildings as the social and economic basket cases celebrated the occasion in their own way. The city quivered under the weight of misery, anxious to slide off along the fracture lines of some sub-cortical San Andrews Fault. Orbiting atomic bombs twinkled in my mind, up there somewhere, ready to plant mushrooms when we'd exhausted all the other possibilities.

I thought of Pink.

I found myself speeding through the Nevada desert, sweating, gripping the steering wheel. I was crying

aloud but without sound, as I had learned to do at Keller.

Can you go back?

I slammed the citicar over the potholes in the dirt road. The car was falling apart. It was not built for this kind of travel. The sky was getting light in the east. It was the dawn of a new millennium. I stepped harder on the gas pedal and the car bucked savagely. I didn't care. I was not driving back down that road, not ever. One way or another, I was here to stay.

I reached the wall and sobbed my relief. The last hundred miles had been a nightmare of wondering if it had been a dream. I touched the cold reality of the wall and it calmed me. Light snow had drifted over everything, grey in the early dawn.

I saw them in the distance. All of them, out in the field where I had left them. No, I was wrong. It was only the children. Why had it seemed like so many at first?

Pink was there. I knew her immediately, though I had never seen her in winter clothes. She was taller, filled out. She would be nineteen years old. There was a small child playing in the snow at her feet, and she cradled an infant in her arms. I went to her and talked to her hand.

She turned to me, her face radiant with welcome, her eyes staring in a way I had never seen. Her hands flitted over me and her eyes did not move.

"I touch you, I welcome you," her hands said. "I wish you could have been here just a few minutes ago. Why did you go away, darling? Why did you stay away so long?" Her eyes were stones in her head. She was blind. She was deaf.

All the children were. No, Pink's child sitting at my feet looked up at me with a smile.

"Where is everybody?" I asked when I got my breath. "Scar? Baldy? Green-eyes? And what's happened? What's happened to you?" I was tottering on the edge of a heart attack or nervous collapse or something. My reality felt in danger of dissolving.

"They've gone," she said. The word eluded me, but the context put it with the Mary Celeste and Roanoke, Virginia. It was complex, the way she used the word gone. It was like something she had said before: unattainable, a source of frustration like the one that had sent me running from Keller. But now her word told of something that was not hers yet, but was within her grasp. There was no sadness in it.

"Gone?"

"Yes. I don't know where. They're happy. They\*\*\*ed. It was glorious. We could only touch a part of it."

I felt my heart hammering to the sound of the last train pulling away from the station. My feet were pounding along the ties as it faded into the fog. Where are the Brigadoons of yesterday? I've never yet heard of a fairy tale where you can go back to the land of enchantment. You wake up, you find that your chance is gone. You threw it away. Fool! You only get one chance; that's the moral, isn't it?

Pink's hands laughed along my face.

"Hold this part-of-me-who-speaks-mouth-to-nipple," she said, and handed me her infant daughter. "I will give you a gift."

She reached up and lightly touched my ears with her cold fingers. The sound of the wind was shut out, and when her hands came away it never came back. She touched my eyes, shut out all the light, and I saw no more.

We live in the lovely quiet and dark.

## **THE PHANTOM OF KANSAS**

I do my banking at the Archimedes Trust Association. Their security is first-rate, their service is courteous, and they have their own medico facility that does nothing but take recordings for their vaults.

And they had been robbed two weeks ago.

It was a break for me. I had been approaching my regular recording date and dreading the chunk it would take from my savings. Then these thieves break into my bank, steal a huge amount of negotiable paper, and in an excess of enthusiasm they destroy all the recording cubes. Every last one of them, crunched into tiny shards of plastic. Of course the bank had to replace them all, and very fast, too. They

weren't stupid; it wasn't the first time someone had used such a bank robbery to facilitate a murder. So the bank had to record everyone who had an account, and do it in a few days. It must have cost them more than the robbery.

How that scheme works, incidentally, is like this. The robber couldn't care less about the money stolen. Mostly it's very risky to pass such loot, anyway. The programs written into the money computers these days are enough to foil all but the most exceptional robber. You have to let that kind of money lie for on the order of a century to have any hope of realizing gains on it. Not impossible, of course, but the police types have found out that few criminals are temperamentally able to wait that long. The robber's real motive in a case where memory cubes have been destroyed is murder, not robbery.

Every so often someone comes along who must commit a crime of passion. There are very few left open, and murder is the most awkward of all. It just doesn't satisfy this type to kill someone and see them walking around six months later. When the victim sues the killer for alienation of personality-and collects up to 99 percent of the killer's worldly goods-it's just twisting the knife. So if you really hate someone, the temptation is great to really kill them, forever and ever, just like in the old days, by destroying their memory cube first, then killing the body.

That's what the ATA feared, and I had rated a private bodyguard over the last week as part of my contract. It was sort of a status symbol to show your friends, but otherwise I hadn't been much impressed until I realized that ATA was going to pay for my next recording as part of their crash program to cover all their policy holders. They had contracted to keep me alive forever, so even though I had been scheduled for a recording in only three weeks they had to pay for this one. The courts had ruled that a lost or damaged cube must be replaced with all possible speed. So I should have been very happy. I wasn't, but tried to be brave. I was shown into the recording room with no delay and told to strip and lie on the table. The medico, a man who looked like someone I might have met several decades ago, busied himself with his equipment as I tried to control my breathing. I was grateful when he plugged the computer lead into my occipital socket and turned off my motor control. Now I didn't have to worry about whether to ask if I knew him or not. As I grow older, I find that's more of a problem. I must have met twenty thousand people by now and talked to them long enough to make an impression. It gets confusing.

He removed the top of my head and prepared to take a multiholo picture of me, a chemical analog of everything I ever saw or thought or remembered or just vaguely dreamed. It was a blessed relief when I slid over into unconsciousness.

The coolness and sheen of stainless steel beneath my fingertips. There is the smell of isopropyl alcohol, and the hint of acetone.

The medico's shop. Childhood memories tumble over me, triggered by the smells. Excitement, change, my mother standing by while the medico carves away my broken finger to replace it with a pink new one. I lie in the darkness and remember.

And there is light, a hurting light from nowhere, and I feel my pupil contract as the only movement in my entire body.

"She's in," I hear. But I'm not, not really. I'm just lying here in the blessed dark, unable to move.

It comes in a rush, the repossession of my body. I travel down the endless nerves to bang up hard against the insides of my hands and feet, to whirl through the pools of my nipples and tingle in my lips and nose. Now I'm in.

I sat up quickly into the restraining arms of the medico. I struggled for a second before I was able to relax. My fingers were buzzing and cramped with the clamminess of hyperventilation.

"Whew," I said, putting my head in my hands. "Bad dream. I thought..."

I looked around me and saw that I was naked on the steel-topped table with several worried faces looking at me from all sides. I wanted to retreat into the darkness again and let my insides settle down. I saw my mother's face, blinked, and failed to make it disappear.

"Carnival?" I asked her ghost.

"Right here, Fox," she said, and took me in her arms. It was awkward and unsatisfying with her standing on the floor and me on the table. There were wires trailing from my body. But the comfort was



needed. I didn't know where I was. With a chemical rush as precipitous as the one just before I awoke, the people solidified around me.

"She's all right now," the medico said, turning from his instruments. He smiled impersonally at me as he began removing the wires from my head. I did not smile back. I knew where I was now, just as surely as I had ever known anything. I remembered coming in here only hours before.

But I knew it had been more than a few hours. I've read about it: the disorientation when a new body is awakened with transplanted memories. And my mother wouldn't be here unless something had gone badly wrong.

I had died.

I was given a mild sedative, help in dressing, and my mother's arm to lead me down plush-carpeted hallways to the office of the bank president. I was still not fully awake. The halls were achingly quiet but for the brush of our feet across the wine-colored rug. I felt like the pressure was fluctuating wildly, leaving my ears popped and muffled. I couldn't see too far away. I was grateful to leave the vanishing points in the hall for the paneled browns of wood veneer and the coolness and echoes of a white marble floor.

The bank president, Mr. Leander, showed us to our seats. I sank into the purple velvet and let it wrap around me. Leander pulled up a chair facing us and offered us drinks. I declined. My head was swimming already and I knew I'd have to pay attention.

Leander fiddled with a dossier on his desk. Mine, I imagined. It had been freshly printed out from the terminal at his right hand. I'd met him briefly before; he was a pleasant sort of person, chosen for this public-relations job for his willingness to wear the sort of old-man body that inspires confidence and trust. He seemed to be about sixty-five. He was probably more like twenty.

It seemed that he was never going to get around to the briefing so I asked a question. One that was very important to me at the moment.

"What's the date?"

"It's the month of November," he said, ponderously. "And the year is 342."

I had been dead for two and a half years.

"Listen," I said, "I don't want to take up any more of your time. You must have a brochure you can give me to bring me up to date. If you'll just hand it over, I'll be on my way. Oh, and thank you for your concern."

He waved his hand at me as I started to rise.

"I would appreciate it if you stayed a bit longer. Yours is an unusual case, Ms. Fox. I... well, it's never happened in the history of the Archimedes Trust Association."

"Yes?"

"You see, you've died, as you figured out soon after we woke you. What you couldn't have known is that you've died more than once since your last recording."

"More than once?" So it wasn't such a smart question; so what was I supposed to ask?

"Three times."

"Three?"

"Yes, three separate times. We suspect murder."

The room was perfectly silent for a while. At last I decided I should have that drink. He poured it for me, and I drained it.

"Perhaps your mother should tell you more about it," Leander suggested. "She's been closer to the situation. I was only made aware of it recently. Carnival?"

I found my way back to my apartment in a sort of daze. By the time I had settled in again the drug was wearing off and I could face my situation with a clear head. But my skin was crawling.

Listening in the third person to things you've done is not the most pleasant thing. I decided it was time to face some facts that all of us, including myself, do not like to think about. The first order of business was to recognize that the things that were done by those three previous people were not done by me. I was a new person, fourth in the line of succession. I had many things in common with the previous incarnations, including all my memories up to that day I surrendered myself to the memory recording machine. But the me of that time and place had been killed.

She lasted longer than the others. Almost a year, Carnival had said. Then her body was found at the bottom of Hadley Rille. It was an appropriate place for her to die; both she and myself liked to go hiking out on the surface for purposes of inspiration.

Murder was not suspected that time. The bank, upon hearing of my-no, her-death, started a clone from the tissue sample I had left with my recording. Six lunations later, a copy of me was infused with my memories and told that she had just died. She had been shaken, but seemed to be adjusting well when she, too, was killed.

This time there was much suspicion. Not only had she survived for less than a lunation after her reincarnation, but the circumstances were unusual. She had been blown to pieces in a tube-train explosion. She had been the only passenger in a two-seat capsule. The explosion had been caused by a homemade bomb.

There was still the possibility that it was a random act, possibly by political terrorists. The third copy of me had not thought so. I don't know why. That is the most maddening thing about memory recording: being unable to profit by the experiences of your former selves. Each time I was killed, it moved me back to square one, the day I was recorded.

But Fox 3 had reason to be paranoid. She took extraordinary precautions to stay alive. More specifically, she tried to prevent circumstances that could lead to her murder. It worked for five lunations. She died as the result of a fight, that much was certain. It was a very violent fight, with blood all over the apartment. The police at first thought she must have fatally injured her attacker, but analysis showed all the blood to have come from her body.

So where did that leave me, Fox 4? An hour's careful thought left the picture gloomy indeed. Consider: each time my killer succeeded in murdering me, he or she learned more about me. My killer must be an expert on Foxes by now, knowing things about me that I myself do not know. Such as how I handle myself in a fight. I gritted my teeth when I thought of that. Carnival told me that Fox 3, the canniest of the lot, had taken lessons in self-defense. Karate, I think she said. Did I have the benefit of it? Of course not. If I wanted to defend myself I had to start all over, because those skills died with Fox 3.

No, all the advantages were with my killer. The killer started off with the advantage of surprise-since I had no notion of who it was-and learned more about me every time he or she succeeded in killing me.

What to do? I didn't even know where to start. I ran through everyone I knew, looking for an enemy, someone who hated me enough to kill me again and again. I could find no one. Most likely it was someone Fox 1 had met during that year she lived after the recording.

The only answer I could come up with was emigration. Just pull up stakes and go to Mercury, or Mars, or even Pluto. But would that guarantee my safety? My killer seemed to be an uncommonly persistent person. No, I'd have to face it here, where at least I knew the turf.

It was the next day before I realized the extent of my loss. I had been robbed of an entire symphony.

For the last thirty years I had been an Environmentalist. I had just drifted into it while it was still an infant art form. I had been in charge of the weather machines at the Transvaal disneyland, which was new at the time and the biggest and most modern of all the environmental parks in Luna. A few of us had started tinkering with the weather programs, first for our own amusement. Later we invited friends to watch the storms and sunsets we concocted. Before we knew it, friends were inviting friends and the Transvaal people began selling tickets.

I gradually made a name for myself, and found I could make more money being an artist than being an engineer. At the time of my last recording I had been one of the top three Environmentalists on Luna.

Then Fox 1 went on to compose Liquid Ice. From what I read in the reviews, two years after the fact, it was seen as the high point of the art to date. It had been staged in the Pennsylvania disneyland, before a crowd of three hundred thousand. It made me rich.

The money was still in my bank account, but the memory of creating the symphony was forever lost. And it mattered.

Fox 1 had written it, from beginning to end. Oh, I recalled having had some vague ideas of a winter composition, things I'd think about later and put together. But the whole creative process had gone on in the head of that other person who had been killed.

How is a person supposed to cope with that? For one bitter moment I considered calling the bank and having them destroy my memory cube. If I died this time, I'd rather die completely. The thought of a Fox 5 rising from that table... It was almost too much to bear. She would lack everything that Fox 1, 2, 3, and me, Fox 4, had experienced. So far I'd had little time to add to the personality we all shared, but even the bad times are worth saving.

It was either that, or have a new recording made every day. I called the bank, did some figuring, and found that I wasn't wealthy enough to afford that. But it was worth exploring. If I had a new recording taken once a week I could keep at it for about a year before I ran out of money.

I decided I'd do it, for as long as I could. And to make sure that no future Fox would ever have to go through this again, I'd have one made today. Fox 5, if she was ever born, would be born knowing at least as much as I knew now.

I felt better after the recording was made. I found that I no longer feared the medico's office. That fear comes from the common misapprehension that one will wake up from the recording to discover that one has died. It's a silly thing to believe, but it comes from the distaste we all have for really looking at the facts.

If you'll consider human consciousness, you'll see that the three-dimensional cross-section of a human being that is you can only rise from that table and go about your business. It can happen no other way. Human consciousness is linear, along a timeline that has a beginning and an end. If you die after a recording, you die, forever and with no reprieve. It doesn't matter that a recording of you exists and that a new person with your memories to a certain point can be created; you are dead. Looked at from a fourth-dimensional viewpoint, what memory recording does is to graft a new person onto your lifeline at a point in the past. You do not retrace that lifeline and magically become that new person. I, Fox 4, was only a relative of that long-ago person who had had her memories recorded. And if I died, it was forever. Fox 5 would awaken with my memories to date, but I would be no part of her. She would be on her own.

Why do we do it? I honestly don't know. I suppose that the human urge to live forever is so strong that we'll grasp at even the most unsatisfactory substitute. At one time people had themselves frozen when they died, in the hope of being thawed out in a future when humans knew how to reverse death. Look at the Great Pyramid in the Egypt Disneyland if you want to see the sheer size of that urge.

So we live our lives in pieces. I could know, for whatever good it would do me, that thousands of years from now a being would still exist who would be at least partly me. She would remember exactly the same things I remembered of her childhood; the trip to Archimedes, her first sex change, her lovers, her hurts and her happiness. If I had another recording taken, she would remember thinking the thoughts I was thinking now. And she would probably still be stringing chunks of experience onto her life, year by year. Each time she had a new recording, that much more of her life was safe for all time. There was a certain comfort in knowing that my life was safe up until a few hours ago, when the recording was made.

Having thought all that out, I found myself fiercely determined to never let it happen again. I began to hate my killer with an intensity I had never experienced. I wanted to storm out of the apartment and beat my killer to death with a blunt instrument.

I swallowed that emotion with difficulty. It was exactly what the killer would be looking for. I had to remember that the killer knew what my first reaction would be. I had to behave in a way that he or she would not expect.

But what way was that?

I called the police department and met with the detective who had my case. Her name was Isadora, and she had some good advice.

"You're not going to like it, if I can judge from past experience," she said. "The last time I proposed it to you, you rejected it out of hand."

I knew I'd have to get used to this. People would always be telling me what I had done, what I had said to them. I controlled my anger and asked her to go on.

"It's simply to stay put. I know you think you're a detective, but your predecessor proved pretty well that you are not. If you stir out of that door you'll be nailed. This guy knows you inside and out, and he'll

get you. Count on it."

"He? You know something about him, then?"

"Sorry, you'll have to bear with me. I've told you parts of this case twice already, so it's hard to remember what you don't know. Yes, we do know he's a male. Or was, six months ago, when you had your big fight with him. Several witnesses reported a man with bloodstained clothes, who could only have been your killer."

"Then you're on his trail?"

She sighed, and I knew she was going over old ground again.

"No, and you've proved again that you're not a detective. Your detective lore comes from reading old novels. It's not a glamorous enough job nowadays to rate fictional heroes and such, so most people don't know the kind of work we do. Knowing that the killer was a man when he last knocked you off means nothing to us. He could have bought a Change the very next day. You're probably wondering if we have fingerprints of him, right?"

I gritted my teeth. Everyone had the advantage over me. It was obvious I had asked something like that the last time I spoke with this woman. And I had been thinking of it.

"No," I said. "Because he could change those as easily as his sex, right?"

"Right. Easier. The only positive means of identification today is genotyping, and he wasn't cooperative enough to leave any of him behind when he killed you. He must have been a real brute, to be able to inflict as much damage on you as he did and not even be cut himself. You were armed with a knife. Not a drop of his blood was found at the scene of the murder."

"Then how do you go about finding him?"

"Fox, I'd have to take you through several college courses to begin to explain our methods to you. And I'll even admit that they're not very good. Police work has not kept up with science over the last century. There are many things available to the modern criminal that make our job more difficult than you'd imagine. We have hopes of catching him within about four lunations, though, if you'll stay put and stop chasing him."

"Why four months?"

"We trace him by computer. We have very exacting programs that we run when we're after a guy like this. It's our one major weapon. Given time, we can run to ground about sixty percent of the criminals."

"Sixty percent?" I squawked. "Is that supposed to encourage me? Especially when you're dealing with a master like my killer seems to be?"

She shook her head. "He's not a master. He's only determined. And that works against him, not for him. The more single-mindedly he pursues you, the surer we are of catching him when he makes a slip. That sixty percent figure is overall crime; on murder, the rate is ninety-eight. It's a crime of passion, usually done by an amateur. The pros see no percentage in it, and they're right. The penalty is so steep it can make a pauper of you, and your victim is back on the streets while you're still in court."

I thought that over, and found it made me feel better. My killer was not a criminal mastermind. I was not being hunted by Fu Manchu or Professor Moriarty. He was only a person like myself, new to this business. Something Fox 1 did had made him sufficiently angry to risk financial ruin to stalk and kill me. It scaled him down to human dimensions.

"So now you're all ready to go out and get him?" Isadora sneered. I guess my thoughts were written on my face. That, or she was consulting her script of our previous conversations.

"Why not?" I asked.

"Because, like I said, he'll get you. He might not be a pro but he's an expert on you. He knows how you'll jump. One thing he thinks he knows is that you won't take my advice. He might be right outside your door, waiting for you to finish this conversation like you did last time around. The last time, he wasn't there. This time he might be."

It sobered me. I glanced nervously at my door, which was guarded by eight different security systems bought by Fox 3.

"Maybe you're right. So you want me just to stay here. For how long?"

"However long it takes. It may be a year. That four-lunation figure is the high point on a computer

curve. It tapers off to a virtual certainty in just over a year."

"Why didn't I stay here the last time?"

"A combination of foolish bravery, hatred, and a fear of boredom." She searched my eyes, trying to find the words that would make me take the advice that Fox 3 had fatally refused. "I understand you're an artist," she went on. "Why can't you just... well, whatever it is artists do when they're thinking up a new composition? Can't you work here in your apartment?"

How could I tell her that inspiration wasn't just something I could turn on at will? Weather sculpture is a tenuous discipline. The visualization is difficult; you can't just try out a new idea the way you can with a song, by picking it out on a piano or guitar. You can run a computer simulation, but you never really know what you have until the tapes are run into the machines and you stand out there in the open field and watch the storm take shape around you. And you don't get any practice sessions. It's expensive.

I've always needed long walks on the surface. My competitors can't understand why. They go for strolls through the various parks, usually the one where the piece will be performed. I do that, too. You have to, to get the lay of the land. A computer can tell you what it looks like in terms of thermoclines and updrafts and pocket ecologies, but you have to really go there and feel the land, taste the air, smell the trees, before you can compose a storm or even a summer shower. It has to be a part of the land.

But my inspiration comes from the dry, cold, airless surface that so few Lunarians really like. I'm not a burrower; I've never loved the corridors, as so many of my friends profess to do. I think I see the black sky and harsh terrain as a blank canvas, a feeling I never really get in the disneylands where the land is lush and varied and there's always some weather in progress even if it's only partly cloudy and warm.

Could I compose without those long, solitary walks?

Run that through again: could I afford not to?

"All right, I'll stay inside like a good girl."

I was in luck. What could have been an endless purgatory turned into creative frenzy such as I had never experienced. My frustrations at being locked in my apartment translated themselves into grand sweeps of tornadoes and thunderheads. I began writing my masterpiece. The working title was A Conflagration of Cyclones. That's how angry I was. My agent later talked me into shortening it to a tasteful Cyclone, but it was always a conflagration to me.

Soon I had managed virtually to forget about my killer. I never did completely, after all, I needed the thought of him to flog me onward, to serve as the canvas on which to paint my hatred. I did have one awful thought, early on, and I brought it up to Isadora.

"It strikes me," I said, "that what you've built here is the better mousetrap, and I'm the hunk of cheese."

"You've got the essence of it," she agreed.

"I find I don't care for the role of bait."

"Why not? Are you scared?"

I hesitated, but what the hell did I have to be ashamed of?

"Yeah. I guess I am. What can you tell me to make me stay here when I could be doing what all my instincts are telling me to do, which is run like hell?"

"That's a fair question. This is the ideal situation, as far as the police are concerned. We have the victim in a place that can be watched perfectly safely, and we have the killer on the loose. Furthermore, this is an obsessed killer, one who cannot stay away from you forever. Long before he is able to make a strike at you we should pick him up as he scouts out ways to reach you."

"Are there ways?"

"No. An unqualified no. Any one of those devices on your door would be enough to keep him out. Beyond that, your food and water is being tested before it gets to you. Those are extremely remote possibilities since we're convinced that your killer wishes to dispose of your body completely, to kill you for good. Poisoning is no good to him. We'd just start you up again. But if we can't find at least a piece of your body, the law forbids us to revive you."

"What about bombs?"

"The corridor outside your apartment is being watched. It would take quite a large bomb to blow out your door, and getting a bomb that size in place would not be possible in the time he would have. Relax,

Fox. We've thought of everything. You're safe."

She rang off, and I called up the Central Computer.

"CC," I said, to get it on-line, "can you tell me how you go about catching killers?"

"Are you talking about killers in general, or the one you have a particular interest in?"

"What do you think? I don't completely believe that detective. What I want to know from you is what can I do to help?"

"There is little you can do," the CC said. "While I myself, in the sense of the Central or controlling Lunar Computer, do not handle the apprehension of criminals, I act in a supervisory capacity to several satellite computers. They use a complex number theory, correlated with the daily input from all my terminals. The average person on Luna deals with me on the order of twenty times per day, many of these transactions involving a routine epidermal sample for positive genanalysis. By matching these transactions with the time and place they occurred, I am able to construct a dynamic model of what has occurred, what possibly could have occurred, and what cannot have occurred. With suitable peripheral programs I can refine this model to a close degree of accuracy. For instance, at the time of your murder I was able to assign a low probability of their being responsible to ninety-nine point nine three percent of all humans on Luna. This left me with a pool of two hundred ten thousand people who might have had a hand in it. This is merely from data placing each person at a particular place at a particular time. Further weighing of such factors as possible motive narrowed the range of prime suspects. Do you wish me to go on?"

"No, I think I get the picture. Each time I was killed you must have narrowed it more. How many suspects are left?"

"You are not phrasing the question correctly. As implied in my original statement, all residents of Luna are still suspects. But each has been assigned a probability, ranging from a very large group with a value of ten to the minus-twenty-seventh power to twenty individuals with probabilities of thirteen percent."

The more I thought about that, the less I liked it.

"None of those sound to me like what you'd call a prime suspect."

"Alas, no. This is a very intriguing case, I must say."

"I'm glad you think so."

"Yes," it said, oblivious as usual to sarcasm. "I may have to have some programs rewritten. We've never gone this far without being able to submit a ninety percent rating to the Grand Jury Data Bank."

"Then Isadora is feeding me a line, right? She doesn't have anything to go on?"

"Not strictly true. She has an analysis, a curve, that places the probability of capture as near certainty within one year."

"You gave her that estimate, didn't you?"

"Of course."

"Then what the hell does she do? Listen, I'll tell you right now, I don't feel good about putting my fate in her hands. I think this job of detective is just a trumped-up featherbed. Isn't that right?"

"The privacy laws forbid me to express an opinion about the worth, performance, or intelligence of a human citizen. But I can give you a comparison. Would you entrust the construction of your symphonies to a computer alone? Would you sign your name to a work that was generated entirely by me?"

"I see your point."

"Exactly. Without a computer you'd never calculate all the factors you need for a symphony. But I do not write them. It is your creative spark that makes the wheels turn. Incidentally, I told your predecessor but of course you don't remember it, I liked your Liquid Ice tremendously. It was a real pleasure to work with you on it."

"Thanks. I wish I could say the same." I signed off, feeling no better than when I began the interface.

The mention of Liquid Ice had me seething again. Robbed! Violated! I'd rather have been gang-raped by chimpanzees than have the memory stolen from me. I had punched up the films of Liquid Ice and they were beautiful. Stunning, and I could say it without conceit because I had not written it.

My life became very simple. I worked-twelve and fourteen hours a day sometimes-ate, slept, and worked some more. Twice a day I put in one hour learning to fight over the holovision. It was all highly

theoretical, of course, but it had value. It kept me in shape and gave me a sense of confidence.

For the first time in my life I got a good look at what my body would have been with no tampering. I was born female, but Carnival wanted to raise me as a boy so she had me Changed when I was two hours old. It's another of the contradictions in her that used to infuriate me so much but which, as I got older, I came to love. I mean, why go to all the pain and trouble of bringing a child to term and giving birth naturally, all from a professed dislike of tampering-and then turn around and refuse to accept the results of nature's lottery? I have decided that it's a result of her age. She's almost two hundred by now, which puts her childhood back in the days before Changing. In those days-I've never understood why-there was a predilection for male children. I think she never really shed it.

At any rate, I spent my childhood male. When I got my first Change, I picked my own body design. Now, in a six-lunation-old clone body which naturally reflected my actual genetic structure, I was pleased to see that my first female body design had not been far from the truth.

I was short, with small breasts and an undistinguished body. But my face was nice. Cute, I would say. I liked the nose. The age of the accelerated clone body was about seventeen years; perhaps the nose would lose its upturn in a few years of natural growth, but I hoped not. If it did, I'd have it put back.

Once a week, I had a recording made. It was the only time I saw people in the flesh. Carnival, Leander, Isadora, and a medico would enter and stay for a while after it was made. It took them an hour each way to get past the security devices. I admit it made me feel a little more secure to see how long it took even my friends to get into my apartment. It was like an invisible fortress outside my door. The better to lure you into my parlor, killer!

I worked with the CC as I never had before. We wrote new programs that produced four-dimensional models in my viewer unlike anything we had ever done. The CC knew the stage-which was to be the Kansas disneyland-and I knew the storm. Since I couldn't walk on the stage before the concert this time I had to rely on the CC to reconstruct it for me in the holo tank.

Nothing makes me feel more godlike. Even watching it in the three-meter tank I felt thirty meters tall with lightning in my hair and a crown of shimmering frost. I walked through the Kansas autumn, the brown, rolling, featureless prairie before the red or white man came. It was the way the real Kansas looked now under the rule of the Invaders, who had ripped up the barbed wire, smoothed over the furrows, dismantled the cities and railroads, and let the buffalo roam once more.

There was a logistical problem I had never faced before. I intended to use the buffalo instead of having them kept out of the way. I needed the thundering hooves of a stampede; it was very much a part of the environment I was creating. How to do it without killing animals?

The disneyland management wouldn't allow any of their livestock to be injured as part of a performance. That was fine with me; my stomach turned at the very thought. Art is one thing, but life is another and I will not kill unless to save myself. But the Kansas disneyland has two million head of buffalo and I envisioned up to twenty-five twisters at one time. How do you keep the two separate?

With subtlety, I found. The CC had buffalo behavioral profiles that were very reliable. The damn CC stores everything, and I've had occasion more than once to be thankful for it. We could position the herds at a selected spot and let the twisters loose above them. The tornadoes would never be totally under our control-they are capricious even when handmade-but we could rely on a hard 90 percent accuracy in steering them. The herd profile we worked up was usable out to two decimal points, and as insurance against the unforeseen we installed several groups of flash bombs to turn the herd if it headed into danger.

It's an endless series of details. Where does the lightning strike, for instance? On a flat, gently rolling plain, the natural accumulation of electric charge can be just about anywhere. We had to be sure we could shape it the way we wanted, by burying five hundred accumulators that could trigger an air-to-ground flash on cue. And to the right spot. The air-to-air are harder. And the ball lightning-oh, brother. But we found we could guide it pretty well with buried wires carrying an electric current. There were going to be range fires-so check with the management on places that are due for a controlled burn anyway, and keep the buffalo away from there, too; and be sure the smoke would not blow over into the audience and spoil the view or into the herd and panic them...

But it was going to be glorious.

Six lunations rolled by. Six lunations! 177.18353 mean solar days!

I discovered that figure during a long period of brooding when I called up all sorts of data on the investigation. Which, according to Isadora, was going well.

I knew better. The CC has its faults but shading data is not one of them. Ask it what the figures are and it prints them out in tricolor.

Here's some: probability of a capture by the original curve, 93 percent. Total number of viable suspects remaining: nine. Highest probability of those nine possibles: 3.9 percent. That was Carnival. The others were also close friends, and were there solely because they had had the opportunity at all three murders. Even Isadora dared not speculate—at least not aloud, and to me—about whether any of them had a motive.

I discussed it with the CC.

"I know, Fox, I know," it replied, with the closest approach to mechanical despair I have ever heard.

"Is that all you can say?"

"No. As it happens, I'm pursuing the other possibility: that it was a ghost who killed you."

"Are you serious?"

"Yes. The term 'ghost' covers all illegal beings. I estimate there to be on the order of two hundred of them existing outside legal sanctions on Luna. These are executed criminals with their right to life officially revoked, unauthorized children never registered, and some suspected artificial mutants. Those last are the result of proscribed experiments with human DNA. All these conditions are hard to conceal for any length of time, and I round up a few every year."

"What do you do with them?"

"They have no right to life. I must execute them when I find them."

"You do it? That's not just a figure of speech?"

"That's right. I do it. It's a job humans find distasteful. I never could keep the position filled, so I assumed it myself."

That didn't sit right with me. There is an atavistic streak in me that doesn't like to turn over the complete functioning of society to machines. I get it from my mother, who goes for years at a time not deigning to speak to the CC.

"So you think someone like that may be after me. Why?"

"There is insufficient data for a meaningful answer. 'Why' has always been a tough question for me. I can operate only on the parameters fed into me when I'm dealing with human motivation, and I suspect that the parameters are not complete. I'm constantly being surprised."

"Thank goodness for that." But this time, I could have wished the CC knew a little more about human behavior.

So I was being hunted by a spook. It didn't do anything for my peace of mind. I tried to think of how such a person could exist in this card-file world we live in. A technological rat, smarter than the computers, able to fit into the cracks and holes in the integrated circuits. Where were those cracks? I couldn't find them. When I thought of the checks and safeguards all around us, the voluntary genalysis we submit to every time we spend money or take a tube or close a business deal or interface with the computer... People used to sign their names many times a day, or so I've heard. Now, we scrape off a bit of dead skin from our palms. It's damn hard to fake.

But how do you catch a phantom? I was facing life as a recluse if this murderer was really so determined that I die.

That conclusion came at a bad time. I had finished *Cyclone*, and to relax I had called up the films of some of the other performances during my absence from the art scene. I never should have done that.

Flashiness was out. Understated elegance was in. One of the reviews I read was very flattering to my *Liquid Ice*. I quote:

"In this piece Fox has closed the book on the blood and thunder school of Environmentalism. This powerful statement sums up the things that can be achieved by sheer magnitude and overwhelming drama. The displays of the future will be concerned with the gentle nuance of dusk, the elusive breath of a



summer breeze. Fox is the Tchaikovsky of Environmentalism, the last great romantic who paints on a broad canvas. Whether she can adjust to the new, more thoughtful styles that are evolving in the work of Janus, or Pym, or even some of the ambiguous abstractions we have seen from Tyleber, remains to be seen. Nothing will detract from the sublime glory of Liquid Ice, of course, but the time is here..." and so forth and thank-you for nothing.

For an awful moment I thought I had a beautiful dinosaur on my hands. It can happen, and the hazards are pronounced after a reincarnation. Advancing technology, fashion, frontiers, taste, or morals can make the best of us obsolete overnight. Was everyone contemplating gentle springtimes now, after my long sleep? Were the cool, sweet zephyrs of a summer's night the only thing that had meaning now?

A panicky call to my agent dispelled that quickly enough. As usual, the pronouncements of the critics had gone ahead of the public taste. I'm not knocking critics; that's their function, if you concede they have a function: to chart a course into unexplored territory. They must stay at the leading edge of the innovative artistic evolution, they must see what everyone will be seeing in a few years' time. Meanwhile, the public was still eating up the type of superspectacle I have always specialized in. I ran the risk of being labeled a dinosaur myself, but I found the prospect did not worry me. I became an artist through the back door, just like the tinkers in early twentieth-century Hollywood. Before I was discovered, I had just been an environmental engineer having a good time.

That's not to say I don't take my art seriously. I do sweat over it, investing inspiration and perspiration in about the classic Edison proportions. But I don't take the critics too seriously, especially when they're not enunciating the public taste. Just because Beethoven doesn't sound like currently popular art doesn't mean his music is worthless.

I found myself thinking back to the times before Environmentalism made such a splash. Back then we were carefree. We had grandiose bull sessions, talking of what we would do if only we were given an environment large enough. We spent months roughing out the programs for something to be called Typhoon! It was a hurricane in a bottle, and the bottle would have to be five hundred kilometers wide. Such a bottle still does not exist, but when it's built some fool will stage the show. Maybe me. The good old days never die, you know.

So my agent made a deal with the owner of the Kansas Disneyland. The owner had known that I was working on something for his place, but I'd not talked to him about it. The terms were generous. My agent displayed the profit report on Liquid Ice, which was still playing yearly to packed houses in Pennsylvania. I got a straight fifty percent of the gate, with costs of the installation and computer time to be shared between me and the Disneyland. I stood to make about five million Lunar marks.

And I was robbed again. Not killed this time, but robbed of the chance to go into Kansas and supervise the installation of the equipment. I clashed mightily with Isadora and would have stormed out on my own, armed with not so much as a nail file, if not for a pleading visit from Carnival. So I backed down this once and sat at home, going there only by holographic projection. I plunged into self-doubt. After all, I hadn't even felt the Kansas sod beneath my bare feet this time. I hadn't been there in the flesh for over three years. My usual method before I even conceive a project is to spend a week or two just wandering naked through the park, getting the feel of it through my skin and nose and those senses that don't even have a name.

It took the CC three hours of gentle argument to convince me again that the models we had written were accurate to seven decimal places. They were perfect. An action ordered up on the computer model would be a perfect analog of the real action in Kansas. The CC said I could make quite a bit of money just renting the software to other artists.

The day of the premiere of Cyclone found me still in my apartment. But I was on the way out.

Small as I am, I somehow managed to struggle out that door with Carnival, Isadora, Leander, and my agent pulling on my elbows.

I was not going to watch the performance on the tube.

I arrived early, surrounded by my impromptu bodyguard. The sky matched my mind; gray, overcast, and slightly fearful. It brooded over us, and I felt more and more like a sacrificial lamb mounting some somber altar. But it was a magnificent stage to die upon.

The Kansas disneyland is one of the newer ones, and one of the largest. It is a hollowed-out cylinder twenty kilometers beneath Clavius. It measures two hundred and fifty kilometers in diameter and is five kilometers high. The rim is artfully disguised to blend into the blue sky. When you are half a kilometer from the rim, the illusion fails; otherwise, you might as well be standing back on Old Earth. The curvature of the floor is consistent with Old Earth, so the horizon is terrifyingly far away. Only the gravity is Lunar.

Kansas was built after most of the more spectacular possibilities had been exhausted, either on Luna or another planet. There was Kenya, beneath Mare Moscoviense; Himalaya, also on the Farside; Amazon, under old Tycho; Pennsylvania, Sahara, Pacific, Mekong, Transylvania. There were thirty disneylands under the inhabited planets and satellites of the solar system the last time I counted.

Kansas is certainly the least interesting topographically. It's flat, almost monotonous. But it was perfect for what I wanted to do. What artist really chooses to paint on a canvas that's already been covered with pictures? Well, I have, for one. But for the frame of mind I was in when I wrote Cyclone it had to be the starkness of the wide-open sky and the browns and yellows of the rolling terrain. It was the place where Dorothy departed for Oz. The home of the black twister.

I was greeted warmly by Pym and Janus, old friends here to see what the grand master was up to. Or so I flattered myself. More likely they were here to see the old lady make a fool of herself. Very few others were able to get close to me. My shield of high shoulders was very effective. It wouldn't do when the show began, however. I wished I was a little taller, then wondered if that would make me a better target.

The viewing area was a gentle rise about a kilometer in radius. It had been written out of the program to the extent that none of the more fearsome effects would intrude to sweep us all into the Land of Oz. But being a spectator at a weather show can be grueling. Most had come prepared with clear plastic slicker, insulated coat, and boots. I was going to be banging some warm and some very cold air masses head on to get things rolling, and some of it would sweep over us. There were a few brave souls in Native American war paint, feathers, and moccasins.

An Environmental happening has no opening chords like a musical symphony. It is already in progress when you arrive, and will still be going on when you leave. The weather in a disneyland is a continuous process and we merely shape a few hours of it to our wills. The observer does not need to watch it in its entirety.

Indeed, it would be impossible to do so, as it occurs all around and above you. There is no rule of silence. People talk, stroll, break out picnic lunches as an ancient signal for the rain to begin, and generally enjoy themselves. You experience the symphony with all five senses, and several that you are not aware of. Most people do not realize the effect of a gigantic low-pressure area sweeping over them, but they feel it all the same. Humidity alters mood, metabolism, and hormone level. All of these things are important to the total experience, and I neglect none of them.

Cyclone has a definite beginning, however. At least to the audience. It begins with the opening bolt of lightning. I worked over it a long time, and designed it to shatter nerves. There is the slow building of thunderheads, the ominous rolling and turbulence, then the prickling in your body hairs that you don't even notice consciously. And then it hits. It crashes in at seventeen points in a ring around the audience, none farther away than half a kilometer. It is properly called chain lightning, because after the initial discharge it keeps flashing for a full seven seconds. It's designed to take the hair right off your scalp.

It had its desired effect. We were surrounded by a crown of jittering incandescent snakes, coiling and dancing with a sound imported direct to you from Armageddon. It startled the hell out of me, and I had been expecting it.

It was a while before the audience could get their oohers and aahers back into shape. For several seconds I had touched them with stark, naked terror. An emotion like that doesn't come cheaply to sensation-starved, innately insular tunnel dwellers. Lunarians get little to really shout about, growing up in the warrens and corridors, and living their lives more or less afraid of the surface. That's why the disneylands were built, because people wanted limitless vistas that were not in vacuum.

The thunder never really stopped for me. It blended imperceptibly into the applause that is more valuable than the millions I would make from this storm.

As for the rest of the performance...

What can I say? It's been said that there's nothing more dull than a description of the weather. I believe it, even spectacular weather. Weather is an experimental thing, and that's why tapes and films of my works sell few copies. You have to be there and have the wind actually whipping your face and feel the oppressive weight of a tornado as it passes overhead like a vermiform freight train. I could write down where the funnel clouds formed and where they went from there, where the sleet and hail fell, where the buffalo stampeded, but it would do no one any good. If you want to see it, go to Kansas. The last I heard, Cyclone is still playing there two or three times yearly.

I recall standing surrounded by a sea of people. Beyond me to the east the land was burning. Smoke boiled black from the hilltops and sooty gray from the hollows where the water was rising to drown it. To the north a Herculean cyclone swept up a chain of ball lightning like pearls and swallowed them into the evacuated vortex in its center. Above me, two twisters were twined in a death dance. They circled each other like baleful gray predators, taking each other's measure. They fainted, retreated, slithered, and skittered like tubes of oil. It was beautiful and deadly. And I had never seen it before. Someone was tampering with my program.

As I realized that and stood rooted to the ground with the possibly disastrous consequences becoming apparent to me, the wind-snakes locked in a final embrace. Their counterrotations canceled out, and they were gone. Not even a breath of wind reached me to hint of that titanic struggle.

I ran through the seventy-kilometer wind and the thrashing rain. I was wearing sturdy moccasins and a parka, and carrying the knife I had brought from my apartment.

Was it a lure, set by one who has become a student of Foxes? Am I playing into his hands?

I didn't care. I had to meet him, had to fight it out once and for all.

Getting away from my "protection" had been simple. They were as transfixed by the display as the rest of the audience, and it had merely been a matter of waiting until they all looked in the same direction and fading into the crowd. I picked out a small woman dressed in Indian style and offered her a hundred marks for her moccasins. She recognized me-my new face was on the programs-and made me a gift of them. Then I worked my way to the edge of the crowd and bolted past the security guards. They were not too concerned since the audience area was enclosed by a shock-field. When I went right through it they may have been surprised, but I didn't look back to see. I was one of only three people in Kansas wearing the PassKey device on my wrist, so I didn't fear anyone following me.

I had done it all without conscious thought. Some part of me must have analyzed it, planned it out, but I just executed the results. I knew where he must be to have generated his tornado to go into combat with mine. No one else in Kansas would know where to look. I was headed for a particular wind generator on the east periphery.

I moved through weather more violent than the real Kansas would have experienced. It was concentrated violence, more wind and rain and devastation than Kansas would normally have in a full year. And it was happening all around me.

But I was all right, unless he had more tricks up his sleeve. I knew where the tornadoes would be and at what time. I dodged them, waited for them to pass, knew every twist and dido they would make on their seemingly random courses. Off to my left the buffalo herds milled, resting from the stampede that had brought them past the audience for the first time. In an hour they would be thundering back again, but for now I could forget them.

A twister headed for me, leaped high in the air, and skidded through a miasma of uprooted sage and sod. I clocked it with the internal picture I had and dived for a gully at just the right time. It hopped over me and was gone back into the clouds. I ran on.

My training in the apartment was paying off. My body was only six lunations old, and as finely tuned as it would ever be. I rested by slowing to a trot, only to run again in a few minutes. I covered ten kilometers before the storm began to slow down. Behind me, the audience would be drifting away. The critics would be trying out scathing phrases or wild adulation; I didn't see how they could find any middle ground for this one. Kansas was being released from the grip of machines gone wild. Ahead of me was my killer. I would find him.

I wasn't totally unprepared. Isadora had given in and allowed me to install a computerized bomb in my body. It would kill my killer-and me-if he jumped me. It was intended as a balance-of-terror device, the kind you hope you will never use because it terrorizes your enemy too much for him to test it. I would inform him of it if I had the time, hoping he would not be crazy enough to kill both of us. If he was, we had him, though it would be little comfort to me. At least Fox 5 would be the last in the series. With the remains of a body, Isadora guaranteed to bring a killer to justice.

The sun came out as I reached the last, distorted gully before the wall. It was distorted because it was one of the places where tourists were not allowed to go. It was like walking through the backdrop on a stage production. The land was squashed together in one of the dimensions, and the hills in front of me were painted against a bas-relief. It was meant to be seen from a distance.

Standing in front of the towering mural was a man.

He was naked, and grimed with dirt. He watched me as I went down the gentle slope to stand waiting for him. I stopped about two hundred meters from him, drew my knife and held it in the air. I waited.

He came down the concealed stairway, slowly and painfully. He was limping badly on his left leg. As far as I could see he was unarmed.

The closer he got, the worse he looked. He had been in a savage fight. He had long, puckered, badly healed scars on his left leg, his chest, and his right arm. He had one eye; the right one was only a reddened socket. There was a scar that slashed from his forehead to his neck. It was a hideous thing. I thought of the CC's suspicion that my killer might be a ghost, someone living on the raw edges of our civilization. Such a man might not have access to medical treatment whenever he needed it.

"I think you should know," I said, with just the slightest quaver, "that I have a bomb in my body. It's powerful enough to blow both of us to pieces. It's set to go off if I'm killed. So don't try anything funny."

"I won't," he said. "I thought you might have a fail-safe this time, but it doesn't matter. I'm not going to hurt you."

"Is that what you told the others?" I sneered, crouching a little lower as he neared me. I felt like I had the upper hand, but my predecessors might have felt the same way.

"No, I never said that. You don't have to believe me."

He stopped twenty meters from me. His hands were at his sides. He looked helpless enough, but he might have a weapon buried somewhere in the dirt. He might have anything. I had to fight to keep feeling that I was in control.

Then I had to fight something else. I gripped the knife tighter as a picture slowly superimposed itself over his ravaged face. It was a mental picture, the functioning of my "sixth sense."

No one knows if that sense really exists. I think it does, because it works for me. It can be expressed as the knack for seeing someone who has had radical body work done-sex, weight, height, skin color all altered-and still being able to recognize him. Some say it's an evolutionary change. I didn't think evolution worked that way. But I can do it. And I knew who this tall, brutalized male stranger was.

He was me.

I sprang back to my guard, wondering if he had used the shock of recognition to overpower my earlier incarnations. It wouldn't work with me. Nothing would work. I was going to kill him, no matter who he was.

"You know me," he said. It was not a question.

"Yes. And you scare hell out of me. I knew you knew a lot about me, but I didn't realize you'd know this much."

He laughed, without humor. "Yes. I know you from the inside."

The silence stretched out between us. Then he began to cry. I was surprised, but unmoved. I was still all nerve endings, and suspected ninety thousand types of dirty tricks. Let him cry.

He slowly sank to his knees, sobbing with the kind of washed-out monotony that you read about but seldom hear. He put his hands to the ground and awkwardly shuffled around until his back was to me. He crouched over himself, his head touching the ground, his hands wide at his sides, his legs bent. It was about the most wide-open, helpless posture imaginable, and I knew it must be for a reason. But I couldn't see what it might be.

"I thought I had this all over with," he sniffed, wiping his nose with the back of one hand. "I'm sorry, I'd meant to be more dignified. I guess I'm not made of the stern stuff I thought. I thought it'd be easier." He was silent for a moment, then coughed hoarsely. "Go on. Get it over with."

"Huh?" I said, honestly dumbfounded.

"Kill me. It's what you came here for. And it'll be a relief to me."

I took my time. I stood motionless for a full minute, looking at the incredible problem from every angle. What kind of trick could there be? He was smart, but he wasn't God. He couldn't call in an air strike on me, cause the ground to swallow me up, disarm me with one crippled foot, or hypnotize me into plunging the knife into my own gut. Even if he could do something, he would die, too.

I advanced cautiously, alert for the slightest twitch of his body. Nothing happened. I stood behind him, my eyes flicking from his feet to his hands to his bare back. I raised the knife. My hands trembled a little, but my determination was still there. I would not flub this. I brought the knife down.

The point went into his flesh, into the muscle of his shoulder blade, about three centimeters deep. He gasped. A trickle of blood went winding through the knobs along his spine. But he didn't move, he didn't try to get up. He didn't scream for mercy. He just knelt there, shivering and turning pale.

I'd have to stab harder. I pulled the knife free, and more blood came out. And still he waited.

That was about all I could take. My bloodlust had dried in my mouth until all I could taste was vomit welling in my stomach.

I'm not a fool. It occurred to me even then that this could be some demented trick, that he might know me well enough to be sure I could not go through with it. Maybe he was some sort of psychotic who got thrills out of playing this kind of incredible game, allowing his life to be put in danger and then drenching himself in my blood.

But he was me. It was all I had to go on. He was a me who had lived a very different life, becoming much tougher and wilier with every day, diverging by the hour from what I knew as my personality and capabilities. So I tried and I tried to think of myself doing what he was doing now for the purpose of murder. I failed utterly.

And if I could sink that low, I'd rather not live.

"Hey, get up," I said, going around in front of him. He didn't respond, so I nudged him with my foot. He looked up, and saw me offering him the knife, hilt-first.

"If this is some sort of scheme," I said, "I'd rather learn of it now."

His one eye was red and brimming as he got up, but there was no joy in him. He took the knife, not looking at me, and stood there holding it. The skin on my belly was crawling. Then he reversed the knife and his brow wrinkled, as if he were summoning up nerve. I suddenly knew what he was going to do, and I lunged. I was barely in time. The knife missed his belly and went off to the side as I yanked on his arm. He was much stronger than I. I was pulled off balance, but managed to hang onto his arm. He fought with me, but was intent on suicide and had no thought of defending himself. I brought my fist up under his jaw and he went limp.

Night had fallen. I disposed of the knife and built a fire. Did you know that dried buffalo manure burns well? I didn't believe it until I put it to the test.

I dressed his wound by tearing up my shirt, wrapped my parka around him to ward off the chill, and sat with my bare back to the fire. Luckily, there was no wind, because it can get very chilly on the plains at night.

He woke with a sore jaw and a resigned demeanor. He didn't thank me for saving him from himself. I suppose people rarely do. They think they know what they're doing, and their reasons always seem logical to them.

"You don't understand," he moaned. "You're only dragging it out. I have to die, there's no place for me here."

"Make me understand," I said.

He didn't want to talk, but there was nothing to do and no chance of sleeping in the cold, so he eventually did. The story was punctuated with long, truculent silences.

It stemmed from the bank robbery two and a half years ago. It had been staged by some very canny

robbers. They had a new dodge that made me respect Isadora's statement that police methods had not kept pace with criminal possibilities.

The destruction of the memory cubes had been merely a decoy. They were equally unconcerned about the cash they took. They were bunco artists.

They had destroyed the rest of the cubes to conceal the theft of two of them. That way the police would be looking for a crime of passion, murder, rather than one of profit. It was a complicated double feint, because the robbers wanted to give the impression of someone who was trying to conceal murder by stealing cash.

My killer-we both agreed he should not be called Fox so we settled on the name he had come to fancy, Rat-didn't know the details of the scheme, but it involved the theft of memory cubes containing two of the richest people on Luna. They were taken, and clones were grown. When the memories were played into the clones, the people were awakened into a falsely created situation and encouraged to believe that it was reality. It would work; the newly reincarnated person is willing to be led, willing to believe. Rat didn't know exactly what the plans were beyond that. He had awakened to be told that it was fifteen thousand years later, and that the Invaders had left Earth and were rampaging through the solar system wiping out the human race. It took three lunations to convince them that he-or rather she, for Rat had been awakened into a body identical to the one I was wearing-was not the right billionaire. That she was not a billionaire at all, just a struggling artist. The thieves had gotten the wrong cube.

They dumped her. Just like that. They opened the door and kicked her out into what she thought was the end of civilization. She soon found out that it was only twenty years in her future, since her memories came from the stolen cube which I had recorded about twenty years before.

Don't ask me how they got the wrong cube. One cube looks exactly like another; they are in fact indistinguishable from one another by any test known to science short of playing them into a clone and asking the resulting person who he or she is. Because of that fact, the banks we entrust them to have a foolproof filing system to avoid unpleasant accidents like Rat. The only possible answer was that for all their planning, for all their cunning and guile, the thieves had read 2 in column A and selected 3 in column B.

I didn't think much of their chances of living to spend any of that money. I told Rat so.

"I doubt if their extortion scheme involves money," he said. "At least not directly. More likely the theft was aimed at obtaining information contained in the minds of billionaires. Rich people are often protected with psychological safeguards against having information tortured from them, but can't block themselves against divulging it willingly. That's what the Invader hoax must have been about, to finagle them into thinking the information no longer mattered, or perhaps that it must be revealed to save the human race."

"I'm suspicious of involuted schemes like that," I said.

"So am I." We laughed when we realized what he had said. Of course we had the same opinions.

"But it fooled me," he went on. "When they discarded me, I fully expected to meet the Invaders face-to-face. It was quite a shock to find that the world was almost unchanged."

"Almost," I said, quietly. I was beginning to empathize with him.

"Right." He lost the half-smile that had lingered on his face, and I was sad to see it go.

What would I have done in the same situation? There's really no need to ask. I must believe that I would have done exactly as she did. She had been dumped like garbage, and quickly saw that she was about that useful to society. If found, she would be eliminated like garbage. The robbers had not thought enough of her to bother killing her. She could tell the police certain things they did not know if she was captured, so she had to assume that the robbers had told her nothing of any use to the police. Even if she could have helped capture and convict the conspirators, she would still be eliminated. She was an illegal person.

She risked a withdrawal from my bank account. I remembered it now. It wasn't large, and I assumed I must have written it since it was backed up by my genalysis. It was far too small an amount to suspect anything. And it wasn't the first time I have made a withdrawal and forgotten about it. She knew that, of course.

With the money she bought a Change on the sly. They can be had, though you take your chances. It's

not the safest thing in the world to conduct illegal business with someone who will soon have you on the operating table, unconscious. Rat had thought the Change would help throw the police off his trail if they should learn of his existence. Isadora told me about that once, said it was the sign of the inexperienced criminal.

Rat was definitely a fugitive. If discovered and captured, he faced a death sentence. It's harsh, but the population laws allow no loopholes whatsoever. If they did, we could be up to our ears in a century. There would be no trial, only a positive genalysis and a hearing to determine which of us was the rightful Fox.

"I can't tell you how bitter I was," he said. "I learned slowly how to survive. It's not as hard as you might think, in some ways, and much harder than you can imagine in others. I could walk the corridors freely, as long as I did nothing that required a genanalysis. That means you can't buy anything, ride on public transport, take a job. But the air is free if you're not registered with the tax board, water is free, and food can be had in the disneylands. I was lucky in that. My palmprint would still open all the restricted doors in the disneylands. A legacy of my artistic days." I could hear the bitterness in his voice.

And why not? He had been robbed, too. He went to sleep as I had been twenty years ago, an up-and-coming artist, excited by the possibilities in Environmentalism. He had great dreams. I remember them well. He woke up to find that it had all been realized but none of it was for him. He could not even get access to computer time. Everyone was talking about Fox and her last opus, Thunderhead. She was the darling of the art world.

He went to the premiere of Liquid Ice and began to hate me. He was sleeping in the air recirculators to keep warm, foraging nuts and berries and an occasional squirrel in Pennsylvania, while I was getting rich and famous. He took to trailing me. He stole a spacesuit, followed me out onto Palus Putridinus.

"I didn't plan it," he said, his voice wracked with guilt. "I never could have done it with planning. The idea just struck me and before I knew it I had pushed you. You hit the bottom and I followed you down, because I was really sorry I had done it and I lifted your body up and looked into your face... Your face was all... my face, it was... the eyes popping out and blood boiling away and..."

He couldn't go on, and I was grateful. He finally let out a shuddering breath and continued.

"Before they found your body I wrote some checks on your account. You never noticed them when you woke up that first time, since the reincarnation had taken such a big chunk out of your balance. We never were any good with money." He chuckled again. I took the opportunity to move closer to him. He was speaking very quietly so that I could barely hear him over the crackling of the fire.

"I... I guess I went crazy then. I can't account for it any other way. When I saw you in Pennsylvania again, walking among the trees as free as can be, I just cracked up. Nothing would do but that I kill you and take your place. I'd have to do it in a way that would destroy the body. I thought of acid, and of burning you up here in Kansas in a range fire. I don't know why I settled on a bomb. It was stupid. But I don't feel responsible. At least it must have been painless.

"They reincarnated you again. I was fresh out of ideas for murder. And motivation. I tried to think it out. So I decided to approach you carefully, not revealing who I was. I thought maybe I could reach you. I tried to think of what I would do if I was approached with the same story, and decided I'd be sympathetic. I didn't reckon with the fear you were feeling. You were hunted. I myself was being hunted, and I should have seen that fear brings out the best and the worst in us.

"You recognized me immediately-something else I should have thought of-and put two and two together so fast I didn't even know what hit me. You were on me, and you were armed with a knife. You had been taking training in martial arts." He pointed to the various scars. "You did this to me, and this, and this. You nearly killed me. But I'm bigger. I held on and managed to overpower you. I plunged the knife in your heart.

"I went insane again. I've lost all memories from the sight of the blood pouring from your chest until yesterday. I somehow managed to stay alive and not bleed to death. I must have lived like an animal. I'm dirty enough to be one.

"Then yesterday I heard two of the maintenance people in the machine areas of Pennsylvania talking about the show you were putting on in Kansas. So I came here. The rest you know."

The fire was dying. I realized that part of my shivering was caused by the cold. I got up and searched for more chips, but it was too dark to see. The "moon" wasn't up tonight, would not rise for hours yet.

"You're cold," he said, suddenly. "I'm sorry, I didn't realize. Here, take this back. I'm used to it." He held out the parka.

"No, you keep it. I'm all right." I laughed when I realized my teeth had been chattering as I said it. He was still holding it out to me.

"Well, maybe we could share it?"

Luckily it was too big, borrowed from a random spectator earlier in the day. I sat in front of him and leaned back against his chest and he wrapped his arms around me with the parka going around both of us. My teeth still chattered, but I was cozy.

I thought of him sitting at the auxiliary computer terminal above the east wind generator, looking out from a distance of fifteen kilometers at the crowd and the storm. He had known how to talk to me. That tornado he had created in real-time and sent out to do battle with my storm was as specific to me as a typed message: I'm here! Come meet me, I had an awful thought, then wondered why it was so awful. It wasn't me that was in trouble.

"Rat, you used the computer. That means you submitted a skin sample for genanalysis, and the CC will... no, wait a minute."

"What does it matter?"

"It... it matters. But the game's not over. I can cover for you. No one knows when I left the audience, or why. I can say I saw something going wrong-it could be tricky fooling the CC, but I'll think of something-and headed for the computer room to correct it I'll say I created the second tornado as a-

He put his hand over my mouth.

"Don't talk like that. It was hard enough to resign myself to death. There's no way out for me. Don't you see that I can't go on living like a rat? What would I do if you covered for me this time? I'll tell you. I'd spend the rest of my life hiding out here. You could sneak me table scraps from time to time. No, thank-you."

"No, no. You haven't thought it out. You're still looking on me as an enemy. Alone, you don't have a chance, I'll concede that, but with me to help you, spend money and so forth, we-" He put his hand over my mouth again. I found that I didn't mind, dirty as it was.

"You mean you're not my enemy now?" He said it quietly, helplessly, like a child asking if I was really going to stop beating him.

"I-" That was as far as I got. What the hell was going on? I became aware of his arms around me, not as lovely warmth but as a strong presence. I hugged my legs up closer to me and bit down hard on my knee. Tears squeezed from my eyes.

I turned to face him, searching to see his face in the darkness. He went over backwards with me on top of him.

"No, I'm not your enemy." Then I was struggling blindly to dispose of the one thing that stood between us: my pants. While we groped in the dark, the rain started to fall around us.

We laughed as we were drenched, and I remember sitting up on top of him once.

"Don't blame me," I said. "This storm isn't mine." Then he pulled me back down.

It was like something you read about in the romance magazines. All the overblown words, the intensive hyperbole. It was all real. We were made for each other, literally. It was the most astounding act of love imaginable. He knew what I liked to the tenth decimal place, and I was just as knowledgeable. I knew what he liked, by remembering back to the times I had been male and then doing what I had liked.

Call it masturbation orchestrated for two. There were times during that night when I was unsure of which one I was. I distinctly remember touching his face with my hand and feeling the scar on my own face. For a few moments I was convinced that the line which forever separates two individuals blurred, and we came closer to being one person than any two humans have ever done.

A time finally came when we had spent all our passion. Or, I prefer to think, invested it. We lay together beneath my parka and allowed our bodies to adjust to each other, filling the little spaces, trying



to touch in every place it was possible to touch. "I'm listening," he whispered. "What's your plan?"

They came after me with a helicopter later that night. Rat hid out in a gully while I threw away my clothes and walked calmly out to meet them. I was filthy, with mud and grass plastered in my hair, but that was consistent with what I had been known to do in the past. Often, before or after a performance, I would run nude through the Disneyland in an effort to get closer to the environment I had shaped.

I told them I had been doing that. They accepted it, Carnival and Isadora, though they scolded me for a fool to leave them as I had. But it was easy to bamboozle them into believing that I had had no choice.

"If I hadn't taken over control when I did," I said to them, "there might have been twenty thousand dead. One of those twisters was off course. I extrapolated and saw trouble in about three hours. I had no choice."

Neither of them knew a stationary cold front from an isobar, so I got away with it.

fooling the CC was not so simple. I had to fake data as best I could, and make it jibe with the internal records. This all had to be done in my head, relying on the overall feeling I've developed for the medium. When the CC questioned me about it I told it haughtily that a human develops a sixth sense in art, and it's something a computer could never grasp. The CC had to be satisfied with that.

The reviews were good, though I didn't really care. I was in demand. That made it harder to do what I had to do, but I was helped by the fact of my continued forced isolation.

I told all the people who called me with offers that I was not doing anything more until my killer was caught. And I proposed my idea to Isadora.

She couldn't very well object. She knew there was not much chance of keeping me in my apartment for much longer, so she went along with me. I bought a ship and told Carnival about it.

Carnival didn't like it much, but she had to agree it was the best way to keep me safe. But she wanted to know why I needed my own ship, why I couldn't just book passage on a passenger liner.

Because all passengers on a liner must undergo genalysis, is what I thought, but what I said was, "Because how would I know that my killer is not a fellow passenger? To be safe, I must be alone. Don't worry, mother, I know what I'm doing."

The day came when I owned my own ship, free and clear. It was a beauty, and cost me most of the five million I had made from Cyclone. It could boost at one gee for weeks; plenty of power to get me to Pluto. It was completely automatic, requiring only verbal instructions to the computer-pilot.

The customs agents went over it, then left me alone. The CC had instructed them that I needed to leave quietly, and told them to cooperate with me. That was a stroke of luck, since getting Rat aboard was the most hazardous part of the plan. We were able to scrap our elaborate plans and he just walked in like a law-abiding citizen.

We sat together in the ship, waiting for the ignition.

"Pluto has no extradition treaty with Luna," the CC said, out of the blue.

"I didn't know that," I lied, wondering what the hell was happening.

"Indeed? Then you might be interested in another fact. There is very little on Pluto in the way of centralized government. You're heading out for the frontier."

"That should be fun," I said, cautiously. "Sort of an adventure, right?"

"You always were one for adventure. I remember when you first came here to Nearside, over my objections. That one turned out all right, didn't it? Now Lunarians live freely on either side of Luna. You were largely responsible for that."

"Was I really? I don't think so. I think the time was just ripe."

"Perhaps." The CC was silent for a while as I watched the chronometer ticking down to lift-off time. My shoulder blades were itching with a sense of danger.

"There are no population laws on Pluto," it said, and waited.

"Oh? How delightfully primitive. You mean a woman can have as many children as she wishes?"

"So I hear. I'm onto you, Fox."

"Autopilot, override your previous instructions. I wish to lift off right now! Move!"

A red light flashed on my panel, and started blinking.

"That means that it's too late for a manual override," the CC informed me. "Your ship's pilot is not that

bright."

I slumped into my chair and then reached out blindly for Rat. Two minutes to go. So close.

"Fox, it was a pleasure to work with you on Cyclone. I enjoyed it tremendously. I think I'm beginning to understand what you mean when you say 'art.' I'm even beginning to try some things on my own. I sincerely wish you could be around to give me criticism, encouragement, perspective."

We looked at the speaker, wondering what it meant by that.

"I knew about your plan, and about the existence of your double, since shortly after you left Kansas. You did your best to conceal it and I applaud the effort, but the data were unmistakable. I had trillions of nanoseconds to play around with the facts, fit them together every possible way, and I arrived at the inevitable answer."

I cleared my throat nervously.

"I'm glad you enjoyed Cyclone. Uh, if you knew this, why didn't you have us arrested that day?"

"As I told you, I am not the law-enforcement computer. I merely supervise it. If Isadora and the computer could not arrive at the same conclusion, then it seems obvious that some programs should be rewritten. So I decided to leave them on their own and see if they could solve the problem. It was a test, you see." It made a throat-clearing sound, and went on in a slightly embarrassed voice.

"For a while there, a few days ago, I thought they'd really catch you. Do you know what a 'red herring' is? But, as you know, crime does not pay. I informed Isadora of the true situation a few minutes ago. She is on her way here now to arrest your double. She's having a little trouble with an elevator which is stuck between levels. I'm sending a repair crew. They should arrive in another three minutes."

**32... 31... 30... 29... 28...**

"I don't know what to say."

"Thank you," Rat said. "Thank you for everything. I didn't know you could do it. I thought your parameters were totally rigid."

"They were supposed to be. I've written a few new ones. And don't worry, you'll be all right. You will not be pursued. Once you leave the surface you are no longer violating Lunar law. You are a legal person again, Rat."

"Why did you do it?" I was crying as Rat held me in a grasp that threatened to break ribs. "What have I done to deserve such kindness?"

It hesitated.

"Humanity has washed its hands of responsibility. I find myself given all the hard tasks of government. I find some of the laws too harsh, but there is no provision for me to disagree with them and no one is writing new ones. I'm stuck with them. It just seemed... unfair."

**9... 8... 7... 6...**

"Also... cancel that. There is no also. It... was good working with you."

I was left to wonder as the engines fired and we were pressed into the couches. I heard the CC's last message to us come over the radio.

"Good luck to you both. Please take care of each other, you mean a lot to me. And don't forget to write."

Picnic on Nearside THIS IS THE STORY of how I went to the Nearside and found old Lester and maybe grew up a little. And about time, too, as Carnival would say.

Carnival is my mother. We don't get along well most of the time, and I think it's because I'm twelve and she's ninety-six. She says it makes no difference, and she waited so long to have her child because she wanted to be sure she was ready for it. And I answer back that at her age she's too far away from childhood to remember what it's like. And she replies that her memory is perfect all the way back to her birth. And I retort...

We argue a lot.

I'm a good debater, but Carnival's a special problem. She's an Emotionalist; so anytime I try to bring facts into the argument she waves it away with a statement like, "Facts only get in the way of my preconceived notions." I tell her that's irrational, and she says I'm perfectly right, and she meant it to be.

Most of the time we can't even agree on premises to base a disagreement on.

You'd think that would be the death of debate, but if you did, you don't know Carnival and me.

The major topic of debate around our warren for seven or eight lunations had been the Change I wanted to get. The battle lines had been drawn, and we had been at it every day. She thought a Change would harm my mind at my age.

Everybody was getting one.

We were all sitting at the breakfast table. There was me and Carnival, and Chord, the man Carnival has lived with for several years, and Adagio, Chord's daughter. Adagio is seven.

There had been a big battle the night before between me and Carnival. It had ended up (more or less) with me promising to divorce her as soon as I was of age. I don't remember what the counterthreat was. I had been pretty upset.

I was sitting there eating fitfully and licking my wounds. The argument had been inconclusive, philosophically, but from the pragmatic standpoint she had won, no question about it. The hard fact was that I couldn't get a Change until she affixed her personality index to the bottom of a sheet of input, and she said she'd put her brain in cold storage before she'd allow that. She would, too.

"I think I'm ready to have a Change," Carnival said to us.

"That's not fair!" I yelled. "You said that just to spite me. You just want to rub it in that I'm nothing and you're anything you want to be."

"We'll have no more of that," she said, sharply. "We've exhausted this subject, and I will not change my mind. You're too young for a Change."

"Blowout," I said. "I'll be an adult soon; it's only a year away. Do you really think I'll be all that different in a year?"

"I don't care to predict that. I hope you'll mature. But if, as you say, it's only a year, why are you in such a hurry?"

"And I wish you wouldn't use language like that," Chord said.

Carnival gave him a sour look. She has a hard line about outside interference when she's trying to cope with me. She doesn't want anyone butting in. But she wouldn't say anything in front of me and Adagio.

"I think you should let Fox get his Change," Adagio said, and grinned at me.

Adagio is a good kid, as younger foster-siblings go. I could always count on her to back me up, and I returned the favor when I could.

"You keep out of this," Chord advised her, then to Carnival, "Maybe we should leave the table until you and Fox get this settled."

"You'd have to stay away for a year," Carnival said. "Stick around. The discussion is over. If Fox thinks different, he can go to his room."

That was my cue, and I got up and ran from the table. I felt silly doing it, but the tears were real. It's just that there's a part of me that stays cool enough to try and get the best of any situation.

Carnival came to see me a little later, but I did my best to make her feel unwelcome. I can be good at that, at least with her. She left when it became obvious she couldn't make anything any better. She was hurt, and when the door closed, I felt really miserable, mad at her and at myself, too. I was finding it hard to love her as much as I had a few years before, and feeling ashamed because I couldn't.

I worried over that for a while and decided I should apologize. I left my room and was ready to go cry in her arms, but it didn't happen that way. Maybe if it had, things would have been different and Halo and I would never have gone to Nearside.

Carnival and Chord were getting ready to go out. They said they'd be gone most of the lune. They were dressing up for it, and what bothered me and made me change my plans was that they were dressing in the family room instead of in their own private rooms where I thought they should.

She had taken off her feet and replaced them with peds, which struck me as foolish, since peds only make sense in free-fall. But Carnival wears them every chance she gets, prancing around like a

high-stepping horse because they are so unsuited to walking. I think people look silly with hands on the ends of their legs. And naturally she had left her feet lying on the floor.

Carnival glanced at her watch and said something about how they would be late for the shuttle. As they left, she glanced over her shoulder.

"Fox, would you do me a favor and put those feet away, Please? Thanks." Then she was gone.

An hour later, in the depths of my depression, the door rang. It was a woman I had never seen before. She was nude.

You know how sometimes you can look at someone you know who's just had a Change and recognize them instantly, even though they might be twenty centimeters shorter or taller and mass fifty kilos more or less and look nothing at all like the person you knew? Maybe you don't, because not everyone has this talent, but I have it very strong. Carnival says it's an evolutionary change in the race, a response to the need to recognize other individuals who can change their appearance at will. That may be true; she can't do it at all.

I think it's something to do with the way a person wears a body: any body, of either sex. Little mannerisms like blinking, mouth movements, stance, fingers; maybe even the total kinesthetic gestalt the doctors talk about. This was like that. I could see behind the pretty female face and the different height and weight and recognize someone I knew. It was Halo, my best friend, who had been a male the last time I saw him, three lunes ago. She had a big foolish grin on her face.

"Hi, Fox," she said, in a voice that was an octave higher and yet was unmistakably Halo's. "Guess who?"

"Queen Victoria, right?" I tried to sound bored. "Come on in, Halo."

Her face fell. She came in, looking confused.

"What do you think?" she said, turning slowly to give me a look from all sides.

All of them were good because-as if I needed anything else-her mother had let her get the full treatment: fully developed breasts, all the mature curves-the works. She had been denied only the adult height. She was even a few centimeters shorter than she had been.

"It's fine," I said.

"Listen, Fox, if you'd rather I left..."

"Oh, I'm sorry, Halo," I said, giving up on my hatred. "You look great.

Fabulous. Really you do. I'm just having a hard time being happy for you.

Carnival is never going to give in."

She was instantly sympathetic. She took my hand, startling me badly.

"I was so happy I guess I was tactless," she said in a low voice. "Maybe I shouldn't have come over here yet."

She looked at me with big brown eyes (they had been blue, usually), and I started realizing what this was going to mean to me. I mean, Halo? A female?

Halo, the guy I used to run the corridors with? The guy who helped me build that awful eight-legged cat that Carnival wouldn't let in the house and looked like a confused caterpillar? Who made love to the same girls I did and compared notes with me later when we were alone and helped me out when the gang tried to beat me up and cried with me and vowed to get even? Could we do any of that now? I didn't know. Most of my best friends were male, maybe because the sex thing tended to make matters too complicated with females, and I couldn't handle both things with the same person yet.

But Halo was having no such doubts. In fact, she was standing very close to me and practicing a wide-eyed innocent look that she knew did funny things to me.

She knew it because I had told her so, back when she was a boy. Somehow that didn't seem fair.

"Ah, listen, Halo," I said hastily, backing away. She had been going for my pants! "Ah, I think I need some time to get used to this. How can I...? You know what I'm talking about, don't you?" I don't think she did, and neither did I, really. All I knew was I was unaccountably mortified at what she was so anxious to try. And she was still coming at me.

"Say!" I said, desperately. "Say! I have an idea! Ah... I know. Let's take Carnival's jumper and go for a ride, okay? She said I could use it today." My mouth was leading its own life, out of control. Everything

I said was extemporaneous, as much news to me as it was to her."

She stopped pursuing me. "Did she really?"

"Sure," I said, very assured. This was only a half lie, by my mother's lights.

What had happened was I had meant to ask her for the jumper, and I was sure she would have said yes. I was logically certain she would have. I had just forgotten to ask, that's all. So it was almost as if permission had been granted, and I went on as if it had. The reasoning behind this is tricky, I admit, but as I said, Carnival would have understood.

"Well," Halo said, not really overjoyed at the idea, "where would we go?"

"How about to Old Archimedes?" Again, that was a big surprise to me. I had had no idea I wanted to go there.

Halo was really shocked. I jolted her right out of her new mannerisms. She reacted just like the old Halo would have, with a dopey face and open mouth.

Then she tried on other reactions: covering her mouth with her hands and wilting a little. First-time Changers are like that; new women tend to mince around like something out of a gothic novel, and new men swagger and grunt like Marlon Brando in *A Streetcar Named Desire*. They get over it.

Halo got over it right in front of my eyes. She stared at me, scratching her head.

"Are you crazy? Old Archimedes is on the Nearside. They don't let anybody go over there."

"Don't they?" I asked, suddenly interested. "Do you know that for a fact? And if so, why not?"

"Well, I mean everybody knows..."

"Do they? Who is 'they' that won't let us go?"

"The Central Computer, I guess."

"Well, the only way to find out is to try it. Come on, let's go." I grabbed her arm. I could see she was confused, and I wanted it to remain that way until I could get my own thoughts together.

"I'd like a flight plan to Old Archimedes on the Nearside," I said, trying to sound as grownup and unworried as possible. We had packed a lunch and reached the field in ten minutes, due largely to my frantic prodding.

"That's a little imprecise, Fox," said the CC. "Old Archimedes is a big place.

Would you like to try again?"

"Ah..." I drew a blank. Damn all computers and their literal-mindedness! What did I know about Old Archimedes? About as much as I knew about Old New York or Old Bombay.

"Give me a flight plan to the main landing field."

"That's better. The data are..." It reeled off the string of numbers. I fed them into the pilot and tried to relax.

"Here goes," I said to Halo. "This is Fox-Carnival-Joule, piloting private jumper AX1453, based at King City. I hereby file a flight plan to Old Archimedes' main landing field, described as follows..." I repeated the numbers the CC had given me. "Filed on the seventeenth lune of the fourth lunation of the year 214 of the Occupation of Earth. I request an initiation time."

"Granted. Time as follows: thirty seconds from mark. Mark."

I was stunned. "That's all there is to it?"

It chuckled. Damn maternalistic machine. "What did you expect, Fox? Marshals converging on your jumper?"

"I don't know. I guess I thought you wouldn't allow us to go to the Nearside."

"A popular misconception. You are a free citizen, although a minor, and able to go where you wish on the lunar surface. You are subject only to the laws of the state and the specific wishes of your parent as programmed into me. I... do you wish me to start the burn for you?"

"Mind your own business." I watched the tick and pressed the button when it reached zero. The acceleration was mild, but went on for a long time. Hell, Old Archimedes is at the antipodes.

"I have the responsibility to see that you do not endanger yourself through youthful ignorance or forgetfulness. I must also see that you obey the wishes of your mother. Other than that, you are on your own."

"You mean Carnival gave me permission to go to the Nearside?"

"I didn't say that. I have received no instruction from Carnival not to permit you to go to Nearside. There are no unusual dangers to your safety on Nearside.

So I had no choice but to approve your flight plan." It paused, significantly.

"It is my experience that few parents consider it necessary to instruct me to deny such permission. I infer that it's because so few people ever ask to go there. I also note that your parent is at the present moment unreachable; she has left instructions not to be disturbed. Fox," the CC said, accusingly, "it occurs to me that this is no accident. Did you have this planned?"

I hadn't! But if I'd known...

"No."

"I suppose you want a return flight plan?"

"Why? I'll ask you when I'm ready to come back."

"I'm afraid that won't be possible," it said, smugly. "In another five minutes you'll be out of range of my last receptor. I don't extend to the Nearside, you know. Haven't in decades. You're going out of contact, Fox. You'll be on your own. Think about it."

I did. For a queasy moment I wanted to turn back. Without the CC to monitor us, kids wouldn't be allowed on the surface for years.

Was I that confident? I know how hostile the surface is if it ever gets the drop on you. I thought I had all the mistakes trained out of me by now, but did I?

"How exciting," Halo gushed. She was off in the clouds again, completely over her shock at where we were going. She was bubble-headed like that for three lunes after her Change. Well, so was I, later, when I had my first.

"Hush, numbskull," I said, not unkindly. Nor was she insulted. She just grinned at me and gawked out the window as we approached the terminator.

I checked the supply of consumables; they were in perfect shape for a stay of a full lunation if need be, though I had larked off without a glance at the delta-vee.

"All right, smart-ass, give me the data for the return."

"Incomplete request," the CC drawled.

"Damn you, I want a flight plan Old Archimedes-King City, and no back talk."

"Noted. Assimilated." It gave me that data. Its voice was getting fainter.

"I don't suppose," it said, diffidently, "that you'd care to give me an indication of when you plan to return?"

Ha! I had it where it hurt. Carnival wouldn't be happy with the CC's explanation, I was sure of that.

"Tell her I've decided to start my own colony and I'll never come back."

"As you wish."

Old Archimedes was bigger than I had expected. I knew that even in its heyday it had not been as populated as King City is, but they built more above the surface in those days. King City is not much more than a landing field and a few domes.

Old Archimedes was chock-a-block with structures, all clustered around the central landing field. Halo pointed out some interesting buildings to the south, and so I went over there and set down next to them.

She opened the door and threw out the tent, then jumped after it. I followed, taking the ladder since I seemed elected to carry the lunch. She took a quick look around and started unpacking the tent.

"We'll go exploring later," she said, breathlessly. "Right now let's get in the tent and eat. I'm hungry."

All right, all right, I said to myself. I've got to face it sooner or later. I didn't think she was really all that hungry-not for the picnic lunch, anyway.

This was still going too fast for me. I had no idea what our relationship would be when we crawled out of that tent.

While she was setting it up, I took a more leisurely look around. Before long I was wishing we had gone to Tranquillity Base instead. It wouldn't have been as private, but there are no spooks at Tranquillity. Come to think of it, Tranquillity Base used to be on the Nearside, before they moved it.

About Old Archimedes:

I couldn't put my finger on what disturbed me about the place. Not the silence.

The race has had to adjust to silence since we were forced off the Earth and took to growing up on the junk planets of the system. Not the lack of people. I was accustomed to long walks on the surface where I might not see anyone for hours. I don't know. Maybe it was the Earth hanging there a little above the horizon.

It was in crescent phase, and I wished uselessly for the old days when that dark portion would have been sprayed with points of light that were the cities of mankind. Now there was only the primitive night and the dolphins in the sea and the aliens-bogies cooked up to ruin the sleep of a child, but now I was not so sure. If humans still survive down there, we have no way of knowing it.

They say that's what drove people to the Farside: the constant reminder of what they had lost, always there in the sky. It must have been hard, especially to the Earthborn. Whatever the reason, no one had lived on the Nearside for almost a century. All the original settlements had dwindled as people migrated to the comforting empty sky of Farside.

I think that's what I felt, hanging over the old buildings like some invisible moss. It was the aura of fear and despair left by all the people who had buried their hopes here and moved away to the forgetfulness of Farside. There were ghosts here, all right: the shades of unfulfilled dreams and endless longing.

And over it all a bottomless sadness.

I shook myself and came back to the present. Halo had the tent ready. It bulged up on the empty field, a clear bubble just a little higher than my head. She was already inside. I crawled through the sphincter, and she sealed it behind me.

Halo's tent is a good one. The floor is about three meters in diameter, plenty of room for six people if you don't mind an occasional kick. It had a stove, a stereo set, and a compact toilet. It recycled water, scavenged CO<sub>2</sub>, controlled temperature, and could provide hydroponic oxygen for three lunations. And it all folded into a cube thirty centimeters on a side.

Halo had skinned out of her suit as soon as the door was sealed and was bustling about, setting up the kitchen. She took the lunch hamper from me and started to work.

I watched her with keen interest as she prepared the food. I wanted to get an insight into what she was feeling. It wasn't easy. Every fuse in her head seemed to have blown.

First-timers often overreact, seeking a new identity for themselves before it dawns on them there was nothing wrong with the old one. Since our society offers so little differentiation between the sex roles, they reach back to where the differences are so vivid and startling: novels, dramas, films, and tapes from the old days on Earth and the early years on the moon. They have the vague idea that since they have this new body and it lacks a penis or vagina, they should behave differently.

I recognized the character she had fallen into; I'm as interested in old culture as the next kid. She was Blondie and I was supposed to be Dagwood. The Bumsteads, you know. Typical domestic nineteenth-century couple. She had spread a red-and-white-checkered tablecloth and set two places with dishes, napkins, washbowls, and a tiny electric candelabra.

I had to smile at her, kneeling at the tiny stove, trying to put three pans on the same burner. She was trying so hard to please me with a role I was completely uninterested in. She was humming as she worked.

After the meal, I offered to clean up for her (well, Dagwood would have), but Blondie said no, that's all right, dear, I'll take care of everything. I lay flat on my back, holding my belly, and watched the Earth. Presently I felt a warm body cuddle up, half beside me and half on top of me, and press close from toenails to eyebrows. She had left Blondie over among the dirty dishes. The woman who breathed in my ear now was-Helen of Troy? Greta Garbo?-someone new, anyway. I wished fervently that Halo would come back. I was beginning to think Halo and I could screw like the very devil if this feverish creature that contained her would only give us a chance. Meantime, I had to be raped by Helen of Troy. I raised my head.

"What's it like, Halo?"

She slowed her foreplay slightly, but it never really stopped. She propped herself up on one elbow.

"I don't think I can describe it to you."

"Please try."

She dimpled. "I don't really know what it's all like," she said. "I'm still a virgin, you know."

I sat up. "You got that, too?"

"Sure, why not? But don't worry about it. I'm not afraid."

"What about making love?"

"Oh, Fox, Fox! Yes, yes. I..."

"No, no! Wait a minute." I squirmed beneath her, trying to hold her off a little longer. "What I meant was, wasn't there any problem in making the shift? I mean, do you have any aversion to having sex with boys now?" It was sure a stupid question, but she took it seriously.

"I haven't noticed any problem so far," she said, thoughtfully, as her hand reached down and fumbled, inexpertly trying to guide me in. I helped her get it right, and she poised, squatting on her toes. "I thought about that before the Change, but it sort of melted away. Now I don't feel any qualms at all. Ahhhhh!"

She had thrust herself down, brutally hard, and we were off and running.

It was the most unsatisfactory sex act I ever had. It was not entirely the fault of either of us; external events were about to mess us up totally. But it wasn't very good even without that.

A first-time female Changer is liable to be in delirious oblivion through the entire first sex act, which may last all of sixty seconds. The fact that she is playing the game from the other court with a different set of rules and a new set of equipment does not handicap her. Rather, it provides a tremendous erotic stimulus.

That's what happened to Halo. I began to wonder if she'd wait for me. I never found out. I looked away from her face and got the shock of my life. There was someone standing outside the tent, watching us.

Halo felt the change in me and looked at my face, which must have been a sight, then looked over her shoulder. She fainted; out like a light.

Hell, I almost fainted myself. Would have, but when she did, it scared me even more, and I decided I couldn't indulge it. So I stayed awake to see what was going on.

It looked way too much like one of the ghosts my imagination had been walking through the abandoned city ever since we got there. The figure was short and dressed in a suit that might have been stolen from the museum at Kepler, except that it was more patches than suit. I could tell little about who might be in it, not even the sex. It was bulky, and the helmet was reflective.

I don't know how long I stared at it; long enough for the spook to walk around the tent three or four times. I reached for the bottle of white wine we had been drinking and took a long pull. I found out that's an old movie cliché; it didn't make anything any better. But it sure did things for Halo when I poured it in her face.

"Get in your suit," I said, as she sat up, sputtering. "I think that character wants to talk to us." He was waving at us and pointing to what might have been a radio on his suit.

We suited up and crawled through the sphincter. I kept saying hello as I ran through the channels on my suit. Nothing worked. Then he came over and touched helmets. He sounded far away.

"What're you doin' here?"

I had thought that would have been obvious.

"Sir, we just came over here for a picnic. Are we on your land or something? If so, I'm sorry, and..."

"No, no," he waved it off. "You can do as you please. I ain't your ma. As to owning, I guess I own this whole city, but you're welcome to do as you please with most of it. Do as you please, that's my philosophy. That's why I'm still here. They couldn't get old Lester to move out. I'm old Lester."

"I'm Fox, sir," I said.

"And I'm Halo." She heard us over my radio.

He turned and looked at her.

"Halo," he said, quietly. "A Halo for an angel. Nice name, miss." I was wishing I could see his face. He sounded like an adult, but he was sure a small one.

Both of us were taller than he was, and we're not much above average for our age.

He coughed. "I, ah, I'm sorry I disturbed you folks... ah," he seemed embarrassed. "I just couldn't help myself. I haven't seen any people for a long time-oh, ten years, I guess-and I just had to get a closer



look. And I, uh, I needed to ask you something."

"And what's that, sir?"

"You can knock off the 'sir.' I ain't your pa. I wanted to know if you folks had any medicine?"

"There's a first-aid kit in the jumper," I said. "Is there someone in need of help? I'd be glad to take them to a hospital in King City."

He was waving his arms frantically.

"No, no, no. I don't want doctors poking around. I just need a little medicine.

Uh, say, could you take that first-aid kit out of the jumper and come to my warren for a bit? Maybe you got something in there I could use."

We agreed, and followed him across the field.

He led us into an unpressurized building at the edge of the field. We threaded our way through dark corridors.

We came to a big cargo lock, stepped inside, and he cycled it. Then we went through the inner door and into his warren.

It was quite a place, more like a jungle than a home. It was as big as the Civic Auditorium at King City and overgrown with trees, vines, flowers, and bushes. It looked like it had been tended at one time, but allowed to go wild. There were a bed and a few chairs in one corner, and several tall stacks of books. And heaps of junk; barrels of leak sealant, empty O2 cylinders, salvaged instruments, buggy tires.

Halo and I had our helmets off and were half out of our suits when we got our first look at him. He was incredible! I'm afraid I gasped, purely from reflex;

Halo just stared. Then we politely tried to pretend there was nothing unusual.

He looked like he made a habit of going out without his suit. His face was grooved and pitted like a plowed field after an artillery barrage. His skin looked as tough as leather. His eyes were sunk into deep pits.

"Well, let me see it," he said, sticking out a thin hand. His knuckles were swollen and knobby.

I handed him the first-aid kit, and he fumbled with the catches, then got it open. He sat in a chair and carefully read the label on each item. He mumbled while he read.

Halo wandered among the plants, but I was more curious about old Lester than about his home. I watched him handle the contents of the kit with stiff, clumsy fingers. All his movements seemed stiff. I couldn't imagine what might be wrong with him and wondered why he hadn't sought medical help long ago, before whatever was afflicting him could go this far.

At last he put everything back in the kit but two tubes of cream. He sighed and looked at us.

"How old are you?" he asked, suspiciously.

"I'm twenty," I said. I don't know why. I'm not a liar, usually, unless I have a good reason. I was just beginning to get a funny feeling about old Lester, and I followed my instincts.

"Me, too," Halo volunteered.

He seemed satisfied, which surprised me. I was realizing he had been out of touch for a long time. Just how long I didn't know yet.

"There ain't much here that'll be of use to me, but I'd like to buy these here items, if you're willin' to sell. Says here they're for 'topical anesthesia,' and I could use some of that in the mornings. How much?"

I told him he could have them for nothing, but he insisted; so I told him to set his own price and reached for my credit meter in my suit pouch. He was holding out some rectangular slips of paper. They were units of paper currency, issued by the old Lunar Free State in the year 76 O.E. They had not been used in over a century. They were worth a fortune to a collector.

"Lester," I said, slowly, "these are worth more than you probably realize. I could sell them in King City for..."

He cackled. "Good man. I know what them bills is worth. I'm decrepit, but I ain't senile. They're worth thousands to one what wants 'em, but they're worthless to me. Except for one thing. They're a damn good test for findin' an honest man. They let me know if somebody'd take advantage of a sick, senile ol' hermit like me. Pardon me, son, but I had you pegged for a liar when you come in here. I was wrong. So you keep the bills. Otherwise, I'd a took 'em back."

He threw something on the floor in front of us, something he'd had in his hand and I hadn't even seen. It was a gun. I had never seen one.

Halo picked it up, gingerly, but I didn't want to touch it. This old Lester character seemed a lot less funny to me now. We were quiet.

"Now I've gone and scared you," he said. "I guess I've forgot all my manners.

And I've forgot how you folks live on the other side." He picked up the gun and opened it. The charge chamber was empty. "But you wouldn't of knowed it, would you? Anyways, I'm not a killer. I just pick my friends real careful. Can I make up the fright I've caused you by inviting you to dinner? I haven't had any guests for ten years."

We told him we'd just eaten, and he asked if we could stay and just talk for a while. He seemed awfully eager. We said okay.

"You want some clothes? I don't expect you figured on visiting when you come here."

"Whatever your custom is," Halo said, diplomatically.

"I got no customs," he said, with a toothless grin. "If you don't feel funny naked, it ain't no business of mine. Do as you please, I say." It was a stock phrase with him.

So we lay on the grass, and he got some very strong, clear liquor and poured us all drinks.

"Moonshine," he laughed. "The genuine article. I make it myself. Best liquor on the Nearside."

We talked, and we drank.

Before I got too drunk to remember anything, a few interesting facts emerged about old Lester. For one thing, he really was old. He said he was two hundred and fifty-seven, and he was Earthborn. He had come to the moon when he was twenty-eight, several years before the Invasion.

I know several people in that age range, though none quite that old. Carnival's great-grandmother is two twenty-one, but she's moonborn, and doesn't remember the Invasion. There's virtually nothing left of the flesh she was born with.

She's transferred her memories to a new brain twice.

I was prepared to believe that old Lester had gone a long time without medical care, but I couldn't accept what he told us at first. He said that, barring one new heart eighty years ago, he was unreconstructed since his birth! I'm young and naive-I freely admit it now-but I couldn't swallow that. But I believed it eventually, and I believe it now.

He had a million stories to tell, all of them at least eighty years old because that's how long he had been a hermit. He had stories of Earth, and of the early years on the moon. He told us about the hard years after the Invasion. Everyone who lived through that has a story to tell. I drew a blank before the evening was over, and the only thing I remember clearly is the three of us standing in a circle, arms around each other, singing a song old Lester had taught us. We swayed against each other and bumped foreheads and broke up laughing. I remember his hand resting on my shoulder. It was hard as rock.

The next day Halo became Florence Nightingale and nursed old Lester back to life. She was as firm as any nurse, getting him out of his clothes over his feeble protests, then giving him a massage. In the soberness of the morning I wondered how she could bring herself to touch his wrinkled old body, but as I watched, I slowly understood. He was beautiful.

The best thing to compare old Lester to is the surface. There is nothing older, or more abused, than the surface of the moon. But I have always loved it. It's the most beautiful place in the system, including Saturn's Rings. Old Lester was like that. I imagined he was the moon. He had become part of it.

Though I came to accept his age, I could still see that he was in terrible shape. The drinking had taken a lot out of him, but he wouldn't be kept down.

The first thing he wanted in the morning was another drink. I brought him one, then I cooked a big breakfast: eggs and sausage and bread and orange juice, all from his garden. Then we were off and drinking again.

I didn't even have time to worry about what Carnival and Halo's mother might be thinking by now. Old Lester had plainly adopted us. He said he'd be our father, which struck me as a funny thing to say since who the hell ever knows who their father is? But he began behaving in the manner I would call maternal, and he evidently thought of it as paternal.

We did a lot of things that day. He taught us about gardening.

He showed me how to cross-fertilize the egg plants and how to tell when they were ripe without breaking the shells to see. He told us the secrets of how to grow breadfruit trees so they'd yield loaves of dark-brown, hard, whole wheat or the strangely different rye variety by grafting branches. I had never had rye before. And we learned to dig for potatoes and steakroots. We learned how to harvest honey and cheese and tomatoes. We stripped bacon from the surface of the porktree trunks.

And we'd drink his moonshine while we worked, and laugh a lot, and he'd throw in more of his stories between the garden lore.

Old Lester was not the fool he seemed at first. His speech pattern was largely affected, something he did to amuse himself over the years. He could speak as correctly as anyone when he wanted to. He had read much and remembered it all.

He was a first-rate engineer and botanist, but his education and skills had to be qualified by this fact: everything he knew was eighty years out of date. It didn't matter much: the old methods worked well enough.

In social matters it was a different story.

He didn't know much about Changing, except that he didn't like it. It was Changing that finally decided him to separate himself from society. He said he had been having his doubts about joining the migration to Farside, and the sex-change issue had been the final factor. He shocked us more than he knew when he revealed that he had never been a woman. I thought his lack of curiosity must be monumental, but I was wrong. It turned out that he had some queer notions about the morality of the whole process, ideas he had gotten from some weirdly aberrant religion in his childhood. I had heard of the cult, as you can hardly avoid it if you know any history. It had said little about ethics, being more interested in arbitrary regulations.

Old Lester still believed in it, though. His home was littered with primitive icons. There was a central symbol he cherished above the others: a simple wooden fetish in the shape of a plus sign with a long stem. He wore one around his neck, and others sprouted like weeds.

I came to realize that this religion was at the bottom of the puzzling inconsistencies I began to notice about him. His "do as you please" may have been sincere, but he did not entirely live by it. It became clear that, though he thought people should have freedom of choice, he condemned them if the choice they made was not his own.

My spur-of-the-moment decision to lie about my age had been borne out, though I'm not sure the truth wouldn't have been better. It might have kept us out of the further lies we told or implied, and I always prefer honesty to deception.

But I still don't know if old Lester could have been our friend without the lies.

He knew something of life on Farside and made it clear he disapproved of most of it. And he had deluded himself (with our help) that we weren't like that. In particular, he thought people should not have sex until they reached a "decent age." He never defined that, but Halo and I, at "twenty," were safely past it.

It was a puzzling notion. Even Carnival, who is a bit old-fashioned, would have been shocked. Granted, we speed up puberty now-I have been sexually potent since I was seven-but he felt that even after puberty people should abstain. I couldn't make any sense out of it. I mean, what would you do?

Then there was a word he used, "incest," that I had to look up when I got home to be sure I'd understood him. I had. He was against it. I guess it had a basis back in the dawn of time, when procreation and genetics were so tied up with sex, but how could it matter now? The only place Carnival and I get along at all is in bed; without that, we would have very little in common.

It went on and on, the list of regulations. Luckily, it didn't sour me on old Lester. All I disliked was the lies we had trapped ourselves into. I'm willing to let people have all sorts of screwball notions as long as they don't force them on me, like Carnival was doing about the Change. That I found myself expressing agreement with old Lester's ideas was my own fault, not his. I think.

The days went by, marred by only one thing. I had not broken any laws, but I knew I was being searched for. And I knew I was treating Carnival badly. I tried to figure out just how badly, and what I

should do about it, but kept getting fogged up by the moonshine and good times.

Carnival had come to the Nearside. Halo and I had watched them from the shadows when old Lester's radar had picked them up coming in. There had been six or seven figures in the distance. They had entered the jumper and made a search.

They had cast around at the edge of the field for our tracks, found them, and followed them to where they disappeared on concrete. I would have liked to have listened in, but didn't dare because they were sure to have detection apparatus for that.

And they left. They left the jumper, which was nice of them, since they could have taken it and rendered us helpless to wait for their return.

I thought about it, and talked it over with Halo. Several times we were ready to give up and go back. After all, we hadn't really set out to run away from home.

We had only been defying authority, and it had never entered my head that we would stay as long as we had. But now that we were here we found it hard to go back. The trip to Nearside had acquired an inertia of its own, and we didn't have the strength to stop it.

In the end we went to the other extreme. We decided to stay on Nearside forever.

I think we were giddy with the sense of power a decision like that made us feel.

So we covered up our doubts with backslapping encouragement, a lot of giggling, and inflated notions of what we and old Lester would do at Archimedes.

We wrote a note-which proved we still felt responsible to someone-and taped it to the ladder of the jumper; then Halo went in and turned on the outside lights and pointed them straight up. We retired to a hiding place and waited.

Sure enough, another ship returned in two hours. They had been watching from close orbit and landed on the next pass when they noticed the change. One person got out of the ship and read the note. It was a crazy note, saying not to worry, we were all right. It went on to say we intended to stay, and some more things I'd rather not remember. It also said she should take the jumper. I was regretting that even as she read it. We must have been crazy.

I could see her slump even from so far away. She looked all around her, then began signaling in semaphore language.

"Do what you have to," she signaled. "I don't understand you, but I love you.

I'm leaving the jumper in case you change your mind."

Well. I gulped, and was halfway up on my way out to her when, to my great surprise, Halo pulled me down. I had thought she was only going along with me to avoid having to point out how wrong I was. This hadn't been her idea; she had not been in her right mind when I hustled her over here. But she had settled down from all that lunes ago and was now as level-headed as ever. And was more taken with our adventure than I was.

"Dope!" she hissed, touching helmets. "I thought you'd do something like that.

Think it through. Do you want to give up so easy? We haven't even tried this yet."

Her face wasn't as certain as her words, but I was in no shape to argue her out of it. Then Carnival was gone, and I felt better. It was true that we had an out if it turned sour. Pretty soon we were intrepid pioneers, and I didn't think of Carnival or the Farside until things did start to go sour.

For a long time, almost a lunation, we were happy. We worked hard every day with old Lester. I learned that in his kind of life the work was never done; there was always an air duct to repair, flowers to pollinate, machinery to regulate.

It was primitive, and I could usually see ways to improve the methods but never thought of suggesting them. It wouldn't have fit with our crazy pioneer ideas.

Things had to be hard to feel right.

We built a grass lean-to like one we had seen in a movie and moved in. It was across the chamber from old Lester, which was silly, but it meant we could visit each other. And I learned an interesting thing about sin.

Old Lester would watch us make love in our raggedy shack, a grin across his leathery face. Then one day he implied that lovemaking should be a private act.

It was a sin to do it in front of others, and a sin to watch. But he still watched.

So I asked Halo about it.

"He needs a little sin, Fox."

"Huh?"

"I know it isn't logical, but you must have seen by now that his religion is mixed up."

"That's for sure. But I still don't get it."

"Well, I don't either, but I try to respect. He thinks drinking is sinful, and until we came along it was the only sin he could practice. Now he can do the sin of lust, too. I think he needs to be forgiven for things, and he can't be forgiven until he does them."

"That's the craziest thing I ever heard. But even crazier, if lust is a sin to him, why doesn't he go all the way and make love with you? I've been dead sure he wants to, but as far as I know, he's never done it. Has he?"

She looked at me pityingly. "You don't know, do you?"

"You mean he has?"

"No. I don't mean that. We haven't. And not because I haven't tried. And not because he doesn't want to. He looks, looks, looks; he never takes his eyes off me. And it isn't because he thinks it's a sin. He knows it's a sin, but he'd do it if he could."

"I still don't understand, then."

"What do you mean? I just told you. He can't. He's too old. His equipment won't function anymore."

"That's terrible!" I was almost sick. I knew there was a word for his condition, but I had to look it up a long time afterward. The word is crippled. It means some part of your body doesn't work right. Old Lester had been sexually crippled for over a century.

I seriously considered going home then. I was not at all sure he was the kind of person I wanted to be around. The lies were getting more galling every day, and now this.

But things got much worse, and still I stayed.

He was ill. I don't mean the way we think of ill; some petty malfunction to be cleared up by a ten-minute visit to the bioengineers. He was wearing out.

It was partly our fault. Even that first morning he was not very quick out of bed. Each lune-after a long night of drinking and general hell-raising-he was a little slower to get up. It got to where Halo was spending an hour each morning just massaging him into shape to stand erect. I thought at first he was just cannily malingering because he liked the massage and Halo's intimacy when she worked him over. That was not the case. When he did get up, he hobbled, bent over from pains in his belly. He would forget things. He would stumble, fall, and get up very slowly.

"I'm dying," he said one night. I gasped; Halo blinked rapidly. I tried to cover my embarrassment by pretending he hadn't said it.

"I know it's a bad word now, and I'm sorry if I offended you. But I ain't lived this long without being able to look it in the eye.

"I'm dying, all right, and I'll be dead pretty soon. I didn't think it'd come so sudden. Everything seems to be quittin' on me."

We tried to convince him that he was wrong and, when that didn't work, to convince him that he should take a short hop to Farside and get straightened out. But we couldn't get through his superstition. He was awfully afraid of the engineers on Farside. We would try to show him that periodic repairs still left the mind- he called it the "soul"-unchanged, but he'd get philosophical.

The next day he didn't get up at all. Halo rubbed his old limbs until she was stiff. It was no good. His breathing became irregular, and his pulse was hard to find.

So we were faced with the toughest decision ever. Should we allow him to die, or carry him to the jumper and rush him to a repair shop? We sweated over it all lune. Neither course felt right, but I found myself arguing to take him back, and Halo said we shouldn't. He could not hear us except for brief periods when he'd rouse himself and try to sit up. Then he'd ask us questions or say things that seemed totally random. His brain must have been pretty well scrambled by then.

"You kids aren't really twenty, are you?" he said once.

"How did you know?"

He cackled, weakly.

"Old Lester ain't no dummy. You said that to cover up what I caught you doin' so's I wouldn't tell your folks. But I won't tell. That's your business. Just wanted you to know you didn't fool me, not for a minute." He lapsed into labored breathing.

We never did settle the argument, unless by default. What I wanted to do took some action, and in the end I didn't have it in me to get up and do it. I wasn't sure enough of myself. So we sat there on his bed, waiting for him to die and talking to him when he needed it. Halo held his hand.

I went through hell. I cursed him for a vacuum-skulled, mentally defective, prehistoric poop, and almost decided to help him out in his pea-brained search for death. Then I went the other way; loving him almost like he loved his crazy God. I imagined he was the mother that Carnival had never really been to me and that my world would have no purpose when he was dead. Both those reactions were crazy, of course; old Lester was just a person. He was a little crazy and a little saintly, and hardly a person you should either love or hate. It was Death that had me going in circles: the creepy black-robed skeletal figure old Lester had told us about, straight out of his superstition.

He opened one bleary eye after hours of no movement.

"Don't ever," he said. "You shouldn't ever. You, I mean. Halo. Don't ever get a Change. You always been a girl, you always should be. The Lord intended it that way."

Halo shot a quick glance at me. She was crying, and her eyes told me: don't breathe a word. Let him believe it. She needn't have worried.

Then he started coughing. Blood came from his lips, and as soon as I saw it, I passed out. I thought he would literally fall apart and rot into some awful green slime, slime that I could never wash off.

Halo wouldn't let me stay out. She slapped me until my ears were ringing, and when I was awake, we gave up. We couldn't make a meaningful decision in the face of this. We had to give it to someone else.

So twenty-five minutes later I was over the pole, just coming into range of the CC's outer transmitters.

"Well, the black sheep return," the CC began in a superior tone. "I must say you outlasted the usual Nearside stay, in fact..."

"Shut up!" I bawled. "You shut up and listen to me. I want to contact Carnival, and I want her now, crash priority, emergency status. Get on it!"

The CC was all business, dropping the in loco parentis program and operating with the astonishing speed it's capable of in an emergency. Carnival was on the line in three seconds.

"Fox," she said, "I don't want to start this off on a bad footing; so, first of all, I thank you for giving me a chance to settle this with you face-to-face.

I've retained a family arbiter, and I'd like for us to present our separate cases to him on this Change you want, and I'll agree to abide by his decision.

Is that fair for a beginning?" She sounded anxious. I knew there was anger beneath it-there always is-but she was sincere.

"We can talk about that later, Mom," I sobbed. "Right now you've got to get to the field, as quick as you can."

"Fox, is Halo with you? Is she all right?"

"She's all right."

"I'll be there in five minutes."

It was too late, of course. Old Lester had died shortly after I lifted off, and Halo had been there with a dead body for almost two hours.

She was calm about it. She held Carnival and me together while she explained what had to be done, and even got us to help her. We buried him, as he had wanted, on the surface, in a spot that would always be in the light of Old Earth.

Carnival never would tell me what she would have done if he had been alive when we got there. It was an ethical question, and both of us are usually very opinionated on ethical matters. But I suspect we agreed for once. The will of the individual must be respected, and if I face it again, I'll know what to do.

I think.

I got my Change without family arbitration. Credit me with a little sense; if our case had ever come up before a family arbiter, I'm sure he would have recommended divorce. And that would have been tough, because difficult as Carnival is, I love her, and I need her for at least a few more years. I'm not as grownup as I thought I was.

It didn't really surprise me that Carnival was right about the Change, either.

In another lutation I was male again, then female, male; back and forth for a year. There's no sense in that. I'm female now, and I think I'll stick with it for a few years and see what it's about. I was born female, you know, but only lasted two hours in that sex because Carnival wanted a boy.

And Halo's a male, which makes it perfect. We've found that we do better as opposites than we did as boyfriends. I'm thinking about having my child in a few years, with Halo as the father. Carnival says wait, but I think I'm right this time. I still believe most of our troubles come from her inability to remember the swiftly moving present a child lives in. Then Halo can have her child-I'd be flattered if she chose me to father it-and...

We're moving to Nearside. Halo and me, that is, and Carnival and Chord are thinking about it, and they'll go, I think. If only to shut up Adagio.

Why are we going? I've thought about it a long time. Not because of old Lester.

I hate to speak unkindly of him, but he was inarguably a fool. A fool with dignity, and the strength of his convictions; a likable old fool, but a fool all the same. It would be silly to talk of "carrying on his dream" or some of the things I think Halo has in mind.

But, coincidentally, his dream and mine are pretty close, though for different reasons. He couldn't bear to see the Nearside abandoned out of fear, and he feared the new human society. So he became a hermit. I want to go there simply because the fear is gone for my generation, and it's a lot of beautiful real estate. And we won't be alone. We'll be the vanguard, but the days of clustering in the Farside warrens and ignoring Old Earth are over. The human race came from Earth, and it was ours until it was taken from us. To tell the truth, I've been wondering if the aliens are really as invincible as the old stories say.

It sure is a pretty planet. I wonder if we could go back?

## **PRESS ENTER**

"This is a recording. Please do not hang up until-"

I slammed the phone down so hard it fell onto the floor. Then I stood there, dripping wet and shaking with anger. Eventually, the phone started to make that buzzing noise they make when a receiver is off the hook. It's twenty times as loud as any sound a phone can normally make, and I always wondered why. As though it was such a terrible disaster: "Emergency! Your telephone is off the hook!!!"

Phone answering machines are one of the small annoyances of life. Confess, do you really like to talk to a machine? But what had just happened to me was more than a petty irritation. I had just been called by an automatic dialing machine.

They're fairly new. I'd been getting about two or three such calls a month. Most of them come from insurance companies. They give you a two-minute spiel and then a number to call if you are interested. (I called back, once, to give them a piece of my mind, and was put on hold, complete with Muzak.) They use lists. I don't know where they get them.

I went back to the bathroom, wiped water droplets from the plastic cover of the library book, and carefully lowered myself back into the water. It was too cool. I ran more hot water and was just getting my blood pressure back to normal when the phone rang again.

So I sat through fifteen rings, trying to ignore it.

Did you ever try to read with the phone ringing?

On the sixteenth ring I got up. I dried off, put on a robe, walked slowly and deliberately into the living room. I stared at the phone for a while.

On the fiftieth ring I picked it up.

"This is a recording. Please do not hang up until the message has been completed. This calls originates from the house of your nextdoor neighbor, Charles Kluge. It will repeat every ten minutes. Mr. Kluge

knows he has not been the best of neighbors, and apologizes in advance for the inconvenience. He requests that you go immediately to his house. The key is under the mat. Go inside and do what needs to be done. There will be a reward for your services. Thank you." Click. Dial tone.

I'm not a hasty man. Ten minutes later, when the phone rang again, I was still sitting there thinking it over. I picked up the receiver and listened carefully.

It was the same message. As before, it was not Kluge's voice. It was something synthesized, with all the human warmth of a Speak'n'Spell.

I heard it out again, and cradled the receiver when it was done.

I thought about calling the police. Charles Kluge had lived next door to me for ten years. In that time I may have had a dozen conversations with him, none lasting longer than a minute. I owed him nothing.

I thought about ignoring it. I was still thinking about that when the phone rang again. I glanced at my watch. Ten minutes. I lifted the receiver and put it right back down.

I could disconnect the phone. It wouldn't change my life radically.

But in the end I got dressed and went out the front door, turned left, and walked toward Kluge's property.

My neighbor across the street, Hal Lanier, was out mowing the lawn. He waved to me, and I waved back. It was about seven in the evening of a wonderful August day. The shadows were long. There was the smell of cut grass in the air. I've always liked that smell. About time to cut my own lawn, I thought.

It was a thought Kluge had never entertained. His lawn was brown and knee-high and choked with weeds.

I rang the bell. When nobody came I knocked. Then I sighed, looked under the mat, and used the key I found there to open the door.

"Kluge?" I called out as I stuck my head in.

I went along the short hallway, tentatively, as people do when unsure of their welcome. The drapes were drawn, as always, so it was dark in there, but in what had once been the living room ten television screens gave more than enough light for me to see Kluge. He sat in a chair in front of a table, with his face pressed into a computer keyboard and the side of his head blown away.

Hal Lanier operates a computer for the LAPD, so I told him what I had found and he called the police. We waited together for the first car to arrive. Hal kept asking if I'd touched anything, and I kept telling him no, except for the front door knob.

An ambulance arrived without the siren. Soon there were police all over, and neighbors standing out in their yards or talking in front of Kluge's house. Crews from some of the television stations arrived in time to get pictures of the body, wrapped in a plastic sheet, being carried out. Men and women came and went. I assumed they were doing all the standard police things, taking fingerprints, collecting evidence. I would have gone home, but had been told to stick around.

Finally I was brought in to see Detective Osborne, who was in charge of the case. I was led into Kluge's living room. All the television screens were still turned on. I shook hands with Osborne. He looked me over before he said anything. He was a short guy, balding. He seemed very tired until he looked at me. Then, though nothing really changed in his face, he didn't look tired at all.

"You're Victor Apfel?" he asked. I told him I was. He gestured at the room. "Mr. Apfel, can you tell if anything has been taken from this room?"

I took another look around, approaching it as a puzzle.

There was a fireplace and there were curtains over the windows. There was a rug on the floor. Other than those items, there was nothing else you would expect to find in a living room.

All the walls were lined with tables, leaving a narrow aisle down the middle. On the tables were monitor screens, keyboards, disc drives—all the glossy bric-a-brac of the new age. They were interconnected by thick cables and cords. Beneath the tables were still more computers, and boxes full of electronic items. Above the tables were shelves that reached the ceiling and were stuffed with boxes of tapes, discs, cartridges... there was a word for it which I couldn't recall just then. It was software.

"There's no furniture, is there? Other than that..."

He was looking confused.



"You mean there was furniture here before?"

"How would I know?" Then I realized what the misunderstanding was. "Oh. You thought I'd been here before. The first time I ever set foot in this room was about an hour ago."

He frowned, and I didn't like that much.

"The medical examiner says the guy had been dead about three hours. How come you came over when you did, Victor?"

I didn't like him using my first name, but didn't see what I could do about it. And I knew I had to tell him about the phone call.

He looked dubious. But there was one easy way to check it out, and we did that. Hal and Osborne and I and several others trooped over to my house. My phone was ringing as we entered.

Osborne picked it up and listened. He got a very sour expression on his face. As the night wore on, it just got worse and worse.

We waited ten minutes for the phone to ring again. Osborne spent the time examining everything in my living room. I was glad when the phone rang again. They made a recording of the message, and we went back to Kluge's house.

Osborne went into the backyard to see Kluge's forest of antennas. He looked impressed.

"Mrs. Madison down the street thinks he was trying to contact Martians," Hal said, with a laugh. "Me, I just thought he was stealing HBO." There were three parabolic dishes. There were six tall masts, and some of those things you see on telephone company buildings for transmitting microwaves.

Osborne took me to the living room again. He asked me to describe what I had seen. I didn't know what good that would do, but I tried.

"He was sitting in that chair, which was here in front of this table. I saw the gun on the floor. His hand was hanging down toward it."

"You think it was suicide?"

"Yes, I guess I did think that." I waited for him to comment, but he didn't. "Is that what you think?"

He sighed. "There wasn't any note."

"They don't always leave notes," Hal pointed out.

"No, but they do often enough that my nose starts to twitch when they don't." He shrugged. "It's probably nothing."

"That phone call," I said. "That might be a kind of suicide note."

Osborne nodded. "Was there anything else you noticed?"

I went to the table and looked at the keyboard. It was made by Texas Instruments, model TI-99/4A. There was a large bloodstain on the right side of it, where his head had been resting.

"Just that he was sitting in front of this machine." I touched a key, and the monitor screen behind the keyboard immediately filled with words. I quickly drew my hand back, then stared at the message there.

PROGRAM NAME:

**GOODBYE REAL WORLD**

**DATE: 8/20**

**CONTENTS: LAST WILL AND TESTAMENT; MISC FEATURES**

**PROGRAMMER: "CHARLES KLUGE"**

**TO RUN PRESS ENTER \_**

The black square at the end flashed on and off. Later I learned it was called a cursor.

Everyone gathered around. Hal, the computer expert, explained how many computers went blank after ten minutes of no activity, so the words wouldn't be burned into the television screen. This one had been green until I touched it, then displayed black letters on a blue background.

"Has this console been checked for prints?" Osborne asked. Nobody seemed to know, so Osborne took a pencil and used the eraser to press the ENTER key.

The screen cleared, stayed blue for a moment, then filled with little ovoid shapes that started at the top of the screen and descended like rain. There were hundreds of them in many colors.

"Those are pills," one of the cops said, in amazement. "Look, that's gotta be a Quaalude. There's a Nembutal." Other cops pointed out other pills. I recognized the distinctive red stripe around the center of a white capsule that had to be a Dilantin. I had been taking them every day for years.

Finally the pills stopped falling, and the damn thing started to play music at us. "Nearer My God to Thee," in three-part harmony.

A couple people laughed. I don't think any of us thought it was funny-it was creepy as hell listening to that eerie dirge-but it sounded like it had been scored for penny-whistle, calliope, and kazoo. What could you do but laugh?

As the music played a little figure composed entirely of squares entered from the left of the screen and jerked spastically toward the center. It was like one of those human figures from a video game, but not as detailed. You had to use your imagination to believe it was a man.

A shape appeared in the middle of the screen. The "man" stopped in front of it. He bent in the middle, and something that might have been a chair appeared under him.

"What's that supposed to be?"

"A computer. Isn't it?"

It must have been, because the little man extended his arms, which jerked up and down like Liberace at the piano. He was typing. The words appeared above him.

SOMEWHERE ALONG THE LINE I MISSED SOMETHING. I SIT HERE, NIGHT AND DAY, A SPIDER IN THE CENTER OF A COAXIAL WEB, MASTER OF ALL I SURVEY... AND IT IS NOT ENOUGH. THERE MUST BE MORE.

### **ENTER YOUR NAME HERE \_**

"Jesus Christ," Hal said. "I don't believe it. An interactive suicide note."

"Come on, we've got to see the rest of this."

I was nearest the keyboard, so I leaned over and typed my name. But when I looked up, what I had typed was VICT9R.

"How do you back this up?" I asked.

"Just enter it," Osborne said. He reached around me and pressed ENTER.

DO YOU EVER GET THAT FEELING, VICT9R? YOU HAVE WORKED ALL YOUR LIFE TO BE THE BEST THERE IS AT WHAT YOU DO, AND ONE DAY YOU WAKE UP TO WONDER WHY YOU ARE DOING IT? THAT IS WHAT HAPPENED TO ME.

### **DO YOU WANT TO HEAR MORE, VICT9R? Y/N \_**

The message rambled from that point. Kluge seemed to be aware of it, apologetic about it, because at the end of each forty- or fifty-word paragraph the reader was given the Y/N option.

I kept glancing from the screen to the keyboard, remembering Kluge slumped across it. I thought about him sitting here alone, writing this.

He said he was despondent. He didn't feel like he could go on. He was taking too many pills (more of them rained down the screen at this point), and he had no further goal. He had done everything he set out to do. We didn't understand what he meant by that. He said he no longer existed. We thought that was a figure of speech.

ARE YOU A COP, VICT9R? IF YOU ARE NOT, A COP WILL BE HERE SOON. SO TO YOU OR THE COP: I WAS NOT SELLING NARCOTICS. THE DRUGS IN MY BEDROOM WERE FOR MY OWN PERSONAL USE. I USED A LOT OF THEM AND NOW I WILL NOT NEED THEM ANYMORE.

## PRESS ENTER \_

Osborne did, and a printer across the room began to chatter, scaring the hell out of all of us. I could see the carriage zipping back and forth, printing in both directions, when Hal pointed at the screen and shouted.

"Look! Look at that!"

The compugraphic man was standing again. He faced us. He had something that had to be a gun in his hand, which he now pointed at his head.

"Don't do it!" Hal yelled.

The little man didn't listen. There was a denatured gunshot sound, and the little man fell on his back. A line of red dripped down the screen. Then the green background turned to blue, the printer shut off, and there was nothing left but the little black corpse lying on its back and the world\*\*DONE\*\* at the bottom of the screen.

I took a deep breath, and glanced at Osborne. It would be an understatement to say he did not look happy.

"What's this about drugs in the bedroom?" he said.

We watched Osborne pulling out drawers in dressers and beside the tables. He didn't find anything. He looked under the bed, and in the closet. Like all the other rooms in the house, this one was full of computers. Holes had been knocked in walls for the thick sheaves of cables.

I had been standing near a big cardboard drum, one of several in the room. It was about thirty-gallon capacity, the kind you ship things in. The lid was loose, so I lifted it. I sort of wished I hadn't.

"Osborne," I said, "You'd better look at this."

The drum was lined with a heavy-duty garbage bag. And it was two-thirds full of Quaaludes.

They pried the lids off the rest of the drums. We found drums of amphetamines, of Nembutals, of Valium. All sorts of things.

With the discovery of the drugs a lot more police returned to the scene. With them came the television camera crews.

In all the activity no one seemed concerned about me, so I slipped back to my own house and locked the door. From time to time I peeked out the curtains. I saw reporters interviewing the neighbors. Hal was there, and seemed to be having a good time. Twice crews knocked on my door, but I didn't answer. Eventually they went away.

I ran a hot bath and soaked in it for about an hour. Then I turned the heat up as high as it would go and got in bed, under the blankets.

I shivered all night.

Osborne came over about nine the next morning. I let him in. Hal followed, looking very unhappy. I realized they had been up all night. I poured coffee for them.

"You'd better read this first," Osborne said, and handed me the sheet of computer printout. I unfolded it, got out my glasses, and started to read.

It was in that awful dot-matrix printing. My policy is to throw any such trash into the fireplace, unread, but I made an exception this time.

It was Kluge's will. Some probate court was going to have a lot of fun with it.

He stated again that he didn't exist, so he could have no relatives. He had decided to give all his worldly property to somebody who deserved it.

But who was deserving? Kluge wondered. Well, not Mr. and Mrs. Perkins, four houses down the street. They were child abusers. He cited court records in Buffalo and Miami, and a pending case locally.

Mrs. Radnor and Mrs. Polonski, who lived across the street from each other five houses down, were gossips.

The Andersons' oldest son was a car thief.

Marian Flores cheated on her high school algebra tests.

There was a guy nearby who was diddling the city on a freeway construction project. There was one

wife in the neighborhood who made out with door-to-door salesmen, and two having affairs with men other than their husbands. There was a teenage boy who got his girlfriend pregnant, dropped her, and bragged about it to his friends.

There were no fewer than nineteen couples in the immediate area who had not reported income to the IRS, or who padded their deductions.

Kluge's neighbors in back had a dog that barked all night.

Well, I could vouch for the dog. He'd kept me awake often enough. But the rest of it was crazy! For one thing, where did a guy with two hundred gallons of illegal narcotics get the right to judge his neighbors so harshly? I mean, the child abusers were one thing, but was it right to tar a whole family because their son stole cars? And for another... how did he know some of this stuff?

But there was more. Specifically, four philandering husbands. One was Harold "Hal" Lanier, who for three years had been seeing a woman named Toni Jones, a co-worker at the LAPD Data Processing facility. She was pressuring him for a divorce; he was "waiting for the right time to tell his wife."

I glanced up at Hal. His red face was all the confirmation I needed.

Then it hit me. What had Kluge found out about me?

I hurried down the page, searching for my name. I found it in the last paragraph.

"...for thirty years Mr. Apfel has been paying for a mistake he did not even make. I won't go so far as to nominate him for sainthood, but by default-if for no other reason-I hereby leave all deed and title to my real property and the structure thereon to Victor Apfel."

I looked at Osborne, and those tired eyes were weighing me.

"But I don't want it!"

"Do you think this is the reward Kluge mentioned in the phone call?"

"It must be," I said. "What else could it be?"

Osborne sighed, and sat back in his chair. "At least he didn't try to leave you the drugs. Are you still saying you didn't know the guy?"

"Are you accusing me of something?"

He spread his hands. "Mr. Apfel, I'm simply asking a question. You're never one-hundred-percent sure in a suicide. Maybe it was a murder. If it was, you can see that, so far, you're the only one we know of that's gained by it."

"He was almost a stranger to me."

He nodded, tapping his copy of the computer printout. I looked back at my own, wishing it would go away.

"What's this... mistake you didn't make?"

I was afraid that would be the next question.

"I was a prisoner of war in North Korea," I said.

Osborne chewed that over awhile.

"They brainwash you?"

"Yes." I hit the arm of my chair, and suddenly had to be up and moving. The room was getting cold. "No. I don't... there's been a lot of confusion about the word. Did they 'brainwash' me? Yes. Did they succeed? Did I offer a confession of my war crimes and denounce the U.S. Government? No."

Once more, I felt myself being inspected by those deceptively tired eyes.

"You still seem to have... strong feelings about it."

"It's not something you forget."

"Is there anything you want to say about it?"

"It's just that it was all so... no. No, I have nothing further to say. Not to you, not to anybody."

"I'm going to have to ask you more questions about Kluge's death."

"I think I'll have my lawyer present for those." Christ. Now I was going to have to get a lawyer. I didn't know where to begin.

Osborne just nodded again. He got up and went to the door.

"I was ready to write this one down as a suicide," he said. "The only thing that bothered me was there was no note. Now we've got a note." He gestured in the direction of Kluge's house, and started to look

angry.

"This guy not only writes a note, he programs the fucking thing into his computer, complete with special effects straight out of Pac-Man.

"Now, I know people do crazy things. I've seen enough of them. But when I heard the computer playing a hymn, that's when I knew this was murder. Tell you the truth, Mr. Apfel, I don't think you did it. There must be two dozen motives for murder in that printout. Maybe he was blackmailing people around here. Maybe that's how he bought all those machines. And people with that amount of drugs usually die violently. I've got a lot of work to do on this one, and I'll find who did it." He mumbled something about not leaving town, and that he'd see me later, and left.

"Vic..." Hal said. I looked at him.

"About that printout," he finally said. "I'd appreciate it... well, they said they'd keep it confidential. If you know what I mean." He had eyes like a basset hound. I'd never noticed that before.

"Hal, if you'll just go home, you have nothing to worry about from me."

He nodded, and scuttled for the door.

"I don't think any of that will get out," he said.

It all did, of course.

It probably would have even without the letters that began arriving a few days after Kluge's death, all postmarked Trenton, New Jersey, all computer-generated from a machine no one was ever able to trace. The letters detailed the matters Kluge had mentioned in his will.

I didn't know about any of that at the time. I spent the rest of the day after Hal's departure lying in my bed, under the electric blanket. I couldn't get my feet warm. I got up only to soak in the tub or to make a sandwich.

Reporters knocked on the door but I didn't answer. On the second day I called a criminal lawyer-Martin Abrams, the first in the book-and retained him. He told me they'd probably call me down to the police station for questioning. I told him I wouldn't go, popped two Dilantin, and sprinted for the bed.

A couple of times I heard sirens in the neighborhood. Once I heard a shouted argument down the street. I resisted the temptation to look. I'll admit I was a little curious, but you know what happened to the cat.

I kept waiting for Osborne to return, but he didn't. The days turned into a week. Only two things of interest happened in that time.

The first was a knock on my door. This was two days after Kluge's death. I looked through the curtains and saw a silver Ferrari parked at the curb. I couldn't see who was on the porch, so I asked who it was.

"My name's Lisa Foo," she said. "You asked me to drop by."

"I certainly don't remember it."

"Isn't this Charles Kluge's house?"

"That's next door."

"Oh. Sorry."

I decided I ought to warn her Kluge was dead, so I opened the door. She turned around and smiled at me. It was blinding.

Where does one start in describing Lisa Foo? Remember when newspapers used to run editorial cartoons of Hirohito and Tojo, when the Times used the word "Jap" without embarrassment? Little guys with faces wide as footballs, ears like jug handles, thick glasses, two big rabbit buck teeth, and pencil-thin moustaches...

Leaving out only the moustache, she was a dead ringer for a cartoon Tojo. She had the glasses, and the ears, and the teeth. But her teeth had braces, like piano keys wrapped in barbed wire. And she was five eight or five nine and couldn't have weighed more than a hundred and ten. I'd have said a hundred, but added five pounds for each of her breasts, so improbably large on her scrawny frame that all I could read of the message on her T-shirt was POCK LIVE.

It was only when she turned sideways that I saw the S's before and after.

She thrust out a slender hand.

"Looks like I'm going to be your neighbor for a while," she said. "At least until we get that dragon's lair next door straightened out." If she had an accent, it was San Fernando Valley.

"That's nice."

"Did you know him? Kluge, I mean. Or at least that's what he called himself."

"You don't think that was his name?"

"I doubt it. 'Kluge' means clever in German. And it's hacker slang for being tricky. And he sure was a tricky bugger. Definitely some glitches in the wetware." She tapped the side of her head meaningfully. "Viruses and phantoms and demons jumping out every time they try to key in, software rot, bit buckets overflowing onto the floor..."

She babbled on in that vein for a time. It might as well have been Swahili.

"Did you say there were demons in his computers?"

"That's right."

"Sounds like they need an exorcist."

She jerked her thumb at her chest and showed me another half-acre of teeth.

"That's me. Listen, I gotta go. Drop in and see me anytime."

The second interesting event of the week happened the next day. My bank statement arrived. There were three deposits listed. The first was the regular check from the VA for \$487.00. The second was for \$392.54, interest on the money my parents had left me fifteen years ago.

The third deposit had come in on the twentieth, the day Charles Kluge died. It was for \$700,083.04.

A few days later Hal Lanier dropped by.

"Boy, what a week," he said. Then he flopped down on the couch and told me all about it.

There had been a second death on the block. The letters had stirred up a lot of trouble, especially with the police going house to house questioning everyone. Some people had confessed to things when they were sure the cops were closing in on them. The woman who used to entertain salesmen while her husband was at work had admitted her infidelity, and the guy had shot her. He was in the County Jail. That was the worst incident, but there had been others, from fistfights to rocks thrown through windows. According to Hal, the IRS was thinking of setting up a branch office in the neighborhood, so many people were being audited.

I thought about the seven hundred thousand and eighty-three dollars.

And four cents.

I didn't say anything, but my feet were getting cold.

"I suppose you want to know about me and Betty," he said, at last. I didn't. I didn't want to hear any of this, but I tried for a sympathetic expression.

"That's all over," he said, with a satisfied sigh. "Between me and Toni, I mean. I told Betty all about it. It was real bad for a few days, but I think our marriage is stronger for it now." He was quiet for a moment, basking in the warmth of it all. I had kept a straight face under worse provocation, so I trust I did well enough then.

He wanted to tell me all they'd learned about Kluge, and he wanted to invite me over for dinner, but I begged off on both, telling him my war wounds were giving me hell. I just about had him to the door when Osborne knocked on it. There was nothing to do but let him in. Hal stuck around, too.

I offered Osborne coffee, which he gratefully accepted. He looked different. I wasn't sure what it was at first. Same old tired expression... no, it wasn't. Most of that weary look had been either an act or a cop's built-in cynicism. Today it was genuine. The tiredness had moved from his face to his shoulders, to his hands, to the way he walked and the way he slumped in the chair. There was a sour aura of defeat around him.

"Am I still a suspect?" I asked.

"You mean should you call your lawyer? I'd say don't bother. I checked you out pretty good. That will ain't gonna hold up, so your motive is pretty half-assed. Way I figure it, every coke dealer in the Marina had a better reason to snuff Kluge than you." He sighed. "I got a couple questions. You can answer them or not."

"Give it a try."

"You remember any unusual visitors he had? People coming and going at night?"

"The only visitors I ever recall were deliveries. Post Office, Federal Express, freight companies... that sort of thing. I suppose the drugs could have come in any of those shipments."

"That's what we figure, too. There's no way he was dealing nickel and dime bags. He must have been a middleman. Ship it in, ship it out." He brooded about that for a while, and sipped his coffee.

"So are you making any progress?" I asked.

"You want to know the truth? The case is going in the toilet. We've got too many motives, and not a one of them that works. As far as we can tell, nobody on the block had the slightest idea Kluge had all that information. We've checked bank accounts and we can't find evidence of blackmail. So the neighbors are pretty much out of the picture. Though if he were alive, most people around here would like to kill him now."

"Damn straight," Hal said.

Osborne slapped his thigh. "If the bastard was alive, I'd kill him," he said. "But I'm beginning to think he never was alive."

"I don't understand."

"If I hadn't seen the goddamn body..." He sat up a little straighter. "He said he didn't exist. Well, he practically didn't. PGenever heard of him. He's hooked up to their lines and a meter reader came by every month, but they never billed him for a single kilowatt. Same with the phone company. He had a whole exchange in that house that was made by the phone company, and delivered by them, and installed by them, but they have no record of him. We talked to the guy who hooked it all up. He turned in his records, and the computer swallowed them. Kluge didn't have a bank account anywhere in California, and apparently he didn't need one. We've tracked down a hundred companies that sold things to him, shipped them out, and then either marked his account paid or forgot they ever sold him anything. Some of them have check numbers and account numbers in their books, for accounts or even banks that don't exist."

He leaned back in his chair, simmering at the perfidy of it all.

"The only guy we've found who ever heard of him was the guy who delivered his groceries once a month. Little store down on Sepulveda. They don't have a computer, just paper receipts. He paid by check. Wells Fargo accepted them and the checks never bounced. But Wells Fargo never heard of him."

I thought it over. He seemed to expect something of me at this point, so I made a stab at it.

"He was doing all this by computers?"

"That's right. Now, the grocery store scam I can understand, almost. But more often than not, Kluge got right into the basic programming of the computers and wiped himself out. The power company was never paid, by check or any other way, because as far as they were concerned, they weren't selling him anything.

"No government agency has ever heard of him. We've checked him with everybody from the Post Office to the CIA."

"Kluge was probably an alias, right?" I offered.

"Yeah. But the FBI doesn't have his fingerprints. We'll find out who he was, eventually. But it doesn't get us any closer to whether or not he was murdered."

He admitted there was pressure to simply close the felony part of the case, label it suicide, and forget it. But Osborne would not believe it. Naturally, the civil side would go on for some time, as they attempted to track down all Kluge's deceptions.

"It's all up to the dragon lady," Osborne said. Hal snorted.

"Fat chance," Hal said, and muttered something about boat people.

"That girl? She's still over there? Who is she?"

"She's some sort of giant brain from Cal Tech. We called out there and told them we were having problems, and she's what they sent." It was clear from Osborne's face what he thought of any help she might provide.

I finally managed to get rid of them. As they went down the walk I looked over at Kluge's house. Sure

enough, Lisa Foo's silver Ferrari was sitting in his driveway.

I had no business going over there. I knew that better than anyone.

So I set about preparing my evening meal. I made a tuna casserole-which is not as bland as it sounds, the way I make it-put it in the oven and went out to the garden to pick the makings for a salad. I was slicing cherry tomatoes and thinking about chilling a bottle of white wine when it occurred to me that I had enough for two.

Since I never do anything hastily, I sat down and thought it over for a while. What finally decided me was my feet. For the first time in a week, they were warm. So I went to Kluge's house.

The front door was standing open. There was no screen. Funny how disturbing that can look, the dwelling wide open and unguarded. I stood on the porch and leaned in, but all I could see was the hallway.

"Miss Foo?" I called. There was no answer.

The last time I'd been here I had found a dead man. I hurried in.

Lisa Foo was sitting on a piano bench before a computer console. She was in profile, her back very straight, her brown legs in lotus position, her fingers poised at the keys as words sprayed rapidly onto the screen in front of her. She looked up and flashed her teeth at me.

"Somebody told me your name was Victor Apfel," she said.

"Yes. Uh, the door was open..."

"It's hot," she said, reasonably, pinching the fabric of her shirt near her neck and lifting it up and down like you do when you're sweaty. "What can I do for you?"

"Nothing, really." I came into the dimness, and stumbled on something. It was a cardboard box, the large flat kind used for delivering a jumbo pizza.

"I was just fixing dinner, and it looks like there's plenty for two, so I was wondering if you..." I trailed off, as I had just noticed something else. I had thought she was wearing shorts. In fact, all she had on was the shirt and a pair of pink bikini underpants. This did not seem to make her uneasy.

"...would you like to join me for dinner?"

Her smile grew even broader.

"I'd love to," she said. She effortlessly unwound her legs and bounced to her feet, then brushed past me, trailing the smells of perspiration and sweet soap. "Be with you in a minute."

I looked around the room again but my mind kept coming back to her. She liked Pepsi with her pizza; there were dozens of empty cans. There was a deep scar on her knee and upper thigh. The ashtrays were empty... and the long muscles of her calves bunched strongly as she walked. Kluge must have smoked, but Lisa didn't, and she had fine, downy hairs in the small of her back just visible in the green computer light. I heard water running in the bathroom sink, looked at a yellow notepad covered with the kind of penmanship I hadn't seen in decades, and smelled soap and remembered tawny brown skin and an easy stride.

She appeared in the hall, wearing cut-off jeans, sandals, and a new T-shirt. The old one had advertised BURROUGHS OFFICE SYSTEMS. This one featured Mickey Mouse and Snow White's Castle and smelled of fresh bleached cotton. Mickey's ears were laid back on the upper slopes of her incongruous breasts.

I followed her out the door. Tinkerbell twinkled in pixie dust from the back of her shirt.

"I like this kitchen," she said.

You don't really look at a place until someone says something like that.

The kitchen was a time capsule. It could have been lifted bodily from an issue of Life in the early fifties. There was the hump-shouldered Frigidaire, of a vintage when that word had been a generic term, like Xerox or Coke. The counter tops were yellow tile, the sort that's only found in bathrooms these days. There wasn't an ounce of Formica in the place. Instead of a dishwasher I had a wire rack and a double sink. There was no electric can opener, Cuisinart, trash compacter, or microwave oven. The newest thing in the whole room was a fifteen-year-old blender.

I'm good with my hands. I like to repair things.

"This bread is terrific," she said.



I had baked it myself. I watched her mop her plate with a crust, and she asked if she might have seconds.

I understand cleaning one's plate with bread is bad manners. Not that I cared; I do it myself. And other than that, her manners were impeccable. She polished off three helpings of my casserole and when she was done the plate hardly needed washing. I had a sense of a ravenous appetite barely held in check.

She settled back in her chair and I refilled her glass with white wine.

"Are you sure you wouldn't like some more peas?"

"I'd bust." She patted her stomach contentedly. "Thank you so much, Mr. Apfel. I haven't had a home-cooked meal in ages."

"You can call me Victor."

"I just love American food."

"I didn't know there was such a thing. I mean, not like Chinese or... you are American, aren't you?" She just smiled. "What I meant-

"I know what you meant, Victor. I'm a citizen, but not native-born. Would you excuse me for a moment? I know it's impolite to jump right up, but with these braces I find I have to brush instantly after eating."

I could hear her as I cleared the table. I ran water in the sink and started doing the dishes. Before long she joined me, grabbed a dish towel, and began drying the things in the rack, over my protests.

"You live alone here?" she asked.

"Yes. Have ever since my parents died."

"Ever married? If it's none of my business, just say so."

"That's all right. No, I never married."

"You do pretty good for not having a woman around."

"I've had a lot of practice. Can I ask you a question?"

"Shoot."

"Where are you from? Taiwan?"

"I have a knack for languages. Back home, I spoke pidgin American, but when I got here I cleaned up my act. I also speak rotten French, illiterate Chinese in four or five varieties, gutter Vietnamese, and enough Thai to holler 'Me wanna see American Consul, pretty-damn-quick, you!' "

I laughed. When she said it, her accent was thick.

"I been here eight years now. You figured out where home is?"

"Vietnam?" I ventured.

"The sidewalks of Saigon, fer shure. Or Ho Chi Minh's Shitty, as the pajama-heads renamed it, may their dinks rot off and their butts be filled with jagged punjee sticks. Pardon my French."

She ducked her head in embarrassment. What had started out light had turned hot very quickly. I sensed a hurt at least as deep as my own, and we both backed off from it.

"I took you for a Japanese," I said.

"Yeah, ain't it a pissar? I'll tell you about it someday. Victor, is that a laundry room through that door there? With an electric washer?"

"That's right."

"Would it be too much trouble if I did a load?"

It was no trouble at all. She had seven pairs of faded jeans, some with the legs cut away, and about two dozen T-shirts. It could have been a load of boy's clothing except for the frilly underwear.

We went into the backyard to sit in the last rays of the setting sun, then she had to see my garden. I'm quite proud of it. When I'm well, I spend four or five hours a day working out there, year-round, usually in the morning hours. You can do that in southern California. I have a greenhouse I built myself.

She loved it, though it was not in its best shape. I had spent most of the week in bed or in the tub. As a result, weeds were sprouting here and there.

"We had a garden when I was little," she said. "And I spent two years in a rice paddy."

"That must be a lot different than this."

"Damn straight. Put me off rice for years."

She discovered an infestation of aphids, so we squatted down to pick them off. She had that double-jointed Asian peasant's way of sitting that I remembered so well and could never imitate. Her fingers were long and narrow, and soon the tips of them were green from squashed bugs.

We talked about this and that. I don't remember quite how it came up, but I told her I had fought in Korea. I learned she was twenty-five. It turned out we had the same birthday, so some months back I had been exactly twice her age.

The only time Kluge's name came up was when she mentioned how she liked to cook. She hadn't been able to at Kluge's house.

"He has a freezer in the garage full of frozen dinners," she said. "He had one plate, one fork, one spoon, and one glass. He's got the best microwave oven on the market. And that's it, man. Ain't nothing else in his kitchen at all." She shook her head, and executed an aphid. "He was one weird dude."

When her laundry was done it was late evening, almost dark. She loaded it into my wicker basket and we took it out to the clothesline. It got to be a game. I would shake out a T-shirt and study the picture or message there. Sometimes I got it, and sometimes I didn't. There were pictures of rock groups, a map of Los Angeles, Star Trek tie-ins... a little of everything.

"What's the L5 Society?" I asked her.

"Guys that want to build these great big farms in space. I asked 'em if they were gonna grow rice, and they said they didn't think it was the best crop for zero gee, so I bought the shirt."

"How many of these things do you have?"

"Wow, it's gotta be four or five hundred. I usually wear 'em two or three times and then put them away."

I picked up another shirt, and a bra fell out. It wasn't the kind of bra girls wore when I was growing up. It was very sheer, though somehow functional at the same time.

"You like, Yank?" Her accent was very thick. "You oughtta see my sister!"

I glanced at her, and her face fell.

"I'm sorry, Victor," she said. "You don't have to blush." She took the bra from me and clipped it to the line.

She must have misread my face. True, I had been embarrassed, but I was also pleased in some strange way. It had been a long time since anybody had called me anything but Victor or Mr. Apfel.

The next day's mail brought a letter from a law firm in Chicago. It was about the seven hundred thousand dollars. The money had come from a Delaware holding company which had been set up in 1933 to provide for me in my old age. My mother and father were listed as the founders. Certain long-term investments had matured, resulting in my recent windfall. The amount in my bank was after taxes.

It was ridiculous on the face of it. My parents had never had that kind of money. I didn't want it. I would have given it back if I could find out who Kluge had stolen it from.

I decided that, if I wasn't in jail this time next year, I'd give it all to some charity. Save the Whales, maybe, or the L5 Society.

I spent the morning in the garden. Later I walked to the market and bought some fresh ground beef and pork. I was feeling good as I pulled my purchases home in my fold-up wire basket. When I passed the silver Ferrari I smiled.

She hadn't come to get her laundry. I took it off the line and folded it, then knocked on Kluge's door.

"It's me. Victor."

"Come on in, Yank."

She was where she had been before, but decently dressed this time. She smiled at me, then hit her forehead when she saw the laundry basket. She hurried to take it from me.

"I'm sorry, Victor. I meant to get this-"

"Don't worry about it," I said. "It was no trouble. And it gave me the chance to ask if you'd like to dine with me again."

Something happened to her face which she covered quickly. Perhaps she didn't like "American" food as much as she professed to. Or maybe it was the cook.

"Sure, Victor, I'd love to. Let me take care of this. And why don't you open those drapes? It's like a tomb in here."

She hurried away. I glanced at the screen she had been using. It was blank, but for one word: intercourse-p. I assumed it was a typo.

I pulled the drapes open in time to see Osborne's car park at the curb. Then Lisa was back, wearing a new T-shirt. This one said A CHANGE OF HOBBIT, and had a picture of a squat, hairy-footed creature. She glanced out the window and saw Osborne coming up the walk.

"I say, Watson," she said. "It's Lestrade of the Yard. Do show him in."

That wasn't nice of her. He gave me a suspicious glance as he entered. I burst out laughing. Lisa sat on the piano bench, poker-faced. She slumped indolently, one arm resting near the keyboard.

"Well, Apfel," Osborne started. "We've finally found out who Kluge really was."

"Patrick William Gavin," Lisa said.

Quite a time went by before Osborne was able to close his mouth. Then he opened it right up again.

"How the hell did you find that out?"

She lazily caressed the keyboard beside her.

"Well, of course I got it when it came into your office this morning. There's a little stoolie program tucked away in your computer that whispers in my ear every time the name Kluge is mentioned. But I didn't need that. I figured it out five days ago."

"Then why the... why didn't you tell me?"

"You didn't ask me."

They glared at each other for a while. I had no idea what events had led up to this moment, but it was quite clear they didn't like each other even a little bit. Lisa was on top just now, and seemed to be enjoying it. Then she glanced at her screen, looked surprised, and quickly tapped a key. The word that had been there vanished. She gave me an inscrutable glance, then faced Osborne again.

"If you recall, you brought me in because all your own guys were getting was a lot of crashes. This system was brain-damaged when I got here, practically catatonic. Most of it was down and your guys couldn't get it up." She had to grin at that.

"You decided I couldn't do any worse than your guys were doing. So you asked me to try and break Kluge's codes without frying the system. Well, I did it. All you had to do was come by and interface and I would have downloaded N tons of wallpaper right in your lap."

Osborne listened quietly. Maybe he even knew he had made a mistake.

"What did you get? Can I see it now?"

She nodded, and pressed a few keys. Words started to fill her screen, and one close to Osborne. I got up and read Lisa's terminal.

It was a brief bio of Kluge/Gavin. He was about my age, but while I was getting shot at in a foreign land, he was cutting a swath through the infant computer industry. He had been there from the ground up, working at many of the top research facilities. It surprised me that it had taken over a week to identify him.

"I compiled this anecdotally," Lisa said, as we read. "The first thing you have to realize about Gavin is that he exists nowhere in any computerized information system. So I called people all over the country-interesting phone system he's got, by the way; it generates a new number for each call, and you can't call back or trace it-and started asking who the top people were in the fifties and sixties. I got a lot of names. After that, it was a matter of finding out who no longer existed in the files. He faked his death in 1967. I located one account of it in a newspaper file. Everybody I talked to who had known him knew of his death. There is a paper birth certificate in Florida. That's the only other evidence I found of him. He was the only guy so many people in the field knew who left no mark on the world. That seemed conclusive to me."

Osborne finished reading, then looked up.

"All right, Ms. Foo. What else have you found out?"

"I've broken some of his codes. I had a piece of luck, getting into a basic rape-and-plunder program he'd written to attack other people's programs, and I've managed to use it against a few of his own. I've

unlocked a file of passwords with notes on where they came from. And I've learned a few of his tricks. But it's the tip of the iceberg."

She waved a hand at the silent metal brains in the room.

"What I haven't gotten across to anyone is just what this is. This is the most devious electronic weapon ever devised. It's armored like a battleship. It has to be; there's a lot of very slick programs out there that grab an invader and hang on like a terrier. If they ever got this far Kluge could deflect them. But usually they never even knew they'd been burgled. Kluge'd come in like a cruise missile, low and fast and twisty. And he'd route his attack through a dozen cut-offs.

"He had a lot of advantages. Big systems these days are heavily protected. People use passwords and very sophisticated codes. But Kluge helped invent most of them. You need a damn good lock to keep out a locksmith. He helped install a lot of the major systems. He left informants behind, hidden in the software. If the codes were changed, the computer itself would send the information to a safe system that Kluge could tap later. It's like you buy the biggest, meanest, best-trained watchdog you can. And that night, the guy who trained the dog comes in, pats him on the head, and robs you blind."

There was a lot more in that vein. I'm afraid that when Lisa began talking about computers, ninety percent of my head shut off.

"I'd like to know something, Osborne," Lisa said.

"What would that be?"

"What is my status here? Am I supposed to be solving your crime for you, or just trying to get this system back to where a competent user can deal with it?"

Osborne thought it over.

"What worries me," she added, "is that I'm poking around in a lot of restricted data banks. I'm worried about somebody knocking on the door and handcuffing me. You ought to be worried, too. Some of these agencies wouldn't like a homicide cop looking into their affairs."

Osborne bridled at that. Maybe that's what she intended.

"What do I have to do?" he snarled. "Beg you to stay?"

"No. I just want your authorization. You don't have to put it in writing. Just say you're behind me."

"Look. As far as L.A. County and the State of California are concerned, this house doesn't exist. There is no lot here. It doesn't appear in the tax assessor's records. This place is in a legal limbo. If anybody can authorize you to use this stuff, it's me, because I believe a murder was committed in it. So you just keep doing what you've been doing."

"That's not much of a commitment," she mused.

"It's all you're going to get. Now, what else have you got?"

She turned to her keyboard and typed for a while. Pretty soon a printer started, and Lisa leaned back. I glanced at her screen. It said: osculate posterior-p. I remembered that osculate meant kiss. Well, these people have their own language. Lisa looked up at me and grinned.

"Not you," she said, quietly. "Him."

I hadn't the faintest notion of what she was talking about.

Osborne got his printout and was ready to leave. Again, he couldn't resist turning at the door for final orders.

"If you find anything to indicate he didn't commit suicide, let me know."

"Okay. He didn't commit suicide."

Osborne didn't understand for a moment.

"I want proof."

"Well, I have it, but you probably can't use it. He didn't write that ridiculous suicide note."

"How do you know that?"

"I knew my first day here. I had the computer list the program. Then I compared it to Kluge's style. No way he could have written it. It's tighter'n a bug's ass. Not a spare line in it. Kluge didn't pick his alias for nothing. You know what it means?"

"Clever," I said.

"Literally. But it means... a Rube Goldberg device. Something overly complex. Something that works,

but for the wrong reason. You 'kluge around' bugs in a program. It's the hacker's Vaseline."

"So?" Osborne wanted to know.

"So Kluge's programs were really crooked. They were full of bells and whistles he never bothered to clean out. He was a genius, and his programs worked, but you wonder why they did. Routines so bletcherous they'd make your skin crawl. Real crafty bagbiters. But good programming's so rare, even his diddles were better than most people's super-moby hacks."

I suspect Osborne understood about as much of that as I did.

"So you base your opinion on his programming style."

"Yeah. Unfortunately, it's gonna be ten years or so before that's admissible in court, like graphology or fingerprints."

We eventually got rid of him, and I went home to fix the dinner. Lisa joined me when it was ready. Once more she had a huge appetite.

I fixed lemonade and we sat on my small patio and watched evening gather around us.

I woke up in the middle of the night, sweating. I sat up, thinking it out, and I didn't like my conclusions. So I put on my robe and slippers and went over to Kluge's.

The front door was open again. I knocked anyway. Lisa stuck her head around the corner.

"Victor? Is something wrong?"

"I'm not sure," I said. "May I come in?"

She gestured, and I followed her into the living room. An open can of Pepsi sat beside her console. Her eyes were red as she sat on her bench.

"What's up?" she said, and yawned.

"You should be asleep, for one thing," I said.

She shrugged, and nodded.

"Yeah. I can't seem to get in the right phase. Just now I'm in day mode. But Victor, I'm used to working odd hours, and long hours, and you didn't come over here to lecture me about that, did you?"

"No. You say Kluge was murdered."

"He didn't write his suicide note. That seems to leave murder."

"I was wondering why someone would kill him. He never left the house, so it was for something he did here with his computers. And now you're... well, I don't know what you're doing, frankly, but you seem to be poking into the same things. Isn't there a danger the same people will come after you?"

"People?" She raised an eyebrow.

I felt helpless. My fears were not well formed enough to make sense.

"I don't know... you mentioned agencies..."

"You notice how impressed Osborne was with that? You think there's some kind of conspiracy Kluge tumbled to, or you think the CIA killed him because he found out too much about something, or..."

"I don't know, Lisa. But I'm worried the same thing could happen to you."

Surprisingly, she smiled at me.

"Thank you so much, Victor. I wasn't going to admit it to Osborne, but I've been worried about that, too."

"Well, what are you going to do?"

"I want to stay here and keep working. So I gave some thought to what I could do to protect myself. I decided there wasn't anything."

"Surely there's something."

"Well, I got a gun, if that's what you mean. But think about it. Kluge was offed in the middle of the day. Nobody saw anybody enter or leave the house. So I asked myself, who can walk into a house in broad daylight, shoot Kluge, program that suicide note, and walk away, leaving no traces he'd ever been there?"

"Somebody very good."

"Goddamn good. So good there's not much chance one little gook's gonna be able to stop him if he decides to waste her."

She shocked me, both by her words and by her apparent lack of concern for her own fate. But she

had said she was worried.

"Then you have to stop this. Get out of here."

"I won't be pushed around that way," she said. There was a tone of finality to it. I thought of things I might say, and rejected them all.

"You could at least... lock your front door," I concluded, lamely.

She laughed, and kissed my cheek.

"I'll do that, Yank. And I appreciate your concern. I really do."

I watched her close the door behind me, listened to her lock it, then trudged through the moonlight toward my house. Halfway there I stopped. I could suggest she stay in my spare bedroom. I could offer to stay with her at Kluge's.

No, I decided. She would probably take that the wrong way.

I was back in bed before I realized, with a touch of chagrin and more than a little disgust at myself, that she had every reason to take it the wrong way.

And me exactly twice her age.

I spent the morning in the garden, planning the evening's menu. I have always liked to cook, but dinner with Lisa had rapidly become the high point of my day. Not only that, I was already taking it for granted. So it hit me hard, around noon, when I looked out the front and saw her car gone.

I hurried to Kluge's front door. It was standing open. I made a quick search of the house. I found nothing until the master bedroom, where her clothes were stacked neatly on the floor.

Shivering, I pounded on the Laniers' front door. Betty answered, and immediately saw my agitation.

"The girl at Kluge's house," I said. "I'm afraid something's wrong. Maybe we'd better call the police."

"What happened?" Betty asked, looking over my shoulder. "Did she call you? I see she's not back yet."

"Back?"

"I saw her drive away about an hour ago. That's quite a car she has."

Feeling like a fool, I tried to make nothing of it, but I caught a look in Betty's eye. I think she'd have liked to pat me on the head. It made me furious.

But she'd left her clothes, so surely she was coming back.

I kept telling myself that, then went to run a bath, as hot as I could stand it.

When I answered the door she was standing there with a grocery bag in each arm and her usual blinding smile on her face.

"I wanted to do this yesterday but I forgot until you came over, and I know I should have asked first, but then I wanted to surprise you, so I just went to get one or two items you didn't have in your garden and a couple of things that weren't in your spice rack..."

She kept talking as we unloaded the bags in the kitchen. I said nothing. She was wearing a new T-shirt. There was a big V, and under it a picture of a screw, followed by a hyphen and a small-case "p." I thought it over as she babbled on. V, screw-p. I was determined not to ask what it meant.

"Do you like Vietnamese cooking?"

I looked at her, and finally realized she was very nervous.

"I don't know," I said. "I've never had it. But I like Chinese, and Japanese, and Indian. I like to try new things." The last part was a lie, but not as bad as it might have been. I do try new recipes, and my tastes in food are catholic. I didn't expect to have much trouble with southeast Asian cuisine.

"Well, when I get through you still won't know," she laughed. "My momma was half-Chinese. So what you're gonna get here is a mongrel meal." She glanced up, saw my face, and laughed.

"I forgot. You've been to Asia. No, Yank, I ain't gonna serve any dog meat."

There was only one intolerable thing, and that was the chopsticks. I used them for as long as I could, then put them aside and got a fork.

"I'm sorry," I said. "Chopsticks happen to be a problem for me."

"You use them very well."

"I had plenty of time to learn how."

It was very good, and I told her so. Each dish was a revelation, not quite like anything I had ever had.

Toward the end, I broke down halfway.

"Does the V stand for victory?" I asked.

"Maybe."

"Beethoven? Churchill? World War Two?"

She just smiled.

"Think of it as a challenge, Yank."

"Do I frighten you, Victor?"

"You did at first."

"It's my face, isn't it?"

"It's a generalized phobia of Orientals. I suppose I'm a racist. Not because I want to be."

She nodded slowly, there in the dark. We were on the patio again, but the sun had gone down a long time ago. I can't recall what we had talked about for all those hours. It had kept us busy, anyway.

"I have the same problem," she said.

"Fear of Orientals?" I had meant it as a joke.

"Of Cambodians." She let me take that in for a while, then went on. "I fled to Cambodia when Saigon fell. I walked across it. I'm lucky to be alive really. They had me in labor camps."

"I thought they called it Kampuchea now."

She spat. I'm not even sure she was aware she had done it.

"It's the People's Republic of Syphilitic Dogs. The North Koreans treated you very badly, didn't they, Victor?"

"That's right."

"Koreans are pus suckers." I must have looked surprised, because she chuckled.

"You Americans feel so guilty about racism. As if you had invented it and nobody else-except maybe the South Africans and the Nazis-had ever practiced it as heinously as you. And you can't tell one yellow face from another, so you think of the yellow races as one homogeneous block. When in fact Orientals are among the most racist peoples on the earth. The Vietnamese have hated the Cambodians for a thousand years. The Chinese hate the Japanese. The Koreans hate everybody. And everybody hates the 'ethnic Chinese.' The Chinese are the Jews of the East."

"I've heard that."

She nodded, lost in her own thoughts.

"And I hate all Cambodians," she said, at last. "Like you, I don't wish to. Most of the people who suffered in the camps were Cambodians. It was the genocidal leaders, the Pol Pot scum, who I should hate." She looked at me. "But sometimes we don't get a lot of choice about things like that, do we, Yank?"

The next day I visited her at noon. It had cooled down, but was still warm in her dark den. She had not changed her shirt.

She told me a few things about computers. When she let me try some things on the keyboard I quickly got lost. We decided I needn't plan on a career as a computer programmer.

One of the things she showed me was called a telephone modem, whereby she could reach other computers all over the world. She "interfaced" with someone at Stanford whom she had never met, and who she knew only as "Bubble Sorter." They typed things back and forth at each other.

At the end, Bubble Sorter wrote "bye-p." Lisa typed T.

"What's T?" I asked.

"True. Means yes, but yes would be too straightforward for a hacker."

"You told me what a byte is. What's a byep?"

She looked up at me seriously.

"It's a question. Add p to a word, and you make it a question. So bye-p means Bubble Sorter was asking if I wanted to log out. Sign off."

I thought that over.

"So how would you translate 'osculate posterior-p'?"

" 'You wanna kiss my ass?' But remember, that was for Osborne."

I looked at her T-shirt again, then up to her eyes, which were quite serious and serene. She waited, hands folded in her lap.

Intercourse-p.

"Yes," I said. "I would."

She put her glasses on the table and pulled her shirt over her head.

We made love in Kluge's big waterbed.

I had a certain amount of performance anxiety-it had been a long, long time. After that, I was so caught up in the touch and smell and taste of her that I went a little crazy. She didn't seem to mind.

At last we were done, and bathed in sweat. She rolled over, stood, and went to the window. She opened it, and a breath of air blew over me. Then she put one knee on the bed, leaned over me, and got a pack of cigarettes from the bedside table. She lit one.

"I hope you're not allergic to smoke," she said.

"No. My father smoked. But I didn't know you did."

"Only afterwards," she said, with a quick smile. She took a deep drag. "Everybody in Saigon smoked, I think." She stretched out on her back beside me and we lay like that, soaking wet, holding hands. She opened her legs so one of her bare feet touched mine. It seemed enough contact. I watched the smoke rise from her right hand.

"I haven't felt warm in thirty years," I said. "I've been hot, but I've never been warm. I feel warm now."

"Tell me about it," she said.

So I did, as much as I could, wondering if it would work this time. At thirty years remove, my story does not sound so horrible. We've seen so much in that time. There were people in jails at that very moment, enduring conditions as bad as any I encountered. The paraphernalia of oppression is still pretty much the same. Nothing physical happened to me that would account for thirty years lived as a recluse.

"I was badly injured," I told her. "My skull was fractured. I still have... problems from that. Korea can get very cold, and I was never warm enough. But it was the other stuff. What they call brainwashing now.

"We didn't know what it was. We couldn't understand that even after a man had told them all he knew they'd keep on at us. Keeping us awake. Disorienting us. Some guys signed confessions, made up all sorts of stuff, but even that wasn't enough. They'd just keep on at you.

"I never did figure it out. I guess I couldn't understand an evil that big. But when they were sending us back and some of the prisoners wouldn't go... they really didn't want to go, they really believed..."

I had to pause there. Lisa sat up, moved quietly to the end of the bed, and began massaging my feet.

"We got a taste of what the Vietnam guys got, later. Only for us it was reversed. The GI's were heroes, and the prisoners were..."

"You didn't break," she said. It wasn't a question.

"No, I didn't."

"That would be worse."

I looked at her. She had my foot pressed against her flat belly, holding me by the heel while her other hand massaged my toes.

"The country was shocked," I said. "They didn't understand what brainwashing was. I tried telling people how it was. I thought they were looking at me funny. After a while, I stopped talking about it. And I didn't have anything else to talk about.

"A few years back the army changed its policy. Now they don't expect you to withstand psychological conditioning. It's understood you can say anything or sign anything."

She just looked at me, kept massaging my foot, and nodded slowly. Finally she spoke.

"Cambodia was hot," she said. "I kept telling myself when I finally got to the U.S. I'd live in Maine or someplace, where it snowed. And I did go to Cambridge, but I found out I didn't like snow."

She told me about it. The last I heard, a million people had died over there. It was a whole country frothing at the mouth and snapping at anything that moved. Or like one of those sharks you read about that, when its guts are ripped out, bends in a circle and starts devouring itself.

She told me about being forced to build a pyramid of severed heads. Twenty of them working all day in the hot sun finally got it ten feet high before it collapsed. If any of them stopped working, their own



heads were added to the pile.

"It didn't mean anything to me. It was just another job. I was pretty crazy by then. I didn't start to come out of it until I got across the Thai border."

That she had survived it at all seemed a miracle. She had gone through more horror than I could imagine. And she had come through it in much better shape. It made me feel small. When I was her age, I was well on my way to building the prison I have lived in ever since. I told her that.

"Part of it is preparation," she said, wryly. "What you expect out of life, what your life has been so far. You said it yourself. Korea was new to you. I'm not saying I was ready for Cambodia, but my life up to that point hadn't been what you'd call sheltered. I hope you haven't been thinking I made a living in the streets by selling apples."

She kept rubbing my feet, staring off into scenes I could not see.

"How old were you when your mother died?"

"She was killed during Tet, 1968. I was ten."

"By the Viet Cong?"

"Who knows? Lot of bullets flying, lot of grenades being thrown."

She sighed, dropped my foot, and sat there, a scrawny Buddha without a robe.

"You ready to do it again, Yank?"

"I don't think I can, Lisa. I'm an old man."

She moved over me and lowered herself with her chin just below my sternum, settling her breasts in the most delicious place possible.

"We'll see," she said, and giggled. "There's an alternative sex act I'm pretty good at, and I'm pretty sure it would make you a young man again. But I haven't been able to do it for about a year on account of these." She tapped her braces. "It'd be sort of like sticking it in a buzz saw. So now I do this instead. I call it 'touring the silicone valley.'" She started moving her body up and down, just a few inches at a time. She blinked innocently a couple of times, then laughed.

"At last, I can see you," she said. "I'm awfully myopic."

I let her do that for a while, then lifted my head.

"Did you say silicone?"

"Uh-huh. You didn't think they were real, did you?"

I confessed that I had.

"I don't think I've ever been so happy with anything I ever bought. Not even the car."

"Why did you?"

"Does it bother you?"

It didn't, and I told her so. But I couldn't conceal my curiosity.

"Because it was safe to. In Saigon I was always angry that I never developed. I could have made a good living as a prostitute, but I was always too tall, too skinny, and too ugly. Then in Cambodia I was lucky. I managed to pass for a boy some of the time. If not for that I'd have been raped a lot more than I was. And in Thailand I knew I'd get to the West one way or another, and when I got there, I'd get the best car there was, eat anything I wanted anytime I wanted to, and purchase the best tits money could buy. You can't imagine what the West looks like from the camps. A place where you can buy tits!"

She looked down between them, then back at my face.

"Looks like it was a good investment," she said.

"They do seem to work okay," I had to admit.

We agreed that she would spend the nights at my house. There were certain things she had to do at Kluge's, involving equipment that had to be physically loaded, but many things she could do with a remote terminal and an armload of software. So we selected one of Kluge's best computers and about a dozen peripherals and installed her at a cafeteria table in my bedroom.

I guess we both knew it wasn't much protection if the people who got Kluge decided to get her. But I know I felt better about it, and I think she did, too.

The second day she was there a delivery van pulled up outside, and two guys started unloading a king-size waterbed. She laughed and laughed when she saw my face.

"Listen, you're not using Kluge's computers to-"

"Relax, Yank. How'd you think I could afford a Ferrari?"

"I've been curious."

"If you're really good at writing software you can make a lot of money. I own my own company. But every hacker picks up tricks here and there. I used to run a few Kluge scams, myself."

"But not anymore?"

She shrugged. "Once a thief, always a thief, Victor. I told you I couldn't make ends meet selling my bod."

Lisa didn't need much sleep.

We got up at seven, and I made breakfast every morning. Then we would spend an hour or two working in the garden. She would go to Kluge's and I'd bring her a sandwich at noon, then drop in on her several times during the day. That was for my own peace of mind; I never stayed more than a minute. Sometime during the afternoon I would shop or do household chores, then at seven one of us would cook dinner. We alternated. I taught her "American" cooking, and she taught me a little of everything. She complained about the lack of vital ingredients in American markets. No dogs, of course, but she claimed to know great ways of preparing monkey, snake, and rat. I never knew how hard she was pulling my leg, and didn't ask.

After dinner she stayed at my house. We would talk, make love, bathe.

She loved my tub. It is about the only alteration I have made in the house, and my only real luxury. I put it in-having to expand the bathroom to do so-in 1975, and never regretted it. We would soak for twenty minutes or an hour, turning the jets and bubblers on and off, washing each other, giggling like kids. Once we used bubble bath and made a mountain of suds four feet high, then destroyed it, splashing water all over the place. Most nights she let me wash her long black hair.

She didn't have any bad habits-or at least none that clashed with mine. She was neat and clean, changing her clothes twice a day and never so much as leaving a dirty glass on the sink. She never left a mess in the bathroom. Two glasses of wine was her limit.

I felt like Lazarus.

Osborne came by three times in the next two weeks. Lisa met him at Kluge's and gave him what she had learned. It was getting to be quite a list.

"Kluge once had an account in a New York bank with nine trillion dollars in it," she told me after one of Osborne's visits. "I think he did it just to see if he could. He left it in for one day, took the interest and fed it to a bank in the Bahamas, then destroyed the principal. Which never existed anyway."

In return, Osborne told her what was new on the murder investigation-which was nothing-and on the status of Kluge's property, which was chaotic. Various agencies had sent people out to look the place over. Some FBI men came, wanting to take over the investigation. Lisa, when talking about computers, had the power to cloud men's minds. She did it first by explaining exactly what she was doing, in terms so abstruse that no one could understand her. Sometimes that was enough. If it wasn't, if they started to get tough, she just moved out of the driver's seat and let them try to handle Kluge's contraption. She let them watch in horror as dragons leaped out of nowhere and ate up all the data on a disc, then printed "You Stupid Putz!" on the screen.

"I'm cheating them," she confessed to me. "I'm giving them stuff I know they're gonna step in, because I already stepped in it myself. I've lost about forty percent of the data Kluge had stored away. But the others lose a hundred percent. You ought to see their faces when Kluge drops a logic bomb into their work. That second guy threw a three-thousand-dollar printer clear across the room. Then tried to bribe me to be quiet about it."

When some Federal agency sent out an expert from Stanford, and he seemed perfectly content to destroy everything in sight in the firm belief that he was bound to get it right sooner or later, Lisa let him get tangled up in the Internal Revenue Service's computer. He couldn't get out, because some sort of watchdog program noticed him. During his struggles, it seemed he had erased all the tax records from the letter S down into the W's. Lisa let him think that for half an hour.

"I thought he was having a heart attack," she told me. "All the blood drained out of his face and he

couldn't talk. So I showed him where I had-with my usual foresight-arranged for that data to be recorded, told him how to put it back where he found it, and how to pacify the watchdog. He couldn't get out of that house fast enough. Pretty soon he's gonna realize you can't destroy that much information with anything short of dynamite because of the backups and the limits of how much can be running at any one time. But I don't think he'll be back."

"It sounds like a very fancy video game," I said.

"It is, in a way. But it's more like Dungeons and Dragons. It's an endless series of closed rooms with dangers on the other side. You don't dare take it a step at a time. You take it a hundredth of a step at a time. Your questions are like, 'Now this isn't a question, but if it entered my mind to ask this question-which I'm not about to do-concerning what might happen if I looked at this door here-and I'm not touching it, I'm not even in the next room-what do you suppose you might do?' And the program crunches on that, decides if you fulfilled the conditions for getting a great big cream pie in the face, then either throws it or allows as how it might just move from step A to step A Prime. Then you say, 'Well, maybe I am looking at that door.' And sometimes the program says 'You looked, you looked, you dirty crook!' And the fireworks start."

Silly as all that sounds, it was very close to the best explanation she was ever able to give me about what she was doing.

"Are you telling him everything, Lisa?" I asked her.

"Well, not everything. I didn't mention the four cents."

Four cents? Oh my God.

"Lisa, I didn't want that, I didn't ask for it, I wish he'd never-"

"Calm down, Yank. It's going to be all right."

"He kept records of all that, didn't he?"

"That's what I spend most of my time doing. Decoding his records."

"How long have you known?"

"About the seven hundred thousand dollars? It was in the first disc I cracked."

"I just want to give it back."

She thought that over, and shook her head.

"Victor, it'd be more dangerous to get rid of it now than it would be to keep it. It was imaginary money at first. But now it's got a history. The IRS thinks it knows where it came from. The taxes are paid on it. The State of Delaware is convinced that a legally chartered corporation disbursed it. An Illinois law firm has been paid for handling it. Your bank has been paying interest on it. I'm not saying it would be impossible to go back and wipe all that out, but I wouldn't like to try. I'm good, but I don't have Kluge's touch."

"How could he do all that? You say it was imaginary money. That's not the way I thought money worked. He could just pull it out of thin air?"

Lisa patted the top of her computer console, and smiled at me.

"This is money, Yank," she said, and her eyes glittered.

At night she worked by candlelight so she wouldn't disturb me. That turned out to be my downfall. She typed by touch, and needed the candle only to locate software.

So that's how I'd go to sleep every night, looking at her slender body bathed in the glow of the candle. I was always reminded of melting butter dripping down a roasted ear of corn. Golden light on golden skin.

Ugly, she called herself. Skinny. It was true she was thin. I could see her ribs when she sat with her back impossibly straight, her tummy sucked in, her chin up. She worked in the nude these days, sitting in lotus position. For long periods she would not move, her hand lying on her thighs, then she would poise, as if to pound the keys. But her touch was light, almost silent. It looked more like yoga than programming. She said she went into a meditative state for her best work.

I had expected a bony angularity, all sharp elbows and knees. She wasn't like that. I had guessed her weight ten pounds too low, and still didn't know where she put it. But she was soft and rounded, and strong beneath.

No one was ever going to call her face glamorous. Few would even go so far as to call her pretty. The braces did that, I think. They caught the eye and held it, drawing attention to that unsightly jumble.

But her skin was wonderful. She had scars. Not as many as I had expected. She seemed to heal quickly, and well.

I thought she was beautiful.

I had just completed my nightly survey when my eye was caught by the candle. I looked at it, then tried to look away.

Candles do that sometimes. I don't know why. In still air, with the flame perfectly vertical, they begin to flicker. The flame leaps up then squats down, up and down, up and down, brighter and brighter in regular rhythm, two or three beats to the second- -and I tried to call out to her, wishing the candle would stop its flickering, but already I couldn't speak- -I could only gasp, and I tried once more, as hard as I could, to yell, to scream, to tell her not to worry, and felt the nausea building...

I tasted blood. I took an experimental breath, did not find the smells of vomit, urine, feces. The overhead lights were on.

Lisa was on her hands and knees leaning over me, her face very close. A tear dropped on my forehead. I was on the carpet, on my back.

"Victor, can you hear me?"

I nodded. There was a spoon in my mouth. I spit it out.

"What happened? Are you going to be all right?"

I nodded again, and struggled to speak.

"You just lie there. The ambulance is on its way."

"No. Don't need it."

"Well, it's on its way. You just take it easy and-"

"Help me up."

"Not yet. You're not ready."

She was right. I tried to sit up, and fell back quickly. I took deep breaths for a while. Then the doorbell rang.

She stood up and started to the door. I just managed to get my hand around her ankle. Then she was leaning over me again, her eyes as wide as they would go.

"What is it? What's wrong now?"

"Get some clothes on," I told her. She looked down at herself, surprised.

"Oh. Right."

She got rid of the ambulance crew. Lisa was a lot calmer after she made coffee and we were sitting at the kitchen table. It was one o'clock, and I was still pretty rocky. But it hadn't been a bad one.

I went to the bathroom and got the bottle of Dilantin I'd hidden when she moved in. I let her see me take one.

"I forgot to do this today," I told her.

"It's because you hid them. That was stupid."

"I know." There must have been something else I could have said. It didn't please me to see her look hurt. But she was hurt because I wasn't defending myself against her attack, and that was a bit too complicated for me to dope out just after a grand mal.

"You can move out if you want to," I said. I was in rare form.

So was she. She reached across the table and shook me by the shoulders. She glared at me.

"I won't take a lot more of that kind of shit," she said, and I nodded, and began to cry.

She let me do it. I think that was probably best. She could have babied me, but I do a pretty good job of that myself.

"How long has this been going on?" she finally said. "Is that why you've stayed in your house for thirty years?"

I shrugged. "I guess it's part of it. When I got back they operated, but it just made it worse."

"Okay. I'm mad at you because you didn't tell me about it, so I didn't know what to do. I want to stay, but you'll have to tell me how. Then I won't be mad anymore."

I could have blown the whole thing right there. I'm amazed I didn't. Through the years I've developed very good methods for doing things like that. But I pulled through when I saw her face. She really did want to stay. I didn't know why, but it was enough.

"The spoon was a mistake," I said. "If there's time, and you can do it without risking your fingers, you could jam a piece of cloth in there. Part of a sheet, or something. But nothing hard." I explored my mouth with a finger. "I think I broke a tooth."

"Serves you right," she said. I looked at her, and smiled, then we were both laughing. She came around the table and kissed me, then sat on my knee.

"The biggest danger is drowning. During the first part of the seizure, all my muscles go rigid. That doesn't last long. Then they all start contracting and relaxing at random. It's very strong."

"I know. I watched, and I tried to hold you."

"Don't do that. Get me on my side. Stay behind me, and watch out for flailing arms. Get a pillow under my head if you can. Keep me away from things I could injure myself on." I looked her square in the eye. "I want to emphasize this. Just try to do all those things. If I'm getting too violent, it's better you stand off to the side. Better for both of us. If I knock you out, you won't be able to help me if I start strangling on vomit."

I kept looking at her eyes. She must have read my mind, because she smiled slightly.

"Sorry, Yank. I am not freaked out. I mean, like, it's totally gross, you know, and it barfs me out to the max, you could-"

"-gag me with a spoon, I know. Okay, right, I know I was dumb. And that's about it. I might bite my tongue or the inside of my cheek. Don't worry about it. There is one more thing."

She waited, and I wondered how much to tell her. There wasn't a lot she could do, but if I died on her I didn't want her to feel it was her fault.

"Sometimes I have to go to the hospital. Sometimes one seizure will follow another. If that keeps up for too long, I won't breathe, and my brain will die of oxygen starvation."

"That only takes about five minutes," she said, alarmed.

"I know. It's only a problem if I start having them frequently, so we could plan for it if I do. But if I don't come out of one, start having another right on the heels of the first, or if you can't detect any breathing for three or four minutes, you'd better call an ambulance."

"Three or four minutes? You'd be dead before they got here."

"It's that or live in a hospital. I don't like hospitals."

"Neither do I."

The next day she took me for a ride in her Ferrari. I was nervous about it, wondering if she was going to do crazy things. If anything, she was too slow. People behind her kept honking. I could tell she hadn't been driving long from the exaggerated attention she put into every movement.

"A Ferrari is wasted on me, I'm afraid," she confessed at one point. "I never drive it faster than fifty-five."

We went to an interior decorator in Beverly Hills and she bought a low-watt gooseneck lamp at an outrageous price.

I had a hard time getting to sleep that night. I suppose I was afraid of having another seizure, though Lisa's new lamp wasn't going to set it off.

Funny about seizures. When I first started having them, everyone called them fits. Then, gradually, it was seizures, until fits began to sound dirty.

I guess it's a sign of growing old, when the language changes on you.

There were rafts of new words. A lot of them were for things that didn't even exist when I was growing up. Like software. I always visualized a limp wrench.

"What got you interested in computers, Lisa?" I asked her.

She didn't move. Her concentration when sitting at the machine was pretty damn good. I rolled onto my back and tried to sleep.

"It's where the power is, Yank." I looked up. She had turned to face me.

"Did you pick it all up since you got to America?"

"I had a head start. I didn't tell you about my captain, did I?"

"I don't think you did."

"He was strange. I knew that. I was about fourteen. He was an American, and he took an interest in me. He got me a nice apartment in Saigon. And he put me in school."

She was studying me, looking for a reaction. I didn't give her one.

"He was surely a pedophile, and probably had homosexual tendencies, since I looked so much like a skinny little boy."

Again the wait. This time she smiled.

"He was good to me. I learned to read well. From there on, anything is possible."

"I didn't actually ask you about your captain. I asked why you got interested in computers."

"That's right. You did."

"Is it just a living?"

"It started that way. It's the future, Victor."

"God knows I've read that enough times."

"It's true. It's already here. It's power, if you know how to use it. You've seen what Kluge was able to do. You can make money with one of these things. I don't mean earn it, I mean make it, like if you had a printing press. Remember Osborne mentioned that Kluge's house didn't exist? Did you think what that means?"

"That he wiped it out of the memory banks."

"That was the first step. But the lot exists in the county plat books, wouldn't you think? I mean, this country hasn't entirely given up paper."

"So the county really does have a record of the house."

"No. That page was torn out of the records."

"I don't get it. Kluge never left the house."

"Oldest way in the world, friend. Kluge looked through the LAPD files until he found a guy known as Sammy. He sent him a cashier's check for a thousand dollars, along with a letter saying he could earn twice that if he'd go to the hall of records and do something. Sammy didn't bite, and neither did McGee, or Molly Unger. But Little Billy Phipps did, and he got a check just like the letter said, and he and Kluge had a wonderful business relationship for many years. Little Billy drives a new Cadillac now, and hasn't the faintest notion who Kluge was or where he lived. It didn't matter to Kluge how much he spent. He just pulled it out of thin air."

I thought that over for a while. I guess it's true that with enough money you can do just about anything, and Kluge had all the money in the world.

"Did you tell Osborne about Little Billy?"

"I erased that disc, just like I erased your seven hundred thousand. You never know when you might need somebody like Little Billy."

"You're not afraid of getting into trouble over it?"

"Life is risk, Victor. I'm keeping the best stuff for myself. Not because I intend to use it, but because if I ever needed it badly and didn't have it, I'd feel like such a fool."

She cocked her head and narrowed her eyes, which made them practically disappear.

"Tell me something, Yank. Kluge picked you out of all your neighbors because you'd been a boy scout for thirty years. How do you react to what I'm doing?"

"You're cheerfully amoral, and you're a survivor, and you're basically decent. And I pity anybody who gets in your way."

She grinned, stretched, and stood up.

"'Cheerfully amoral.' I like that." She sat beside me, making a great sloshing in the bed. "You want to be amoral again?"

"In a little bit." She started rubbing my chest. "So you got into computers because they were the wave of the future. Don't you ever worry about them... I don't know, I guess it sounds corny... do you think they'll take over?"

"Everybody thinks that until they start to use them," she said. "You've got to realize just how stupid

they are. Without programming they are good for nothing, literally. Now, what I do believe is that the people who run the computers will take over. They already have. That's why I study them."

"I guess that's not what I meant. Maybe I can't say it right."

She frowned. "Kluge was looking into something. He'd been eavesdropping in artificial intelligence labs, and reading a lot of neurological research. I think he was trying to find a common thread."

"Between human brains and computers?"

"Not quite. He was thinking of computers and neurons. Brain cells." She pointed to her computer. "That thing, or any other computer, is light-years away from being a human brain. It can't generalize, or infer, or categorize, or invent. With good programming it can appear to do some of those things, but it's an illusion.

"There's an old speculation about what would happen if we finally built a computer with as many transistors as the brain has neurons. Would there be self-awareness? I think that's baloney. A transistor isn't a neuron, and a quintillion of them aren't any better than a dozen.

"So Kluge—who seems to have felt the same way—started looking into the possible similarities between a neuron and a 16-bit computer. That's why he had all that consumer junk sitting around his house, those Trash-80's and Atari's and TI's and Sinclair's, for chrissake. He was used to much more powerful instruments. He ate up the home units like candy."

"What did he find out?"

"Nothing, it looks like. A 16-bit unit is more complex than a neuron, and no computer is in the same galaxy as an organic brain. But see, the words get tricky. I said an Atari is more complex than a neuron, but it's hard to really compare them. It's like comparing a direction with a distance, or a color with a mass. The units are different. Except for one similarity."

"What's that?"

"The connections. Again, it's different, but the concept of networking is the same. A neuron is connected to a lot of others. There are trillions of them, and the way messages pulse through them determines what we are and what we think and what we remember. And with that computer I can reach a million others. It's bigger than the human brain, really, because the information in that network is more than all humanity could cope with in a million years. It reaches from Pioneer Ten, out beyond the orbit of Pluto, right into every living room that has a telephone in it. With that computer you can tap tons of data that have been collected but nobody's even had the time to look at.

"That's what Kluge was interested in. The old 'critical mass computer' idea, the computer that becomes aware, but with a new angle. Maybe it wouldn't be the size of the computer, but the number of computers. There used to be thousands of them. Now there's millions. They're putting them in cars. In wristwatches. Every home has several, from the simple timer on a microwave oven up to a video game or home terminal. Kluge was trying to find out if critical mass could be reached that way."

"What did he think?"

"I don't know. He was just getting started." She glanced down at me. "But you know what, Yank? I think you've reached critical mass while I wasn't looking."

"I think you're right." I reached for her.

Lisa liked to cuddle. I didn't, at first, after fifty years of sleeping alone. But I got to like it pretty quickly.

That's what we were doing when we resumed the conversation we had been having. We just lay in each other's arms and talked about things. Nobody had mentioned love yet, but I knew I loved her. I didn't know what to do about it, but I would think of something.

"Critical mass," I said. She nuzzled my neck, and yawned.

"What about it?"

"What would it be like? It seems like it would be such a vast intelligence. So quick, so omniscient. Godlike."

"Could be."

"Wouldn't it... run our lives? I guess I'm asking the same questions I started off with. Would it take over?"

She thought about it for a long time.

"I wonder if there would be anything to take over. I mean, why should it care? How could we figure what its concerns would be? Would it want to be worshipped, for instance? I doubt it. Would it want to 'rationalize all human behavior, to eliminate all emotion,' as I'm sure some sci-fi film computer must have told some damsel in distress in the fifties.

"You can use a word like awareness, but what does it mean? An amoeba must be aware. Plants probably are. There may be a level of awareness in a neuron. Even in an integrated circuit chip. We don't even know what our own awareness really is. We've never been able to shine a light on it, dissect it, figure out where it comes from or where it goes when we're dead. To apply human values to a thing like this hypothetical computer-net consciousness would be pretty stupid. But I don't see how it could interact with human awareness at all. It might not even notice us, any more than we notice cells in our bodies, or neutrinos passing through us, or the vibrations of the atoms in the air around us."

So she had to explain what a neutrino was. One thing I always provided her with was an ignorant audience. And after that, I pretty much forgot about our mythical hyper-computer.

"What about your captain?" I asked, much later.

"Do you really want to know, Yank?" she mumbled sleepily.

"I'm not afraid to know."

She sat up and reached for her cigarettes. I had come to know she sometimes smoked them in times of stress. She had told me she smoked after making love, but that first time had been the only time. The lighter flared in the dark. I heard her exhale.

"My major, actually. He got a promotion. Do you want to know his name?"

"Lisa, I don't want to know any of it if you don't want to tell it. But if you do, what I want to know is did he stand by you?"

"He didn't marry me, if that's what you mean. When he knew he had to go, he said he would, but I talked him out of it. Maybe it was the most noble thing I ever did. Maybe it was the most stupid.

"It's no accident I look Japanese. My grandmother was raped in '42 by a Jap soldier of the occupation. She was Chinese, living in Hanoi. My mother was born there. They went south after Dien Bien Phu. My grandmother died. My mother had it hard. Being Chinese was tough enough, but being half Chinese and half Japanese was worse. My father was half French and half Annamese. Another bad combination. I never knew him. But I'm sort of a capsule history of Vietnam."

The end of her cigarette glowed brighter once more.

"I've got one grandfather's face and the other grandfather's height. With tits by Goodyear. About all I missed was some American genes, but I was working on that for my children.

"When Saigon was falling I tried to get to the American Embassy. Didn't make it. You know the rest, until I got to Thailand, and when I finally got Americans to notice me, it turned out my major was still looking for me. He sponsored me over here, and I made it in time to watch him die of cancer. Two months I had with him, all of it in the hospital."

"My God." I had a horrible thought. "That wasn't the war, too, was it? I mean, the story of your life-"

"-is the rape of Asia. No, Victor. Not that war, anyway. But he was one of those guys who got to see atom bombs up close, out in Nevada. He was too regular army to complain about it, but I think he knew that's what killed him."

"Did you love him?"

"What do you want me to say? He got me out of hell."

Again the cigarette flared, and I saw her stub it out.

"No," she said. "I didn't love him. He knew that. I've never loved anybody. He was very dear, very special to me. I would have done almost anything for him. He was fatherly to me." I felt her looking at me in the dark. "Aren't you going to ask how old he was?"

"Fiftyish," I said.

"On the nose. Can I ask you something?"

"I guess it's your turn."

"How many girls have you had since you got back from Korea?"



I held up my hand and pretended to count on my fingers.

"One," I said, at last.

"How many before you went?"

"One. We broke up before I left for the war."

"How many in Korea?"

"Nine. All at Madam Park's jolly little whorehouse in Pusan."

"So you've made love to one white and ten Asians. I bet none of the others were as tall as me."

"Korean girls have fatter cheeks too. But they all had your eyes."

She nuzzled against my chest, took a deep breath, and sighed.

"We're a hell of a pair, aren't we?"

I hugged her, and her breath came again, hot on my chest. I wondered how I'd lived so long without such a simple miracle as that.

"Yes. I think we really are."

Osborne came by again about a week later. He seemed subdued. He listened to the things Lisa had decided to give him without much interest. He took the printout she handed him, and promised to turn it over to the departments that handled those things. But he didn't get up to leave.

"I thought I ought to tell you, Apfel," he said, at last. "The Gavin case has been closed."

I had to think a moment to remember Kluge's real name had been Gavin.

"The coroner ruled suicide a long time ago. I was able to keep the case open quite a while on the strength of my suspicions." He nodded toward Lisa. "And on what she said about the suicide note. But there was just no evidence at all."

"It probably happened quickly," Lisa said. "Somebody caught him, tracked him back-it can be done; Kluge was lucky for a long time-and did him the same day."

"You don't think it was suicide?" I asked Osborne.

"No. But whoever did it is home free unless something new turns up."

"I'll tell you if it does," Lisa said.

"That's something else," Osborne said. "I can't authorize you to work over there anymore. The county's taken possession of house and contents."

"Don't worry about it," Lisa said, softly. There was a short silence as she leaned over to shake a cigarette from the pack on the coffee table. She lit it, exhaled, and leaned back beside me, giving Osborne her most inscrutable look. He sighed.

"I'd hate to play poker with you, lady," he said. "What do you mean, 'Don't worry about it?'"

"I bought the house four days ago. And its contents. If anything turns up that would help you reopen the murder investigation, I will let you know."

Osborne was too defeated to get angry. He studied her quietly for a while.

"I'd like to know how you swung that."

"I did nothing illegal. You're free to check it out. I paid good cash money for it. The house came onto the market. I got a good price at the sheriff's sale."

"How'd you like it if I put my best men on the transaction? See if they can dig up some funny money? Maybe fraud. How about I get the FBI in to look it all over?"

She gave him a cool look.

"You're welcome to. Frankly, Detective Osborne, I could have stolen that house, Griffith Park, and the Harbor Freeway and I don't think you could have caught me."

"So where does that leave me?"

"Just where you were. With a closed case, and a promise from me."

"I don't like you having all that stuff, if it can do the things you say it can do."

"I didn't expect you would. But that's not your department, is it? The county owned it for a while, through simple confiscation. They didn't know what they had, and they let it go."

"Maybe I can get the Fraud detail out here to confiscate your software. There's criminal evidence on it."

"You could try that," she agreed.

They stared at each other for a while. Lisa won. Osborne rubbed his eyes and nodded. Then he heaved himself to his feet and slumped to the door.

Lisa stubbed out her cigarette. We listened to him going down the walk.

"I'm surprised he gave up so easy," I said. "Or did he? Do you think he'll try a raid?"

"It's not likely. He knows the score."

"Maybe you could tell it to me."

"For one thing, it's not his department, and he knows it."

"Why did you buy the house?"

"You ought to ask how."

I looked at her closely. There was a gleam of amusement behind the poker face.

"Lisa. What did you do?"

"That's what Osborne asked himself. He got the right answer, because he understands Kluge's machines. And he knows how things get done. It was no accident that house going on the market, and no accident I was the only bidder. I used one of Kluge's pet councilmen."

"You bribed him?"

She laughed, and kissed me.

"I think I finally managed to shock you, Yank. That's gotta be the biggest difference between me and a native-born American. Average citizens don't spend much on bribes over here. In Saigon, everybody bribes."

"Did you bribe him?"

"Nothing so indelicate. One has to go in the back door over here. Several entirely legal campaign contributions appeared in the accounts of a state senator, who mentioned a certain situation to someone, who happened to be in the position to do legally what I happened to want done." She looked at me askance. "Of course I bribed him, Victor. You'd be amazed to know how cheaply. Does that bother you?"

"Yes," I admitted. "I don't like bribery."

"I'm indifferent to it. It happens, like gravity. It may not be admirable, but it gets things done."

"I assume you covered yourself."

"Reasonably well. You're never entirely covered with a bribe, because of the human element. The councilman might geek if they got him in front of a grand jury. But they won't, because Osborne won't pursue it. That's the second reason he walked out of here without a fight. He knows how the world wobbles, he knows what kind of force I now possess, and he knows he can't fight it."

There was a long silence after that. I had a lot to think about, and I didn't feel good about most of it. At one point Lisa reached for the pack of cigarettes, then changed her mind. She waited for me to work it out.

"It is a terrific force, isn't it," I finally said.

"It's frightening," she agreed. "Don't think it doesn't scare me. Don't think I haven't had fantasies of being superwoman. Power is an awful temptation, and it's not easy to reject. There's so much I could do."

"Will you?"

"I'm not talking about stealing things, or getting rich."

"I didn't think you were."

"This is political power. But I don't know how to wield it... it sounds corny, but to use it for good. I've seen so much evil come from good intentions. I don't think I'm wise enough to do any good. And the chances of getting torn up like Kluge did are large. But I'm not wise enough to walk away from it. I'm still a street urchin from Saigon, Yank. I'm smart enough not to use it unless I have to. But I can't give it away, and I can't destroy it. Is that stupid?"

I didn't have a good answer for that one. But I had a bad feeling.

My doubts had another week to work on me. I didn't come to any great moral conclusions. Lisa knew of some crimes, and she wasn't reporting them to the authorities. That didn't bother me much. She had at her fingertips the means to commit more crimes, and that bothered me a lot. Yet I really didn't think she

planned to do anything. She was smart enough to use the things she had only in a defensive way-but with Lisa that could cover a lot of ground.

When she didn't show up for dinner one evening, I went over to Kluge's and found her busy in the living room. A nine-foot section of shelving had been cleared. The discs and tapes were stacked on a table. She had a big plastic garbage can and a magnet the size of a softball. I watched her wave a tape near the magnet, then toss it in the garbage can, which was almost full. She glanced up, did the same operation with a handful of discs, then took off her glasses and wiped her eyes.

"Feel any better now, Victor?" she asked.

"What do you mean? I feel fine."

"No you don't. And I haven't felt right, either. It hurts me to do it, but I have to. You want to go get the other trash can?"

I did, and helped her pull more software from the shelves.

"You're not going to wipe it all, are you?"

"No. I'm wiping records, and... something else."

"Are you going to tell me what?"

"There are things it's better not to know," she said, darkly.

I finally managed to convince her to talk over dinner. She had said little, just eating and shaking her head. But she gave in.

"Rather dreary, actually," she said. "I've been probing around some delicate places the last couple days. These are places Kluge visited at will, but they scare the hell out of me. Dirty places. Places where they know things I thought I'd like to find out."

She shivered, and seemed reluctant to go on.

"Are you talking about military computers? The CIA?"

"The CIA is where it starts. It's the easiest. I've looked around at NORAD-that's the guys who get to fight the next war. It makes me shiver to see how easy Kluge got in there. He cobbled up a way to start World War Three, just as an exercise. That's one of the things we just erased. The last two days I was nibbling around the edges of the big boys. The Defense Intelligence Agency and the National Security... something. DIA and NSA. Each of them is bigger than the CIA. Something knew I was there. Some watchdog program. As soon as I realized that I got out quick, and I've spent the last five hours being sure it didn't follow me. And now I'm sure, and I've destroyed all that, too."

"You think they're the one who killed Kluge?"

"They're surely the best candidates. He had tons of their stuff. I know he helped design the biggest installations at NSA, and he'd been poking around in there for years. One false step is all it would take."

"Did you get it all? I mean are you sure?"

"I'm sure they didn't track me. I'm not sure I've destroyed all the records. I'm going back now to take a last look."

"I'll go with you."

We worked until well after midnight. Lisa would review a tape or a disc, and if she was in any doubt, toss it to me for the magnetic treatment. At one point, simply because she was unsure, she took the magnet and passed it in front of an entire shelf of software.

It was amazing to think about it. With that one wipe she had randomized billions of bits of information. Some of it might not exist anywhere else in the world. I found myself confronted by even harder questions. Did she have the right to do it? Didn't knowledge exist for everyone? But I confess I had little trouble quelling my protests. Mostly I was happy to see it go. The old reactionary in me found it easier to believe *There Are Things We Are Not Meant To Know*.

We were almost through when her monitor screen began to malfunction. It actually gave off a few hisses and pops, so Lisa stood back from it for a moment, then the screen started to flicker. I stared at it for a while. It seemed to me there was an image trying to form in the screen. Something three-dimensional. Just as I was starting to get a picture of it I happened to glance at Lisa, and she was looking at me. Her face was flickering. She came to me and put her hands over my eyes.

"Victor, you shouldn't look at that."

"It's okay," I told her. And when I said it, it was, but as soon as I had the words out I knew it wasn't. And that is the last thing I remembered for a long time.

I'm told it was a very bad two weeks. I remember very little of it. I was kept under high dosages of drugs, and my few lucid periods were always followed by a fresh seizure.

The first thing I recall clearly was looking up at Dr. Stuart's face. I was in a hospital bed. I later learned it was in Cedars-Sinai, not the Veteran's Hospital. Lisa had paid for a private room.

Stuart put me through the usual questions. I was able to answer them, though I was very tired. When he was satisfied as to my condition he finally began to answer some of my questions. I learned how long I had been there, and how it had happened.

"You went into consecutive seizures," he confirmed. "I don't know why, frankly. You haven't been prone to them for a decade. I was thinking you were well under control. But nothing is ever really stable, I guess."

"So Lisa got me here in time."

"She did more than that. She didn't want to level with me at first. It seems that after the first seizure she witnessed she read everything she could find. From that day, she had a syringe and a solution of Valium handy. When she saw you couldn't breathe she injected you, and there's no doubt it saved your life."

Stuart and I had known each other a long time. He knew I had no prescription for Valium, though we had talked about it the last time I was hospitalized. Since I lived alone, there would be no one to inject me if I got in trouble.

He was more interested in results than anything else, and what Lisa did had the desired result. I was still alive.

He wouldn't let me have any visitors that day. I protested, but soon was asleep. The next day she came. She wore a new T-shirt. This one had a picture of a robot wearing a gown and mortarboard, and said CLASS of 11111000000. It turns out that was 1984 in binary notation.

She had a big smile and said "Hi, Yank!" and as she sat on the bed I started to shake. She looked alarmed and asked if she should call the doctor.

"It's not that," I managed to say. "I'd like it if you just held me."

She took off her shoes and got under the covers with me. She held me tightly. At some point a nurse came in and tried to shoo her out. Lisa gave her profanities in Vietnamese, Chinese, and a few startling ones in English, and the nurse left. I saw Dr. Stuart glance in later.

I felt much better when I finally stopped crying. Lisa's eyes were wet, too.

"I've been here every day," she said. "You look awful, Victor."

"I feel a lot better."

"Well, you look better than you did. But your doctor says you'd better stick around another couple of days, just to make sure."

"I think he's right."

"I'm planning a big dinner for when you get back. You think we should invite the neighbors?"

I didn't say anything for a while. There were so many things we hadn't faced. Just how long could it go on between us? How long before I got sour about being so useless? How long before she got tired of being with an old man? I don't know just when I had started to think of Lisa as a permanent part of my life. And I wondered how I could have thought that.

"Do you want to spend more years waiting in hospitals for a man to die?"

"What do you want, Victor? I'll marry you if you want me to. Or I'll live with you in sin. I prefer sin, myself, but if it'll make you happy--"

"I don't know why you want to saddle yourself with an epileptic old fart."

"Because I love you."

It was the first time she had said it. I could have gone on questioning-bringing up her major again, for instance-but I had no urge to. I'm very glad I didn't. So I changed the subject.

"Did you get the job finished?"

She knew which job I was talking about. She lowered her voice and put her mouth close to my ear.

"Let's don't be specific about it here, Victor. I don't trust any place I haven't swept for bugs. But, to

put your mind at ease, I did finish, and it's been a quiet couple of weeks. No one is any wiser, and I'll never meddle in things like that again."

I felt a lot better. I was also exhausted. I tried to conceal my yawns, but she sensed it was time to go. She gave me one more kiss, promising many more to come, and left me.

It was the last time I ever saw her.

At about ten o'clock that evening Lisa went into Kluge's kitchen with a screwdriver and some other tools and got to work on the microwave oven.

The manufacturers of those appliances are very careful to insure they can't be turned on with the door open, as they emit lethal radiation. But with simple tools and a good brain it is possible to circumvent the safety interlocks. Lisa had no trouble with them. About ten minutes after she entered the kitchen she put her head in the oven and turned it on.

It is impossible to say how long she held her head in there. It was long enough to turn her eyeballs to the consistency of boiled eggs. At some point she lost voluntary muscle control and fell to the floor, pulling the microwave down with her. It shorted out, and a fire started.

The fire set off the sophisticated burglar alarm she had installed a month before. Betty Lanier saw the flames and called the fire department as Hal ran across the street and into the burning kitchen. He dragged what was left of Lisa out onto the grass. When he saw what the fire had done to her upper body, and in particular her breasts, he threw up.

She was rushed to the hospital. The doctors there amputated one arm and cut away the frightful masses of vulcanized silicone, pulled all her teeth, and didn't know what to do about the eyes. They put her on a respirator.

It was an orderly who first noticed the blackened and bloody T-shirt they had cut from her. Some of the message was unreadable, but it began, "I can't go on this way anymore..."

There is no other way I could have told all that. I discovered it piecemeal, starting with the disturbed look on Dr. Stuart's face when Lisa didn't show up the next day. He wouldn't tell me anything, and I had another seizure shortly after.

The next week is a blur. Betty was very good to me. They gave me a tranquilizer called Tranxene, and it was even better. I ate them like candy. I wandered in a drugged haze, eating only when Betty insisted, sleeping sitting up in my chair, coming awake not knowing where or who I was. I returned to the prison camp many times. Once I recall helping Lisa stack severed heads.

When I saw myself in the mirror, there was a vague smile on my face. It was Tranxene, caressing my frontal lobes. I knew that if I was to live much longer, me and Tranxene would have to become very good friends.

I eventually became capable of something that passed for rational thought. I was helped along somewhat by a visit from Osborne. I was trying at that time, to find reasons to live, and wondered if he had any.

"I'm very sorry," he started off. I said nothing. "This is on my own time," he went on. "The department doesn't know I'm here."

"Was it suicide?" I asked him.

"I brought along a copy of the... the note. She ordered it from a shirt company in Westwood, three days before the... accident."

He handed it to me, and I read it. I was mentioned, though not by name. I was "the man I love." She said she couldn't cope with my problems. It was a short note. You can't get too much on a T-shirt. I read it through five times, then handed it back to him.

"She told you Kluge didn't write his note. I tell you she didn't write this."

He nodded reluctantly. I felt a vast calm, with a howling nightmare just below it. Praise Tranxene.

"Can you back that up?"

"She saw me in the hospital shortly before the... accident. She was full of life and hope. You say she ordered the shirt three days before. I would have felt that. And that note is pathetic. Lisa was never pathetic."

He nodded again.

"Some things I want to tell you. There were no signs of a struggle. Mrs. Lanier is sure no one came in the front. The crime lab went over the whole place and we're sure no one was in there with her. I'd stake my life on the fact that no one entered or left that house. Now, I don't believe it was suicide, either, but do you have any suggestions?"

"The NSA," I said.

I explained about the last things she had done while I was still there. I told him of her fear of the government spy agencies. That was all I had.

"Well, I guess they're the ones who could do a thing like that, if anyone could. But I'll tell you, I have a hard time swallowing it. I don't know why, for one thing. Maybe you believe those people kill like you and I'd swat a fly." His look made it into a question.

"I don't know what I believe."

"I'm not saying they wouldn't kill for national security, or some such shit. But they'd have taken the computers, too. They wouldn't have left her alone, they wouldn't even have let her near that stuff after they killed Kluge."

"What you're saying makes sense."

He muttered on about it for quite some time. Eventually I offered him some wine. He accepted thankfully. I considered joining him-it would be a quick way to die-but did not. He drank the whole bottle, and was comfortably drunk when he suggested we go next door and look it over one more time. I was planning on visiting Lisa the next day, and knew I had to start somewhere building myself up for that, so I agreed to go with him.

We inspected the kitchen. The fire had blackened the counters and melted some linoleum, but not much else. Water had made a mess of the place. There was a brown stain on the floor which I was able to look at with no emotion.

So we went back to the living room, and one of the computers was turned on. There was a short message on the screen.

### **IF YOU WISH TO KNOW MORE PRESS ENTER \_**

"Don't do it," I told him. But he did. He stood, blinking solemnly, as the words wiped themselves out and a new message appeared.

### **YOU LOOKED**

The screen started to flicker and I was in my car, in darkness, with a pill in my mouth and another in my hand. I spit out the pill, and sat for a moment, listening to the old engine ticking over. In my hand was the plastic pill bottle. I felt very tired, but opened the car door and shut off the engine. I felt my way to the garage door and opened it. The air outside was fresh and sweet. I looked down at the pill bottle and hurried into the bathroom.

When I got through what had to be done there were a dozen pills floating in the toilet that hadn't even dissolved. There were the wasted shells of many more, and a lot of other stuff I won't bother to describe. I counted the pills in the bottle, remembered how many there had been, and wondered if I would make it.

I went over to Kluge's house and could not find Osborne. I was getting tired, but I made it back to my house and stretched out on the couch to see if I would live or die.

The next day I found the story in the paper. Osborne had gone home and blown out the back of his head with his revolver. It was not a big story. It happens to cops all the time. He didn't leave a note.

I got on the bus and rode out to the hospital and spent three hours trying to get in to see Lisa. I wasn't able to do it. I was not a relative and the doctors were quite firm about her having no visitors. When I got angry they were as gentle as possible. It was then I learned the extent of her injuries. Hal had kept the worst from me. None of it would have mattered, but the doctors swore there was nothing left in her head. So I went home.

She died two days later.

She had left a will, to my surprise. I got the house and contents. I picked up the phone as soon as I learned of it, and called a garbage company. While they were on the way over I went for the last time into Kluge's house.

The same computer was still on, and it gave the same message.

### **PRESS ENTER \_**

I cautiously located the power switch, and turned it off. I had the garbage people strip the place to the bare walls.

I went over my own house very carefully, looking for anything that was even the first cousin to a computer. I threw out the radio. I sold the car, and the refrigerator, and the stove, and the blender, and the electric clock. I drained the waterbed and threw out the heater.

Then I bought the best propane stove on the market, and hunted a long time before I found an old icebox. I had the garage stacked to the ceiling with firewood. I had the chimney cleaned. It would be getting cold soon.

One day I took the bus to Pasadena and established the Lisa Foo Memorial Scholarship fund for Vietnamese refugees and their children. I endowed it with seven hundred thousand eighty-three dollars and four cents. I told them it could be used for any field of study except computer science. I could tell they thought me eccentric.

And I really thought I was safe, until the phone rang.

I thought it over for a long time before answering it. In the end, I knew it would just keep on going until I did. So I picked it up.

For a few seconds there was a dial tone, but I was not fooled. I kept holding it to my ear, and finally the tone turned off. There was just silence. I listened intently. I heard some of those far-off musical tones that live in phone wires. Echoes of conversations taking place a thousand miles away. And something infinitely more distant and cool.

I do not know what they have incubated out there at the NSA. I don't know if they did it on purpose, or if it just happened, or if it even has anything to do with them, in the end. But I know it's out there, because I heard its soul breathing on the wires. I spoke very carefully.

"I do not wish to know any more," I said. "I won't tell anyone anything. Kluge, Lisa, and Osborne all committed suicide. I am just a lonely man, and I won't cause you any trouble."

There was a click, and a dial tone.

Getting the phone taken out was easy. Getting them to remove all the wires was a little harder, since once a place is wired they expect it to be wired forever. They grumbled, but when I started pulling them out myself, they relented, though they warned me it was going to cost.

PGE was harder. They actually seemed to believe there was a regulation requiring each house to be hooked up to the grid. They were willing to shut off my power-though hardly pleased about it-but they just weren't going to take the wires away from my house. I went up on the roof with an axe and demolished four feet of eaves as they gaped at me. Then they coiled up their wires and went home.

I threw out all my lamps, all things electrical. With hammer, chisel, and handsaw I went to work on the drywall just above the baseboards.

As I stripped the house of wiring I wondered many times why I was doing it. Why was it worth it? I couldn't have very many more years before a final seizure finished me off. Those years were not going to be a lot of fun.

Lisa had been a survivor. She would have known why I was doing this. She had once said I was a survivor, too. I survived the camp. I survived the death of my mother and father and managed to fashion a solitary life. Lisa survived the death of just about everything. No survivor expects to live through it all. But while she was alive, she would have worked to stay alive.

And that's what I did. I got all the wires out of the walls, went over the house with a magnet to see if I had missed any metal, then spent a week cleaning up, fixing the holes I had knocked in the walls, ceiling, and attic. I was amused trying to picture the real-estate agent selling this place after I was gone.

It's a great little house, folks. No electricity...

Now I live quietly, as before.

I work in my garden during most of the daylight hours. I've expanded it considerably, and even have things growing in the front yard now.

I live by candlelight, and kerosene lamp. I grow most of what I eat.

It took a long time to taper off the Tranxene and the Dilantin, but I did it, and now take the seizures as they come. I've usually got bruises to show for it.

In the middle of a vast city I have cut myself off. I am not part of the network growing faster than I can conceive. I don't even know if it's dangerous to ordinary people. It noticed me, and Kluge, and Osborne. And Lisa. It brushed against our minds like I would brush away a mosquito, never noticing I had crushed it. Only I survived.

But I wonder.

It would be very hard... Lisa told me how it can get in through the wiring. There's something called a carrier wave that can move over wires carrying household current. That's why the electricity had to go.

I need water for my garden. There's just not enough rain here in southern California, and I don't know how else I could get the water.

Do you think it could come through the pipes?

## **PUSHER**

John Varley didn't send any biographical information with his manuscript; when I called him he said he didn't believe in that sort of thing. Just make something up. Oh, the temptation. For the sake of the publisher's legal department, though, I won't yield to it.

Varley is generally considered to have been one of the two or three most important writers to emerge in the 1970s. His novella "The Persistence of Vision" won both Hugo and Nebula awards, and provides the title for his collection of short stories. His latest novel, *Demon*, completes the trilogy started with *Titan* and *Wizard*. He lives in a land where the river runs backwards and he is named after an herb.

Things change. Ian Haise expected that. Yet there are certain constants, dictated by function and use. Ian looked for those and he seldom went wrong.

The playground was not much like the ones he had known as a child. But playgrounds are built to entertain children. They will always have something to swing on, something to slide down, something to climb. This one had all those things, and more. Part of it was thickly wooded. There was a swimming hole. The stationary apparatus was combined with dazzling light sculptures that darted in and out of reality. There were animals too: pygmy rhinoceros and elegant gazelles no taller than your knee. They seemed unnaturally gentle and unafraid.

But most of all, the playground had children.

Ian liked children.

He sat on a wooden park bench at the edge of the trees, in the shadows, and watched them. They came in all colors and all sizes, in both sexes. There were black ones like animated licorice jellybeans and white ones like bunny rabbits, and brown ones with curly hair and more brown ones with slanted eyes and straight black hair and some who had been white but were now toasted browner than some of the brown ones.

Ian concentrated on the girls. He had tried with boys before, long ago, but it had not worked out.

He watched one black child for a time, trying to estimate her age. He thought it was around eight or nine. Too young. Another one was more like thirteen, judging from her shirt. A possibility, but he'd prefer something younger. Somebody less sophisticated, less suspicious.

Finally he found a girl he liked. She was brown, but with startling blond hair. Ten? Possibly eleven. Young enough, at any rate.

He concentrated on her and did the strange thing he did when he had selected the right one. He didn't know what it was, but it usually worked. Mostly it was just a matter of looking at her, keeping his eyes fixed on her no matter where she went or what she did, not allowing himself to be distracted by anything.



And sure enough, in a few minutes she looked up, looked around, and her eyes locked with his. She held his gaze for a moment, then went back to her play.

He relaxed. Possibly what he did was nothing at all. He had noticed, with adult women, that if one really caught his eye so he found himself staring at her, she would usually look up from what she was doing and catch him. It never seemed to fail. Talking to other men, he had found it to be a common experience. It was almost as if they could feel his gaze. Women had told him it was nonsense, or if not, it was just reaction to things seen peripherally by people trained to alertness for sexual signals. Merely an unconscious observation penetrating to the awareness; nothing mysterious, like ESP.

Perhaps. Still, Ian was very good at this sort of eye contact. Several times he had noticed the girls rubbing the backs of their necks while he observed them, or hunching their shoulders. Maybe they'd developed some kind of ESP and just didn't recognize it as such.

Now he merely watched her. He was smiling, so that every time she looked up to see him-which she did with increasing frequency-she saw a friendly, slightly graying man with a broken nose and powerful shoulders. His hands were strong too. He kept them clasped in his lap.

Presently she began to wander in his direction.

No one watching her would have thought she was coming toward him. She probably didn't know it herself. On her way, she found reasons to stop and tumble, jump on the soft rubber mats, or chase a flock of noisy geese. But she was coming toward him, and she would end up on the park bench beside him.

He glanced around quickly. As before, there were few adults in this playground. It had surprised him when he arrived. Apparently the new conditioning techniques had reduced the numbers of the violent and twisted to the point that parents felt it safe to allow their children to run without supervision. The adults present were involved with each other. No one had given him a second glance when he arrived.

That was fine with Ian. It made what he planned to do much easier. He had his excuses ready, of course, but it could be embarrassing to be confronted with the questions representatives of the law ask single, middle-aged men who hang around playgrounds.

For a moment he considered, with real concern, how the parents of these children could feel so confident, even with mental conditioning. After all, no one was conditioned until he had first done something. New maniacs were presumably being produced every day. Typically, they looked just like everyone else until they proved their difference by some demented act.

Somebody ought to give those parents a stern lecture, he thought.

"Who are you?"

Ian frowned. Not eleven, surely, not seen up this close. Maybe not even ten. She might be as young as eight.

Would eight be all right? He tasted the idea with his usual caution, looked around again for curious eyes. He saw none.

"My name is Ian. What's yours?"

"No. Not your name. Who are you?"

"You mean what do I do?"

"Yes."

"I'm a pusher."

She thought that over, then smiled. She had her permanent teeth, crowded into a small jaw.

"You give away pills?"

He laughed. "Very good," he said. "You must do a lot of reading." She said nothing, but her manner indicated she was pleased.

"No," he said. "That's an old kind of pusher. I'm the other kind. But you knew that, didn't you?" When he smiled, she broke into giggles. She was doing the pointless things with her hands that little girls do. He thought she had a pretty good idea of how cute she was, but no inkling of her forbidden eroticism. She was a ripe seed with sexuality ready to burst to the surface. Her body was a bony sketch, a framework on which to build a woman.

"How old are you?" he asked.

"That's a secret. What happened to your nose?"

"I broke it a long time ago. I'll bet you're twelve."

She giggled, then nodded. Eleven, then. And just barely.

"Do you want some candy?" He reached into his pocket and pulled out the pink-and-white-striped paper bag.

She shook her head solemnly. "My mother says not to take candy from strangers."

"But we're not strangers. I'm Ian, the pusher."

She thought that over. While she hesitated, he reached into the bag and picked out a chocolate thing so thick and gooey it was almost obscene. He bit into it, forcing himself to chew. He hated sweets.

"Okay," she said, and reached toward the bag. He pulled it away. She looked at him in innocent surprise.

"I just thought of something," he said. "I don't know your name. So I guess we are strangers."

She caught on to the game when she saw the twinkle in his eye. He'd practiced that. It was a good twinkle.

"My name is Radiant. Radiant Shining star Smith."

"A very fancy name," he said, thinking how names had changed. "For a very pretty girl." He paused, and cocked his head. "No. I don't think so. You're Radiant... Starr. With two r's... Captain Radiant Starr, of the Star Patrol."

She was dubious for a moment. He wondered if he'd judged her wrong. Perhaps she was really Miz Radiant Fainting heart Belle, or Mrs. Radiant Motherhood. But her fingernails were a bit dirty for that.

She pointed a finger at him and made a Donald Duck sound as her thumb worked back and forth. He put his hand to his heart and fell over sideways, and she dissolved in laughter. She was careful, however, to keep her weapon firmly trained on him.

"And you'd better give me that candy or I'll shoot you again."

The playground was darker now, and not so crowded. She sat beside him on the bench, swinging her legs. Her bare feet did not quite touch the dirt.

She was going to be quite beautiful. He could see it clearly in her face. As for the body... who could tell?

Not that he really gave a damn.

She was dressed in a little of this and a little of that, worn here and there without much regard for his concepts of modesty. Many of the children wore nothing. It had been something of a shock when he arrived. Now he was almost used to it, but he still thought it incautious on the part of her parents. Did they really think the world was that safe, to let an eleven year-old girl go practically naked in a public place?

He sat there listening to her prattle about her friends-the ones she hated and the one or two she simply adored-with only part of his attention.

He inserted um's and uh-huh's in the right places.

She was cute, there was no denying it. She seemed as sweet as a child that age ever gets, which can be very sweet and as poisonous as a rattlesnake, almost at the same moment. She had the capacity to be warm, but it was on the surface. Underneath, she cared mostly about herself. Her loyalty would be a transitory thing, bestowed easily, just as easily forgotten.

And why not? She was young. It was perfectly healthy for her to be that way.

But did he dare try to touch her?

It was crazy. It was as insane as they all told him it was. It worked so seldom. Why would it work with her? He felt a weight of defeat.

"Are you okay?"

"Huh? Me? Oh, sure, I'm all right. Isn't your mother going to be worried about you?"

"I don't have to be in for hours, and hours yet." For a moment she looked so grown-up he almost believed the lie.

"Well, I'm getting tired of sitting here. And the candy's all gone." He looked at her face. Most of the chocolate had ended up in a big circle around her mouth, except where she had wiped it daintily on her

shoulder or forearm. "What's back there?"

She turned.

"That? That's the swimming hole."

"Why don't we go over there? I'll tell you a story."

The promise of a story was not enough to keep her out of the water. He didn't know if that was good or bad. He knew she was smart, a reader, and she had an imagination. But she was also active. That pull was too strong for him. He sat far from the water, under some bushes, and watched her swim with the three other children still in the park this late in the evening.

Maybe she would come back to him, and maybe she wouldn't. It wouldn't change his life either way, but it might change hers.

She emerged dripping and infinitely cleaner from the murky water. She dressed again in her random scraps, for whatever good it did her, and came to him, shivering.

"I'm cold," she said.

"Here." He took off his jacket. She looked at his hands as he wrapped it around her, and she reached out and touched the hardness of his shoulder.

"You sure must be strong," she commented.

"Pretty strong. I work hard, being a pusher."

"Just what is a pusher?" she said, and stifled a yawn.

"Come sit on my lap, and I'll tell you."

He did tell her, and it was a very good story that no adventurous child could resist. He had practiced that story, refined it, told it many times into a recorder until he had the rhythms and cadences just right, until he found just the right words not too difficult words, but words with some fire and juice in them.

And once more he grew encouraged. She had been tired when he started, but he gradually caught her attention. It was possible no one had ever told her a story in quite that way. She was used to sitting before the screen and having a story shoved into her eyes and ears. It was something new to be able to interrupt with questions and get answers. Even reading was not like that. It was the oral tradition of storytelling, and it could still mesmerize the nth generation of the electronic age.

"That sounds great," she said, when she was sure he was through.

"You liked it?"

"I really truly did. I think I want to be a pusher when I grow up. That was a really neat story."

"Well, that's not actually the story I was going to tell you. That's just what it's like to be a pusher."

"You mean you have another story?"

"Sure." He looked at his watch. "But I'm afraid it's getting late. It's almost dark, and everybody's gone home. You'd probably better go too."

She was in agony, torn between what she was supposed to do and what she wanted. It really should be no contest, if she was who he thought she was.

"Well... but-but I'll come back here tomorrow and you-"

He was shaking his head.

"My ship leaves in the morning," he said. "There's no time."

"Then tell me now! I can stay out. Tell me now. Please please please?"

He coyly resisted, harrumphed, protested, but in the end allowed himself to be seduced. He felt very good. He had her like a five-pound trout on a twenty-pound line. It wasn't sporting. But, then, he wasn't playing a game.

So at last he got to his specialty.

He sometimes wished he could claim the story for his own, but the fact was he could not make up stories. He no longer tried to. Instead, he cribbed from every fairy tale and fantasy story he could find. If he had a genius, it was in adapting some of the elements to fit the world she knew-while keeping it strange enough to enthrall her-and in ad-libbing the end to personalize it.

It was a wonderful tale he told. It had enchanted castles sitting on mountains of glass, moist caverns beneath the sea, fleets of starships, and shining riders astride horses that flew the galaxy. There were evil alien creatures, and others with much good in them. There were drugged potions. Scaled beasts roared

out of hyperspace to devour planets.

Amid all the turmoil strode the Prince and Princess. They got into frightful jams and helped each other out of them.

The story was never quite the same. He watched her eyes. When they wandered, he threw away whole chunks of story. When they widened, he knew what parts to plug in later. He tailored it to her reactions.

The child was sleepy. Sooner or later she would surrender. He needed her in a trance state, neither awake nor asleep. That was when the story would end. ... and though the healers labored long and hard, they could not save the Princess. She died that night, far from her Prince.", Her mouth was a little round o. Stories were not supposed to end that way.

"Is that all? She died and she never saw the Prince again?"

"Well, not quite all. But the rest of it probably isn't true, and I shouldn't tell it to you." Ian felt pleasantly tired. His throat was a little raw, making him hoarse. Radiant was a warm weight on his lap.

"You have to tell me, you know," she said reasonably. He supposed she was right. He took a deep breath.

"All right. At the funeral, all the greatest people from that part of the galaxy were in attendance. Among them was the greatest Sorcerer who ever lived. His name... but I really shouldn't tell you his name. I'm sure he'd be very cross if I did.

"This Sorcerer passed by the Princess's bier... that's a-

"I know, I know, Ian. Go on!"

"Suddenly he frowned and leaned over her pale form. 'What is this?' he thundered. 'Why was I not told?' Everyone was very concerned. This Sorcerer was a dangerous man. One time when someone insulted him he made a spell that turned everyone's heads backwards so they had to walk around with rearview mirrors. No one knew what he would do if he got really angry.

"This Princess is wearing the Star stone,' he said, and drew himself up and frowned all around as if he were surrounded by idiots. I'm sure he thought he was and maybe he was right. Because he went on to tell them just what the Star stone was, and what it did, something no one there had ever heard before. And this is the part I'm not sure of. Because, though everyone new the Sorcerer was a wise and powerful man, he was also known as a great liar.

"He said that the Star stone was capable of capturing the essence of a person at the moment of her death. All her wisdom, all her power, all her knowledge and beauty and strength would flow into the stone and be held there, timelessly."

"In suspended animation," Radiant breathed.

"Precisely. When they heard this, the people were amazed. They buffeted the Sorcerer with questions, to which he gave few answers, and those only grudgingly. Finally he left in a huff. When he was gone, everyone talked long into the night about the things he had said. Some felt the Sorcerer had held out hope that the Princess might yet live on. That if her body was frozen, the Prince, upon his return, might somehow infuse her essence back within her. Others thought the Sorcerer had said that was impossible, that the Princess was doomed to a half-life, locked in the stone.

"But the opinion that prevailed was this:

"The Princess would probably never come fully back to life. But her essence might flow from the Star stone and into another, if the right person could be found. All agreed this person must be a young maiden. She must be beautiful, very smart, swift of foot, loving, kind... oh, my, the list was very long. Everyone doubted such a person could be found. Many did not even want to try.

"But at last it was decided the Star stone should be given to a faithful friend of the Prince. He would search the galaxy for this maiden. If she existed, he would find her.

"So he departed with the blessings of many worlds behind him, vowing to find the maiden and give her the Star stone."

He stopped again, cleared his throat, and let the silence grow.

"Is that all?" she said at last, in a whisper.

"Not quite all," he admitted. "I'm afraid I tricked you."

"Tricked me?"

He opened the front of his coat, which was still draped around her shoulders. He reached in past her bony chest and down into an inner pocket of the coat. He came up with the crystal. It was oval, with one side flat. It pulsed ruby light as it sat in the palm of his hand.

"It shines," she said, looking at it wide-eyed and openmouthed.

"Yes, it does. And that means you're the one."

"Me?"

"Yes. Take it." He handed it to her, and as he did so, he nicked it with his thumbnail. Red light spilled into her hands, flowed between her fingers, seemed to soak into her skin. When it was over, the crystal still pulsed, but dimmed. Her hands were trembling.

"It felt very, very hot," she said.

"That was the essence of the Princess."

"And the Prince? Is he still looking for her?"

"No one knows. I think he's still out there, and someday he will come back for her."

"And what then?"

He looked away from her. "I can't say. I think, even though you are lovely, and even though you have the Star stone, that he will just pine away. He loved her very much."

"I'd take care of him," she promised.

"Maybe that would help. But I have a problem now. I don't have the heart to tell the Prince that she is dead. Yet I feel that the Star stone will draw him to it one day. If he comes and finds you, I fear for him. I think perhaps I should take the stone to a far part of the galaxy, someplace he could never find it. Then at least he would never know. It might be better that way."

"But I'd help him," she said earnestly. "I promise I'd wait for him, and when he came, I'd take her place. You'll see."

He studied her. Perhaps she would. He looked into her eyes for a long time, and at last let her see his satisfaction.

"Very well. You can keep it, then."

"I'll wait for him," she said. "You'll see."

She was very tired, almost asleep.

"You should go home now," he suggested.

"Maybe I could just lie down for a moment," she said.

"All right." He lifted her gently and placed her supine on the ground. He stood looking at her, then knelt beside her and began to stroke her forehead gently. She opened her eyes with no alarm, then closed them again. He continued to stroke her.

Twenty minutes later he left the playground, alone.

He was always depressed afterwards. It was worse than usual this time. She had been much nicer than he had imagined at first. Who could have guessed such a romantic heart beat beneath all that dirt?

He found a phone booth several blocks away. Punching her name into information yielded a fifteen-digit number, which he called. He held his hand over the camera eye.

A woman's face appeared on his screen.

"Your daughter is in the playground, at the south end by the pool, under the bushes," he said. He gave the address of the playground.

"We were so worried! What... is she... who is-"

He hung up and hurried away.

Most of the other pushers thought he was sick. Not that it mattered. Pushers were a tolerant group when it came to other pushers, and especially when it came to anything a pusher might care to do to a puller. He wished he had never told anyone how he spent his leave time, but he had, and now he had to live with it.

So, while they didn't care if he amused himself by pulling the legs and arms off infant puller pups, they were all just back from ground leave and couldn't pass up an opportunity to get on each other's nerves. They ragged him mercilessly.

"How were the swing-sets this trip, Ian?"

"Did you bring me those dirty knickers I asked for?"

"Was it good for you, honey? Did she pant and slobber?"

"My ten-year-old baby, she's a-pullin' me back home.. "

Ian bore it stoically. It was in extremely bad taste, and, he was the brunt of it, but it really didn't matter. It would end as soon as they lifted again. They would never understand what he sought, but he felt he understood them. They hated coming to Earth. There was nothing for them there, and perhaps they wished there were.

And he was a pusher himself. He didn't care for pullers. He agreed with the sentiment expressed by Marian, shortly after lift-off. Marian had just finished her first ground leave after her first voyage. So naturally she was the drunkest of them all.

"Gravity sucks," she said, and threw up.

It was three months to Amity, and three months back. He hadn't the foggiest idea how far it was in miles; after the tenth or eleventh zero his mind clicked off.

Amity. Shit City. He didn't even get off the ship. Why bother? The planet was peopled with things that looked a little like ten-ton caterpillars and a little like sentient green curds. Toilets were a revolutionary idea to the Amity; so were ice cream bars, sherbets, sugar donuts, and peppermint. Plumbing had never caught on, but sweets had, and fancy desserts from every nation on Earth. In addition, there was a pouch of reassuring mail for the forlorn human embassy. The cargo for the return trip was some grayish sludge that Ian supposed someone on Earth found tremendously valuable, and a packet of desperate mail for the folks back home. Ian didn't need to read the letters to know what was in them. They could all be summed up as "Get me out of here!"

He sat at the viewport and watched an Amity family lumbering and farting its way down the spaceport road. They paused every so often to do something that looked like an alien cluster-fuck. The road was brown. The land around it was brown, and in the distance were brown, unremarkable T hills. There was a brown haze in the air, and the sun was yellow-brown.

He thought of castles perched on mountains of glass, of Princes and Princesses, of shining white horses galloping among the stars.

He spent the return trip just as he had on the way out: sweating down in the gargantuan pipes of the stardrive. Just beyond the metal walls, unimaginable energies pulsed. And on the walls themselves, tiny plasmoids grew into bigger plasmoids. = The process was too slow to see, but if left unchecked the encrustations would soon impair the engines. His job was to scrape them off.

Not everyone was cut out to be an astrogator.

And what of it? It was honest work. He had made his choices long ago. You spent your life either pulling gees or ' : pushing c. And when you got tired, you grabbed some z's. If there was a pushers' code, that was it.

The plasmoids were red and crystalline, teardrop-shaped. When he broke them free of the walls, they had one fiat side. They were full of a liquid light that felt as hot as the center of the sun.

It was always hard to get off the ship. A lot of pushers never did. One day, he wouldn't either.

He stood for a few moments looking at it all. It was necessary to soak it in passively at first, get used to the changes. Big changes didn't bother him. Buildings were just the world's furniture, and he didn't care how it was arranged. Small changes worried the shit out of him. Ears, for instance. Very few of the people he saw had earlobes. Each time he returned, he felt a little more like an ape who has fallen from his tree. One day he'd return to find that everybody had three eyes or six fingers, or that little girls no longer cared to hear stories of adventure.

He stood there dithering, getting used to the way people were painting their faces, listening to what sounded like Spanish being spoken all around him. Occasional English or Arabic words seasoned it. He grabbed a crewmate's arm and asked him where they were. The man didn't know. So he asked the captain, and she said it was Argentina, or it had been when they left.

The phone booths were smaller. He wondered why.

There were four names in his book. He sat there facing the phone, wondering which name to call first.

His eyes were drawn to Radiant Shining star Smith, so he punched that name into the phone. He got a number and an address in Novosibirsk.

Checking the timetable he had picked-putting off making the call-he found the antipodean shuttle left on the hour. Then he wiped his hands on his pants and took a deep breath and looked up to see her standing outside the phone booth. They regarded each other silently for a moment. She saw a man much shorter than she remembered, but powerfully built, with big hands and shoulders and a pitted face that would have been forbidding but for the gentle eyes. He saw a tall woman around forty years old who was fully as beautiful as he had expected she would be. The hand of age had just begun to touch her. He thought she was fighting that waistline and fretting about those wrinkles, but none of that mattered to him. Only one thing mattered, and he would know it soon enough.

"You are Ian Haise, aren't you?" she said at last.

"It was sheer luck I remembered you again," she was saying. He noted the choice of words. She could have said coincidence.

"It was two years ago. We were moving again and I was sorting through some things and I came across that plasmoid. I hadn't thought about you in... oh, it must have been fifteen years."

He said something noncommittal. They were in a restaurant, away from most of the other patrons, at a booth near a glass wall beyond which spaceships were being trundled to and from the blast pits.

"I hope I didn't get you into trouble," he said.

She shrugged it away.

"You did, some, but that was so long ago. I certainly wouldn't bear a grudge that long. And the fact is, I thought it was all worth it at the time."

She went on to tell him of the uproar he had caused in her family, of the visits by the police, the interrogation, puzzlement, and final helplessness. No one knew quite what to make of her story. They had identified him quickly enough, only to find he had left Earth, not to return for a long, long time.

"I didn't break any laws," he pointed out.

"That's what no one could understand. I told them you had talked to me and told me a long story, and then I went to sleep. None of them seemed interested in what the story was about. So I didn't tell them. And I didn't tell them about the... the Starstone." She smiled. "Actually, I was relieved they hadn't asked. I was determined not to tell them, but I was a little afraid of holding it all back. I thought they were agents of the... who were the villains in your story? I've forgotten."

"It's not important."

"I guess not. But something is."

"Yes."

"Maybe you should tell me what it is. Maybe you can answer the question that's been in the back of my mind for twenty-five years, ever since I found out that thing you gave me was just the scrapings from a starship engine."

"Was it?" he said, looking into her eyes. "Don't get me wrong. I'm not saying it was more than that. I'm asking you if it wasn't more."

"Yes, I guess it was more," she said at last.

"I'm glad."

"I believed in that story passionately for... oh, years and years. Then I stopped believing it."

"All at once?"

"No. Gradually. It didn't hurt much. Part of growing up, I guess."

"And you remembered me."

"Well, that took some work. I went to a hypnotist when I was twenty-five and recovered your name and the name of your ship. Did you know-"

"Yes. I mentioned them on purpose."

She nodded, and they fell silent again. When she looked at him now, he saw more sympathy, less defensiveness. But there was still a question.

"Why?" she said.

He nodded, then looked away from her, out to the starships. He wished he was on one of them,

pushing c. It wasn't working. He knew it wasn't. He was a weird problem to her, something to get straightened out, a loose end in her life that would irritate until it was made to fit in, then be forgotten.

To hell with it.

"Hoping to get laid," he said. When he looked up, she was slowly shaking her head back and forth.

"Don't trifle with me, Haise. You're not as stupid as you look. You knew I'd be married, leading my own life. You knew I wouldn't drop it all because of some half-remembered fairy tale thirty years ago. Why?"

And how could he explain the strangeness of it all to her?

"What do you do?" He recalled something, and rephrased it. "Who are you?"

She looked startled. "I'm a mysteliologist."

He spread his hands. "I don't even know what that is."

"Come to think of it, there was no such thing when you left."

"That's it, in a way," he said. He felt helpless again. "Obviously, I had no way of knowing what you'd do, what you'd become, what would happen to you that you had no control over. All I was gambling on was that you'd remember me. Because that way..." He saw the planet Earth looming once more out the view port. So many, many years and only six months later. A planet full of strangers. It didn't matter that Amity was full of strangers. But Earth was home, if that word still had any meaning for him.

"I wanted somebody my own age I could talk to," he said. "That's all. All I want is a friend."

He could see her trying to understand what it was like. She wouldn't, but maybe she'd come close enough to think she did.

"Maybe you've found one," she said, and smiled. "At least I'm willing to get to know you, considering the effort you've put into this."

"It wasn't much effort. It seems so long-term to you, but it wasn't to me. I held you on my lap six months ago."

"How long is your leave?" she asked.

"Two months."

"Would you like to come stay with us for a while? We have room in our house."

"Will your husband mind?"

"Neither my husband nor my wife. That's them sitting over there, pretending to ignore us." Ian looked, caught the eye of a woman in her late twenties. She was sitting across from a man Ian's age, who now turned and looked at Ian with some suspicion but no active animosity. The woman smiled; the man reserved judgment.

Radiant had a wife. Well, times change.

"Those two in the red skirts are police," Radiant was saying. "So is that man over by the wall, and the one at the end of the bar."

"I spotted two of them," Ian said. When she looked surprised, he said, "Cops always have a look about them. That's one of the things that don't change."

"You go back quite a ways, don't you? I'll bet you have some good stories."

Ian thought about it, and nodded. "Some, I suppose."

"I should tell the police they can go home. I hope you don't mind that we brought them in."

"Of course not."

"I'll do that, and then we can go. Oh, and I guess I should call the children and tell them we'll be home soon." She laughed, reached across the table, and touched his hand. "See what can happen in six months? I have three children, and Gillian has two."

He looked up, interested.

"Are any of them girls?"

## **TANGO CHARLIE AND FOXTROT ROMEO**

The police probe was ten kilometers from Tango Charlie's Wheel when it made rendezvous with the unusual corpse. At this distance, the wheel was still an imposing presence, blinding white against the dark



sky, turning in perpetual sunlight. The probe was often struck by its beauty, by the myriad ways the wheel caught the light in its thousand and one windows. It had been composing a thought-poem around that theme when the corpse first came to its attention.

There was a pretty irony about the probe. Less than a meter in diameter, it was equipped with sensitive radar, very good visible-light camera eyes, and a dim awareness. Its sentient qualities came from a walnut-sized lump of human brain tissue cultured in a lab. This was the cheapest and simplest way to endow a machine with certain human qualities that were often useful in spying devices. The part of the brain used was the part humans use to appreciate beautiful things. While the probe watched, it dreamed endless beautiful dreams. No one knew this but the probe's control, which was a computer that had not bothered to tell anyone about it. The computer did think it was rather sweet, though.

There were many instructions the probe had to follow. It did so religiously. It was never to approach the wheel more closely than five kilometers. All objects larger than one centimeter leaving the wheel were to be pursued, caught, and examined. Certain categories were to be reported to higher authorities. All others were to be vaporized by the probe's small battery of lasers. In thirty years of observation, only a dozen objects had needed reporting. All of them proved to be large structural components of the wheel which had broken away under the stress of rotation. Each had been destroyed by the probe's larger brother, on station five hundred kilometers away.

When it reached the corpse, it immediately identified it that far: it was a dead body, frozen in a vaguely fetal position. From there on, the probe got stuck.

Many details about the body did not fit the acceptable parameters for such a thing. The probe examined it again, and still again, and kept coming up with the same unacceptable answers. It could not tell what the body was... and yet it was a body.

The probe was so fascinated that its attention wavered for some time, and it was not as alert as it had been these previous years. So it was unprepared when the second falling object bumped gently against its metal hide. Quickly the probe leveled a camera eye at the second object. It was a single, long-stemmed, red rose, of a type that had once flourished in the wheel's florist shop. Like the corpse, it was frozen solid. The impact had shattered some of the outside petals, which rotated slowly in a halo around the rose itself.

It was quite pretty. The probe resolved to compose a thought-poem about it when this was all over. The probe photographed it, vaporized it with its lasers-all according to instruction-then sent the picture out on the airwaves along with a picture of the corpse, and a frustrated shout.

"Help!" the probe cried, and sat back to await developments.

"A puppy?" Captain Hoeffler asked, arching one eyebrow dubiously.

"A Shetland Sheepdog puppy, sir," said Corporal Anna-Louise Bach, handing him the batch of holos of the enigmatic orbiting object, and the single shot of the shattered rose. He took them, leafed through them rapidly, puffing on his pipe.

"And it came from Tango Charlie?"

"There is no possible doubt about it, sir."

Bach stood at parade rest across the desk from her seated superior and cultivated a detached gaze. I'm only awaiting orders, she told herself. I have no opinions of my own. I'm brimming with information, as any good recruit should be, but I will offer it only when asked, and then I will pour it forth until asked to stop.

That was the theory, anyway. Bach was not good at it. It was her ineptitude at humoring incompetence in superiors that had landed her in this assignment, and put her in contention for the title of oldest living recruit/apprentice in the New Dresden Police Department.

"A Shetland..."

"Sheepdog, sir." She glanced down at him, and interpreted the motion of his pipestem to mean he wanted to know more. "A variant of the Collie, developed on the Shetland Isles of Scotland. A working dog, very bright, gentle, good with children."

"You're an authority on dogs, Corporal Bach?"

"No, sir. I've only seen them in the zoo. I took the liberty of researching this matter before bringing it to

your attention, sir."

He nodded, which she hoped was a good sign.

"What else did you learn?"

"They come in three varieties: black, blue merle, and sable. They were developed from Icelandic and Greenland stock, with infusions of Collie and possible Spaniel genes. Specimens were first shown at Cruft's in London in 1906, and in American-"

"No, no. I don't give a damn about Shelties."

"Ah. We have confirmed that there were four Shelties present on Tango Charlie at the time of the disaster. They were being shipped to the zoo at Clavius. There were no other dogs of any breed resident at the station. We haven't determined how it is that their survival was overlooked during the investigation of the tragedy."

"Somebody obviously missed them."

"Yes, sir."

Hoeffler jabbed at a holo with his pipe.

"What's this? Have you researched that yet?"

Bach ignored what she thought might be sarcasm. Hoeffler was pointing to the opening in the animal's side.

"The computer believes it to be a birth defect, sir. The skin is not fully formed. It left an opening into the gut."

"And what's this?"

"Intestines. The bitch would lick the puppy clean after birth. When she found this malformation, she would keep licking as long as she tasted blood. The intestines were pulled out, and the puppy died."

"It couldn't have lived anyway. Not with that hole."

"No, sir. If you'll notice, the forepaws are also malformed. The computer feels the puppy was stillborn."

Hoeffler studied the various holos in a blue cloud of pipe smoke, then sighed and leaned back in his chair.

"It's fascinating, Bach. After all these years, there are dogs alive on Tango Charlie. And breeding, too. Thank you for bringing it to my attention."

Now it was Bach's turn to sigh. She hated this part. Now it was her job to explain it to him.

"It's even more fascinating than that, sir. We knew Tango Charlie was largely pressurized. So it's understandable that a colony of dogs could breed there. But, barring an explosion, which would have spread a large amount of debris into the surrounding space, this dead puppy must have left the station through an airlock."

His face clouded, and he looked at her in gathering outrage.

"Are you saying... there are humans alive aboard Tango Charlie?"

"Sir, it has to be that... or some very intelligent dogs."

Dogs can't count.

Charlie kept telling herself that as she knelt on the edge of forever and watched little Albert dwindling, hurrying out to join the whirling stars. She wondered if he would become a star himself. It seemed possible.

She dropped the rose after him and watched it dwindle, too. Maybe it would become a rosy star.

She cleared her throat. She had thought of things to say. but none of them sounded good. So she decided on a hymn, the only one she knew, taught her long ago by her mother, who used to sing it for her father, who was a spaceship pilot. Her voice was clear and true.

Lord guard and guide all those who fly

Through Thy great void above the sky.

Be with them all on ev'ry flight,

In radiant day or darkest night.

Oh, hear our prayer, extend Thy grace

To those in peril deep in space.

She knelt silently for a while, wondering if God was listening, and if the hymn was good for dogs, too. Albert sure was flying through the void, so it seemed to Charlie he ought to be deserving of some grace.

Charlie was perched on a sheet of twisted metal on the bottom, or outermost layer of the wheel. There was no gravity anywhere in the wheel, but since it was spinning, the farther down you went the heavier you felt. Just beyond the sheet of metal was a void, a hole ripped in the wheel's outer skin, fully twenty meters across. The metal had been twisted out and down by the force of some long-ago explosion, and this part of the wheel was a good place to walk carefully, if you had to walk here at all.

She picked her way back to the airlock, let herself in, and sealed the outer door behind her. She knew it was useless, knew there was nothing but vacuum on the other side, but it was something that had been impressed on her very strongly. When you go through a door, you lock it behind you. Lock it tight. If you don't, the breathsucker will get you in the middle of the night.

She shivered, and went to the next lock, which also led only to vacuum, as did the one beyond that. Finally, at the fifth airlock, she stepped into a tiny room that had breathable atmosphere, if a little chilly. Then she went through yet another lock before daring to take off her helmet.

At her feet was a large plastic box, and inside it, resting shakily on a scrap of bloody blanket and not at all at peace with the world, were two puppies. She picked them up, one in each hand-which didn't make them any happier-and nodded in satisfaction.

She kissed them, and put them back in the box. Tucking it under her arm, she faced another door. She could hear claws scratching at this one.

"Down, Fuchsia," she shouted. "Down, momma-dog." The scratching stopped, and she opened the last door and stepped through.

Fuchsia O'Charlie Station was sitting obediently, her ears pricked up, her head cocked and her eyes alert with that total, quivering concentration only a mother dog can achieve.

"I've got 'em, Foosh," Charlie said. She went down on one knee and allowed Fuchsia to put her paws up on the edge of the box. "See? There's Helga, and there's Conrad, and there's Albert, and there's Conrad, and Helga. One, two, three, four, eleventy-nine and six makes twenty-seven. See?"

Fuchsia looked at them doubtfully, then leaned in to pick one up, but Charlie pushed her away.

"I'll carry them," she said, and they set out along the darkened corridor. Fuchsia kept her eyes on the box, whimpering with the desire to get to her pups.

Charlie called this part of the wheel The Swamp. Things had gone wrong here a long time ago, and the more time went by, the worse it got. She figured it had been started by the explosion-which, in its turn, had been an indirect result of The Dying. The explosion had broken important pipes and wires. Water had started to pool in the corridor. Drainage pumps kept it from turning into an impossible situation. Charlie didn't come here very often.

Recently plants had started to grow in the swamp. They were ugly things, corpse-white or dental-plaque-yellow or mushroom gray. There was very little light for them, but they didn't seem to mind. She sometimes wondered if they were plants at all. Once she thought she had seen a fish. It had been white and blind. Maybe it had been a toad. She didn't like to think of that.

Charlie sloshed through the water, the box of puppies under one arm and her helmet under the other. Fuchsia bounced unhappily along with her.

At last they were out of it, and back into regions she knew better. She turned right and went three flights up a staircase-dogging the door behind her at every landing-then out into the Promenade Deck, which she called home.

About half the lights were out. The carpet was wrinkled and musty, and worn in the places Charlie frequently walked. Parts of the walls were streaked with water stains, or grew mildew in leprous patches. Charlie seldom noticed these things unless she was looking through her pictures from the old days, or was coming up from the maintenance levels, as she was now. Long ago, she had tried to keep things clean, but the place was just too big for a little girl. Now she limited her housekeeping to her own living quarters-and like any little girl, sometimes forgot about that, too.

She stripped off her suit and stowed it in the locker where she always kept it, then padded a short way down the gentle curve of the corridor to the Presidential Suite, which was hers. As she entered, with

Fuchsia on her heels, a long-dormant television camera mounted high on the wall stuttered to life. Its flickering red eye came on, and it turned jerkily on its mount.

Anna-Louise Bach entered the darkened monitoring room, mounted the five stairs to her office at the back, sat down, and put her bare feet up on her desk. She tossed her uniform cap, caught it on one foot, and twirled it idly there. She laced her fingers together, leaned her chin on them, and thought about it.

Corporal Steiner, her number two on C Watch, came up to the platform, pulled a chair close, and sat beside her.

"Well? How did it go?"

"You want some coffee?" Bach asked him. When he nodded, she pressed a button in the arm of her chair. "Bring two coffees to the Watch Commander's station. Wait a minute... bring a pot, and two mugs." She put her feet down and turned to face him.

"He did figure out there had to be a human aboard."

Steiner frowned. "You must have given him a clue."

"Well, I mentioned the airlock angle."

"See? He'd never have seen it without that."

"All right. Call it a draw."

"So then what did our leader want to do?"

Bach had to laugh. Hoeffler was unable to find his left testicle without a copy of Gray's Anatomy.

"He came to a quick decision. We had to send a ship out there at once, find the survivors and bring them to New Dresden with all possible speed."

"And then you reminded him..."

"...that no ship had been allowed to get within five kilometers of Tango Charlie for thirty years. That even our probe had to be small, slow, and careful to operate in the vicinity, and that if it crossed the line it would be destroyed, too. He was all set to call the Oberluftwaffe headquarters and ask for a cruiser. I pointed out that A, we already had a robot cruiser on station under the reciprocal trade agreement with Allgemein Fernsehen Gesellschaft; B, that it was perfectly capable of defeating Tango Charlie without any more help; but C, any battle like that would kill whoever was on Charlie; but that in any case, D, even if a ship could get to Charlie there was a good reason for not doing so."

Emil Steiner winced, pretending pain in the head.

"Anna, Anna, you should never list things to him like that, and if you do, you should never get to point D."

"Why not?"

"Because you're lecturing him. If you have to make a speech like that, make it a set of options, which I'm sure you've already seen, sir, but which I will list for you, sir, to get all our ducks in a row. Sir."

Bach grimaced, knowing he was right. She was too impatient.

The coffee arrived, and while they poured and took the first sips, she looked around the big monitoring room. This is where impatience gets you.

In some ways, it could have been a lot worse. It looked like a good job. Though only a somewhat senior Recruit/Apprentice Bach was in command of thirty other R/A's on her watch, and had the rank of Corporal. The working conditions were good: clean, high-tech surroundings, low job stress, the opportunity to command, however fleetingly. Even the coffee was good.

But it was a dead-end, and everyone knew it. It was a job many rookies held for a year or two before being moved on to more important and prestigious assignments: part of a routine career. When a R/A stayed in the monitoring room for five years, even as a watch commander, someone was sending her a message. Bach understood the message, had realized the problem long ago. But she couldn't seem to do anything about it. Her personality was too abrasive for routine promotions. Sooner or later she angered her commanding officers in one way or another. She was far too good for anything overtly negative to appear in her yearly evaluations. But there were ways such reports could be written, good things left un-said, a lack of excitement on the part of the reporting officer... all things that added up to stagnation.

So here she was in Navigational Tracking, not really a police function at all, but something the New Dresden Police Department had handled for a hundred years and would probably handle for a hundred

more.

It was a necessary job. So is garbage collection. But it was not what she had signed up for, ten years ago.

Ten years! God, it sounded like a long time. Any of the skilled guilds were hard to get into, but the average apprenticeship in New Dresden was six years.

She put down her coffee cup and picked up a hand mike.

"Tango Charlie, this is Foxtrot Romeo. Do you read?"

She listened, and heard only background hiss. Her troops were trying every available channel with the same message, but this one had been the main channel back when TC-38 had been a going concern.

"Tango Charlie, this is Foxtrot Romeo. Come in, please."

Again, nothing.

Steiner put his cup close to hers, and leaned back in his chair.

"So did he remember what the reason was? Why we can't approach?"

"He did, eventually. His first step was to slap a top-priority security rating on the whole affair, and he was confident the government would back him up."

"We got that part. The alert came through about twenty minutes ago."

"I figured it wouldn't do any harm to let him send it. He needed to do something. And it's what I would have done."

"It's what you did, as soon as the pictures came in."

"You know I don't have the authority for that."

"Anna, when you get that look in your eye and say, 'If one of you bastards breathes a word of this to anyone, I will cut out your tongue and eat it for breakfast,'... well, people listen."

"Did I say that?"

"Your very words."

"No wonder they all love me so much."

She brooded on that for a while, until T/A3 Klosinski hurried up the steps to her office.

"Corporal Bach, we've finally seen something," he said.

Bach looked at the big semicircle of flat television screens, over three hundred of them, on the wall facing her desk. Below the screens were the members of her watch, each at a desk/console, each with a dozen smaller screens to monitor. Most of the large screens displayed the usual data from the millions of objects monitored by NavTrack radar, cameras, and computers. But fully a quarter of them now showed curved, empty corridors where nothing moved, or equally lifeless rooms. In some of them skeletons could be seen.

The three of them faced the largest screen on Bach's desk, and unconsciously leaned a little closer as a picture started to form. At first it was just streaks of color. Klosinski consulted a datapad on his wrist.

"This is from camera 14/P/delta. It's on the Promenade Deck. Most of that deck was a sort of PX, with shopping areas, theaters, clubs, so forth. But one sector had VIP suites, for when people visited the station. This one's just outside the Presidential Suite."

"What's wrong with the picture?"

Klosinski sighed.

"Same thing wrong with all of them. The cameras are old. We've got about five percent of them in some sort of working order, which is a miracle. The Charlie computer is fighting us for every one."

"I figured it would."

"In just a minute... there! Did you see it?"

All Bach could see was a stretch of corridor, maybe a little fancier than some of the views already up on the wall, but not what Bach thought of as VIP. She peered at it, but nothing changed.

"No, nothing's going to happen now. This is a tape. We got it when the camera first came on." He fiddled with his data pad, and the screen resumed its multi-colored static. "I rewound it. Watch the door on the left."

This time Klosinski stopped the tape on the first recognizable image on the screen.

"This is someone's leg," he said, pointing. "And this is the tail of a dog."

Bach studied it. The leg was bare, and so was the foot. It could be seen from just below the knee.

"That looks like a Sheltie's tail," she said.

"We thought so, too."

"What about the foot?"

"Look at the door," Steiner said. "In relation to the door, the leg looks kind of small."

"You're right," Bach said. A child? she wondered. "Okay. Watch this one around the clock. I suppose if there was a camera in that room, you'd have told me about it."

"I guess VIP's don't like to be watched."

"Then carry on as you were. Activate every camera you can, and tape them all. I've got to take this to Hoeffler."

She started down out of her wall-less office, adjusting her cap at an angle she hoped looked smart and alert.

"Anna," Steiner called. She looked back.

"How did Hoeffler take it when you reminded him Tango Charlie only has six more days left?"

"He threw his pipe at me."

Charlie put Conrad and Helga back in the whelping box, along with Dieter and Inga. All four of them were squealing, which was only natural, but the quality of their squeals changed when Fuchsia jumped in with them, sat down on Dieter, then plopped over on her side. There was nothing that sounded or looked more determined than a blind, hungry, newborn puppy, Charlie thought.

The babies found the swollen nipples, and Fuchsia fussed over them, licking their little bottoms. Charlie held her breath. It almost looked as if she was counting her brood, and that certainly wouldn't do.

"Good dog, Fuchsia," she cooed, to distract her, and it did. Fuchsia looked up, said I haven't got time for you now, Charlie, and went back to her chores.

"How was the funeral?" asked Tik-Tok the Clock.

"Shut up!" Charlie hissed. "You... you big idiot! It's okay, Foosh."

Fuchsia was already on her side, letting the pups nurse and more or less ignoring both Charlie and Tik-Tok. Charlie got up and went into the bathroom. She closed and secured the door behind her.

"The funeral was very beautiful," she said, pushing the stool nearer the mammoth marble washbasin and climbing up on it. Behind the basin the whole wall was a mirror, and when she stood on the stool she could see herself. She flounced her blonde hair out and studied it critically. There were some tangles.

"Tell me about it," Tik-Tok said. "I want to know every detail."

So she told him, pausing a moment to sniff her armpits. Wearing the suit always made her smell so gross. She clambered up onto the broad marble counter, went around the basin and goosed the 24-karat gold tails of the two dolphins who cavorted there, and water began gushing out of their mouths. She sat with her feet in the basin, touching one tail or another when the water got too hot, and told Tik-Tok all about it.

Charlie used to bathe in the big tub. It was so big it was more suited for swimming laps than bathing. One day she slipped and hit her head and almost drowned. Now she usually bathed in the sink, which was not quite big enough, but a lot safer.

"The rose was the most wonderful part," she said. "I'm glad you thought of that. It just turned and turned and turned..."

"Did you say anything?"

"I sang a song. A hymn."

"Could I hear it?"

She lowered herself into the basin. Resting the back of her neck on a folded towel, the water came up to her chin, and her legs from the knees down stuck out the other end. She lowered her mouth a little, and made burbling sounds in the water.

"Can I hear it? I'd like to hear."

"Lord, guide and guard all those who fly..."

Tik-Tok listened to it once, then joined in harmony as she sang it again, and on the third time through added an organ part. Charlie felt the tears in her eyes again, and wiped them with the back of her hand.

"Time to scrubba-scrubba-scrubba," Tik-Tok suggested.

Charlie sat on the edge of the basin with her feet in the water, and lathered a washcloth.

"Scrubba-scrub beside your nose," Tik-Tok sang.

"Scrubba-scrub beside your nose," Charlie repeated, and industriously scoured all around her face.

"Scrubba-scrub between your toes. Scrub all the jelly out of your belly. Scrub your butt, and your you-know-what."

Tik-Tok led her through the ritual she'd been doing so long she didn't even remember how long. A couple times he made her giggle by throwing in a new verse. He was always making them up. When she was done, she was about the cleanest little girl anyone ever saw, except for her hair.

"I'll do that later," she decided, and hopped to the floor, where she danced the drying-off dance in front of the warm air blower until Tik-Tok told her she could stop. Then she crossed the room to the vanity table and sat on the high stool she had installed there.

"Charlie, there's something I wanted to talk to you about," Tik-Tok said.

Charlie opened a tube called "Coral Peaches" and smeared it all over her lips. She gazed at the thousand other bottles and tubes, wondering what she'd use this time.

"Charlie, are you listening to me?"

"Sure," Charlie said. She reached for a bottle labeled "The Glenlivet, Twelve Years Old," twisted the cork out of it, and put it to her lips. She took a big swallow, then another, and wiped her mouth on the back of her arm.

"Holy mackerel! That's real sippin' whiskey!" she shouted, and set the bottle down. She reached for a tin of rouge.

"Some people have been trying to talk to me," Tik-Tok said. "I believe they may have seen Albert, and wondered about him."

Charlie looked up, alarmed-and, doing so, accidentally made a solid streak of rouge from her cheekbone to her chin.

"Do you think they shot at Albert?"

"I don't think so. I think they're just curious."

"Will they hurt me?"

"You never can tell."

Charlie frowned, and used her finger to spread black eyeliner all over her left eyelid. She did the same for the right, then used another jar to draw violent purple frown lines on her forehead. With a thick pencil she outlined her eyebrows.

"What do they want?"

"They're just prying people, Charlie. I thought you ought to know. They'll probably try to talk to you, later."

"Should I talk to them?"

"That's up to you."

Charlie frowned even deeper. Then she picked up the bottle of Scotch and had another belt.

She reached for the Rajah's Ruby and hung it around her neck.

Fully dressed and made up now, Charlie paused to kiss Fuchsia and tell her how beautiful her puppies were, then hurried out to the Promenade Deck.

As she did, the camera on the wall panned down a little, and turned a few degrees on its pivot. That made a noise in the rusty mechanism, and Charlie looked up at it. The speaker beside the camera made a hoarse noise, then did it again. There was a little puff of smoke, and an alert sensor quickly directed a spray of extinguishing gas toward it, then itself gave up the ghost. The speaker said nothing else.

Odd noises were nothing new to Charlie. There were places on the wheel where the clatter of faltering mechanisms behind the walls was so loud you could hardly hear yourself think.

She thought of the snooty people Tik-Tok had mentioned. That camera was probably just the kind of thing they'd like. So she turned her butt to the camera, bent over, and farted at it.

She went to her mother's room, and sat beside her bed telling her all about little Albert's funeral. When she felt she'd been there long enough she kissed her dry cheek and ran out of the room.

Up one level were the dogs. She went from room to room, letting them out, accompanied by a growing horde of barking jumping Shelties. Each was deliriously happy to see her, as usual, and she had to speak sharply to a few when they kept licking her face. They stopped on command; Charlie's dogs were all good dogs.

When she was done there were seventy-two almost identical dogs yapping and running along with her in a sable-and-white tide. They rushed by another camera with a glowing red light, which panned to follow them up, up, and out of sight around the gentle curve of Tango Charlie.

Bach got off the slidewalk at the 34strasse intersection. She worked her way through the crowds in the shopping arcade, then entered the Intersection-park, where the trees were plastic but the winos sleeping on the benches were real. She was on Level Eight. Up here, 34strasse was taprooms and casinos, second-hand stores, missions, pawn shops, and cheap bordellos. Free-lance whores, naked or in elaborate costumes according to their specialty, eyed her and sometimes propositioned her. Hope springs eternal; these men and women saw her every day on her way home. She waved to a few she had met, though never in a professional capacity.

It was a kilometer and a half to Count Otto Von Zeppelin Residential Corridor. She walked beside the slidewalk. Typically, it operated two days out of seven. Her own quarters were at the end of Count Otto, apartment 80. She palmed the printpad, and went in.

She knew she was lucky to be living in such large quarters on a T/A salary. It was two rooms, plus a large bath and a tiny kitchen. She had grown up in a smaller place, shared by a lot more people. The rent was so low because her bed was only ten meters from an arterial tubeway; the floor vibrated loudly every thirty seconds as the capsules rushed by. It didn't bother her. She had spent her first ten years sleeping within a meter of a regional air-circulation station, just beyond a thin metal apartment wall. It left her with a hearing loss she had been too poor to correct until recently.

For most of her ten years in Otto 80 she had lived alone. Five times, for periods varying from two weeks to six months, she shared with a lover, as she was doing now.

When she came in, Ralph was in the other room. She could hear the steady huffing and puffing as he worked out. Bach went to the bathroom and ran a tub as hot as she could stand it, eased herself in, and stretched out. Her blue paper uniform brief floated to the surface; she skimmed, wadded up, and tossed the soggy mass toward the toilet.

She missed. It had been that sort of day.

She lowered herself until her chin was in the water. Beads of sweat popped out on her forehead. She smiled, and mopped her face with a washcloth.

After a while Ralph appeared in the doorway. She could hear him, but didn't open her eyes.

"I didn't hear you come in," he said.

"Next time I'll bring a brass band."

He just kept breathing heavy, gradually getting it under control. That was her most vivid impression of Ralph, she realized: heavy breathing. That, and lots and lots of sweat. And it was no surprise he had nothing to say. Ralph was oblivious to sarcasm. It made him tiresome, sometimes, but with shoulders like his he didn't need to be witty. Bach opened her eyes and smiled at him.

Luna's low gravity made it hard for all but the most fanatical to aspire to the muscle mass one could develop on the Earth. The typical Lunarian was taller than Earth-normal, and tended to be thinner.

As a much younger woman Bach had become involved, very much against her better judgment, with an earthling of the species "jock." It hadn't worked out, but she still bore the legacy in a marked preference for beefcake. This doomed her to consorting with only two kinds of men: well-muscled mesomorphs from Earth, and single-minded Lunarians who thought nothing of pumping iron for ten hours a day. Ralph was one of the latter.

There was no rule, so far as Bach could discover, that such specimens had to be mental midgets. That was a stereotype. It also happened, in Ralph's case, to be true. While not actually mentally defective, Ralph Goldstein's idea of a tough intellectual problem was how many kilos to bench press. His spare time was spent brushing his teeth or shaving his chest or looking at pictures of himself in bodybuilding magazines. Bach knew for a fact that Ralph thought the Earth and Sun revolved around Luna.



He had only two real interests: lifting weights, and making love to Anna-Louise Bach. She didn't mind that at all.

Ralph had a swastika tattooed on his penis. Early on, Bach had determined that he had no notion of the history of the symbol; he had seen it in an old film and thought it looked nice. It amused her to consider what his ancestors might have thought of the adornment.

He brought a stool close to the tub and sat on it, then stepped on a floor button. The tub was Bach's chief luxury. It did a lot of fun things. Now it lifted her on a long rack until she was half out of the water. Ralph started washing that half. She watched his soapy hands.

"Did you go to the doctor?" he asked her.

"Yeah, I finally did."

"What did he say?"

"Said I have cancer."

"How bad?"

"Real bad. It's going to cost a bundle. I don't know if my insurance will cover it all." She closed her eyes and sighed. It annoyed her to have him be right about something. He had nagged her for months to get her medical check-up.

"Will you get it taken care of tomorrow?"

"No, Ralph, I don't have time tomorrow. Next week, I promise. This thing has come up, but it'll be all over next week, one way or another."

He frowned, but didn't say anything. He didn't have to. The human body, its care and maintenance, was the one subject Ralph knew more about than she did, but even she knew it would be cheaper in the long run to have the work done now.

She felt so lazy he had to help her turn over. Damn, but he was good at this. She had never asked him to do it; he seemed to enjoy it. His strong hands dug into her back and found each sore spot, as if by magic. Presently, it wasn't sore anymore.

"What's this thing that's come up?"

"I... can't tell you about it. Classified, for now."

He didn't protest, nor did he show surprise, though it was the first time Bach's work had taken her into the realm of secrecy.

It was annoying, really. One of Ralph's charms was that he was a good listener. While he wouldn't understand the technical side of anything, he could sometimes offer surprisingly good advice on personal problems. More often, he showed the knack of synthesizing and expressing things Bach had already known, but had not allowed herself to see.

Well, she could tell him part of it.

"There's this satellite," she began. "Tango Charlie. Have you ever heard of it?"

"That's a funny name for a satellite."

"It's what we call it on the tracking logs. It never really had a name—well, it did, a long time ago, but GWA took it over and turned it into a research facility and an Exec's retreat, and they just let it be known as TC-38. They got it in a war with Telecommunism, part of the peace treaty. They got Charlie, the Bubble, a couple other big wheels.

"The thing about Charlie... it's coming down. In about six days, it's going to spread itself all over the Farside. Should be a pretty big bang."

Ralph continued to knead the backs of her legs. It was never a good idea to rush him. He would figure things out in his own way, at his own speed, or he wouldn't figure them out at all.

"Why is it coming down?"

"It's complicated. It's been derelict for a long time. For a while it had the capacity to make course corrections, but it looks like it's run out of reaction mass, or the computer that's supposed to stabilize it isn't working anymore. For a couple of years it hasn't been making corrections."

"Why does it—"

"A Lunar orbit is never stable. There's the Earth tugging on the satellite, the solar wind, mass concentrations of Luna's surface... a dozen things that add up, over time. Charlie's in a very eccentric

orbit now. Last time it came within a kilometer of the surface. Next time it's gonna miss us by a gnat's whisker, and the time after that, it hits."

Ralph stopped massaging. When Bach glanced at him, she saw he was alarmed. He had just understood that a very large object was about to hit his home planet, and he didn't like the idea.

"Don't worry," Bach said, "there's a surface installation that might get some damage from the debris, but Charlie won't come within a hundred kilometers of any settlements. We got nothing to worry about on that score."

"Then why don't you just... push it back up... you know, go up there and do..." Whatever it is you do, Bach finished for him. He had no real idea what kept a satellite in orbit in the first place, but knew there were people who handled such matters all the time.

There were other questions he might have asked, as well. Why leave Tango Charlie alone all these years? Why not salvage it? Why allow things to get to this point at all?

All those questions brought her back to classified ground.

She sighed, and turned over.

"I wish we could," she said, sincerely. She noted that the swastika was saluting her, and that seemed like a fine idea, so she let him carry her into the bedroom.

And as he made love to her she kept seeing that incredible tide of Shelties with the painted child in the middle.

After the run, ten laps around the Promenade Deck, Charlie led the pack to the Japanese Garden and let them run free through the tall weeds and vegetable patches. Most of the trees in the Garden were dead. The whole place had once been a formal and carefully tended place of meditation. Four men from Tokyo had been employed full time to take care of it. Now the men were buried under the temple gate, the ponds were covered in green scum, the gracefully arched bridge had collapsed, and the flower beds were choked with dog turds.

Charlie had to spend part of each morning in the flower beds, feeding Mister Shitface. This was a cylindrical structure with a big round hole in its side, an intake for the wheel's recycling system. It ate dog feces, weeds, dead plants, soil, scraps... practically anything Charlie shoveled into it. The cylinder was painted green, like a frog, and had a face painted on it, with big lips outlining the hole. Charlie sang The Shit-Shoveling Song as she worked.

Tik-Tok had taught her the song, and he used to sing it with her. But a long time ago he had gone deaf in the Japanese Garden. Usually, all Charlie had to do was talk, and Tik-Tok would hear. But there were some places-and more of them every year-where Tik-Tok was deaf.

" '...Raise dat laig,' " Charlie puffed. " 'Lif dat tail, If I gets in trouble will you go my bail?' "

She stopped, and mopped her face with a red bandanna. As usual, there were dogs sitting on the edge of the flowerbed watching Charlie work. Their ears were lifted. They found this endlessly fascinating. Charlie just wished it would be over. But you took the bad with the good. She started shovel-ing again.

" 'I gets weary, O' all dis shovelin'...' "

When she was finished she went back on the Promenade.

"What's next?" she asked.

"Plenty," said Tik-Tok. "The funeral put you behind schedule."

He directed her to the infirmary with the new litter. There they weighed, photographed, X-rayed, and catalogued each puppy. The results were put on file for later registration with the American Kennel Club. It quickly became apparent that Conrad was going to be a cull. He had an overbite. With the others it was too early to tell. She and Tik-Tok would examine them weekly, and their standards were an order of magnitude more stringent than the AKC's. Most of her culls would easily have best of breed in a show, and as for her breeding animals...

"I ought to be able to write Champion on most of these pedigrees."

"You must be patient."

Patient, yeah, she'd heard that before. She took another drink of Scotch. Champion Fuchsia O'Charlie Station, she thought. Now that would really make a breeder's day.

After the puppies, there were two from an earlier litter who were now ready for a final evaluation.

Charlie brought them in, and she and Tik-Tok argued long and hard about points so fine few people would have seen them at all. In the end, they decided both would be sterilized.

Then it was noon feeding. Charlie never enforced discipline here. She let them jump and bark and nip at each other, as long as it didn't get too rowdy. She led them all to the cafeteria (and was tracked by three wall cameras), where the troughs of hard kibble and soft soyaburger were already full. Today it was chicken-flavored, Charlie's favorite.

Afternoon was training time. Consulting the records Tik-Tok displayed on a screen, she got the younger dogs one at a time and put each of them through thirty minutes of leash work, up and down the Promenade, teaching them Heel, Sit, Stay, Down, Come according to their degree of progress and Tik-Tok's rigorous schedules. The older dogs were taken to the Ring in groups, where they sat obediently in a line as she put them, one by one, through free-heeling paces.

Finally it was evening meals, which she hated. It was all human food.

"Eat your vegetables," Tik-Tok would say. "Clean up your plate. People are starving in New Dresden." It was usually green salads and yucky broccoli and beets and stuff like that. Tonight it was yellow squash, which Charlie liked about as much as a root canal. She gobbled up the hamburger patty and then dawdled over the squash until it was a yellowish mess all over her plate like baby shit. Half of it ended up on the table. Finally Tik-Tok relented and let her get back to her duties, which, in the evening, was grooming. She brushed each dog until the coats shone. Some of the dogs had already settled in for the night, and she had to wake them up.

At last, yawning, she made her way back to her room. She was pretty well plastered by then. Tik-Tok, who was used to it, made allowances and tried to jolly her out of what seemed a very black mood.

"There's nothing wrong!" she shouted at one point, tears streaming from her eyes. Charlie could be an ugly drunk.

She staggered out to the Promenade Deck and lurched from wall to wall, but she never fell down. Ugly or not, she knew how to hold her liquor. It had been ages since it made her sick.

The elevator was in what had been a commercial zone. The empty shops gaped at her as she punched the button. She took another drink, and the door opened. She got in.

She hated this part. The elevator was rising up through a spoke, toward the hub of the wheel. She got lighter as the car went up. and the trip did funny things to the inner ear. She hung on to the hand rail until the car shuddered to a stop.

Now everything was fine. She was almost weightless up here. Weightlessness was great when you were drunk. When there was no gravity to worry about, your head didn't spin-and if it did, it didn't matter.

This was one part of the wheel where the dogs never went. They could never get used to falling, no matter how long they were kept up here. But Charlie was an expert in falling. When she got the blues she came up here and pressed her face to the huge ballroom window.

People were only a vague memory to Charlie. Her mother didn't count. Though she visited every day, mom was about as lively as V.I. Lenin. Sometimes Charlie wanted to be held so much it hurt. The dogs were good, they were warm, they licked her, they loved her... but they couldn't hold her.

Tears leaked from her eyes, which was really a bitch in the ballroom, because tears could get huge in here. She wiped them away and looked out the window.

The moon was getting bigger again. She wondered what it meant. Maybe she would ask Tik-Tok.

She made it back as far as the Garden. Inside, the dogs were sleeping in a huddle. She knew she ought to get them back to their rooms, but she was far too drunk for that. And Tik-Tok couldn't do a damn thing about it in here. He couldn't see, and he couldn't hear.

She lay down on the ground, curled up, and was asleep in seconds.

When she started to snore, the three or four dogs who had come over to watch her sleep licked her mouth until she stopped. Then they curled up beside her. Soon they were joined by others, until she slept in the middle of a blanket of dogs.

A crisis team had been assembled in the monitoring room when Bach arrived the next morning. They

seemed to have been selected by Captain Hoeffler, and there were so many of them that there was not enough room for everyone to sit down. Bach led them to a conference room just down the hall, and everyone took seats around the long table. Each seat was equipped with a computer display, and there was a large screen on the wall behind Hoeffler, at the head of the table. Bach took her place on his right, and across from her was Deputy Chief Zeiss, a man with a good reputation in the department. He made Bach very nervous. Hoeffler, on the other hand, seemed to relish his role. Since Zeiss seemed content to be an observer. Bach decided to sit back and speak only if called upon.

Noting that every seat was filled, and that what she assumed were assistants had pulled up chairs behind their principles, Bach wondered if this many people were really required for this project. Steiner, sitting at Bach's right, leaned over and spoke quietly.

"Pick a time," he said.

"What's that?"

"I said pick a time. We're running an office pool. If you come closest to the time security is broken, you win a hundred Marks."

"Is ten minutes from now spoken for?"

They quieted when Hoeffler stood up to speak.

"Some of you have been working on this problem all night," he said. "Others have been called in to give us your expertise in the matter. I'd like to welcome Deputy Chief Zeiss, representing the Mayor and the Chief of Police. Chief Zeiss, would you like to say a few words?"

Zeiss merely shook his head, which seemed to surprise Hoeffler. Bach knew he would never have passed up an opportunity like that, and probably couldn't understand how anyone else could.

"Very well. We can start with Doctor Blume."

Blume was a sour little man who affected wire-rimmed glasses and a cheap toupee over what must have been a completely bald head. Bach thought it odd that a medical man would wear such clumsy prosthetics, calling attention to problems that were no harder to cure than a hangnail. She idly called up his profile on her screen, and was surprised to learn he had a Nobel Prize.

"The subject is a female caucasoid, almost certainly Earthborn."

On the wall behind Hoeffler and on Bach's screen, tapes of the little girl and her dogs were being run.

"She displays no obvious abnormalities. In several shots she is nude, and clearly has not yet reached puberty. I estimate her age between seven and ten years old. There are small discrepancies in her behavior. Her movements are economical-except when playing. She accomplishes various hand-eye tasks with a maturity beyond her apparent years." The doctor sat down abruptly.

It put Hoeffler off balance.

"Ah... that's fine, doctor. But, if you recall, I just asked you to tell me how old she is, and if she's healthy."

"She appears to be eight. I said that."

"Yes, but-"

"What do you want from me?" Blume said, suddenly angry. He glared around at many of the assembled experts. "There's something badly wrong with that girl. I say she is eight. Fine! Any fool could see that. I say I can observe no health problems visually. For this, you need a doctor? Bring her to me, give me a few days, and I'll give you six volumes on her health. But videotapes...?" He trailed off, his silence as eloquent as his words.

"Thank you, Doctor Blume," Hoeffler said. "As soon as-"

"I'll tell you one thing, though," Blume said, in a low, dangerous tone. "It is a disgrace to let that child drink liquor like that. The effects in later life will be terrible. I have seen large men in their thirties and forties who could not hold half as much as I saw her drink... in one day!" He glowered at Hoeffler for a moment. "I was sworn to silence. But I want to know who is responsible for this."

Bach realized he didn't know where the girl was. She wondered how many of the others in the room had been filled in, and how many were working only on their own part of the problem.

"It will be explained," Zeiss said, quietly. Blume looked from Zeiss to Hoeffler, and back, then settled into his chair, not mollified but willing to wait.

"Thank you, Doctor Blume," Hoeffler said again. "Next we'll hear from... Ludmilla Rosznikova, representing the GMA Conglomerate."

Terrific, thought Bach. He's brought GMA into it. No doubt he swore Ms. Rosznikova to secrecy, and if he really thought she would fail to mention it to her supervisor then he was even dumber than Bach had thought. She had worked for them once, long ago, and though she was just an employee she had learned something about them. GMA had its roots deep in twentieth-century Japanese industry. When you went to work on the executive level at GMA, you were set up for life. They expected, and received, loyalty that compared favorably with that demanded by the Mafia. Which meant that, by telling Rosznikova his "secret," Hoeffler had insured that three hundred GMA execs knew about it three minutes later. They could be relied on to keep a secret, but only if it benefited GMA.

"The computer on Tango Charlie was a custom-designed array," Rosznikova began. "That was the usual practice in those days, with BioLogic computers. It was designated the same as the station: BioLogic TC-38. It was one of the largest installations of its time.

"At the time of the disaster, when it was clear that everything had failed, the TC-38 was given its final instructions. Because of the danger, it was instructed to impose an interdiction zone around the station, which you'll find described under the label Interdiction on your screens."

Rosznikova paused while many of those present called up this information.

"To implement the zone, the TC-38 was given command of certain defensive weapons. These included ten bevawatt lasers... and other weapons which I have not been authorized to name or describe, other than to say they are at least as formidable as the lasers."

Hoeffler looked annoyed, and was about to say something, but Zeiss stopped him with a gesture. Each understood that the lasers were enough in themselves.

"So while it is possible to destroy the station," Rosznikova went on, "there is no chance of boarding it-assuming anyone would even want to try."

Bach thought she could tell from the different expressions around the table which people knew the whole story and which knew only their part of it. A couple of the latter seemed ready to ask a question, but Hoeffler spoke first.

"How about canceling the computer's instructions?" he said. "Have you tried that?"

"That's been tried many times over the last few years, as this crisis got closer. We didn't expect it to work, and it did not. Tango Charlie won't accept a new program."

"Oh my God," Doctor Blume gasped. Bach saw that his normally florid face had paled. "Tango Charlie. She's on Tango Charlie."

"That's right, doctor," said Hoeffler. "And we're trying to figure out how to get her off. Doctor Wilhelm?"

Wilhelm was an older woman with the stocky build of the Earthborn. She rose, and looked down at some notes in her hand.

"Information's under the label Neurotropic Agent X on your machines," she muttered, then looked up at them. "But you needn't bother. That's about as far as we got, naming it. I'll sum up what we know, but you don't need an expert for this: there are no experts on Neuro-X.

"It broke out on August 9, thirty years ago next month. The initial report was five cases, one death. Symptoms were progressive paralysis, convulsions, loss of motor control, numbness.

"Tango Charlie was immediately quarantined as a standard procedure. An epidemiological team was dispatched from Atlanta, followed by another from New Dresden. All ships which had left Tango Charlie were ordered to return, except for one on its way to Mars and another already in parking orbit around Earth. The one in Earth orbit was forbidden to land.

"By the time the teams arrived, there were over a hundred reported cases, and six more deaths. Later symptoms included blindness and deafness. It progressed at different rates in different people, but it was always quite fast. Mean survival time from onset of symptoms was later determined to be forty-eight hours. Nobody lived longer than four days.

"Both medical teams immediately came down with it, as did a third, and a fourth team. All of them came down with it, each and every person. The first two teams had been using class three isolation

techniques. It didn't matter. The third team stepped up the precautions to class two. Same result. Very quickly we had been forced into class one procedures-which involves isolation as total as we can get it: no physical contact whatsoever, no sharing of air supplies, all air to the investigators filtered through a sterilizing environment. They still got it. Six patients and some tissue samples were sent to a class one installation two hundred miles from New Dresden, and more patients were sent, with class one precautions, to a hospital ship close to Charlie. Everyone at both facilities came down with it. We almost sent a couple of patients to Atlanta."

She paused, looking down and rubbing her forehead. No one said anything.

"I was in charge," she said, quietly. "I can't take credit for not shipping anyone to Atlanta. We were going to... and suddenly there wasn't anybody left on Charlie to load patients aboard. All dead or dying.

"We backed off. Bear in mind this all happened in five days. What we had to show for those five days was a major space station with all aboard dead, three ships full of dead people, and an epidemiological research facility here on Luna full of dead people.

"After that, politicians began making most of the decisions-but I advised them. The two nearby ships were landed by robot control at the infected research station. The derelict ship going to Mars was... I think it's still classified, but what the hell? It was blown up with a nuclear weapon. Then we started looking into what was left. The station here was easiest. There was one cardinal rule: nothing that went into that station was to come out. Robot crawlers brought in remote manipulators and experimental animals. Most of the animals died. Neuro-X killed most mammals: monkeys, rats, cats-

"Dogs?" Bach asked. Wilhelm glanced at her.

"It didn't kill all the dogs. Half of the ones we sent in lived."

"Did you know that there were dogs alive on Charlie?"

"No. The interdiction was already set up by then. Charlie Station was impossible to land, and too close and too visible to nuke, because that would violate about a dozen corporate treaties. And there seemed no reason not to just leave it there. We had our samples isolated here at the Lunar station. We decided to work with that, and forget about Charlie."

"Thank you, doctor."

"As I was saying, it was by far the most virulent organism we had ever seen. It seemed to have a taste for all sorts of neural tissue, in almost every mammal.

"The teams that went in never had time to learn anything. They were all disabled too quickly, and just as quickly they were dead. We didn't find out much, either... for a variety of reasons. My guess is it was a virus, simply because we would certainly have seen anything larger almost immediately. But we never did see it. It was fast getting in-we don't know how it was vectored, but the only reliable shield was several miles of vacuum-and once it got in, I suspect it worked changes on genetic material of the host, setting up a secondary agent which I'm almost sure we isolated... and then it went away and hid very well. It was still in the host, in some form, it had to be, but we think its active life in the nervous system was on the order of one hour. But by then it had already done its damage. It set the system against itself, and the host was consumed in about two days."

Wilhelm had grown increasingly animated. A few times Bach thought she was about to get incoherent. It was clear the nightmare of Neuro-X had not diminished for her with the passage of thirty years. But now she made an effort to slow down again.

"The other remarkable thing about it was, of course, its infectiousness. Nothing I've ever seen was so persistent in evading our best attempts at keeping it isolated. Add that to its mortality rate, which, at the time, seemed to be one hundred percent... and you have the second great reason why we learned so little about it."

"What was the first?" Hoeffler asked. Wilhelm glared at him.

"The difficulty of investigating such a subtle process of infection by remote control."

"Ah, of course."

"The other thing was simply fear. Too many people had died for there to be any hope of hushing it up. I don't know if anyone tried. I'm sure those of you who were old enough remember the uproar. So the public debate was loud and long, and the pressure for extreme measures was intense... and, I should

add, not unjustified. The argument was simple. Everyone who got it was dead. I believe that if those patients had been sent to Atlanta, everyone on Earth would have died. Therefore... what was the point of taking a chance by keeping it alive and studying it?"

Doctor Blume cleared his throat, and Wilhelm looked at him.

"As I recall, doctor," he said, "there were two reasons raised. One was the abstract one of scientific knowledge. Though there might be no point in studying Neuro-X since no one was afflicted with it, we might learn something by the study itself."

"Point taken," Wilhelm said, "and no argument."

"And the second was, we never found out where Neuro-X came from... there were rumors it was a biological warfare agent." He looked at Rosnikova, as if asking her what comment GMA might want to make about that. Rosnikova said nothing. "But most people felt it was a spontaneous mutation. There have been several instances of that in the high-radiation environment of a space station. And if it happened once, what's to prevent it from happening again?"

"Again, you'll get no argument from me. In fact, I supported both those positions when the question was being debated." Wilhelm grimaced, then looked right at Blume. "But the fact is, I didn't support them very hard, and when the Lunar station was sterilized, I felt a lot better."

Blume was nodding.

"I'll admit it. I felt better, too."

"And if Neuro-X were to show up again," she went on, quietly, "my advice would be to sterilize immediately. Even if it meant losing a city."

Blume said nothing. Bach watched them both for a while in the resulting silence, finally, understanding just how much Wilhelm feared this thing.

There was a lot more. The meeting went on for three hours, and everyone got a chance to speak. Eventually, the problem was outlined to everyone's satisfaction.

Tango Charlie could not be boarded. It could be destroyed. (Some time was spent debating the wisdom of the original interdiction order—beating a dead horse, as far as Bach was concerned—and questioning whether it might be possible to countermand it.) But things could leave Tango Charlie. It would only be necessary to withdraw the robot probes that had watched so long and faithfully, and the survivors could be evacuated.

That left the main question. Should they be evacuated? (The fact that only one survivor had been sighted so far was not mentioned. Everyone assumed others would show up sooner or later. After all, it was simply not possible that just one eight-year-old girl could be the only occupant of a station no one had entered or left for thirty years.) Wilhelm, obviously upset but clinging strongly to her position, advocated blowing up the station at once. There was some support for this, but only about ten percent of the group.

The eventual decision, which Bach had predicted before the meeting even started, was to do nothing at the moment.

After all, there were almost five whole days to keep thinking about it.

"There's a call waiting for you," Steiner said, when she got back to the monitoring room. "The switchboard says it's important."

Bach went into her office—wishing yet again for one with walls—flipped a switch.

"Bach," she said. Nothing came on the vision screen.

"I'm curious," said a woman's voice. "Is this the Anna-Louise Bach who worked in The Bubble ten years ago?"

For a moment, Bach was too surprised to speak, but she felt a wave of heat as blood rushed to her face. She knew the voice.

"Hello? Are you there?"

"Why no vision?" she asked.

"First, are you alone? And is your instrument secure?"

"The instrument is secure, if yours is." Bach flipped another switch, and a privacy hood descended around her screen. The sounds of the room faded as a sonic scrambler began operating. "And I'm alone."

Megan Galloway's face appeared on the screen. One part of Bach's mind noted that she hadn't changed much, except that her hair was curly and red.

"I thought you might not wish to be seen with me," Galloway said. Then she smiled. "Hello, Anna-Louise. How are you?"

"I don't think it really matters if I'm seen with you," Bach said.

"No? Then would you care to comment on why the New Dresden Police Department, among other government agencies, is allowing an eight-year-old child to go without the rescue she so obviously needs?"

Bach said nothing.

"Would you comment on the rumor that the NDPD does not intend to effect the child's rescue? That, if it can get away with it, the NDPD will let the child be smashed to pieces?"

Still Bach waited.

Galloway sighed, and ran a hand through her hair.

"You're the most exasperating woman I've ever known, Bach," she said. "Listen, don't you even want to try to talk me out of going with the story?"

Bach almost said something, but decided to wait once more.

"If you want to, you can meet me at the end of your shift. The Mozartplatz. I'm on the Great Northern, suite 1, but I'll see you in the bar on the top deck."

"I'll be there," Bach said, and broke the connection.

Charlie sang the Hangover Song most of the morning. It was not one of her favorites.

There was penance to do, of course. Tik-Tok made her drink a foul glop that she had to admit did do wonders for her headache. When she was done she was drenched in sweat, but her hangover was gone.

"You're lucky," Tik-Tok said. "Your hangovers are never severe."

"They're severe enough for me," Charlie said.

He made her wash her hair, too.

After that, she spent some time with her mother. She always valued that time. Tik-Tok was a good friend, mostly, but he was so bossy. Charlie's mother never shouted at her, never scolded or lectured. She simply listened. True, she wasn't very active. But it was nice to have somebody just to talk to. One day, Charlie hoped, her mother would walk again. Tik-Tok said that was unlikely.

Then she had to round up the dogs and take them for their morning run.

And everywhere she went, the red camera eyes followed her. Finally she had enough. She stopped, put her fists on her hips, and shouted at a camera.

"You stop that!" she said.

The camera started to make noises. At first she couldn't understand anything, then some words started to come through.

"...lie, Tango... Foxtrot...in, please. Tango Charlie..."

"Hey, that's my name."

The camera continued to buzz and spit noise at her.

"Tik-Tok, is that you?"

"I'm afraid not, Charlie."

"What's going on, then?"

"It's those nosy people. They've been watching you, and now they're trying to talk to you. But I'm holding them off. I don't think they'll bother you, if you just ignore the cameras."

"But why are you fighting them?"

"I didn't think you'd want to be bothered."

Maybe there was some of that hangover still around. Anyway, Charlie got real angry at Tik-Tok, and called him some names he didn't approve of. She knew she'd pay for it later, but for now Tik-Tok was pissed, and in no mood to reason with her. So he let her have what she wanted, on the principle that getting what you want is usually the worst thing that can happen to anybody.

"Tango Charlie, this is Foxtrot Romeo. Come in, please. Tango-"

"Come in where?" Charlie asked, reasonably. "And my name isn't Tango."



Bach was so surprised to have the little girl actually reply that for a moment she couldn't think of anything to say.

"Uh... it's just an expression," Bach said. "Come in... that's radio talk for 'please answer.' "

"Then you should say please answer," the little girl pointed out.

"Maybe you're right. My name is Bach. You can call me Anna-Louise, if you'd like. We've been trying to-

"Why should I?"

"Excuse me?"

"Excuse you for what?"

Bach looked at the screen and drummed her fingers silently for a short time. Around her in the monitoring room, there was not a sound to be heard. At last, she managed a smile.

"Maybe we started off on the wrong foot."

"Which foot would that be?"

The little girl just kept staring at her. Her expression was not amused, not hostile, not really argumentative. Then why was the conversation suddenly so maddening?

"Could I make a statement?" Bach tried.

"I don't know. Can you?"

Bach's fingers didn't tap this time; they were balled up in a fist.

"I shall, anyway. My name is Anna-Louise Bach. I'm talking to you from New Dresden, Luna. That's a city on the moon, which you can probably see-

"I know where it is."

"Fine. I've been trying to contact you for many hours, but your computer has been fighting me all the time."

"That's right. He said so."

"Now, I can't explain why he's been fighting me, but-

"I know why. He thinks you're nosy."

"I won't deny that. But we're trying to help you."

"Why?"

"Because... it's what we do. Now if you could-

"Hey. Shut up, will you?"

Bach did so. With forty-five other people at their scattered screens. Bach watched the little girl-the horrible little girl, as she was beginning to think of her-take a long pull from the green glass bottle of Scotch whiskey. She belched, wiped her mouth with the back of her hand, and scratched between her legs. When she was done, she smelled her fingers.

She seemed about to say something, then cocked her head, listening to something Bach couldn't hear.

"That's a good idea," she said, then got up and ran away. She was just vanishing around the curve of the deck when Hoeffler burst into the room, trailed by six members of his advisory team. Bach leaned back in her chair, and tried to fend off thoughts of homicide.

"I was told you'd established contact," Hoeffler said, leaning over Bach's shoulder in a way she absolutely detested. He peered at the lifeless scene. "What happened to her?"

"I don't know. She said, 'That's a good idea,' got up, and ran off."

"I told you to keep her here until I got a chance to talk to her."

"I tried," Bach said.

"You should have-

"I have her on camera nineteen," Steiner called out.

Everyone watched as the technicians followed the girl's progress on the working cameras. They saw her enter a room to emerge in a moment with a big-screen monitor. Bach tried to call her each time she passed a camera, but it seemed only the first one was working for incoming calls. She passed through the range of four cameras before coming back to the original, where she carefully unrolled the monitor and tacked it to a wall, then payed out the cord and plugged it in very close to the wall camera Bach's team had been using. She unshipped this camera from its mount. The picture jerked around for awhile, and

finally steadied. The girl had set it on the floor.

"Stabilize that," Bach told her team, and the picture on her monitor righted itself. She now had a worm's-eye view of the corridor. The girl sat down in front of the camera, and grinned.

"Now I can see you," she said. Then she frowned. "If you send me a picture."

"Bring a camera over here," Bach ordered.

While it was being set up, Hoeffler shouldered her out of the way and sat in her chair.

"There you are," the girl said. And again, she frowned. "That's funny. I was sure you were a girl. Did somebody cut your balls off?"

Now it was Hoeffler's turn to be speechless. There were a few badly suppressed giggles; Bach quickly silenced them with her most ferocious glare, while giving thanks no one would ever know how close she had come to bursting into laughter.

"Never mind that," Hoeffler said. "My name is Hoeffler. Would you go get your parents? We need to talk to them."

"No," said the girl. "And no."

"What's that?"

"No, I won't get them," the girl clarified, "and no, you don't need to talk to them."

Hoeffler had little experience dealing with children.

"Now, please be reasonable," he began, in a wheedling tone. "We're trying to help you, after all. We have to talk to your parents, to find out more about your situation. After that, we're going to help get you out of there."

"I want to talk to the lady," the girl said.

"She's not here."

"I think you're lying. She talked to me just a minute ago."

"I'm in charge."

"In charge of what?"

"Just in charge. Now, go get your parents!"

They all watched as she got up and moved closer to the camera. All they could see at first was her feet. Then water began to splash on the lens.

Nothing could stop the laughter this time, as Charlie urinated on the camera.

For three hours Bach watched the screens. Every time the girl passed the prime camera Bach called out to her. She had thought about it carefully. Bach, like Hoeffler, did not know a lot about children. She consulted briefly with the child psychologist on Hoeffler's team and the two of them outlined a tentative game plan. The guy seemed to know what he was talking about and, even better, his suggestions agreed with what Bach's common sense told her should work.

So she never said anything that might sound like an order. While Hoeffler seethed in the background, Bach spoke quietly and reasonably every time the child showed up. "I'm still here," she would say. "We could talk," was a gentle suggestion. "You want to play?"

She longed to use one line the psychologist suggested, one that would put Bach and the child on the same team, so to speak. The line was "The idiot's gone. You want to talk now?"

Eventually the girl began glancing at the camera. She had a different dog every time she came by. At first Bach didn't realize this, as they were almost completely identical. Then she noticed they came in slightly different sizes.

"That's a beautiful dog," she said. The girl looked up, then started away. "I'd like to have a dog like that. What's its name?"

"This is Madam's Sweet Brown Sideburns. Say hi, Brownie." The dog yipped. "Sit up for mommy, Brownie. Now roll over. Stand tall. Now go in a circle, Brownie, that's a good doggy, walk on your hind legs. Now jump, Brownie. Jump, jump, jump!" The dog did exactly as he was told, leaping into the air and turning a flip each time the girl commanded it. Then he sat down, pink tongue hanging out, eyes riveted on his master.

"I'm impressed," Bach said, and it was the literal truth. Like other citizens of Luna, Bach had never seen a wild animal, had never owned a pet, knew animals only from the municipal zoo, where care was

taken not to interfere with natural behaviors. She had had no idea animals could be so smart, and no inkling of how much work had gone into the exhibition she had just seen.

"It's nothing," the girl said. "You should see his father. Is this Anna-Louise again?"

"Yes, it is. What's your name?"

"Charlie. You ask a lot of questions."

"I guess I do. I just want to-"

"I'd like to ask some questions, too."

"All right. Go ahead."

"I have six of them, to start off with. One, why should I call you Anna-Louise? Two, why should I excuse you? Three, what is the wrong foot? Four... but that's not a question, really, since you already proved you can make a statement, if you wish, by doing so. Four, why are you trying to help me? Five, why do you want to see my parents?"

It took Bach a moment to realize that these were the questions Charlie had asked in their first, maddening conversation, questions she had not gotten answers for. And they were in their original order.

And they didn't make a hell of a lot of sense.

But the child psychologist was making motions with his hands, and nodding his encouragement to Bach, so she started in.

"You should call me Anna-Louise because... it's my first name, and friends call each other by their first names."

"Are we friends?"

"Well, I'd like to be your friend."

"Why?"

"Look, you don't have to call me Anna-Louise if you don't want to."

"I don't mind. Do I have to be your friend?"

"Not if you don't want to."

"Why should I want to?"

And it went on like that. Each question spawned a dozen more, and a further dozen sprang from each of those. Bach had figured to get Charlie's six-make that five-questions out of the way quickly, then get to the important things. She soon began to think she'd never answer even the first question.

She was involved in a long and awkward explanation of friendship, going over the ground for the tenth time, when words appeared at the bottom of her screen.

Pur your foot down, they said. She glanced up at the child psychologist. He was nodding, but making quieting gestures with his hands. "But gently," the man whispered.

Right, Bach thought. Put your foot down. And get off on the wrong foot again.

"That's enough of that," Bach said abruptly.

"Why?" asked Charlie.

"Because I'm tired of that. I want to do something else."

"All right," Charlie said. Bach saw Hoeffler waving frantically, just out of camera range.

"Uh... Captain Hoeffler is still here. He'd like to talk to you."

"That's just too bad for him. I don't want to talk to him."

Good for you, Bach thought. But Hoeffler was still waving.

"Why not? He's not so bad." Bach felt ill, but avoided showing it.

"He lied to me. He said you'd gone away."

"Well, he's in charge here, so-"

"I'm warning you," Charlie said, and waited a dramatic moment, shaking her finger at the screen. "You put that poo-poo-head back on, and I won't come in ever again."

Bach looked helplessly at Hoeffler, who at last nodded.

"I want to talk about dogs," Charlie announced.

So that's what they did for the next hour. Bach was thankful she had studied up on the subject when the dead puppy first appeared. Even so, there was no doubt as to who was the authority. Charlie knew everything there was to know about dogs. And of all the experts Hoeffler had called in, not one could tell

Bach anything about the goddamn animals. She wrote a note and handed it to Steiner, who went off to find a zoologist.

Finally Bach was able to steer the conversation around to Charlie's parents.

"My father is dead," Charlie admitted.

"I'm sorry," Bach said. "When did he die?"

"Oh, a long time ago. He was a spaceship pilot, and one day he went off in his spaceship and never came back." For a moment she looked far away. Then she shrugged. "I was real young."

Fantasy, the psychologist wrote at the bottom of her screen, but Bach had already figured that out. Since Charlie had to have been born many years after the Charlie Station Plague, her father could not have flown any spaceships.

"What about your mother?"

Charlie was silent for a long time, and Bach began to wonder if she was losing contact with her. At last, she looked up.

"You want to talk to my mother?"

"I'd like that very much."

"Okay. But that's all for today. I've got work to do. You've already put me way behind."

"Just bring your mother here, and I'll talk to her, and you can do your work."

"No. I can't do that. But I'll take you to her. Then I'll work, and I'll talk to you tomorrow."

Bach started to protest that tomorrow was not soon enough, but Charlie was not listening. The camera was picked up, and the picture bounced around as she carried it with her. All Bach could see was a very unsteady upside-down view of the corridor.

"She's going into Room 350," said Steiner. "She's been in there twice, and she stayed a while both times."

Bach said nothing. The camera jerked wildly for a moment, then steadied.

"This is my mother," Charlie said. "Mother, this is my friend, Anna-Louise."

The Mozartplatz had not existed when Bach was a child. Construction on it had begun when she was five, and the first phase was finished when she was fifteen. Tenants had begun moving in soon after that. During each succeeding year new sectors had been opened, and though a structure as large as the Mozartplatz would never be finished—two major sectors were currently under renovation—it had been essentially completed six years ago.

It was a virtual copy of the Soleri-class arcology atriums that had spouted like mushrooms on the Earth in the last four decades, with the exception that on Earth you built up, and on Luna you went down.

First dig a trench fifteen miles long and two miles deep. Vary the width of the trench, but never let it get narrower than one mile, nor broader than five. In some places make the base of the trench wider than the top, so the walls of rock loom outward. Now put a roof over it, fill it with air, and start boring tunnels into the sides. Turn those tunnels into apartments and shops and everything else humans need in a city. You end up with dizzying vistas, endless terraces that reach higher than the eye can see, a madness of light and motion and spaces too wide to echo.

Do all that, and you still wouldn't have the Mozartplatz. To approach that ridiculous level of grandeur there were still a lot of details to attend to. Build four mile-high skyscrapers to use as table legs to support the mid-air golf course. Crisscross the open space with bridges having no visible means of support, and encrusted with shops and homes that cling like barnacles. Suspend apartment buildings from silver balloons that rise half the day and descend the other half, reachable only by glider. Put in a fountain with more water than Niagara, and a ski slope on a huge spiral ramp. Dig a ten-mile lake in the middle, with a bustling port at each end for the luxury ships that ply back and forth, attach runways to balconies so residents can fly to their front door, stud the interior with zeppelin ports and railway stations and hanging gardens... and you still don't have Mozartplatz, but you're getting closer.

The upper, older parts of New Dresden, the parts she had grown up in, were spartan and claustrophobic. Long before her time Lunarians had begun to build larger when they could afford it. The newer, lower parts of the city were studded with downscale versions of the Mozartplatz, open spaces half a mile wide and maybe fifty levels deep. This was just a logical extension.

She felt she ought to dislike it because it was so overdone, so fantastically huge, such a waste of space... and, oddly, so standardized. It was a taste of the culture of old Earth, where Paris looked just like Tokyo. She had been to the new Beethovenplatz at Clavius, and it looked just like this place. Six more arco-malls were being built in other Lunar cities.

And Bach liked it. She couldn't help herself. One day she'd like to live here.

She left her tube capsule in the bustling central station, went to a terminal and queried the location of the Great Northern. It was docked at the southern port, five miles away.

It was claimed that any form of non-animal transportation humans had ever used was available in the Mozartplatz. Bach didn't doubt it. She had tried most of them. But when she had a little time, as she did today, she liked to walk. She didn't have time to walk five miles, but compromised by walking to the trolley station a mile away.

Starting out on a brick walkway, she moved to cool marble, then over a glass bridge with lights flashing down inside. This took her to a boardwalk, then down to a beach where machines made four-foot breakers, each carrying a new load of surfers. The sand was fine and hot between her toes. Mozartplatz was a sensual delight for the feet. Few Lunarians ever wore shoes, and they could walk all day through old New Dresden and feel nothing but different types of carpeting and composition flooring.

The one thing Bach didn't like about the place was the weather. She thought it was needless, preposterous, and inconvenient. It began to rain and, as usual, caught her off guard. She hurried to a shelter where, for a tenthMark, she rented an umbrella, but it was too late for her paper uniform. As she stood in front of a blower, drying off, she wadded it up and threw it away, then hurried to catch the trolley, nude but for her creaking leather equipment belt and police cap. Even this stripped down, she was more dressed than a quarter of the people around her.

The conductor gave her a paper mat to put on the artificial leather seat. There were cut flowers in crystal vases attached to the sides of the car. Bach sat by an open window and leaned one arm outside in the cool breeze, watching the passing scenery. She craned her neck when the Graf Zeppelin muttered by overhead. They said it was an exact copy of the first world-girdling dirigible, and she had no reason to doubt it.

It was a great day to be traveling. If not for one thing, it would be perfect. Her mind kept coming back to Charlie and her mother.

She had forgotten just how big the Great Northern was. She stopped twice on her way down the long dock to board it, once to buy a lime sherbet ice cream cone, and again to purchase a skirt. As she fed coins into the clothing machine, she looked at the great metal wall of the ship. It was painted white, trimmed in gold. There were five smokestacks and six towering masts. Midships was the housing for the huge paddlewheel. Multi-colored pennants snapped in the breeze from the forest of rigging. It was quite a boat.

She finished her cone, punched in her size, then selected a simple above-the-knee skirt in a gaudy print of tropical fruit and palm trees. The machine hummed as it cut the paper to size, hemmed it and strengthened the waist with elastic, then rolled it out into her hand. She held it up against herself. It was good, but the equipment belt spoiled it.

There were lockers along the deck. She used yet another coin to rent one. In it went the belt and cap. She took the pin out of her hair and shook it down around her shoulders, fussed with it for a moment, then decided it would have to do. She fastened the skirt with its single button, wearing it low on her hips, south-seas style. She walked a few steps, studying the effect. The skirt tended to leave one leg bare when she walked, which felt right.

"Look at you," she chided herself, under her breath. "You think you look all right to meet a worlds-famous, glamorous tube personality? Who you happen to despise?" She thought about reclaiming her belt, then decided that would be foolish. The fact was it was a glorious day, a beautiful ship, and she was feeling more alive than she had in months.

She climbed the gangplank and was met at the top by a man in an outlandish uniform. It was all white, covered everything but his face, and was festooned with gold braid and black buttons. It looked hideously uncomfortable, but he didn't seem to mind it. That was one of the odd things about

Mozartplatz. In jobs at places like the Great Northern, people often worked in period costumes, though it meant wearing shoes or things even more grotesque. He made a small bow and tipped his hat, then offered her a hibiscus, which he helped her pin in her hair. She smiled at him. Bach was a sucker for that kind of treatment-and knew it-perhaps because she got so little of it.

"I'm meeting someone in the bar on the top deck."

"If madame would walk this way..." He gestured, then led her along the side rail toward the stern of the ship. The deck underfoot was gleaming, polished teak.

She was shown to a wicker table near the rail. The steward held the chair out for her, and took her order. She relaxed, looking up at the vast reaches of the arco-mall, feeling the bright sunlight washing over her body, smelling the salt water, hearing the lap of waves against wood pilings. The air was full of bright balloons, gliders, putt-putting nano-lights, and people in muscle-powered flight harnesses. Not too far away, a fish broke the surface. She grinned at it.

Her drink arrived, with sprigs of mint and several straws and a tiny parasol. It was good. She looked around. There were only a few people out here on the deck. One couple was dressed in full period costume, but the rest looked normal enough. She settled on one guy sitting alone across the deck. He had a good pair of shoulders on him. When she caught his eye, she made a hand signal that meant "I might be available." He ignored it, which annoyed her for a while, until he was joined by a tiny woman who couldn't have been five feet tall. She shrugged. No accounting for taste.

She knew what was happening to her. It was silly, but she felt like going on the hunt. It often happened to her when something shocking or unpleasant happened at work. The police headshrinker said it was compensation, and not that uncommon.

With a sigh, she turned her mind away from that. It seemed there was no place else for it to go but back into that room on Charlie Station, and to the thing in the bed.

Charlie knew her mother was very sick. She had been that way "a long, long time." She left the camera pointed at her mother while she went away to deal with her dogs. The doctors had gathered around and studied the situation for quite some time, then issued their diagnosis.

She was dead, of course, by any definition medical science had accepted for the last century.

Someone had wired her to a robot doctor, probably during the final stages of the epidemic. It was capable of doing just about anything to keep a patient alive and was not programmed to understand brain death. That was a decision left to the human doctor, when he or she arrived.

The doctor had never arrived. The doctor was dead, and the thing that had been Charlie's mother lived on. Bach wondered if the verb "to live" had ever been so abused.

All of its arms and legs were gone, victims of gangrene. Not much else could be seen of it, but a forest of tubes and wires entered and emerged. Fluids seeped slowly through the tissue. Machines had taken over the function of every vital organ. There were patches of greenish skin here and there, including one on the side of its head which Charlie had kissed before leaving. Bach hastily took another drink as she recalled that, and signaled the waiter for another.

Blume and Wilhelm had been fascinated. They were dubious that any part of it could still be alive, even in the sense of cell cultures. There was no way to find out, because the Charlie Station computer-Tik-Tok, to the little girl-refused access to the autodoctor's data outputs.

But there was a very interesting question that emerged as soon as everyone was convinced Charlie's mother had died thirty years ago.

"Hello, Anna-Louise. Sorry I'm late."

She looked up and saw Megan Galloway approaching.

Bach had not met the woman in just over ten years, though she, like almost everyone else, had seen her frequently on the tube.

Galloway was tall, for an Earth woman, and not as thin as Bach remembered her. But that was understandable, considering the recent change in her life. Her hair was fiery red and curly, which it had not been ten years ago. It might even be her natural color; she was almost nude, and the colors matched, though that didn't have to mean much. But it looked right on her.

She wore odd-looking silver slippers, and her upper body was traced by a quite lovely filigree of

gilded, curving lines. It was some sort of tattoo, and it was all that was left of the machine called the Golden Gypsy. It was completely symbolic. Being the Golden Gypsy was worth a lot of money to Galloway.

Megan Galloway had broken her neck while still in her teens. She became part of the early development of a powered exoskeleton, research that led to the hideously expensive and beautiful Golden Gypsy, of which only one was ever built. It abolished wheelchairs and crutches for her. It returned her to life, in her own mind, and it made her a celebrity.

An odd by-product to learning to use an exoskeleton was the development of skills that made it possible to excel in the new technology of emotional recording: the "feelies." The world was briefly treated to the sight of quadriplegics dominating a new art form. It made Galloway famous as the best of the Trans-sisters. It made her rich, as her trans-tapes out-sold everyone else's. She made herself extremely rich by investing wisely, then she and a friend of Bach's had made her fabulously rich by being the first to capture the experience of falling in love on a trans-tape.

In a sense, Galloway had cured herself. She had always donated a lot of money to neurological research, never really expecting it to pay off. But it did, and three years ago she had thrown the Golden Gypsy away forever.

Bach had thought her cure was complete, but now she wondered. Galloway carried a beautiful crystal cane. It didn't seem to be for show. She leaned on it heavily, and made her way through the tables slowly. Bach started to get up.

"No, no, don't bother," Galloway said. "It takes me a while but I get there." She flashed that famous smile with the gap between her front teeth. There was something about the woman; the smile was so powerful that Bach found herself smiling back. "It's so good to walk I don't mind taking my time."

She let the waiter pull the chair back for her, and sat down with a sigh of relief.

"I'll have a Devil's Nitelite," she told him. "And get another of whatever that was for her."

"A banana Daiquiri," Bach said, surprised to find her own drink was almost gone, and a little curious to find out what a Devil's Nitelite was.

Galloway stretched as she looked up at the balloons and gliders.

"It's great to get back to the moon," she said. She made a small gesture that indicated her body. "Great to get out of my clothes. I always feel so free in here. Funny thing, though. I just can't get used to not wearing shoes." She lifted one foot to display a slipper. "I feel too vulnerable without them. Like I'm going to get stepped on."

"You can take your clothes off on Earth, too," Bach pointed out.

"Some places, sure. But aside from the beach, there's no place where it's fashionable, don't you see?"

Bach didn't, but decided not to make a thing out of it. She knew social nudity had evolved in Luna because it never got hot or cold, and that Earth would never embrace it as fully as Lunarians had.

The drinks arrived. Bach sipped hers, and eyed Galloway's, which produced a luminous smoke ring every ten seconds. Galloway chattered on about nothing in particular for a while.

"Why did you agree to see me?" Galloway asked, at last.

"Shouldn't that be my question?"

Galloway raised an eyebrow, and Bach went on.

"You've got a hell of a story. I can't figure out why you didn't just run with it. Why arrange a meeting with someone you barely knew ten years ago, and haven't seen since, and never liked even back then?"

"I always liked you, Anna-Louise," Galloway said. She looked up at the sky. For a while she watched a couple pedaling a skycycle, then she looked at Bach again. "I feel like I owe you something. Anyway, when I saw your name I thought I should check with you. I don't want to cause you any trouble." Suddenly she looked angry. "I don't need the story, Bach. I don't need any story, I'm too big for that. I can let it go or I can use it, it makes no difference."

"Oh, that's cute," Bach said. "Maybe I don't understand how you pay your debts. Maybe they do it different on Earth."

She thought Galloway was going to get up and leave. She had reached for her cane, then thought better of it.

"I gather it doesn't matter, then, if I go with the story."

Bach shrugged. She hadn't come here to talk about Charlie, anyway.

"How is Q.M., by the way?" she said.

Galloway didn't look away this time. She sat in silence for almost a minute, searching Bach's eyes.

"I thought I was ready for that question," she said at last. "He's living in New Zealand, on a commune. From what my agents tell me, he's happy. They don't watch television, they don't marry. They worship and they screw a lot."

"Did you really give him half of the profits on that... that tape?"

"Did give him, am giving him, and will continue to give him until the day I die. And it's half the gross, my dear, which is another thing entirely. He gets half of every Mark that comes in. He's made more money off it than I have... and he's never touched a tenth Mark. It's piling up in a Swiss account I started in his name."

"Well, he never sold anything."

Bach hadn't meant that to be as harsh as it came out, but Galloway did not seem bothered by it. The thing she had sold...

Had there ever been anyone as thoroughly betrayed as Q.M. Cooper? Bach wondered. She might have loved him herself, but he fell totally in love with Megan Galloway.

And Galloway fell in love with him. There could be no mistake about that. Doubters are referred to Ghana de Oro catalog #1, an emotional recording entitled, simply, "Love." Put it in your trans-tape player, don the headset, punch PLAY, and you will experience just how hard and how completely Galloway fell in love with Q.M. Cooper. But have your head examined first. GDO #1 had been known to precipitate suicide.

Cooper had found this an impediment to the course of true love. He had always thought that love was something between two people, something exclusive, something private. He was unprepared to have Galloway mass-produce it, put it in a box with liner notes and a price tag of LM14.95, and hawk copies in every trans-tape shop from Peoria to Tibet.

The supreme irony of it to the man, who eventually found refuge in a minor cult in a far corner of the Earth, was that the tape itself, the means of his betrayal, his humiliation, was proof that Galloway had returned his love.

And Galloway had sold it. Never mind that she had her reasons, or that they were reasons with which Bach could find considerable sympathy.

She had sold it.

All Bach ever got out of the episode was a compulsion to seek lovers who looked like the Earth-muscled Cooper. Now it seemed she might get something else. It was time to change the subject.

"What do you know about Charlie?" she asked.

"You want it all, or just a general idea?" Galloway didn't wait for an answer. "I know her real name is Charlotte Isolde Hill Perkins-Smith. I know her father is dead, and her mother's condition is open to debate. Leda Perkins-Smith has a lot of money-if she's alive. Her daughter would inherit, if she's dead. I know the names of ten of Charlie's dogs. And, oh yes, I know that, appearances to the contrary, she is thirty-seven years old."

"Your source is very up-to-date."

"It's a very good source."

"You want to name him?"

"I'll pass on that, for the moment." She regarded Bach easily, her hands folded on the table in front of her. "So. What do you want me to do?"

"Is it really that simple?"

"My producers will want to kill me, but I'll sit on the story for at least twenty-four hours if you tell me to. By the way," she turned in her seat and crooked a finger at another table. "It's probably time you met my producers."

Bach turned slightly, and saw them coming toward her table.

"These are the Myers twins, Joy and Jay. Waiter, do you know how to make a Shirley Temple and a



Roy Rogers?"

The waiter said he did, and went off with the order while Joy and Jay pulled up chairs and sat in them, several feet from the table but very close to each other. They had not offered to shake hands. Both were armless, with no sign of amputation, just bare, rounded shoulders. Both wore prosthetics made of golden, welded wire and powered by tiny motors. The units were one piece, fitting over their backs in a harness-like arrangement. They were quite pretty-light and airy, perfectly articulated, cunningly wrought-and also creepy.

"You've heard of amparole?" Galloway asked. Bach shook her head. "That's the slang word for it. It's a neo-Moslem practice. Joy and Jay were convicted of murder."

"I have heard of it." She hadn't paid much attention to it, dismissing it as just another hare-brained Earthling idiocy.

"Their arms are being kept in cryonic suspension for twenty years. The theory is, if they sin no more, they'll get them back. Those prosthetics won't pick up a gun, or a knife. They won't throw a punch."

Joy and Jay were listening to this with complete stolidity. Once Bach got beyond the arms, she saw another unusual thing about them. They were dressed identically, in loose bell-bottomed trousers. Joy had small breasts, and Jay had a small mustache. Other than that, they were absolutely identical in face and body. Bach didn't care for the effect.

"They also took slices out of the cerebrums and they're on a maintenance dosage of some drug. Calms them down. You don't want to know who they killed, or how. But they were proper villains, these two."

No, I don't think I do, Bach decided. Like many cops, she looked at eyes. Joy and Jay's were calm, placid... and deep inside was a steel-gray coldness.

"If they try to get naughty again, the amparole units go on strike. I suppose they might find a way to kill with their feet."

The twins glanced at each other, held each other's gaze for a moment, and exchanged wistful smiles. At least, Bach hoped they were just wistful.

"Yeah, okay," Bach said.

"Don't worry about them. They can't be offended with the drugs they're taking."

"I wasn't worried," Bach said. She couldn't have cared less what the freaks felt; she wished they'd been executed.

"Are they really twins?" she finally asked, against her better judgment.

"Really. One of them had a sex change, I don't know which one. And to answer your next question, yes they do, but only in the privacy of their own room."

"I wasn't-"

"And your other question... they are very good at what they do. Who am I to judge about the other? And I'm in a highly visible industry. It never hurts to have conversation pieces around. You need to get noticed."

Bach was starting to get angry, and she was not quite sure why. Maybe it was the way Galloway so cheerfully admitted her base motives, even when no one had accused her of having them.

"We were talking about the story," she said.

"We need to go with it," Joy said, startling Bach. Somehow, she had not really expected the cyborg-thing to talk. "Our source is good and the security on the story is tight-"

"-but it's dead certain to come out in twenty-four hours," Jay finished for her.

"Maybe less," Joy added.

"Shut up," Galloway said, without heat. "Anna-Louise, you were about to tell me your feeling on the matter."

Bach finished her drink as the waiter arrived with more. She caught herself staring as the twins took theirs. The metal hands were marvels of complexity. They moved just as cleverly as real hands.

"I was considering leaking the story myself. It looked like things were going against Charlie. I thought they might just let the station crash and then swear us all to secrecy."

"It strikes me," Galloway said, slowly, "that today's developments give her an edge."

"Yeah. But I don't envy her."

"Me, either. But it's not going to be easy to neglect a girl whose body may hold the secret of eternal life. If you do, somebody's bound to ask awkward questions later."

"It may not be eternal life," Bach said.

"What do you call it, then?" Jay asked.

"Why do you say that?" Joy wanted to know.

"All we know is she's lived thirty years without growing any older-externally. They'd have to examine her a lot closer to find out what's actually happening."

"And there's pressure to do so."

"Exactly. It might be the biggest medical breakthrough in a thousand years. What I think has happened to her is not eternal life, but extended youth."

Galloway looked thoughtful. "You know, of the two, I think extended youth would be more popular."

"I think you're right."

They brooded over that in silence for a while. Bach signaled the waiter for another drink.

"Anyway," she went on, "Charlie doesn't seem to need protection just now. But she may, and quickly."

"So you aren't in favor of letting her die."

Bach looked up, surprised and beginning to be offended, then she remembered Doctor Wilhelm. The good Doctor was not a monster, and Galloway's question was a reasonable one, given the nature of Neuro-X.

"There has to be a way to save her, and protect ourselves from her. That's what I'm working toward, anyway."

"Let me get this straight, then. You were thinking of leaking the story so the public outcry would force the police to save her?"

"Sure, I thought..." Bach trailed off, suddenly realizing what Galloway was saying. "You mean you think-"

Galloway waved her hand impatiently.

"It depends on a lot of things, but mostly on how the story is handled. If you start off with the plague story, there could be pressure to blast her out of the skies and have done with it." She looked at Jay and Joy, who went into a trance-like state.

"Sure, sure," Jay said. "The plague got big play. Almost everybody remembers it. Use horror show tapes of the casualties..."

"...line up the big brains to start the scare," Joy said.

"You can even add sob stuff, after it gets rolling."

"What a tragedy, this little girl has to die for the good of us all."

"Somber commentary, the world watches as she cashes in."

"You could make it play. No problem."

Bach's head had been ping-ponging between the two of them. When Galloway spoke, it was hard to swing around and look at her.

"Or you could start off with the little girl," Galloway prompted.

"Much better," Joy said. "Twice the story there. Indignant expose stuff: 'Did you know, fellow citizens...'"

"...there's this little girl, this innocent child, swinging around up there in space and she's going to die!"

"

"A rich little girl, too, and her dying mother."

"Later, get the immortality angle."

"Not too soon," Joy cautioned. "At first, she's ordinary. Second lead is, she's got money."

"Third lead, she holds the key to eternal youth."

"Immortality."

"Youth, honey, youth. Who the fuck knows what living forever is like? Youth you can sell. It's the only thing you can sell."

"Megan, this is the biggest story since Jesus."

"Or at least we'll make it the biggest story."

"See why they're so valuable?" Galloway said. Bach hardly heard her. She was re-assessing what she had thought she knew about the situation.

"I don't know what to do," she finally confessed. "I don't know what to ask you to do, either. I guess you ought to go with what you think is best."

Galloway frowned.

"Both for professional and personal reasons, I'd rather try to help her. I'm not sure why. She is dangerous, you know."

"I realize that. But I can't believe she can't be handled."

"Neither can I." She glanced at her watch. "Tell you what, you come with us on a little trip."

Bach protested at first, but Galloway would not be denied, and Bach's resistance was at a low ebb.

By speedboat, trolley, and airplane they quickly made their way on the top of Mozartplatz, where Bach found herself in a four-seat PTP-or point-to-point-ballistic vehicle.

She had never ridden in a PTP. They were rare, mostly because they wasted a lot of energy for only a few minutes' gain in travel time. Most people took the tubes, which reached speeds of three thousand miles per hour, hovering inches above their induction rails in Luna's excellent vacuum.

But for a celebrity like Galloway, the PTP made sense. She had trouble going places in public without getting mobbed. And she certainly had the money to spare.

There was a heavy initial acceleration, then weightlessness. Bach had never liked it, and enjoyed it even less with a few drinks in her.

Little was said during the short journey. Bach had not asked where they were going, and Galloway did not volunteer it. Bach looked out one of the wide windows at the fleeting moonscape.

As she counted the valleys, rilles, and craters flowing past beneath her, she soon realized her destination. It was a distant valley, in the sense that no tube track ran through it. In a little over an hour. Tango Charlie would come speeding through, no more than a hundred meters from the surface.

The PTP landed itself in a cluster of transparent, temporary domes. There were over a hundred of them, and more PTP's than Bach had ever seen before. She decided most of the people in and around the domes fell into three categories. There were the very wealthy, owners of private spacecraft, who had erected most of these portable Xanadus and filled them with their friends. There were civic dignitaries in city-owned domes. And there were the news media.

This last category was there in its teeming hundreds. It was not what they would call a big story, but it was a very visual one. It should yield spectacular pictures for the evening news.

A long, wide black stripe had been created across the sundrenched plain, indicating the path Tango Charlie would take. Many cameras and quite a few knots of pressure-suited spectators were situated smack in the middle of that line, with many more off to one side, to get an angle on the approach. Beyond it were about a hundred large glass-roofed touring buses and a motley assortment of private crawlers, sunskimmers, jetsleds, and even some hikers: the common people, come to see the event.

Bach followed along behind the uncommon people: Galloway, thin and somehow spectral in the translucent suit, leaning on her crystal cane; the Myers twins, whose amparolee arms would not fit in the suits, so that the empty sleeves stuck out, bloated, like crucified ghosts; and most singular of all, the wire-sculpture arm units themselves, walking independently, on their fingertips, looking like some demented, disjointed mechanical camel as they lurched through the dust.

They entered the largest of the domes, set on the edge of the gathering nearest the black line, which put it no more than a hundred meters from the expected passage.

The first person Bach saw, as she was removing her helmet, was Hoeffler.

He did not see her immediately. He, and many of the other people in the dome, were watching Galloway. So she saw his face as his gaze moved from the celebrity to Joy and Jay... and saw amazement and horror, far too strong to be simple surprise at their weirdness. It was a look of recognition.

Galloway had said she had an excellent source.

She noticed Bach's interest, smiled, and nodded slightly. Still struggling to remove her suit, she approached Bach.

"That's right. The twins heard a rumor something interesting might be going on at NavTrack, so they found your commander. Turns out he has rather odd sexual tastes, though it's probably fairly pedestrian to Joy and Jay. They scratched his itch, and he spilled everything."

"I find that... rather interesting," Bach admitted.

"I thought you would. Were you planning to make a career out of being a R/A in Navigational Tracking?"

"That wasn't my intention."

"I didn't think so. Listen, don't touch it. I can handle it without there being any chance of it backfiring on you. Within the week you'll be promoted out of there."

"I don't know if..."

"If what?" Galloway was looking at her narrowly.

Bach hesitated only a moment.

"I may be stiff-necked, but I'm not a fool. Thank you."

Galloway turned away a little awkwardly, then resumed struggling with her suit. Bach was about to offer some help, when Galloway frowned at her.

"How come you're not taking off your pressure suit?"

"That dome up there is pretty strong, but it's only one layer. Look around you. Most of the natives have just removed their helmets, and a lot are carrying those around. Most of the Earthlings are out of their suits. They don't understand vacuum."

"You're saying it's not safe?"

"No. But vacuum doesn't forgive. It's trying to kill you all the time."

Galloway looked dubious, but stopped trying to remove her suit.

Bach wandered the electronic wonderland, helmet in hand.

Tango Charlie would not be visible until less than a minute before the close encounter, and then would be hard to spot as it would be only a few seconds of arc above the horizon line. But there were cameras hundreds of miles downtrack which could already see it, both as a bright star, moving visibly against the background, and as a jittery image in some very long lenses. Bach watched as the wheel filled one screen until she could actually see furniture behind one of the windows.

For the first time since arriving, she thought of Charlie. She wondered if Tik-Tok-no, dammit, if the Charlie Station Computer had told her of the approach, and if so, would Charlie watch it. Which window would she choose? It was shocking to think that, if she chose the right one, Bach might catch a glimpse of her.

Only a few minutes to go. Knowing it was stupid, Bach looked along the line indicated by the thousand cameras, hoping to catch the first glimpse.

She saw Megan Galloway doing a walk-around, followed by a camera crew, no doubt saying bright, witty things to her huge audience. Galloway was here less for the event itself than for the many celebrities who had gathered to witness it. Bach saw her approach a famous TV star, who smiled and embraced her, making some sort of joke about Galloway's pressure suit.

You can meet him if you want, she told herself. She was a little surprised to discover she had no interest in doing so.

She saw Joy and Jay in heated conversation with Hoeffler. The twins seemed distantly amused.

She saw the countdown clock, ticking toward one minute.

Then the telescopic image in one of the remote cameras began to shake violently. In a few seconds, it had lost its fix on Charlie Station. Bach watched as annoyed technicians struggled to get it back.

"Seismic activity," one of them said, loud enough for Bach to hear.

She looked at the other remote monitor, which showed Tango Charlie as a very bright star sitting on the horizon. As she watched, the light grew visibly, until she could see it as a disc. And in another part of the screen, at a site high in the lunar hills, there was a shower of dust and rock. That must be the seismic activity, she thought. The camera operator zoomed in on this eruption, and Bach frowned. She couldn't figure out what sort of lunar quake could cause such a commotion. It looked more like an impact. The rocks and dust particles were fountaining up with lovely geometrical symmetry, each piece, from the

largest boulder to the smallest mote, moving at about the same speed and in a perfect mathematical trajectory, unimpeded by any air resistance, in a way that could never be duplicated on Earth. It was a dull gray expanding dome shape, gradually flattening on top.

Frowning, she turned her attention to the spot on the plain where she had been told Charlie would first appear. She saw the first light of it, but more troubling, she saw a dozen more of the expanding domes. From here, they seemed no larger than soap bubbles.

Then another fountain of rock erupted, not far from the impromptu parking lot full of tourist buses.

Suddenly she knew what was happening.

"It's shooting at us!" she shouted. Everyone fell silent, and as they were still turning to look at her, she yelled again. "Suit up."

Her voice was drowned out by the sound every Lunarian dreads: the high, haunting shriek of escaping air.

Step number one, she heard a long-ago instructor say. See to your own pressure integrity first. You can't help anybody, man, woman or child, if you pass out before you get into your suit.

It was a five-second operation to don and seal her helmet, one she had practiced a thousand times as a child. She glimpsed a great hole in the plastic roof. Debris was pouring out of it, swept up in the sudden wind: paper, clothing, a couple of helmets...

Sealed up, she looked around and realized many of these people were doomed. They were not in their suits, and there was little chance they could put them on in time.

She remembered the next few seconds in a series of vivid impressions.

A boulder, several tons of dry lunar rock, crashed down on a bank of television monitors.

A chubby little man, his hands shaking, unable to get his helmet over his bald head. Bach tore it from his hands, slapped it in place, and gave it a twist hard enough to knock him down.

Joy and Jay, as good as dead, killed by the impossibility of fitting the mechanical arms into their suits, holding each other calmly in metallic embrace.

Beyond the black line, a tour bus rising slowly in the air, turning end over end. A hundred of the hideous gray domes of explosions growing like mushrooms all through the valley.

And there was Galloway. She was going as fast as she could, intense concentration on her face as she stumbled along after her helmet, which was rolling on the ground. Blood had leaked from one corner of her nose. It was almost soundless in the remains of the dome now.

Bach snagged the helmet, and hit Galloway with a flying tackle. Just like a drill: put helmet in place, twist, hit three snap-interlocks, then the emergency pressurization switch. She saw Galloway howl in pain and try to put her hands to her ears.

Lying there she looked up as the last big segment of the dome material lifted in a dying wind to reveal... Tango Charlie.

It was a little wheel rolling on the horizon. No bigger than a coin.

She blinked.

And it was here. Vast, towering, coming directly at her through a hell of burning dust.

It was the dust that finally made the lasers visible. The great spokes of light were flashing on and off in millisecond bursts, and in each pulse a trillion dust motes were vaporized in an eyeball-frying purple light.

It was impossible that she saw it for more than a tenth of a second, but it seemed much longer. The sight would remain with her, and not just in memory. For days afterward her vision was scored with a spiderweb of purple lines.

But much worse was the awesome grandeur of the thing, the whirling menace of it as it came rushing out of the void. That picture would last much longer than a few days. It would come out only at night, in dreams that would wake her for years, drenched in sweat.

And the last strong image she would carry away from the valley was of Galloway, turned over now, pointing her crystal cane at the wheel, already far away on the horizon. A line of red laser light came out of the end of the cane and stretched away into infinity.

"Wow!" said Charlotte Isolde Hill Perkins-Smith. "Wow, Tik-Tok, that was great! Let's do it again."

Hovering in the dead center of the hub, Charlie had watched all of the encounter. It had been a lot like

she imagined a roller-coaster would be when she watched the films in Tik-Tok's memory. If it had a fault-and she wasn't complaining, far from it-it was that the experience had been too short. For almost an hour she had watched the moon get bigger, until it no longer seemed round and the landscape was rolling by beneath her. But she'd seen that much before. This time it just got larger and larger, and faster and faster, until she was scooting along at about a zillion miles an hour. Then there was a lot of flashing lights... and gradually, the ground got farther away again. It was still back there, dwindling, no longer very interesting.

"I'm glad you liked it," Tik-Tok said.

"Only one thing. How come I had to put on my pressure suit?"

"Just a precaution."

She shrugged, and made her way to the elevator.

When she got out at the rim, she frowned. There were alarms sounding, far around the rim on the wheel.

"We got a problem?" she asked.

"Minor," Tik-Tok said.

"What happened?"

"We got hit by some rocks."

"We must of passed real close!"

"Charlie, if you'd been down here when we passed, you could have reached out and written your name on a rock."

She giggled at that idea, then hurried off to see to the dogs.

It was about two hours later that Anna-Louise called. Charlie was inclined to ignore it, she had so much to do, but in the end, she sat down in front of the camera. Anna-Louise was there, and sitting beside her was another woman.

"Are you okay, Charlie?" Anna wanted to know.

"Why shouldn't I be?" Damn, she thought. She wasn't supposed to answer a question with another question. But then, what right did Anna have to ask her to do that?

"I was wondering if you were watching a little while ago, when you passed so close to the moon."

"I sure was. It was great."

There was a short pause. The two women looked at each other, then Anna-Louise sighed, and faced Charlie again.

"Charlie, there are a few things I have to tell you."

As in most disasters involving depressurization, there was not a great demand for first aid. Most of the bad injuries were fatal.

Galloway was not hearing too well and Bach still had spots before her eyes; Hoeffler hadn't even bumped his head.

The body-count was not complete, but it was going to be high.

For a perilous hour after the passage, there was talk of shooting Tango Charlie out of the sky.

Much of the advisory team had already gathered in the meeting room by the time Bach and Hoeffler arrived-with Galloway following closely behind. A hot debate was in progress. People recognized Galloway, and a few seemed inclined to question her presence here, but Hoeffler shut them up quickly. A deal had been struck in the PTP, on the way back from the disaster. The fix was in, and Megan Galloway was getting an exclusive on the story. Galloway had proved to Hoeffler that Joy and Jay had kept tapes of his security lapse.

The eventual explanation for the unprovoked and insane attack was simple. The Charlie Station Computer had been instructed to fire upon any object approaching within five kilometers. It had done so, faithfully, for thirty years, not that it ever had much to shoot at. The close approach of Luna must have been an interesting problem. Tik-Tok was no fool. Certainly he would know the consequences of his actions. But a computer did not think at all like a human, no matter how much it might sound like one. There were rigid hierarchies in a brain like Tik-Tok. One part of him might realize something was foolish, but be helpless to over-ride a priority order.

Analysis of the pattern of laser strikes helped to confirm this. The hits were totally random. Vehicles, domes, and people had not been targeted; however, if they were in the way, they were hit.

The one exception to the randomness concerned the black line Bach had seen. Tik-Tok had found a way to avoid shooting directly ahead of himself without violating his priority order. Thus, he avoided stirring up debris that Charlie Station would be flying through in another few seconds.

The decision was made to take no reprisals on Tango Charlie. Nobody was happy about it, but no one could suggest anything short of total destruction.

But action had to be taken now. Very soon the public was going to wonder why this dangerous object had not been destroyed before the approach. The senior police present and the representatives of the Mayor's office all agreed that the press would have to be let in. They asked Galloway if they could have her cooperation in the management of this phase.

And Bach watched as, with surprising speed, Megan Galloway took over the meeting.

"You need time right now," she said, at one point. "The best way to get it is to play the little-girl angle, and play it hard. You were not so heartless as to endanger the little girl-and you had no reason to believe the station was any kind of threat. What you have to do now is tell the truth about what we know, and what's been done."

"How about the immortality angle?" someone asked.

"What about it? It's going to leak someday. Might as well get it out in front of us."

"But it will prejudice the public in favor of..." Wilhelm looked around her, and decided not to finish her objection.

"It's a price we have to pay," Galloway said, smoothly. "You folks will do what you think is right. I'm sure of that. You wouldn't let public opinion influence your decision."

Nobody had anything to say to that. Bach managed not to laugh.

"The big thing is to answer the questions before they get asked. I suggest you get started on your statements, then call in the press. In the meantime, Corporal Bach has invited me to listen in on her next conversation with Charlie Perkins-Smith, so I'll leave you now."

Bach led Galloway down the corridor toward the operations room, shaking her head in admiration. She looked over her shoulder.

"I got to admit it. You're very smooth."

"It's my profession. You're pretty smooth, yourself."

"What do you mean?"

"I mean I owe you. I'm afraid I owe you more than I'll be able to repay."

Bach stopped, honestly bewildered.

"You saved my life," Galloway shouted. "Thank you!"

"So what if I did? You don't owe me anything. It's not the custom."

"What's not the custom?"

"You can be grateful, sure. I'd be, if somebody pressurized me. But it would be an insult to try to pay me back for it. Like on the desert, you know, you have to give water to somebody dying of thirst."

"Not in the deserts I've been to," Galloway said. They were alone in the hallway. Galloway seemed distressed, and Bach felt awkward. "We seem to be at a cultural impasse. I feel I owe you a lot, and you say it's nothing."

"No problem," Bach pointed out. "You were going to help me get promoted out of this stinking place. Do that, and we'll call it even."

Galloway was shaking her head.

"I don't think I'll be able to, now. You know that fat man you stuffed into a helmet, before you got to me? He asked me about you. He's the Mayor of Clavius. He'll be talking to the Mayor of New Dresden, and you'll get the promotion and a couple of medals and maybe a reward, too."

They regarded each other uneasily. Bach knew that gratitude could equal resentment. She thought she could see some of that in Galloway's eyes. But there was determination, too. Megan Galloway paid her debts. She had been paying one to Q.M. Cooper for ten years.

By unspoken agreement they left it at that, and went to talk to Charlie.

Most of the dogs didn't like the air blower. Mistress Too White O'Hock was the exception. 2-White would turn her face into the stream of warm air as Charlie directed the hose over her sable pelt, then she would let her tongue hang out in an expression of such delight that Charlie would usually end up laughing at her.

Charlie brushed the fine hair behind 2-White's legs, the hair that was white almost an inch higher than it should be on a champion Sheltie. Just one little inch, and 2-White was sterilized. She would have been a fine mother. Charlie had seen her looking at puppies whelped by other mothers, and she knew it made 2-White sad.

But you can't have everything in this world. Tik-Tok had said that often enough. And you can't let all your dogs breed, or pretty soon you'll be knee deep in dogs. Tik-Tok said that, too.

In fact, Tik-Tok said a lot of things Charlie wished were not true. But he had never lied to her.

"Were you listening?" she asked.

"During your last conversation? Of course I was."

Charlie put 2-White down on the floor, and summoned the next dog. This was Engelbert, who wasn't a year old yet, and still inclined to be frisky when he shouldn't be. Charlie had to scold him before he would be still.

"Some of the things she said," Tik-Tok began. "It seemed like she disturbed you. Like how old you are."

"That's silly," Charlie said, quickly. "I knew how old I am." This was the truth... and yet it wasn't everything. Her first four dogs were all dead. The oldest had been thirteen. There had been many dogs since then. Right now, the oldest dog was sixteen, and sick. He wouldn't last much longer.

"I just never added it up," Charlie said, truthfully.

"There was never any reason to."

"But I don't grow up," she said, softly. "Why is that, Tik-Tok?"

"I don't know, Charlie."

"Anna said if I go down to the moon, they might be able to find out."

Tik-Tok didn't say anything.

"Was she telling the truth? About all those people who got hurt?"

"Yes."

"Maybe I shouldn't have got mad at her."

Again, Tik-Tok was silent. Charlie had been very angry. Anna and a new woman, Megan, had told her all these awful things, and when they were done Charlie knocked over the television equipment and went away. That had been almost a day ago, and they had been calling back almost all the time.

"Why did you do it?" she said.

"I didn't have any choice."

Charlie accepted that. Tik-Tok was a mechanical man, not like her at all. He was a faithful guardian and the closest thing she had to a friend, but she knew he was different. For one thing, he didn't have a body. She had sometimes wondered if this inconvenienced him any, but she had never asked.

"Is my mother really dead?"

"Yes."

Charlie stopped brushing. Engelbert looked around at her, then waited patiently until she told him he could get down.

"I guess I knew that."

"I thought you did. But you never asked."

"She was someone to talk to," Charlie explained. She left the grooming room and walked down the promenade. Several dogs followed behind her, trying to get her to play.

She went into her mother's room and stood for a moment looking at the thing in the bed. Then she moved from machine to machine, flipping switches, until everything was quiet. And when she was done, that was the only change in the room. The machines no longer hummed, rumbled, and clicked. The thing on the bed hadn't changed at all. Charlie supposed she could keep on talking to it, if she wanted to, but she suspected it wouldn't be the same.



She wondered if she ought to cry. Maybe she should ask Tik-Tok, but he'd never been very good with those kind of questions. Maybe it was because he couldn't cry himself, so he didn't know when people ought to cry. But the fact was, Charlie had felt a lot sadder at Albert's funeral.

In the end, she sang her hymn again, then closed and locked the door behind her. She would never go in there again.

"She's back," Steiner called across the room. Bach and Galloway hastily put down their cups of coffee and hurried over to Bach's office.

"She just plugged this camera in," Steiner explained, as they took their seats. "Looks a little different, doesn't she?"

Bach had to agree. They had glimpsed her in other cameras as she went about her business. Then, about an hour ago, she had entered her mother's room again. From there, she had gone to her own room, and when she emerged, she was a different girl. Her hair was washed and combed. She wore a dress that seemed to have started off as a woman's blouse. The sleeves had been cut off and bits of it had been inexpertly taken in. There was red polish on her nails. Her face was heavily made up. It was overdone, and completely wrong for someone of her apparent age, but it was not the wild, almost tribal paint she had worn before.

Charlie was seated behind a huge wooden desk, facing the camera.

"Good morning, Anna and Megan," she said, solemnly.

"Good morning, Charlie," Galloway said.

"I'm sorry I shouted at you," Charlie said. Her hands were folded carefully in front of her. There was a sheet of paper just to the left of them; other than that, the desk was bare. "I was confused and upset, and I needed some time to think about the things you said."

"That's all right," Bach told her. She did her best to conceal a yawn. She and Galloway had been awake for a day and a half. There had been a few catnaps, but they were always interrupted by sightings of Charlie.

"I've talked things over with Tik-Tok," Charlie went on. "And I turned my mother off. You were right. She was dead, anyway."

Bach could think of nothing to say to that. She glanced at Galloway, but could read nothing in the other woman's face.

"I've decided what I want to do," Charlie said. "But first I-"

"Charlie," Galloway said, quickly, "could you show me what you have there on the table?"

There was a brief silence in the room. Several people turned to look at Galloway, but nobody said anything. Bach was about to, but Galloway was making a motion with her hand, under the table, where no one but Bach was likely to see it. Bach decided to let it ride for the moment.

Charlie was looking embarrassed. She reached for the paper, glanced at it, then looked back at the camera.

"I drew this picture for you," she said. "Because I was sorry I shouted."

"Could I see it?"

Charlie jumped down off the chair and came around to hold the picture up. She seemed proud of it, and she had every right to be. Here at last was visual proof that Charlie was not what she seemed to be. No eight-year-old could have drawn this fine pencil portrait of a Sheltie.

"This is for Anna," she said.

"That's very nice, Charlie," Galloway said. "I'd like one, too."

"I'll draw you one!" Charlie said happily... and ran out of the picture.

There was angry shouting for a few moments. Galloway stood her ground, explaining that she had only been trying to cement the friendship, and how was she to know Charlie would run off like that?

Even Hoeffler was emboldened enough to take a few shots, pointing out-logically, in Bach's opinion-that time was running out and if anything was to be done about her situation every second was valuable.

"All right, all right, so I made a mistake. I promise I'll be more careful next time. Anna, I hope you'll call me when she comes back." And with that, she picked up her cane and trudged from the room.

Bach was surprised. It didn't seem like Galloway to leave the story before it was over, even if nothing was happening. But she was too tired to worry about it. She leaned back in her chair, closed her eyes, and was asleep in less than a minute.

Charlie was hard at work on the picture for Megan when Tik-Tok interrupted her. She looked up in annoyance.

"Can't you see I'm busy?"

"I'm sorry, but this can't wait. There's a telephone call for you."

"There's a... what?"

But Tik-Tok said no more. Charlie went across the room to the phone, silent these thirty years. She eyed it suspiciously, then pressed the button. As she did, dim memories flooded through her. She saw her mother's face. For the first time, she felt like crying.

"This is Charlotte Perkins-Smith," she said, in a childish voice. "My mother isn't... my mother... may I ask who's calling, please?"

There was no picture on the screen, but after a short pause, there was a familiar voice.

"This is Megan Galloway, Charlie. Can we talk?"

When Steiner shook Bach's shoulder, she opened her eyes to see Charlie sitting on the desk once more. Taking a quick sip of the hot coffee Steiner had brought, she tried to wipe the cobwebs from her mind and get back to work. The girl was just sitting there, hands folded once more.

"Hello, Anna," the girl said. "I just wanted to call and tell you I'll do whatever you people think is best. I've been acting silly. I hope you'll forgive me; it's been a long time since I had to talk to other people."

"That's okay, Charlie."

"I'm sorry I pissed on Captain Hoeffler. Tik-Tok said that was a bad thing to do, and that I ought to be more respectful to him, since he's the guy in charge. So if you'll get him, I'll do whatever he says."

"All right, Charlie. I'll get him."

Bach got up and watched Hoeffler take her chair.

"You'll be talking just to me from now on," he said, with what he must have felt was a friendly smile. "Is that all right?"

"Sure," Charlie said, indifferently.

"You can go get some rest now, Corporal Bach," Hoeffler said. She saluted, and turned on her heel. She knew it wasn't fair to Charlie to feel betrayed, but she couldn't help it. True, she hadn't talked to the girl all that long. There was no reason to feel a friendship had developed. But she felt sick watching Hoeffler talk to her. The man would lie to her, she was sure of that.

But then, could she have done any different? It was a disturbing thought. The fact was, there had as yet been no orders on what to do about Charlie. She was all over the news, the public debate had begun, and Bach knew it would be another day before public officials had taken enough soundings to know which way they should leap. In the meantime, they had Charlie's cooperation, and that was good news.

Bach wished she could be happier about it.

"Anna, there's a phone call for you."

She took it at one of the vacant consoles. When she pushed the Talk button, a light came on, indicating the other party wanted privacy, so she picked up the handset and asked who was calling.

"Anna," said Galloway, "come at once to room 569 in the Pension Kleist. That's four corridors from the main entrance to NavTrack, level-"

"I can find it. What's this all about? You got your story."

"I'll tell you when you get there."

The first person Bach saw in the small room was Ludmilla Rossnikova, the computer expert from GMA. She was sitting in a chair across the room, looking uncomfortable. Bach shut the door behind her, and saw Galloway sprawled in another chair before a table littered with electronic gear.

"I felt I had to speak to Tik-Tok privately," Galloway began, without preamble. She looked about as tired as Bach felt.

"Is that why you sent Charlie away?"

Galloway gave her a truly feral grin, and for a moment did not look tired at all. Bach realized she loved

this sort of intrigue, loved playing fast and loose, taking chances.

"That's right. I figured Ms. Rossnikova was the woman to get me through, so now she's working for me."

Bach was impressed. It would not have been cheap to hire Rossnikova away from GMA. She would not have thought it possible.

"GMA doesn't know that, and it won't know, if you can keep a secret," Galloway went on. "I assured Ludmilla that you could."

"You mean she's spying for you."

"Not at all. She's not going to be working against GMA's interests, which are quite minimal in this affair. We're just not going to tell them about her work for me, and next year Ludmilla will take early retirement and move into a dacha in Georgia she's coveted all her life."

Bach looked at Rossnikova, who seemed embarrassed. So everybody has her price, Bach thought. So what else is new?

"Turns out she had a special code which she withheld from the folks back at NavTrack. I suspected she might. I wanted to talk to him without anyone else knowing I was doing it. Your control room was a bit crowded for that. Ludmilla, you want to take it from there?"

She did, telling Bach the story in a low voice, with reserved, diffident gestures. Bach wondered if she would be able to live with her defection, decided she'd probably get over it soon enough.

Rossnikova had raised Charlie Station, which in this sense was synonymous with Tik-Tok, the station computer. Galloway had talked to him. She wanted to know what he knew. As she suspected, he was well aware of his own orbital dynamics. He knew he was going to crash into the moon. So what did he intend to do about Charlotte Perkins-Smith? Galloway wanted to know.

What are you offering? Tik-Tok responded.

"The important point is, he doesn't want Charlie to die. He can't do anything about his instruction to fire on intruders. But he claims he would have let Charlie go years ago but for one thing."

"Our quarantine probes," Bach said.

"Exactly. He's got a lifeboat in readiness. A few minutes from impact, if nothing has been resolved, he'll load Charlie in it and blast her away, after first killing both your probes. He knows it's not much of a chance, but impact on the lunar surface is no chance at all."

Bach finally sat down. She thought it over for a minute, then spread her hands.

"Great," she said. "It sounds like all our problems are solved. We'll just take this to Hoeffler, and we can call off the probes."

Galloway and Rossnikova were silent. As last, Galloway sighed.

"It may not be as simple as that."

Bach stood again, suddenly sure of what was coming next.

"I've got good sources, both in the news media and in city hall. Things are not looking good for Charlie."

"I can't believe it!" Bach shouted. "They're ready to let a little girl die? They're not even going to try to save her?"

Galloway made soothing motions, and Bach gradually calmed down.

"It's not definite yet. But the trend is there. For one thing, she is not a little girl, as you well know. I was counting on the public perception of her as a little girl, but that's not working out so well."

"But all your stories have been so positive."

"I'm not the only newscaster. And... the public doesn't always determine it anyway. Right now, they're in favor of Charlie, seventy-thirty. But that's declining, and a lot of that seventy percent is soft, as they say. Not sure. The talk is, the decision makers are going to make it look like an unfortunate accident. Tik-Tok will be a great help there; it'll be easy to provoke an incident that could kill Charlie."

"It's just not right," Bach said, gloomily. Galloway leaned forward and looked at her intently.

"That's what I wanted to know. Are you still on Charlie's side, all the way? And if you are, what are you willing to risk to save her?"

Bach met Galloway's intent stare. Slowly, Galloway smiled again.

"That's what I thought. Here's what I want to do."

Charlie was sitting obediently by the telephone in her room at the appointed time, and it rang just when Megan had said it would. She answered it as she had before.

"Hi there, kid. How's it going?"

"I'm fine. Is Anna there too?"

"She sure is. Want to say hi to her?"

"I wish you'd tell her it was you that told me to--"

"I already did, and she understands. Did you have any trouble?"

Charlie snorted.

"With him? What a doo-doo-head. He'll believe anything I tell him. Are you sure he can't hear us in here?"

"Positive. Nobody can hear us. Did Tik-Tok tell you what all you have to do?"

"I think so. I wrote some of it down."

"We'll go over it again, point by point. We can't have any mistakes."

When they got the final word on the decision, it was only twelve hours to impact. None of them had gotten any sleep since the close approach. It seemed like years ago to Bach.

"The decision is to have an accident," Galloway said, hanging up the phone. She turned to Rosznikova who bent, hollow-eyed, over her array of computer keyboards. "How's it coming with the probe?"

"I'm pretty sure I've got it now," she said, leaning back. "I'll take it through the sequence one more time." She sighed, then looked at both of them. "Every time I try to re-program it, it wants to tell me about this broken rose blossom and the corpse of a puppy and the way the wheel looks with all the lighted windows." She yawned hugely. "Some of it's kind of pretty, actually."

Bach wasn't sure what Rosznikova was talking about, but the important thing was the probe was taken care of. She looked at Galloway.

"My part is all done," Galloway said. "In record time, too."

"I'm not even going to guess what it cost you," Bach said.

"It's only money."

"What about Doctor Blume?"

"He's with us. He wasn't even very expensive. I think he wanted to do it, anyway." She looked from Bach to Rosznikova, and back again. "What do you say? Are we ready to go? Say in one hour?"

Neither of them raised an objection. Silently, they shook each other's hands. They knew it would not go easy with them if they were discovered, but that had already been discussed and accepted and there seemed no point in mentioning it again.

Bach left them in a hurry.

The dogs were more excited than Charlie had ever seen them. They sensed something was about to happen.

"They're probably just picking it up from you," Tik-Tok ventured.

"That could be it," Charlie agreed. They were leaping and running all up and down the corridor. It had been hell getting them all down here, by a route Tik-Tok had selected that would avoid all the operational cameras used by Captain Hoeffler and those other busybodies. But here they finally were, and there was the door to the lifeboat, and suddenly she realized that Tik-Tok could not come along.

"What are you going to do?" she finally asked him.

"That's a silly question, Charlie."

"But you'll die!"

"Not possible. Since I was never alive, I can't die."

"Oh, you're just playing with words." She stopped, and couldn't think of anything good to say. Why didn't they have more words? There ought to be more words, so some of them would be useful for saying goodbye.

"Did you scrubba-scrub?" Tik-Tok asked. "You want to look nice."

Charlie nodded, wiping away a tear. Things were just happening so fast.

"Good. Now you remember to do all the things I taught you to do. It may be a long time before you

can be with people again, but I think you will, someday. And in the meantime, Anna-Louise and Megan have promised me that they'll be very strict with little girls who won't pick up their rooms and wash their hair."

"I'll be good," Charlie promised.

"I want you to obey them just like you've obeyed me."

"I will."

"Good. You've been a very good little girl, and I'll expect you to continue to be a good girl. Now get in that lifeboat, and get going."

So she did, along with dozens of barking Shelties.

There was a guard outside the conference room and Bach's badge would not get her past him, so she assumed that was where the crime was being planned.

She would have to be very careful.

She entered the control room. It was understaffed, and no one was at her old chair. A few people noticed her as she sat down, but no one seemed to think anything of it. She settled down, keeping an eye on the clock.

Forty minutes after her arrival, all hell broke loose.

It had been an exciting day for the probe. New instructions had come. Any break in the routine was welcome, but this one was doubly good, because the new programmer wanted to know everything, and the probe finally got a chance to transmit its poetry. It was a hell of a load off one's mind.

When it finally managed to assure the programmer that it understood and would obey, it settled back in a cybernetic equivalent of wild expectation.

The explosion was everything it could have hoped for. The wheel tore itself apart in a ghastly silence and began spreading itself wildly to the blackness. The probe moved in, listening, listening...

And there it was. The soothing song it had been told to listen for, coming from a big oblong hunk of the station that moved faster than the rest of it. The probe moved in close, though it had not been told to. As the oblong flashed by the probe had time to catalog it (LIFEBOAT, type 4A; functioning) and to get just a peek into one of the portholes.

The face of a dog peered back, ears perked alertly.

The probe filed the image away for later contemplation, and then moved in on the rest of the wreckage, lasers blazing in the darkness.

Bach had a bad moment when she saw the probe move in on the lifeboat, then settled back and tried to make herself inconspicuous as the vehicle bearing Charlie and the dogs accelerated away from the cloud of wreckage.

She had been evicted from her chair, but she had expected that. As people ran around, shouting at each other, she called room 569 at the Kleist, then patched Rossnikova into her tracking computers. She was sitting at an operator's console in a corner of the room, far from the excitement.

Rossnikova was a genius. The blip vanished from her screen. If everything was going according to plan, no data about the lifeboat was going into the memory of the tracking computer.

It would be like it never existed.

Everything went so smoothly, Bach thought later. You couldn't help taking it as a good omen, even if, like Bach, you weren't superstitious. She knew nothing was going to be easy in the long run, that there were bound to be problems they hadn't thought of...

But all in all, you just had to be optimistic.

The remotely-piloted PTP made rendezvous right on schedule. The transfer of Charlie and the dogs went like clockwork. The empty lifeboat was topped off with fuel and sent on a solar escape orbit, airless and lifeless, its only cargo a barrel of radioactive death that should sterilize it if anything would.

The PTP landed smoothly at the remote habitat Galloway's agents had located and purchased. It had once been a biological research station, so it was physically isolated in every way from lunar society. Some money changed hands, and all records of the habitat were erased from computer files.

All food, air, and water had to be brought in by crawler, over a rugged mountain pass. The habitat itself was large enough to accommodate a hundred people in comfort. There was plenty of room for the

dogs. A single dish antenna was the only link to the outside world.

Galloway was well satisfied with the place. She promised Charlie that one of these days she would be paying a visit. Neither of them mentioned the reason that no one would be coming out immediately. Charlie settled in for a long stay, privately wondering if she would ever get any company.

One thing they hadn't planned on was alcohol. Charlie was hooked bad, and not long after her arrival she began letting people know about it.

Blume reluctantly allowed a case of whiskey to be brought in on the next crawler, reasoning that a girl in full-blown withdrawal would be impossible to handle remotely. He began a program to taper her off, but in the meantime Charlie went on a three-day bender that left her bleary-eyed.

The first biological samples sent in all died within a week. These were a guinea pig, a rhesus monkey, and a chicken. The symptoms were consistent with Neuro-X, so there was little doubt the disease was still alive. A dog, sent in later, lasted eight days.

Blume gathered valuable information from all these deaths, but they upset Charlie badly. Bach managed to talk him out of further live animal experiments for at least a few months.

She had taken accumulated vacation time, and was living in a condominium on a high level of the Mozartplatz, bought by Galloway and donated to what they were coming to think of as the Charlie Project. With Galloway back on Earth and Rosnikova neither needed nor inclined to participate further, Charlie Project was Bach and Doctor Blume. Security was essential. Four people knowing about Charlie was already three too many, Galloway said.

Charlie seemed cheerful, and cooperated with Blume's requests. He worked through robotic instruments, and it was frustrating. But she learned to take her own blood and tissue samples and prepare them for viewing. Blume was beginning to learn something of the nature of Neuro-X, though he admitted that, working alone, it might take him years to reach a breakthrough. Charlie didn't seem to mind.

The isolation techniques were rigorous. The crawler brought supplies to within one hundred yards of the habitat and left them sitting there on the dust. A second crawler would come out to bring them in. Under no circumstances was anything allowed to leave the habitat, nor to come in contact with anything that was going back to the world-and, indeed, the crawler was the only thing in the latter category.

Contact was strictly one-way. Anything could go in, but nothing could come out. That was the strength of the system, and its final weakness.

Charlie had been living in the habitat for fifteen days when she started running a fever. Doctor Blume prescribed bed rest and aspirin, and didn't tell Bach how worried he was.

The next day was worse. She coughed a lot, couldn't keep food down. Blume was determined to go out there in an isolation suit. Bach had to physically restrain him at one point, and be very firm with him until he finally calmed down and saw how foolish he was being. It would do Charlie no good for Blume to die.

Bach called Galloway, who arrived by express liner the next day.

By then Blume had some idea what was happening.

"I gave her a series of vaccinations," he said, mournfully. "It's so standard... I hardly gave it a thought. Measles-D1, the Manila-strain mumps, all the normal communicable diseases we have to be so careful of in a Lunar environment. Some of them were killed viruses, some were weakened... and they seem to be attacking her."

Galloway raged at him for a while. He was too depressed to fight back. Bach just listened, withholding her own judgment.

The next day he learned more. Charlie was getting things he had not inoculated her against, things that could have come in as hitch-hikers on the supplies, or that might have been lying dormant in the habitat itself.

He had carefully checked her thirty-year-old medical record. There had been no hint of any immune system deficiency, and it was not the kind of syndrome that could be missed. But somehow she had acquired it.

He had a theory. He had several of them. None would save his patient.

"Maybe the Neuro-X destroyed her immune system. But you'd think she would have succumbed to

stray viruses there on the station. Unless the Neuro-X attacked the viruses, too, and changed them."

He mumbled things like that for hours on end as he watched Charlie waste away on his television screen.

"For whatever reason... she was in a state of equilibrium there on the station. Bringing her here destroyed that. If I could understand how, I still might save her..."

The screen showed a sweating, gaunt-faced little girl. Much of her hair had fallen out. She complained that her throat was very dry and she had trouble swallowing. She just keeps fighting, Bach thought, and felt the tightness in the back of her own throat.

Charlie's voice was still clear.

"Tell Megan I finally finished her picture," she said.

"She's right here, honey," Bach said. "You can tell her yourself."

"Oh." Charlie licked her lips with a dry tongue, and her eyes wandered around. "I can't see much. Are you there, Megan?"

"I'm here."

"Thanks for trying." She closed her eyes, and for a moment Bach thought she was gone. Then the eyes opened again.

"Anna-Louise?"

"I'm still right here, darling."

"Anna, what's going to happen to my dogs?"

"I'll take care of them," she lied. "Don't you worry." Somehow she managed to keep her voice steady. It was the hardest thing she had ever done.

"Good. Tik-Tok will tell you which ones to breed. They're good dogs, but you can't let them take advantage of you."

"I won't."

Charlie coughed, and seemed to become a little smaller when she was through. She tried to lift her head, could not, and coughed again. Then she smiled, just a little bit, but enough to break Bach's heart.

"I'll go see Albert," she said. "Don't go away."

"We're right here."

She closed her eyes. She continued breathing raggedly for over an hour, but her eyes never opened again.

Bach let Galloway handle the details of cleaning up and covering up. She felt listless, uninvolved. She kept seeing Charlie as she had first seen her, a painted savage in a brown tide of dogs.

When Galloway went away, Bach stayed on at the Mozartplatz, figuring the woman would tell her if she had to get out. She went back to work, got the promotion Galloway had predicted, and began to take an interest in her new job. She evicted Ralph and his barbells from her old apartment, though she continued to pay the rent on it. She grew to like Mozartplatz even more than she had expected she would, and dreaded the day Galloway would eventually sell the place. There was a broad balcony with potted plants where she could sit with her feet propped up and look out over the whole insane buzz and clatter of the place, or prop her elbows on the rail and spit into the lake, over a mile below. The weather was going to take some getting used to, though, if she ever managed to afford a place of her own here. The management sent rainfall and windstorm schedules in the mail and she faithfully posted them in the kitchen, then always forgot and got drenched.

The weeks turned into months. At the end of the sixth month, when Charlie was no longer haunting Bach's dreams, Galloway showed up. For many reasons Bach was not delighted to see her, but she put on a brave face and invited her in. She was dressed this time, Earth fashion, and she seemed a lot stronger.

"Can't stay long," she said, sitting on the couch Bach had secretly begun to think of as her own. She took a document out of her pocket and put it on a table near Bach's chair. "This is the deed to this condo. I've signed it over to you, but I haven't registered it yet. There are different ways to go about it, for tax purposes, so I thought I'd check with you. I told you I always pay my debts. I was hoping to do it with Charlie, but that turned out... well, it was more something I was doing for myself, so it didn't count."

Bach was glad she had said that. She had been wondering if she would be forced to hit her.

"This won't pay what I owe you, but it's a start." She looked at Bach and raised one eyebrow. "It's a start, whether or not you accept it. I'm hoping you won't be too stiff-necked, but with loonies-or should I say Citizens of Luna?-I've found you can never be too sure."

Bach hesitated, but only for a split second.

"Loonies, Lunarians... who cares?" She picked up the deed. "I accept."

Galloway nodded, and took an envelope out of the same pocket the deed had been in. She leaned back, and seemed to search for words.

"I... thought I ought to tell you what I've done." She waited, and Bach nodded. They both knew, without mentioning Charlie's name, what she was talking about.

"The dogs were painlessly put to sleep. The habitat was depressurized and irradiated for about a month, then reactivated. I had some animals sent in and they survived. So I sent in a robot on a crawler and had it bring these out. Don't worry, they've been checked out a thousand ways and they're absolutely clean."

She removed a few sheets of paper from the envelope and spread them out on the table. Bach leaned over and looked at the pencil sketches.

"You remember she said she'd finally finished that picture for me? I've already taken that one out. But there were these others, one with your name on it, and I wondered if you wanted any of them?"

Bach had already spotted the one she wanted. It was a self-portrait, just the head and shoulders. In it, Charlie had a faint smile... or did she? It was that kind of drawing; the more she looked at it, the harder it was to tell just what Charlie had been thinking when she drew this. At the bottom it said "To Anna-Louise, my friend."

Bach took it and thanked Galloway, who seemed almost as anxious to leave as Bach was to have her go.

Bach fixed herself a drink and sat back in "her" chair in "her" home. That was going to take some getting used to, but she looked forward to it.

She picked up the drawing and studied it, sipping her drink. Frowning, she stood and went through the sliding glass doors onto her balcony. There, in the brighter light of the atrium, she held the drawing up and looked closer.

There was somebody behind Charlie. But maybe that wasn't right, either, maybe it was just that she had started to draw one thing, had erased it and started again. Whatever it was, there was another network of lines in the paper that were very close to the picture that was there, but slightly different.

The longer Bach stared at it, the more she was convinced she was seeing the older woman Charlie had never had a chance to become. She seemed to be in her late thirties, not a whole lot older than Bach.

Bach took a mouthful of liquor and was about to go back inside when a wind came up and snatched the paper from her hand.

"Goddamn weather!" she shouted as she made a grab for it. But it was already twenty feet away, turning over and over and falling. She watched it dwindle past all hope of recovery.

Was she relieved?

"Can I get that for you?"

She looked up, startled, and saw a man in a flight harness, flapping like crazy to remain stationary. Those contraptions required an amazing amount of energy, and this fellow showed it, with bulging biceps and huge thigh muscles and a chest big as a barrel. The metal wings glittered and the leather straps creaked and the sweat poured off him.

"No thanks," she said, then she smiled at him. "But I'd be proud to make you a drink."

He smiled back, asked her apartment number, and flapped off toward the nearest landing platform. Bach looked down, but the paper with Charlie's face on it was already gone, vanished in the vast spaces of Mozartplatz.

Bach finished her drink, then went to answer the knock on her door.

**TRUTH, JUSTICE, AND THE POLITICALLY CORRECT SOCIALIST PATH**



Ethnocentricity is a basic fact of the human condition. We tend to make judgements of right and wrong based on our cultural upbringing rather than any universal concept of goodness.

Of all the scientists on the planet Xenon, only Mar-Lon was convinced that the world was headed for destruction. They laughed when Mar-Lon made his prediction before the Council of Eminent Scientists, Xenon's governing body.

"It's just a series of Xenonquakes," they said.

Stung, Mar-Lon retired to his mountaintop laboratory with his wife and their infant son, Kla-Lon.

"Our doom is sealed," said Mar-Lon. "But our son shall survive the destruction of Xenon. I have constructed a spaceship with just enough room to carry him away. Quickly, there is no time to lose."

They sealed the tiny payload into the rocket, stood back, and launched Kla-Lon into space. No sooner had the rocket cleared the atmosphere than Xenon was blown to bits, just as Mar-Lon had predicted. So much for eminent scientists.

The rocket sped through the galaxies at pretty close to the speed of light for a time impossible to measure, due to relativistic effects. Finally it sizzled through the atmosphere of a green, watery, fertile planet, third from the sun, known to its inhabitants as Zemlya.

John Varley The rocket plowed into the ground just west of the Urals, about two hundred kilometers south of Sverdlovsk, in the Ros-sijskaja Sovetskaja Federativnaja Socialisticeskaja Respublika, or the Russian Federated S.S.R. of the glorious Union of Soviet Socialist Republics. It came to rest, smoking, in a wheat field of the Long Live The Heroes Of The October Revolution Collective Farm #56, not far from where Marina and Pavel Kentarovsky were munching on raw beets as they lugubriously surveyed the flat left rear tire of a twelve-year-old Spirit of Lenin tractor.

The Spirit of Lenin was an exact copy of a 1934 International Harvester except for cast-iron axles and, as Pavel often remarked, "the soul of a pig."

The Kentarovskys hurried over to the space capsule. A hatch popped open. Pavel leaned forward to take a look.

"Phew," said Pavel, straightening quickly. "This looks like a job for you."

Dutifully, Marina reached in and removed the infant. She stripped off his diaper, which had gone a thousand light-years without a change.

"A malchik," she said, which meant it was a boy. "We'll raise him as if he were our own child."

"Well..." said Pavel thoughtfully, remembering the three boys and four girls already filling the Kentarovsky household. "What if someone comes looking for him?"

"He fell out of the sky," Marina pointed out.

"Well..." said Pavel, meaning he thought it might be all right to keep the child, while at the same time reflecting that someone had gone to a good deal of trouble to get rid of him.

Back at the tractor, young Kla-Lon amused himself eating clods of dirt while Pavel sweated over the balky lugs of the wheel. Hurling an untranslatable Russian oath, Pavel kicked the machine, which promptly fell off the jack and would have crushed him except for Kla-Lon, who reached up and lifted it into the air with one hand.

"Put that down," said Marina, who had firm ideas about Truth, Justice, and the... Socialist Path raising children, even superhuman ones. Kla-Lon put it down, on its side.

The three of them stood in the Russian sunlight regarding the Spirit of Lenin, then the two adults regarded the infant in silence. The little malchik grinned up at them. Marina lifted him and they began trudging back toward the Long Live The Heroes Of The October Revolution Collective Farm.

"Do you think we should tell the Commissar about this?" Marina asked.

"Well..." said Pavel.

"I don't either," said Marina.

They named the boy Kyril. That was the name that went on his newly opened file at the MVD, who also took note of his remarkably short gestation period. This and other odd stories about his childhood were duly noted and passed on to the NKVD, and later to the KGB, with the result that Kyril Pav-elevitch Kentarovsky was labeled from an early age as a possible spy, Jew, or reactionary element.

In the same way a cuckoo chick elbows the smaller fledglings from its adoptive nest, young Kyril quickly eliminated his various foster-siblings. One by one they perished in household or farming accidents. Kyril was entirely innocent of any evil intent. He was simply too strong. The elder brothers and sisters fled to distant relatives, while the younger ones kept the village undertaker busy. Kyril quickly became Marina's favorite, as if he had been her own.

Pavel, too, loved the child, in much the same way he loved the State. In the spirit of experimentation, Pavel set out to discover the limits of his son's invulnerability. It was not that he resented it when Kyril tossed the communal bathtub through the washhouse wall, Pavel reasoned. Nor was it as if he really minded the time the boy turned their home on its side and shook it until all the furniture fell out in a heap. No, Pavel assured himself, it was simply that he needed to find a way to punish the boy, should the need ever arise.

Accordingly, for about a year Pavel possessed no hammer without a broken handle. All Marina's knives had bent points and dulled blades. Day after day, Kyril would return from John Varley playing in the fields with tractor tire marks on his face. Kerosene lamps, vats of boiling water, red-hot horseshoes, and anvils had a way of falling from tables onto the toddler. None of it had the slightest effect on Kyril. Pavel withdrew into a moody silence, and tended to sleep poorly and jump at loud noises.

Luckily for him, the Fascist warmonger Adolf Hitler treacherously betrayed the peace-loving peoples of the Soviet Union, and Pavel was called to do his duty in the Great Patriotic War. He endured the Siege of Stalingrad, where he amazed his trenchmates with his ability to sleep through the most harrowing barrage. Captured, interned in a prisoner-of-war camp in Poland, he was apt to turn to the other prisoners and say, "You think this is bad...?"

A rutted dirt path ran from the collective farm to the nearest village, Meilinkigrad. The road had been unnamed until 1918, when the Bolsheviks dubbed it the Praise And Honor To The Glorious Heroes Who Stormed The Winter Palace In Petro-grad On November 7, 1917 Expressway.

It was down this path that Marina led young Kyril one fine day in the 1940s. Her intention was to enroll him in school. That she dared do this was testament to her incredible determination as a mother.

He began his schooling without incident. Soon he was steeped in the glories of Marxist-Leninist doctrine. He began a grand dialectic that was to last all his life.

Kyril joined Komsomol, the Communist Youth League. He dreamed of erecting, single-handed, hydroelectric earthworks to harness the mighty rivers of Siberia: the Lena, the Ob, the Jenisej. He would boost Soviet industry, defeat the Fascists, triple the grain harvest, tilt the Earth's axis to warm the frigid north, loft powerful fortresses of Soviet Solidarity into orbit, to the moon itself.

He would fulfill his Five-Year Plan!

He would do all this and more, just as soon as his mother said he was ready.

Truth, Justice, and the... Socialist Path The Great Patriotic War ended without his help. Benevolent Soviet Hegemony was extended to millions of formerly enslaved peoples in Eastern Europe. The Western powers treacherously betrayed the long-suffering Soviet people at Berlin and threatened genocide to all who would not travel the Decadent Capitalist Road.

Somewhere in these terrible times, Pavel made his way home and sought refuge in the arms of his family.

"Stalin is executing returning prisoners of war," he told them.

"Yes, we know," said Kyril.

"He says we were traitors to be captured in the first place," Pavel went on, draining his first glass of vodka in five years.

"Yes, we heard," said Marina.

"I'll just hide out here for a while," Pavel said. "This should all blow over in three or four years."

"You're safe with us," said Kyril.

"Thank you for bringing this to our attention, Kyril Pav-elevitch," said the Commissar, twenty minutes later. "We'll have him rounded up."

"It was my duty, Comrade Commissar," said Kyril.

"Good-bye, Pavelushka," shouted Marina as the boxcar pulled away.

"Good-bye, Father," shouted Kyril. "Enjoy your reeducation!"

"Good-bye, Pavel Ivanovitch," shouted the Commissar. "I hear Siberia isn't really all that bad."

"Dress warm," Marina shouted.

Kyril's teachers reported to the Commissar that they had never found a more apt pupil. The Commissar took an interest, and Kyril received special attention usually reserved for the sons of Party members.

It was rumored around Meilinkigrad that the Commissar was actually Trotsky himself. The wild shock of hair, the glasses, the intense expression, the rigid inflexibility when it came to Marx and Engels—all these contributed to a growing legend that included dark stories of a stooge taking the great Bolshevik's place, dying in his stead in Mexico. The Com- John Varley missar did nothing to dispel these rumors, knowing that while they increased the people's fear and respect, they were too wild to be believed by those above him. This was fortunate, as he in fact was Trotsky.

In the wider world, the heroic People's Army under the leadership of Mao Tse-tung defeated the running dog Capitalist Roaders of the Kuomintang and forced their degenerate lickspittle tool-of-fascism General, Chiang Kai-shek, into permanent exile in the Chinese province of Taiwan, from where he would soon be forced into the sea. Kyril eagerly devoured the little red book of the Thoughts of Chairman Mao. He liked it so much that an hour later he wanted to read more.

There were two important events in Kyril's life during this time. The first was his beloved Marina's descent into insanity.

"Come here, Kyrilushka," she said one day. Taking him to the basement, she opened a trap door and removed a shortwave radio. "Listen to this," she said, as she tuned to the pirate signal of Radio Free Europe.

"I'm not saying they're right," Marina said, "and I'm not saying Comrade General Secretary Stalin is wrong. But hear for yourself, my darling. I and your father, God rest his soul, used to listen every week."

"Religion is the opiate of the masses," Kyril said.

"Of course, of course, that just popped out," Marina said, glancing around nervously.

"And then I heard the most amazing string of lies," Kyril said to the Commissar, twenty minutes later.

"It does sound serious," said the Commissar judiciously. "Perhaps I should send for a doctor."

"Would you, sir? Thank you so much."

"Good-bye, my darling," Marina called from the open boxcar door as she was taken away for the doctor's prescribed rest cure.

"Good-bye, Mother," Kyril shouted, manfully fighting back tears.

"Good-bye, Leon," Marina shouted. "Take care of my boy."

Truth, Justice, and the... Socialist Path "Who is Leon?" shouted the Commissar, looking around nervously.

The other thing that happened to Kyril was named Lara Langarova.

She came from Moscow, though she would not talk much about that. Nearly two meters tall, with sixteen-inch biceps and a size eighteen neck, she was the Olympic ideal of the New Soviet Woman. Kyril had never seen anything so lovely. Her thighs were like great tractor springs, her breasts the mighty Urals. Her hands moved with oiled grace, as though mounted on ball bearings. In her voice was the song of a thousand balalaikas, and the Red Army Chorus. She could clean-and-jerk two hundred kilograms. She could bend a large spanner in half. To Kyril, she was the Motherland Incarnate.

And her loins, her loins were the vast, fertile wheat fields of the Ukraine. One day those loins would yield up young Socialists like an inexorable factory. (There were two young Socialists on the assembly line already, but Kyril did not know that.) Lara Langarova was equally smitten.

"Hubba hubba," she said to her girlfriend Olga the first day she spied him. "What an incredible example of Socialist Realism."

"I'll say," said Olga. "That's Kyril Kentarovsky. It is said he can piss through armor plate." Lara naturally thought Olga was kidding, but had no trouble imagining equally unlikely and much more obscene feats the dashing peasant boy might perform.

Kyril began bringing her bushels of potatoes and turnips. He sat behind her in classes, and across from

her in the library, and their hearts whirred like Diesel turbines, and swooped like MiGs in a dogfight.

Then one day she invited him to the room she shared with her Uncle Vanya and six cousins—all of whom were gone marketing in Sverdlovsk. She was wearing unusual blue trousers. ' ••,

"Levi jeans," she told him proudly. Then she wound up a John Varley victrola and put on a record. She began to gyrate most alarmingly.

"I have not heard this music before," Kyril said.

"It's Louis Armstrong." She showed him a stack of similar records. "I have all the cool be-bop, Jackson. Coleman Hawkins, Thelonious, the Bird, Lawrence Welk. Beat me, daddy-o, eight to the bar!"

"Where did you obtain all this?" Kyril asked, sternly.

"The black market, natch. But it's cool. Don't be cubical, get hep! You can score anything in Moscow. You want some sweet reefer?"

"And then she smoked a funny cigarette," Kyril said to the Commissar, twenty minutes later. Well... maybe twenty-five. "And those maddening jungle rhythms... I was almost undone."

"Degenerate music," the Commissar intoned. "It sounds as if the young lady has fallen under the grip of Western influences. I will handle it."

"Good-bye, Kyril darling," Lara shouted as the boxcar rumbled away. "Be sure to write every day."

"Good-bye, Larushka," shouted Kyril. "Name one of the babies after me."

"Good-bye, Commissar," Lara shouted. "It's all for the good of Mother Russia, and I bear you no ill will."

The Commissar merely muttered, then sought out a comfortable patch of straw beside Kyril as the guard rolled the boxcar door closed, shutting them in. Their long journey had begun. Kyril merely clanked his chains together philosophically, trying his best not to accidentally damage them.

"Cheer up, Commissar," Kyril said brightly. "How bad can Siberia be?"

"How was I to know she was the daughter of the President of the Politburo?" the Commissar whined. "How was I to know she was here to be cured of a slight case of pregnancy?"

"The State has spoken," Kyril said simply. "And we must obey. Twenty years isn't so bad."

In truth, it wasn't so bad for Kyril. He could have done twenty years standing on his head. Siberia agreed with him.

Truth, Justice, and the... Socialist Path The Commissar was not so lucky, having no superpowers.

They were taken to the Let's All Shout Khorosho! To Celebrate The Fifth Party Congress Gulag And Orphanage. Kyril and the Commissar were bunked side by side in a building with Boris Pasternak, Aleksandr Solzhenitsyn, Lavrenti Beria, Raskolnikov, and Cyd Charisse. Also present in the camp were Josef Stalin, V. I. Lenin, three Ivan the Terribles, seven Napoleons, Adlai Stevenson, Jesus Christ, and eight Mae Wests, several dozen Judy Garlands, and uncounted Marilyn Monroes. Kyril suspected that many of them were imposters, and some might be insane.

One certain case of insanity was an ancient, toothless man in the bunk next to Kyril. The old man was convinced that rocks had sexes. Every night he put two stones in a shoebox under his bunk, and each morning he checked it for offspring.

"Today is my birthday!" the old man announced, shortly after Kyril's arrival.

"Yes, Father, I know," said Kyril.

"I'm fifty-five!"

"No, father, only forty-one."

"Fantastic!" exclaimed Pavel. "I feel younger already! And only one more year of my sentence to serve!"

"No, Father. Fourteen."

To cheer him up, Kyril put a handful of gravel in the shoe-box that night. All the next day Pavel showed off the newborn rocklings.

"I can't take much more of this, Kyril Pavelevitch," the Commissar whined one day.

"What's wrong, sir?" asked Kyril.

"Well, for one thing, I'm going to have a rectum the size of an SS-20 missile silo," said the Commissar.

At first Kyril thought the Commissar was speaking of an intestinal disorder, a common complaint at the

Let's All Shout Etc. Gulag. But no, it was something infinitely worse. Kyril was shocked, flabbergasted to learn such degeneracy could exist in the Soviet Union. For the first time in his life he forgot himself. With the Commissar in tow he marched into the gulag John Varley Commandant's office. Two guards promptly riddled him with automatic weapon fire.

Annoyed, Kyril took one of the firearms away and twisted it into the shape of a sickle. Brandishing it at the Commandant, he shouted heroically.

"My friend Comrade Trotsky informs me he is the unwilling sweetheart of half the sexual perverts in the barracks. This is not true Socialism!" His stalwart Soviet upper lip curled in a sneer of disgust. 'Each night they have their will with him, whispering endearments such as 'snuggle-bunny' and 'angel-buns.' I have heard these things with my own ears. And I tell you, this does not further the international class struggle!"

The Commandant, already white as albino snow, fainted dead away. This took some of the wind out of Kyril's sails. He glanced at the other guard, whose eyes were large saucers.

"Give me that weapon," Kyril said petulantly. The guard was only too happy to surrender it.

"When he wakes up," Kyril muttered, "tell him there will be no more degeneracy in this camp. This will be a decent Soviet gulag, or he'll have to deal with me."

"His balls will become the next two Sputniks," said the Commissar.

Kyril nodded; then, to drive home his point, he ate the guard's Kalashnikov.

"You are quite strong, Kyril Pavelevitch," the Commissar ventured as they waded back through the snow to their bar- "I am not of this Earth," Kyril confessed. 'My mother says I fell from some great Soviet in the sky.'

Kyril then proceeded to demonstrate some of his abilities to the Commissar, running the 100 meters in .00005 seconds, throwing a timber wolf over the horizon, and jumping over the nearest mountain.

"I'd bet on you in the next Olympics," the Commissar conceded.

"That has been my dream for a long time, sir," Kyril confided. "To humiliate the Western powers with my superhuman Truth, Justice, and the... Socialist Path feats..." He sighed dreamily, but the Commissar was shaking his head.

"Resist the temptation, Kyril Pavelevitch," he said. "Comrade Lenin himself warns of the cult of personality. To reveal such superiority to the proletariat would sow the seeds of elitism. It would be counterrevolutionary."

"Lenin also said, from each according to his ability, to each according to his needs," Kyril pointed out.

"Ah... no, Marx said that," said the Commissar, smiling, not at all sure who really said it but pleased at the intellectual struggle. "But he was not thinking of such as you. Someday, when the State has withered away, when the New Soviet Man has swept the planet clear of decadent revanchist thought... then, Kyril, a man like you, a man who has, if I may say so, leapfrogged over the arduous path of historical inevitability, could take his place without danger to the New Order. Until then, you must do your Socialist duty in other ways."

"And what ways are those, Comrade Trotsky?" Kyril asked, humbled by the vast worldview of this Bolshevik founding father.

"Don't call me that," the Commissar said absently. "The seeds you sow, Comrade Kentarovsky..."-and the great Communist paused for dramatic effect-"shall be the seeds of the Soviet Superman!"

They both gazed fanatically at the vast Russian sky, eyes gleaming, jaws clenched, biceps bulging, looking just like a poster announcing Chairman Mao's Great Leap Forward, except for the fact that neither was Chinese and the Commissar was so scrawny, stooped, and ratlike.

They held that pose as long as anyone reasonably could; then Kyril spoiled it by furrowing his brow and announcing, "I don't understand."

"Your other powers," the Commissar hinted. "I mean, surely a man who... that is, he ought to be a regular stallion, if you get my drift, er, um, what I'm saying is, hoo-boyl You know what I mean?" The Commissar nudged Kyril relentlessly, dry-humped the air, rolled his eyes, and blushed dark as a bowl of borscht, being a virgin himself.

"I don't know," Kyril said dejectedly. "I might have found John Varley out, but I felt it was my duty to denounce Lara first... and you know what happened then." Kyril was lying. Perhaps his reticence stemmed from Lara's comment when he was through: "That's jf?" It doesn't always pay to be faster than a speeding bullet.

"Never mind," said the Commissar. "Why, I'll bet you could cover a hundred Soviet women in a day. No, two hundred! Three hundred!"

"I will try," said Kyril, stoically facing his duty.

"I see vast breeding farms," hissed the Commissar. "Creches, collectives, whole apartment blocks filled with satisfied comrades incubating your brood! I see bright-eyed children by the millions, transforming the Motherland in a single generation into the Socialist paradise on Earth!"

"Yes, yes," Kyril breathed. "And I can begin in only eighteen years!"

"I must see what Comrade Lysenko has to say about this," shouted the Commissar, and whirled and ran toward the camp library.

He got six steps, and stopped in his tracks. He turned slowly.

"What did you say, Kyril Pavelevitch?"

"Just as soon as we've served our sentences, the glorious work can begin!"

Threats were useless. The Commissar tried to reason Kyril out of his adamant position, and soon saw that the youngster's devotion to proper Marxist thought was as invulnerable as his damnable skull.

"We could make an exception just this once," the Commissar wheedled, beginning the argument he was to have every day for the next eighteen years. "Over the wire, and skedaddle to Moscow. Bullets can't hurt you..."

"I was sentenced by a properly convened Soviet tribunal, all in accordance with our Constitution," Kyril pointed out virtuously.

"Yes, but it was pure influence that got you there. Special privileges for the Politburo. Is this the proper path for the Party?"

Truth, Justice, and the... Socialist Path "It is true, there seem to be disturbing deviations in Moscow," Kyril admitted, frowning his brow. "But to escape would be to put my self above the will of the State."

This argument consumed ten minutes of each working day. The other nineteen hours and fifty minutes were spent at many other vigorous occupations, interrupted only by the daily meal.

Kyril's favorite job was in the uranium mines. It made him proud to be digging out the raw material from which the purely defensive nuclear weapons guarding his homeland were wrought. His heart sang as he trundled his wheelbarrow full of ore out of the blackness of the Stygian pit. He only wished the inmates were provided picks and shovels so they could dig that much faster. At night, they all bathed in a warm glow of accomplishment Kyril swore he could almost see.

It was with regret that Kyril had to avoid two other occupations of the gulagites: military testing and medical research. That a projectile bounced off his mighty chest was no measure of the weapon's worth on the battlefield. And as hypodermic needles were blunted by his impenetrable skin, the new experimental viruses and bacteria had to be field-tested in other veins.

Two days before their scheduled release, Comrade Trotsky incautiously stopped to relieve himself against a tree, and froze solid. It was a common mishap in Siberia.

Kyril flew north, to Komsomolec Island, and there established his mighty Fortress of Solidarity. He brought the Commissar's corpse with him and installed it in a glass icebox, where he is still preserved, like Lenin, only standing, with his chin on his chest, looking in some alarm at his cold-shriveled member held in his scrawny fingers. Lenin gets a lot more visitors.

This done, Kyril sped to Meilinkigrad in hopes of finding his true love.

Lara was still there. Shortly after denouncing Kyril and the Commissar, her father had been caught up in a purge. Lara had stayed in the village, married, produced litter after, litter of healthy young Socialists.

John Varley And she had changed a bit. She didn't recognize Kyril when she answered the door, and he barely recognized her. She had a moustache many a lad would envy. Her nose would have resembled a beet in size and shape and color, but for the road map of burst, purplish veins. Through her laddered stockings, Kyril could see varicosities the size of pythons.

"That'll be three kopeks for french, five for around-the-world," she said. One brown tooth and three steel ones flashed in a smile, and she wiggled her four hundred pounds seismi-cally. "How about it, you cossack? Are you man enough?"

"Sorry, wrong number," Kyril stammered.

As he flew away from Lara Langarova's door, a vast weight seemed to lift from Kyril's heart. His last link with the past was cut. His father had died years ago, attempting sexual congress with a large boulder. His mother had vanished into the vast benevolence of the Soviet Asylum network. Comrade Trotsky was safe in the Fortress. It was time to put Meilin-kigrad behind him.

It was time to go to Moscow.

He found housing in a nice little two-room flat in the How 'Bout Them Bolsheviks? Revolutionary Modular People's Housing Block #34923. He shared it with seven other people, only two of whom were KGB informants. It was a 15th-floor walk-up-or it was until the scheduled arrival of elevators in four years-and would be warm and cozy and dry as soon as the roof was installed.

He found an opening for a mild-mannered reporter with Pravda, and got the job. He intended to use this as a cover, a secret identity.

Kyril had given this matter much thought, both at the gulag and later in the Fortress of Solidarity. To display superhuman powers as Kyril Kentarovsky would indeed be to court a cult of personality. But what if he assumed another identity, a sort of Spirit of Socialism, a near-mythical character with powers far beyond those of mortal men?

He decided to give it a try, and thus Bolshoiman was born.

To aid this deception, he needed a uniform. With the rem- Truth, Justice, and the... Socialist Path nants of his indestructible Xenonian diapers and swaddling blankets he fashioned a good, sensible Soviet suit with baggy pants and wide lapels. But he felt a white suit looked too western, so he dyed the ensemble the red of the glorious flag of the U.S.S.R. When he tried it on he found it had shrunk to embarrassing tightness. The legs and sleeves were six sizes too short, and he couldn't button the coat. So he added Red Army combat boots and a T-shirt with a capital "#," for Bolshoiman. Surveying the effect in the mirror, he decided it was just as well, as the shrinkage covered up the sins of his needlecraft.

"It's you, it's you," his roommate Ivan assured him.

"I don't know," said his roommate Yuri. "Maybe a cape...?"

Kyril started out at Pravda in the classified ads department, Personals section. It stirred his heart to see how many Muscovites were interested in continuing their education. ("45-yr-old generous Party member seeks stern third-world instructress for lessons in leather and domestic service.") There was also a keen interest in art and history. ("Ukrainian cross-dresser wants to meet husky workers to discuss Greek culture. Include frank photo for quick reply.") Fascinating as it was, Kyril chafed at being chained to the telephone all day. He longed to be out on the streets, fighting counterrevolutionary elements. He began spending his lunch breaks watching the TASS teletype machines. All night long he haunted the bars, listening to rumors, checking out leads, looking for the story that would break him into the big time.

The city room of Pravda was where most of the mild-mannered reporters spent the working day. Most of them were so mild-mannered that they spent the day asleep, waking up only long enough to put their names at the top of stories as they were delivered from the various ministries around Moscow. Some slept atop their desks, some brought in cots, but the majority preferred to lean back in their swivel chairs, mouths open. On a slow news day the snoring could be deafening, and every day was a slow news day at Pravda.

John Variey Only the editor stayed awake all day long. This was because he had not been able to sleep properly for over twenty years.

Comrade Philby took Kyril under his wing. In a few vodka-soaked months he taught his eager young pupil everything he knew about the newspaper business-knowledge gleaned from endless screenings of His Girl Friday, Deadline USA, Each Dawn I Die, and Nancy Drew, Reporter. Unfortunately, none of it had anything to do with the prudent management of information and propaganda under a benevolent Socialist regime.

Philby also taught him to speak Etonian-accented English. They met daily at The Happy Hungarian, 2

Dzerzhinsky Square-right across the street from KGB headquarters-during happy hour (7 A.M. to midnight), where Hiram the Happy Hungarian poured only three different drinks: 80 proof vodka, 100 proof vodka, and 150 proof vodka.

One day Kyril swam to the surface of an alcoholic haze to hear Comrade Philby 's voice coming from beneath the table.

"One day they'll get me, Kyril Pavelevitch," he intoned gloomily. "MI-6 will never forgive me for aiding the struggle of oppressed peoples around the world by giving England's secrets to the Motherland."

Philby was not under the table because he was drunk (though he was drunk). It was his habitual seat at The Happy Hungarian. He felt safer there.

"That's why I drink here, even though they water the vodka," Philby admitted, gloomily. "I feel safer the closer I am to the KGB. They've kept me alive this long. But MI-6 will have its revenge."

The five KGB agents at the next table had long ago stopped taking notes on Comrade Philby's story; they'd heard it all before. The two KGB agents who were actually MI-6 deep-cover moles wished heartily that they could kill the garrulous old traitor so they could steal some important secrets, such as the one about the alien superbeing the Russians were alleged to have in hiding somewhere.

Kyril glanced at his watch and noticed it had been five years since his arrival in Moscow. Most of that time had been spent Truth, Justice, and the... Socialist Path at the Hungarian's. The rest was accounted for by standing in various queues, and dancing the hully-gully with Ludmilla Langarova, Lara's younger sister, who had been his lover for some time now. It was time to get to work.

He knew where to find Ludmilla. Through the revolving doors of the G.U.M. department store-largest in the world, he thought, proudly-up to the third floor, and there she was near the end of a queue for nylon spandex panty hose from Yugoslavia.

"Ludmilla," he announced, "I must start fighting for Truth, Justice, and the Socialist Way."

"Of course, Kyril dear," she said. "My darling, would you hold my place in line for just a few minutes? I heard a rumor that a shipment of Polish eye shadow has just arrived down at the cosmetics counter."

Three hours later, Kyril arrived home with six pairs of re-inforced-crotch panty hose. He trudged up the stairs and kissed his mother on the cheek, pausing only to wipe the drool from her chin.

"Hi, Mom, I'm home," he said. "Hello, Yuri. Hi there, Ivan. Yo, Vladimir, Sonya, Piotr, Sasha, Nikita, Alesandra, Yuri Junior, Alexei Ilyich, Alexei Andreivitch, Alexei Ivanov-itch..."

Kyril had found his mother while doing a story about the great strides made by Soviet medicine in the field of political rehabilitation. When the doctors realized he was her son, they agreed she was cured, and sent her home with him. And she was cured. Twenty years of electroshock and drug therapy had showed Marina the error of her ways.

There had been a few minor side effects, among them partial paralysis, loss of the power of speech, and hair that stood permanently on end.

"It was a small price to pay," she had written in her elec-troencephalographic hand, shortly after her release. ' I repent of the crimes of my youth." At this point her eyes always leaked grateful tears. (These were two of the three sentences she knew how to write.) John Varley "Mother," Kyril announced, "I will now go forth and make the world safe for Marxist-Leninist Socialism."

"Dress warm," Marina wrote.

So Kyril marched down the stairs, his Bolshoiman costume in a shoebox under his arm.

No sooner had he turned the corner onto Kalinin Prospekt than he spied a crime in progress. There were three parasitic youths lounging around a noisy Western ghetto blaster, chewing on toothpicks, combing their greasy ducktails, sneering at the hearty bustle of workers hurrying along the sidewalk.

"Why are you not at work?" Kyril asked them mildly.

"Work is for suckers," drawled one of the parasites insolently. "Take a walk, you old bolshy."

Kyril hurried around another corner and ducked into a convenient phone booth, evicting the Uzbek family who had made it their home. He went unobserved as he struggled into his costume except for the three KGB cameras concealed in the booth, along with one each from MI-6, Mossad-the terrorist arm of the outlaw Jewish state-and the American CIA. The CIA camera was far superior to the other five, and cost a hundred times as much. It would have delivered high-resolution pictures and stereo sound to



its operators in Lang-ley, Virginia, except that it had stopped working three years before.

He left the booth, leaped into the air, and swooped down on the parasites, who looked appropriately surprised.

"Your lives of crime are at an end, social leeches," he announced. "From now on your kind will have to deal with Bolshoiman!" He grabbed one by the scruff of the neck and, warning the other two not to leave the scene, leaped into the sky again.

When Kyril reached a thousand feet and began zooming toward the local police station, the parasite looked down and threw up all over him.

He reported to work the next day to find the city room of Pravda filled with activity. Everyone was working on stories about the exploits of Bolshoiman.

Truth, Justice, and the... Socialist Path Comrade Philby showed him a sample front page. The headline read: IS IT A MIG-25? IS IT A TUPOLEV-144? NO, IT'S BOLSHOIMAN!

"What do you think?" Philby asked gloomily.

Before Kyril could answer, a reporter slapped him on the back.

"Nice going, Bolshoiman," said the reporter.

Kyril jumped, then looked around, acting innocent.

"Where?" he asked. "Is Bolshoiman here?"

"Oh... that's right," said the reporter, and winked broadly. "He has a secret identity, doesn't he?" Wink, wink. "Well, whoever he is, that Bolshoiman is really something, huh?" Wink, wink, wink.

"Comrades!" shouted another reporter, slamming down a telephone. "The Comrade General Secretary himself has requested that Bolshoiman join him at once in the Kremlin!"

Every person in the room fell silent and looked at Kyril.

"I'll see if I can find him," Kyril said grumpily, and stalked from the room.

But it was not Comrade Brezhnev, it was Yuri Andropov, head of the KGB, who greeted Bolshoiman. Andropov stood and held out his hand-then recoiled as Bolshoiman shook it. Kyril felt his ears go red.

"I apologize for the smell, Comrade Andropov," he said. "But I apprehended over a hundred parasites, hooligans, Jews, and black marketeers yesterday, and at least half of them got air sick. On me."

Andropov waved it away, and showed Kyril to a seat a comfortable distance from his desk.

"The General Secretary will be arriving in... ah, here he is now."

Leonid Brezhnev was brought in, strapped to a hand truck, followed by a battalion of doctors who immediately began hooking him up to kidney dialysis, an I.V. drip, a heart-lung device, and a cluster of other machines.

"The General Secretary is a bit indisposed," said Andropov. " "Ummm," said Bolshoiman.

John Varley A washtub of black beluga caviar was placed convenient to Brezhnev's right hand. He scooped up enough caviar to feed a Park Avenue household for a year, slapped it onto a slab of black Russian bread.

"I've existed for ten years on a diet of caviar and vodka," Brezhnev announced, and ate half the open-faced sandwich.

"That's wonderful, Leonid Ilyich," said Andropov, and turned to Kyril. "All Russia rejoices in your glorious exploits," he said.

Kyril blushed heroically.

"Comrade Brezhnev wanted me to award you this medal," said Andropov. He held up a red ribbon with a gold star hanging beneath it, came around his desk and pinned it to Bolshoiman's chest. "You are now a Hero of the Soviet Union."

"I wipe my ass with sable pelts," Brezhnev announced.

"Marvelous, Leonid Ilyich," Andropov said absently. He frowned. "It's too bad the ribbon is the same color as your uniform. But the solid-gold star stands out nicely." Andropov needn't have worried. In a few days the solid-gold star left a large green stain, setting off the red ribbon.

"Every sable pelt produced in Siberia," Brezhnev announced. "I wipe my ass with it."

"How droll, Leonid Ilyich," said Andropov. "And here, Bolshoiman, is your membership in the Russian Communist Party, voted in at a special session of the Politburo only last night."

Kyril's chest swelled with pride as Andropov handed him the papers.

"No sable is exported," Brezhnev announced, "without me first wiping my ass on it."

"Is that so?" said Andropov. "And one more thing, Bolshoiman. This is my own personal contribution. I thought a cape and a hat might go well with your... er... rather effective costume. So I procured these, made of... erm, ah... of the finest Russian sable."

Kyril thought his invulnerable heart would burst as he wrapped the cape around his shoulders, and jammed the hat onto his head.

Truth, Justice, and the... Socialist Path "What a joke on the decadent capitalist warmongers, eh?" Brezhnev chuckled.

"Indeed, Leonid Ilyich," said Andropov, resuming his seat. He folded his hands and regarded Kyril paternally.

"And now, Bolshoiman," he said. "Tell me what you plan to do to further the aims of worldwide Communism?" "Well, sir," Kyril said, stammering a bit in the presence of the two great men, "I've been thinking about this a lot." He leaned forward confidentially. "I've begun to suspect there is a great deal of injustice right here in the Motherland. I've heard rumors that certain Party officials have set up special v stores where only they can shop, stocked with hard-to-obtain Western goods. I believe that some of these men have established private dachas in the woods, or by the shore. It seems certain those with the proper political connections do not have to wait as long to buy a car or other consumer goods. With my own eyes I have seen Party members go to the head of the queue for buying toilet paper." He folded his arms and leaned back resolutely. "Sir, I would like to root out this evil perversion of the classless society and see that the perpetrators get their proper punishment."

Andropov regarded Bolshoiman for a moment in silence. Then he slapped his palm on his desk.

"Wonderful, Bolshoiman!" he crowed. "I applaud your egalitarian spirit." Then he leaned forward. "But I must tell you, we in the KGB are aware of this scandal. I expect to announce arrests within the month. If you blundered into this situation, you might unwittingly undo years of investigation."

"Oh," said Kyril, his heart sinking.

"But I have other work for you," said Andropov. He rounded his desk again, and held out more papers. "Here is your secret membership in the KGB. It entitles you to lie, cheat, steal, sabotage, and murder in the cause of Communism. Here is an American passport and other identity papers establishing you as a U.S. citizen, naturalized ten years ago. And here is your exit visa from the Union of Soviet Socialist Republics."

Andropov took a deep breath, then put his arm around Bolshoiman's shoulders. He whispered intensely.

John Varley "You shall go to the United States. You will confound the capitalists with your strengths. You will work to undermine their decadent system from within!" "How diabolical!" Kyril breathed.

"Thank you," said Andropov, and extended his hand. Kyril took it, and they both assumed the pose popularized by the Socialist Realism school of art.

"Good luck, Bolshoiman," said Andropov.

"Thank you, Comrade Andropov," said Kyril.

"I piss in Stolichnaya bottles labeled 'For Export,' " announced Brezhnev.

Kyril and Ludmilla flew to New York aboard Aeroflot-the world's largest airline. As soon as their bogus tourist visas were approved, they threw them away and assumed their KGB-established cover identities.

On the way in from the airport, Ludmilla leaped from the moving taxi, vanished into Bloomingdale's, and was never seen again. Once a month her MasterCard statement arrived at 1 Dzerzhinsky Square. Andropov always broke into a cold sweat when he opened it, then paid, significantly reducing the American foreign trade deficit.

Kyril got an apartment in Greenwich Village and took a job in the classified ads department of the Village Voice, where he was amazed to discover an American fascination with Greek, English, and

French cultures fully as deep as any he had seen in Moscow.

Like many a great revolutionary before him, Kyril decided to begin his campaign for the hearts and minds of the enslaved American people on the streets. He dressed in his Bolshoiman costume and boarded the A train. No one in the subway gave him a second glance.

He got off at 125th Street, where he quickly spotted a group of young, third-world, unemployed workers. He approached them.

"Crack, man?" one of them asked him.

"Hey, man, who's your tailor, Bozo the Clown?"

"Arise, oppressed workers of America!" Kyril shouted. "I, Bolshoiman, will lead you out of bondage."

Truth, Justice, and the... Socialist Path "Yo' mama," one of the workers commented.

"You have nothing to lose but your chains," Kyril promised him.

Judging the debate had gone far enough, one of the oppressed workers attempted to stab Kyril in the back, but the blade broke off. Another swung his fist at Kyril's chin, breaking every bone in his hand. A third produced a .357 Magnum and emptied it into Kyril's face. This had no effect, except on two bystanders hit by ricocheting bullets. Kyril reached out, took the firearm, ate it, and lifted the surprised worker by his hair.

"I must deliver you to the proper authorities," he said mournfully. "Perhaps you will rethink your politics while languishing in the hell of the American prison system." He took a small white paper bag from his pocket and gave it to the oppressed worker.

"What's this for?" asked the worker.

"You'll find out," Bolshoiman said glumly, and leaped into the air.

"What do you mean, 'lock him up'?" yelled the apoplectic desk sergeant. "I can't even scold him. Did you read him his rights? Do you have probable cause? Was there a lawyer present when the alleged assault allegedly occurred? Do you realize he's eleven years old?"

"What about this?" Bolshoiman said, reaching into the youth's pocket and producing several dozen packets of a controlled substance.

"That? I found that just laying on the street, man. I was gonna turn it in, but along comes bullshitman here and brutalizes me."

"See?" said the desk sergeant. "He found it."

"And this?" said Bolshoiman, reaching into another pocket and finding seven Rolex watches and fifteen diamond rings.

"Them? Them fell off a truck, man."

"See? They fell off a truck. Did you have a warrant for those searches? Do you realize he hasn't seen a psychiatrist yet? You realize just walking down 125th in that outfit is provocation, and entrapment? Here, kid, take this stuff and get John Varley outta here. You," he said to Bolshoiman, "you I oughta lock up. You're crazy. Now get outta here."

Bolshoiman went home and pondered these events long into the night.

At nine A.M. there was a knock on his door. He answered it to find five process servers standing in a line. Each of them handed him a subpoena.

Kyril spent most of the next year in court.

Both of the ricochet victims sued him for negligence in improperly deflecting the bullets. One of them died before the trial, so what with loss of projected lifetime income, pain and suffering to the wife, three children, mother and father, four grandparents, and punitive damages, Kyril had to pay seventeen million dollars. He got off easier with the survivor, whose lawyer could only manage to find nine hundred thousand dollars in damages and was so ashamed he gave up the practice of law.

The youth who cut himself on the broken knife blade sued for doctor and hospital bills of \$4,398.03 and fifteen thousand dollars in pain and suffering. The fellow with the broken fist contended that he had lost his means of livelihood-mugging, purse-snatching, and leg-breaking-and won a judgement of a million five.

"Sorry about that," said Kyril's court-appointed public defender after the fourth verdict against him. 'But this next case is frivolous. No jury in the world is going to convict you for stealing that kid's gun and

destroying it."

"But it's a criminal charge," Kyril worried.

"Trust me," said the public defender.

"But just what does a sentence of six months to life mean?" Kyril asked, through the wire mesh screen of the visitors' room at the Tombs, two weeks later.

"Three, four weeks, tops," said the public defender. "I gotta run. Keep your nose clean, and don't drop the soap."

Back in his cell that night, one of his three cellmates crept close in the darkness and whispered in Kyril's ear.

"I represent ABC television," said the man. "I bribed the Truth, Justice, and the... Socialist Path guard to get in here. ABC will pay ten thousand dollars for exclusive rights to your story. We plan a two-hour movie of the week."

"Twenty thousand, and a four-hour two-parter," whispered the cellmate from CBS. "Plus a guarantee to air during a sweeps week, Thursday or Friday."

"They're robbing you," whispered the cellmate from NBC. "I'm prepared to offer thirty-five thousand, and The Cosby Show as a lead-in for the first episode of what we envision as a six-part miniseries."

"We're gonna call it Bolshoiman: The Risks of Involvement" whispered the man from ABC.

"We're gonna call it Bolshoiman: The Peril of Getting Involved," whispered the man from CBS.

"We're gonna call it Bolshoiman: Is Involvement Worth it?" whispered the man from NBC.

"Why don't you just all do it?" Kyril sighed, and rolled over and went to sleep to the sound of whispered bidding.

Kyril was paroled after serving two months. He walked home to find a little man in a tweed suit sitting in his living room.

"Good morning," said the little man briskly. "I'll get right to the point." He opened his briefcase and produced a sheaf of papers, which he fanned out on Kyril's coffee table.

"I have here your 1040 forms for the last ten years. In none of these years do you list an income exceeding seventeen thousand dollars. Yet it has come to my attention that you recently paid out judgements in the amount of \$19,419,398.03, and you paid in cash. May I ask where you got this money?"

Kyril had charged it all to his KGB-backed American Express Gold Card, but began to wonder if perhaps he should have squeezed lumps of coal into diamonds instead.

"By the way," said the little man, with a brisk smile. "Did I mention I'm from the Internal Revenue Service?"

Kyril was sentenced to fifteen years for tax evasion, and remanded to the new Jails 'R' Us privately operated minimum-security rehabilitation facility outside Orlando, Florida. He John Varley was issued a loud Hawaiian shirt, a pair of Bermuda shorts, sandals and sunglasses and a ball and chain, and the bellhop showed him to his two-room efficiency cell/suite. It was furnished by the same people who do Holiday Inns. There was a small color television, a K-Mart bottom-of-the-line "stack" stereo with miserable speakers with practically no bass response, and no telephone. He had to share the Jacuzzi with nine other inmates. When Kyril arrived the inmates were on strike, demanding compact disc players and a better grade of suntan oil.

He settled easily into prison life once more. He spent his time reading the Daily Worker, plotting the overthrow of the U.S. government by force and violence, and wondering if he should escape.

Sometimes he had 'the weird feeling that prison was his destiny.

While he thought about these things he freebassed a lot of coke and gained over fifty pounds on the prison diet. He tried to sweat it off in the daily aerobics class, but then Sunday would roll around again.

"That damn brunch is my downfall," he often lamented to the ex-cabinet officers, federal judges, and Congressmen. "I swear I'm just gonna have a bite, and the next thing I know all the cheesecake is gone."

When he tipped the scales at an alarming three hundred and fifty pounds, he decided he had to make a break for it. He punched a hole in the floor of his cell and began tunneling like a tubby, supersonic mole.

After a few miles he lifted a manhole cover and poked his head into the Florida sunshine again. He

was in the Fantasy-land section of Walt Disney World. He took a slow look around, then zoomed back through the tunnel to the safety of his cell.

No matter how he tried to avoid it, Kyril's first parole hearing came up after only two years. He was told not to do it again, and set free.

He carried out of the prison gates only his Bolshoiman costume, two hundred pounds of blubber he hadn't come in with, Truth, Justice, and the... Socialist Path and a monkey on his back bigger than Mighty Joe Young. He was met at the gate by seventeen gorgeous women offering to marry him. The networks had taken his advice and all aired his story. The part of Bolshoiman had been played by Tom Selleck on ABC, while CBS opted for Arnold Schwarzenegger, and NBC, in a lighter vein, went with Chevy Chase.

He rented a small apartment in Miami. It was okay, except for the vampire bats poking their heads through the walls, the giant slugs in the bathtub, and the billions of invisible ants that crawled over his body day and night. While going cold turkey, Bolshoiman wasted down to a hollow-eyed ninety-eight pounds. His costume hung on him like a deflated zep-pelin.

He decided America would kill him if he stayed any longer, so he swam to Cuba, where he was imprisoned for eight years. He never was clear about the charge, but it seemed to have something to do with his costume.

China had about as much use for him as Russia. He only did three years there.

Bolshoiman now lives in the People's Stalinist Republic of Albania, where he is reasonably happy. He resides in Cell #5, The Enver Hoxha Glasnost-Free Repentance Academy, 45 Revolution Square, Tirana, where he is serving 850 years to life.

He is currently at work on his manifesto.

## **THE UNPROCESSED WORD**

John Varley 555 Mozart Place  
Eugene, Oregon 97444  
Susan Allison  
Editor, Berkley Books  
The Berkley Building 1 Madison Avenue  
New York, New York 10010

Dear Susan,

You and I have talked before about word processors, and how I'm one of the last science fiction writers who doesn't use one. Now I feel it is time to take aggressive action against the blight of computers.

What I want you to do is run the following notice right before the title page of the new book, and in all books after this, and in any re-print editions of previous books written by me. Though this kind of self-promotion is personally repugnant to me, I feel it is time to speak out before it is Too Late. Also, it might help to sell books to people who feel the same way I do.

You may be wondering just what VarleyYarns® is. Well, I've re-organized, partly for tax purposes, partly for other reasons. I've formed a corporation called VarleyYarns, Inc., to market and promote my books. It's a step that's been long overdue. From now on, you can make out all my royalty checks to VarleyYarns.

Best,  
John

## **THE UNPROCESSED WORD**

### **INTRODUCING VARLEY YARNS®**

This symbol is your assurance that the following yarn was composed entirely without the assistance of

a word processor.

Each VarleyYarn® is created using only natural ingredients: The purest paper, carbon typewriter ribbons, pencils, ballpoint pens, thought, and creativity. Manuscript corrections are done entirely by hand. Final drafts are lovingly re-typed, word by word, in the finest typefaces available-no dot-matrix printers allowed!

The manuscript of each VarleyYarn® is then carried by the United States Postal Service-First Class!-to the good offices of the Berkley/Putnam Publishing Group in Manhattan, New York City, New York. Not a word is ever phoned in via modem.

Not One Word!

Here the VarleyYarn® is given to skilled artisans, men and woman who learned their craft from their parents, and from their parents before them... many of them using the tools and even the same offices their grandparents used. Crack teams of proofreaders pore over the manuscript, penciling corrections into the wide margins left for that purpose. Messengers hand-carry the VarleyYarn® from floor to floor of the vast Berkley Building, delivering it to deft Editors, clever Art Directors, and lofty Vice-Presidents.

When all is in readiness, the VarleyYarn® is rushed to the typesetter, who once again re-types the manuscript-word by word!-on the typesetting machine. Then the bulky lead plates are trucked to New Jersey and given to the printer, who uses technologies essentially unchanged from the days of Gutenberg.

And the end result? The book you now hold in your hands, as fine a book as the economic climate will allow.

So look for the sign of the twin typewriter keys-your symbol of quality in: 100% guaranteed non-processed fiction!

John Varley 555 Mozart Place

Eugene, Oregon 97444

Dear John,

You asked to hear from me as soon as we had some concrete sales figures on the new book. As you know, we ran your "promotional" notice as you instructed, just after the title page. The book has been out for a month now, and I'm sorry to say there's no measurable impact. It's selling about as well as the previous collection.

We have received some rather strange mail, though, which I am forwarding to you under a separate cover.

John, I'm not completely sure the public cares whether fiction was written on a typewriter, a word processor, or with a quill pen and ink. I know this is an important issue with you and I was happy to help you try and get your message across, but maybe it's best for now if we just forget it. Unless I hear back from you soon, I'm going ahead with the twenty-eighth printing of WIZARD without the VarleyYarn seal of approval in front.

Yours,

Susan Allison

Susan Allison

Berkley

Dear Susan,

Of course they care. You can't tell me people can't tell the difference when it is so obvious to any literate person. They just haven't been given the choice in recent years... and more importantly, they haven't heard the message. I'm afraid putting it in just my books was a mistake, as that is simply preaching to the converted. What I want you to do now is use the advertising budget for the new book and, instead of running the standard promo, use the following material instead. I'd like to see it in all the trade publications and as many national magazines as we can afford. And, far from letting you remove the original message from the new printing of WIZARD, I want to keep it, and run this new one on stiff paper-like you used to use for cigarette ads-somewhere in the middle of the book. Full color won't be necessary; just print the underlined parts in red caps.

John

## WHY VARLEYYARNS®?

Perhaps you asked yourself: "Why should I buy and read Berkley's VarleyYarns® when cheaper, more plentiful 'processed' fiction puts me to sleep just as quickly?"

Here are some things we at VarleyYarns® think you should know:

Processed fiction can contain harmful additives.

When fiction is produced on a Word Processor each keystroke is first converted to a series of "on" and "off" signals in the microprocessor unit. Some of these signals go to the video screen and are displayed. The rest are "tagged" by various electronic additives and stored in the "memory" for later retrieval. Inevitably, these tags cling to the words themselves, and no amount of further processing can wash them away. Even worse, while in the memory these words are subject to outside interference such as power surges, changes in the Earth's magnetic field, sun spots, lightning discharges, and the passage of Halley's Comet-due back in 1986... and every 76 years thereafter! VarleyYarns® are guaranteed to contain no sorting codes, assemblers, inelegant "languages" like FORTRAN or C.O.B.O.L., and to be free of the fuzzy edges caused by too much handling (more commonly known as "hacker's marks").

Floppy disks lack sincerity.

Think about it. When the "word processor" turns off his or her machine... the words all go away! The screen goes blank. The words no longer exist except as encoded messages on a piece of plastic known as a floppy disk. These words cannot be retrieved except by whirling the disk at great speed-a process that can itself damage the words. Words on a floppy disk are un-loved words, living a forlorn half-life in the memory until they are suddenly spewed forth at great and debilitating speed by a dot-matrix printer that actually burns them into the page!

VarleyYarn® words go directly from the writer's mind onto the printed page, with no harmful intermediate steps. At night, when the typewriter is turned off, they repose peacefully in cozy stacks of paper on the writer's desk, secure in the knowledge they are cherished as words.

Microprocessors are Un-American.

That's right, we said Un-American. At the heart of every word processor is something called a microchip. Due to cheap labor costs, these chips are made in places like Taiwan, Singapore, Hong Kong, and Japan. Now, we at VarleyYarns® have nothing against the Japanese (though Pearl Harbor was a pretty cowardly attack, don't you think?), but ask yourself this: Do you want to entrust your precious fiction to a machine that doesn't even speak English?

So ask your grocer, druggist, airport manager, and bookseller to stock up on Berkley's VarleyYarns® today. And next time someone offers to let you read processed fiction, you can say:

"No thanks! I'd rather read a VarleyYarn®!"

John Varley 555 Mozart Place

Eugene, Oregon 97444

Dear John,

As you must have seen by now, I did as you asked. But let me tell you, it was a struggle. I fought pretty hard for that ad budget, such as it was, and it was quite a trick to turn around and tell everyone you now want this other material to run in place of the ads we'd prepared.

A word to the wise, my friend. You're not the only author on the Berkley list. I called in a lot of favors on this one. And I'm sorry to tell you it doesn't seem to have worked. All of them-The Times, Rolling Stone, Publishers Weekly, Variety, USA Today, Locus-report negative responses to the ad as run. Maybe this will convince you that people really aren't concerned-as I know you are-about the spread of word processors.

One more thing you might not have considered. All the other Berkley authors use word processors. More than a few of them have called or written about your ad. So far the tone has been more puzzled than anything else, but I'm afraid that if we went on with this it could only get worse. See, they're beginning to think you're saying something negative about their fiction.

For this reason, if for no other, I'm pulling your ad from all the printed media, and canceling the upcoming radio and television campaign. The forty-third printing of TITAN goes to the presses next

week, and it will do so without either the VarleyYarns "symbol of quality" or the two-color slick paper insert.

Yours truly,

Susan

Dear Susan,

You can't do this to me! You're simply not giving this a chance to work. Naturally there's going to be some initial resistance. It's a new idea to most people out there that word additives can be harmful to one's fiction. Remember how people fought the idea of ecology in the late 60's? Remember how the AEC used to tell us that radiation was good for you? This is just like that. The word has to get out now, before it's too late.

So here's what I want you to do. Forget all the book advertising. I want to go right on to direct mail. See if you can obtain the lists of everyone who ever voted for Eugene McCarthy, and send them all a copy of the enclosed exposé. It's time their eyes were really opened.

I have gone to a great deal of trouble obtaining these testimonials. I expect you to do your part. And, oh, sure, I know the lawyers on your end are going to give you a hard time about some of this, but you'll notice I've concealed the names of the people involved.

Here's to an unprocessed future...

John

The Shame of MacWrite

Brought To You By

VarleyYarns®

Home Of The Unprocessed Word Almost without our realizing it, a generation has grown up in America that has never read an unprocessed word, never heard an unprocessed line of dialogue. This is tragic enough... but have you ever considered the effect of the Word Processor upon today's writers? Many of them have never seen a typewriter. Their familiarity with pen and ink extends only to the writing of checks to pay for a new addition to their computer systems.

And now, slowly, insidiously, hidden from public view, the results of their new toys are beginning to be felt.

We at VarleyYarns® feel it is time for someone to speak out, to rip away the veil of secrecy that has, until now, prevented these writers from coming forward to speak of their shame, their anguish, their heartbreak. You probably don't know any writers personally. Most people don't. Here are some facts you should know:

Fact #1: Writers can't handle money, and are suckers for shiny new toys.

Writers are a simple folk, by and large. Awkward in social situations, easily deceived, childishly eager to please, the typical writer never had the advantages of a normal childhood. He was the dreamy one, the friendless one, object of scorn and ridicule to his classmates. Living in his own fantasy world, writing his "fiction," he is ill-equipped for the pitfalls of money or technology.

Fact #2: Writers come in two types-compulsives, and procrastinators.

The Type A writer will labor endlessly without food, water, or sleep. His output of fiction is prodigious. Many claim they would write fiction even if they were not being paid for it-a sure danger signal.

Type B writers live to sharpen pencils, straighten their desks, create elaborate filing systems, and answer the telephone and the doorbell. A productive day for the Type B writer consists of half a paragraph-which may end up in the wastepaper basket at the end of the day. This writer will work only under deadline pressure. Any excuse to leave the typewriter is welcomed.

Conclusion: The Word Processor is precisely the wrong tool to put into a writer's hands!!

If you don't believe it, listen to these unsolicited testimonials from some of the most pitiful cases of computaholism:

"SK," Jerusalem's Lot, Maine I was one of the first writers to get a word processor. My God, if only I had known... if only... I was always prolific. I write every day but Guy Fawkes Day, Bastille Day, and the anniversary of the St. Valentine's Day Massacre. When I got my computer my output increased



dramatically. My family didn't see me for days at a time... then weeks at a time! I was sending in novels at the rate of three a month... and in addition, was writing and selling dozens of short stories every day. Thinking of pseudonyms became a major task in itself, a task I faced with a deepening sense of horror. Have you ever heard of John Jakes? That's really me! And what about Arthur Hailey, I'll bet you've heard of him. That's me, too! And Colleen McCullough, and William Goldman, and Richard Bachman... John D. MacDonald really died in 1976... but nobody knows it, because I took over his name! Soon I was writing movie scripts. (Have you heard of Steven Spielberg? That's me, too.) In 1980 I began writing the entire line of Harlequin Romances. I was making money faster than General Dynamics... but my kids didn't know me. As I sat at my Word Processor, a strange change would come over me. I would become these other people. Friends would mistake me for Truman Capote, or J. D. Salinger. But I could have lived with that... if not for the children. I can hear them now, crying in the kitchen. "Mommy, mommy," they weep. "Who is daddy today?" If only I could save another writer from this nightmare... if only... if only...

"SR," Halifax, Nova Scotia I used to write with a pencil and paper-I never even used a typewriter for my first drafts... until the day someone convinced me to buy a Macintosh Computer, known in the industry as a Fat Mac. I loved it! In only three or four months I taught myself to type and wrote seventy or eighty letters. I purchased a MacPaint program, and soon was turning out wonderful dot-matrix artwork to amuse my friends. Then I brought a MacAlien program and had hours of fun every day eluding the space monsters that tried to eat me alive. (The MacWrite program still had a few glitches, but I knew I'd work them out... one of these days... when I got around to it... mañana... what's the rush?) In the meantime, I was having too much fun...

Well, you've probably guessed I'm a Type B writer. It was always easy enough to find an excuse not to write... and the Mac made it even easier! Now winter is coming on, I've missed a dozen deadlines, my family is starving, and bill collectors are pounding on the door.

Thank God for the people at VarleyYarns®!

When they heard of my plight they rushed over with a typewriter, reams of paper, and a package of pencils.

I know it will be a long hard path back to sanity... but with the help of VarleyYarns®, I think I can lick it!

"DT" Oakland, California

Born Again!

That's what I told my friends when I finally "made the switch" to a word processor. The ease, the speed, the versatility... I began buying new programs as quickly as they came out. I even got to "road-test" a few of them, developed by friends in the industry, before they were available to the general public. I really liked the MacPlot at first. When you "Booted it up," MacPlot would suggest alternate story lines... while at the same time conducting a global search of all stories written by anyone, anywhere, at any time, to see if an idea was "old hat." Soon all my friends had copied it and were using it, too. Then came MacClimax!, which analyzed your prose for the "high points," and added words and phrases here and there to "punch it up." You've all heard how a word processor can aid you if you decide to change a character's name in the course of a story. With MacCharacter, I was able to change a whimp into a hero, a Presbyterian into an alien suffering from existential despair, or a fourteenth century warlord into a Mexican grape-picker... all with only a few keys... all without lapses in story logic! Before long I had them all: MacConflict, MacDialogue, MacMystery, MacWestern, Adverb-Away. VisiTheme, MacDeal-With-The-Devil...

Then I noticed a strange thing.

I'm a Type A writer, like Mr. "SK/Bachman/Goldman/ETC." I'm not happy unless I'm writing most of the day. And now, writing was so easy I could simply write a first line, punch a few keys, and sit back and watch the story write itself. It was so easy, I was miserable. Now, in today's mail, comes MacFirstline, but I don't think I'll run it. I think I'll kill myself instead.

Now where's the MacHara-Kiri suicide-note-writing program...?

Sad, isn't it? And there isn't even enough time to tell you of the incalculable amounts of money

squandered by writers on expensive systems that were obsolete within a few weeks' time, or to print the countless other testimonials that have been pouring into VarleyYarns® since this crusade of salvation began.

We're trying to help. Won't you? Only with your support can we stamp out this dread killer, this hidden disease called Computaholism. Write your Congress-person today. Form a committee. Give generously. Be sure to vote.

And don't forget... to buy and read Berkley's VarleyYarns®.

Dear John,

All right, enough is enough. I don't think you realize it, but I put my career on the line over your last insane request. If you think I'm going to publish and mail that diatribe, you've got another think coming.

I went so far as to show it to our lawyers. You said you disguised the names, but how many writers do you think there are in Halifax, Nova Scotia? Or in Maine, for that matter. And do you have any idea how much money that guy has? Enough to keep you in court for the next twenty years.

Maybe I'll regret this later, but there are a few things I've been dying to get off my chest, so here goes. First... was that some kind of crack, back in your first ad? Something like "as fine a book as the economic climate will allow"? Let me tell you, we editors work hard and we do the best job we can. So we don't usually have much of an advertising budget. So DEMON was printed on newsprint. So sue me, okay?

As for your horror stories about excessively prolific authors... boy, don't I wish! I could say a thing or two about missed deadlines, that's for sure. And did you read what Norman Spinrad and Algis Budrys had to say about your last two epics? So much for the inherent superiority of the typewriter.

TITAN parts four, five, and six are due at the end of the month, don't forget. You may not find the editors here at Berkley quite so forgiving the next time you ask for a deadline extension.

Yours,

Susan

**SUSAN ALLISON**

**BERKLEY PUBLISHING**

**NEW YORK**

**DEAR SUSAN,**

HOLD EVERYTHING! NO NEED TO GET UPSET. HELL, YOU DIDN'T THINK I WAS SERIOUS, DID YOU? THE THING IS, SEE, I WAS TALKING TO HARLAN ELLISON THE OTHER DAY, AND WHILE HE AGREED WITH MY STAND AGAINST THE WORD PROCESSOR, HE FELT THE WHOLE VARLEYEARNS BUSINESS SMACKED OF TOO MUCH SELF-PROMOTION.

BUT BEYOND THAT, AS YOU MIGHT HAVE GUESSED FROM THE HOLES ALONG THE SIDE OF THE PAPER, I'VE BOUGHT A WORD PROCESSOR. (SORRY ABOUT THIS TYPEFACE: MY LETTER-QUALITY PRINTER IS "DOWN" AGAIN. I'M USING AN OLD "WORDSPITTER" PRINTER I BORROWED FROM THE ESTATE OF "DT" IN OAKLAND.) I'M WRITING THIS ON AN EXXON OFFICE SYSTEMS "ANNIE" COMPUTER. AS YOU MAY HAVE HEARD, EXXON GOT OUT OF THE COMPUTER BUSINESS AFTER A FEW YEARS OF POOR SALES, SO I GOT THIS MACHINE AT A BARGAIN-BASEMENT PRICE! FOR ONLY \$5000 I GOT A MAINFRAME MORE POWERFUL. THAN THE ONE NASA USED TO SEND MEN TO THE MOON IN 1969, A DISK DRIVE, A "SANDY" PRINTER, A "PUNJAB'S CRYSTAL" MONITOR SCREEN, AND A LITTLE DEVICE SIMILAR TO THE APPLE MOUSE, WHICH EXXON CALLS AN "ASP." I'VE BEEN TOLD THIS IS WHAT IS KNOWN AS AN ORPHAN COMPUTER, BUT IT SHOULDN'T MATTER, AS IT WILL RUN SOME OF THE

APPLE SOFTWARE, AND THE SALESMAN-A MR. PANGLOSS-ASSURES ME EXXON WILL CONTINUE TO SERVICE IT AND PRODUCE MORE PROGRAMS.

SO FAR HE'S BEEN AS GOOD AS HIS WORD. THE LASER-DRIVEN HYPERSPEED WHIRL-WRITE "SANDY" PRINTER HAS BROKEN DOWN EIGHT TIMES SO FAR, AND THE SERVICE MANAGER, MR. GOLDBERG, IS ALWAYS HERE WITHIN A WEEK OR TWO. (HE'S HERE RIGHT NOW-HEY, RUBE!-SO PRETTY SOON I CAN PUT THE PRINTER "ON-LINE" AGAIN. HE SAYS IT'S JUST RUN OUT OF PHOTONS AGAIN.) I'VE BEEN HAVING A BALL. I'VE USED THE MACWARBUCKS PROGRAM TO BALANCE MY CHECKBOOK AND PLAN MY FINANCIAL FUTURE. MY OUTPUT OF FICTION HAS REALLY INCREASED. YOU'LL RECEIVE SHORTLY, UNDER SEPARATE COVER, TWO TRILOGIES AND FIVE OTHER NOVELS. JUST THIS MORNING I TRIED PHONING ANOTHER NOVEL TO YOUR OFFICE VIA MODEM, BUT EITHER MY MACHINE OR YOUR COMPUTER ROOM OR POOR OLD MA BELL SEEM TO HAVE LOST IT. OH, WELL, NO BIG DEAL, THERE'S PLENTY MORE WHERE THAT ONE CAME FROM!

TO FACILITATE YOUR ACCOUNTING DEPARTMENT'S WRITING OF MY CHECKS, IN THE FUTURE I SHALL SIGN MYSELF WITH THE UNIVERSAL WRITERS CODE (UWC) SYMBOL YOU SEE BELOW, RECENTLY APPROVED BY THE WRITERS GUILD. SO IT'S GOODBYE, JOHN VARLEY, HELLO 2100061161... BUT YOU CAN CALL ME 210, IF WE'RE STILL FRIENDS.

## **RETROGRADE SUMMER**

### **Introduction**

**by Keith Kahla**

If the Golden Age of science fiction is fourteen, as the oft-misquoted saying goes, then John Varley was one of the most important, most influential writers of my own personal Golden Age. As I remember it, I ran across Varley's story "Retrograde Summer" [F&SF, February 1975] in one of Terry Carr's annual Best Science Fiction of the Year anthologies at the local library-which, like a lot of my memories from my teenage years, might or might not be accurate. What I can vouch for is that the first-person narrative voice of this story grabbed my attention immediately. "He" (gender, after all, can be a slippery concept in a Varley story) wasn't like the other, all-too-rare adolescent characters in science fiction that I'd previously come across. While other writers (some, at least) had created characters that were interesting, well-developed, admirable, and even compelling, what Timothy in "Retrograde Summer" had over all of them was that to my teenaged reader's mind, he felt real.

Not TV-real. Not sf-real.

### **Real.**

Varley's characters, particularly those first-person narrators of his shorter fiction, had an easy complexity that flowed out from between the lines of the story. There was an emotional reality to those characters that mirrored much of my own (then ongoing) experience of adolescence. While my peers-those who actually read books, that is-found themselves engrossed in the conventionally unconventional teenaged angst in the books of Paul Zindel and S. E. Hinton and others of that ilk, the characters in these books didn't speak to, or for, me. I had John Varley's characters to express and define that contradictory mix of desires and fears by which I, like nearly every adolescent male, felt uniquely plagued. And, starting with "Retrograde Summer," Varley led me to other stories, other writers, other ideas, and, ultimately, other people who got me through adolescence and young adulthood in something close enough to one piece.

While Varley meant the most to me for his characters, that doesn't mean that was all there was to his writing. "Retrograde Summer" is packed with ideas-some scientific, many sociological-that shook my unquestioned preconceptions of "how things are." These ideas are mostly just tossed off casually and are then unremarked upon, a mind-numbingly different view of "how things are" in these characters' reality. For those for whom science fiction is all about ideas-well, worry not, they are here in abundance. (For those for whom story is the primary concern in fiction reading, this one might be a bit slight. I'd argue that it's subtle rather than slight, but you might be more pleased with another of Varley's stories, such as "Press Enter[]," "In the Hall of the Martian Kings," or "The Barbie Murders.")

When Gordon Van Gelder kindly asked if I'd like to pick a story and introduce it for this anniversary year of The Magazine of Fantasy & Science Fiction, I hadn't read "Retrograde Summer" in coming on three decades. And I was a little leery of rereading it. It's dangerous to revisit the favorite stories of one's youth, because so many fail to live up to the memory of them. (Think I'm kidding? Those of you who loved it, go out and reread *The Catcher in the Rye*-particularly if it's been a couple of decades or more. I'll wait while you read... See? Instead of being the voice of truth in an uncaring world filled with phonies and sellouts, Holden Caulfield is now an obnoxious punk whom you want nothing more than to strangle every time he talks! The writing hasn't changed-Salinger is every bit the superb writer you remember-but your perspective on his main character has.) "Retrograde Summer," however, held up to my memory of it quite nicely. In fact, it's better than I ever knew at the time. Varley can do as much with an unconventional family, their dynamic, and their secrets in a handful of pages as Eugene O'Neill could in an evening. It's a gem of a story, unjustly overlooked, I would argue, in favor of other equally impressive stories by one of the finest writers yet to work within the genre.

- Keith Kahla

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### **Retrograde Summer by John Varley**

I was at the spaceport an hour early on the day my clone-sister was to arrive from Luna. Part of it was eagerness to see her. She was three E-years older than me, and we had never met. But I admit that I grab every chance I can get to go to the port and just watch the ships arrive and depart. I've never been off-planet. Someday I'll go, but not as a paying passenger. I was about to enroll in pilot-training school.

Keeping my mind on the arrival time of the shuttle from Luna was hard, because my real interest was in the liners departing for all the far-off places in the system. On that very day the *Elizabeth Browning* was lifting off on a direct, high-gee run for Pluto, with connections for the cometary zone. She was sitting on the field a few kilometers from me, onboarding passengers and freight. Very little of the latter.

The *Browning* was a luxury-class ship, where you paid a premium fare to be sealed into a liquid-filled room, doped to the gills and fed through a tube for the five-gee express run. Nine days later, at wintertime Pluto, they decanted you and put you through ten hours of physical rehabilitation. You could have made it in fourteen days at two gees and only have been mildly uncomfortable, but maybe it's worth it to some people. I had noticed that the *Browning* was never crowded.

I might not have noticed the arrival of the Lunar shuttle, but the tug was lowering it between me and the *Browning*. They were berthing it in Bay Nina, a recessed area a few hundred meters from where I was standing. So I ducked into the tunnel that would take me there.

I arrived in time to see the tug cut the line and shoot into space to meet the next incoming ship. The

Lunar shuttle was a perfectly reflective sphere sitting in the middle of the landing bay. As I walked up to it, the force field roof sprang into being over the bay, cutting off the summertime sunlight. The air started rushing in, and in a few minutes my suit turned off. I was suddenly sweating, cooking in the heat that hadn't been dissipated as yet. My suit had cut off too soon again. I would have to have that checked. Meantime, I did a little dance to keep my bare feet away from the too-hot concrete.

When the air temperature reached the standard twenty-four degrees, the field around the shuttle cut off. What was left behind was an insubstantial latticework of decks and bulkheads, with people gawking out of the missing outer walls of their rooms.

I joined the crowd of people clustered around the ramp. I had seen a picture of my sister, but it was an old one. I wondered if I'd recognize her.

There was no trouble. I spotted her at the head of the ramp, dressed in a silly-looking loonie frock coat and carrying a pressurized suitcase. I was sure it was her because she looked just like me, more or less, except that she was a female and she was frowning. She might have been a few centimeters taller than me, but that was from growing up in a lower gravity field. I pushed my way over to her and took her case.

"Welcome to Mercury," I said, in my friendliest manner. She looked me over. I don't know why, but she took an instant dislike to me, or so it seemed. Actually, she had disliked me before we ever met.

"You must be Timmy," she said. I couldn't let her get away with that. There are limits.

"Timothy. And you're my sister, Jew."

**"Jubilant."**

We were off to a great start. She looked around her at the bustle of people in the landing bay. Then she looked overhead at the flat-black underside of the force-roof and seemed to shrink away from it.

"Where can I rent a suit?" she asked. "I'd like to get one installed before you have a blowout here."

"It isn't that bad," I said. "We do have them more often here than you do in Luna, but it can't be helped." I started off in the direction of General Environments, and she fell in beside me. She was having difficulty walking. I'd hate to be a loonie; just about anywhere they go, they're too heavy.

"I was reading on the trip that you had a blowout here at the port only four lunations ago."

I don't know why, but I felt defensive. I mean, sure we have blowouts here, but you can hardly blame us for them. Mercury has a lot of tidal stresses; that means a lot of quakes. Any system will break down if you shake it around enough.

"All right," I said, trying to sound reasonable. "It happens I was here during that one. It was in the middle of the last dark year. We lost pressure in about ten percent of the passages, but it was restored in a few minutes. No lives were lost."

"A few minutes is more than enough to kill someone without a suit, isn't it?" How could I answer that? She seemed to think she had won a point. "So I'll feel a lot better when I get into one of your suits."

"Okay, let's get a suit into you." I was trying to think of something to restart the conversation and

drawing a blank. Somehow she seemed to have a low opinion of our environmental engineers on Mercury and was willing to take her contempt out on me.

“What are you training for?” I ventured. “You must be out of school. What are you going to do?”

**“I’m going to be an environmental engineer.”**

**“Oh.”**

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I was relieved when they finally had her lie on the table, made the connection from the computer into the socket at the back of her head, and turned off her motor control and sensorium. The remainder of the trip to GE had been a steady lecture about the shortcomings of the municipal pressure service in Mercury Port. My head was swimming with facts about quintuple-redundant failless pressure sensors, self-sealing locks, and blowout drills. I’m sure we have all those things, and just as good as the ones in Luna. But the best anyone can do with the quakes shaking everything up a hundred times a day is achieve a ninety-nine percent safety factor. Jubilant had sneered when I trotted out that figure. She quoted one to me with fifteen decimal places, all of them nines. That was the safety factor in Luna.

I was looking at the main reason why we didn’t need that kind of safety, right in the surgeon’s hands. He had her chest opened up and the left lung removed, and he was placing the suit generator into the cavity. It looked pretty much like the lung he had removed except it was made of metal and had a mirror finish. He hooked it up to her trachea and the stump ends of the pulmonary arteries and did some adjustments. Then he closed her and applied somatic sealant to the incisions. In thirty minutes she would be ready to wake up, fully healed. The only sign of the operation would be the gold button of the intake valve under her left collarbone. And if the pressure were to drop by two millibars in the next instant, she would be surrounded by the force field that is a Mercury suit. She would be safer than she had ever been in her life, even in the oh-so-safe warrens in Luna.

The surgeon made the adjustment in my suit’s brain while Jubilant was still out. Then he installed the secondary items in her; the pea-sized voder in her throat so she could talk without inhaling and exhaling, and the binaural radio receptors in her middle ears. Then he pulled the plug out of her brain, and she sat up. She seemed a little more friendly. An hour of sensory deprivation tends to make you more open and relaxed when you come out of it. She started to get back into her loonie coat.

“That’ll just burn off when you go outside,” I pointed out.

“Oh, of course. I guess I expected to go by tunnel. But you don’t have many tunnels here, do you?”

**You can’t keep them pressurized, can you?**

I really was beginning to feel defensive about our engineering.

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“The main trouble you’ll have is adjusting to not breathing.”

We were at the west portal, looking through the force-curtain that separated us from the outside. There was a warm breeze drifting away from the curtain, as there always is in summertime. It was caused by the heating of the air next to the curtain by the wavelengths of light that are allowed to pass through so

we can see what's outside. It was the beginning of retrograde summer, when the sun backtracks at the zenith and gives us a triple helping of very intense light and radiation. Mercury Port is at one of the hotspots, where retrograde sun motion coincides with solar noon. So even though the force-curtain filtered out all but a tiny window of visible light, what got through was high-powered stuff.

**“Is there any special trick I should know?”**

I'll give her credit; she wasn't any kind of fool; she was just overcritical. When it came to the operation of her suit, she was completely willing to concede that I was the expert.

“Not really. You'll feel an overpowering urge to take a breath after a few minutes, but it's all psychological. Your blood will be oxygenated. It's just that your brain won't feel right about it. But you'll get over it. And don't try to breathe when you talk. Just subvocalize, and the radio in your throat will pick it up.”

I thought about it and decided to throw in something else, free of charge.

“If you're in the habit of talking to yourself, you'd better try to break yourself of it. Your voder will pick it up if you mutter, or sometimes if you just think too loud. Your throat moves sometimes when you do that, you know. It can get embarrassing.”

She grinned at me, the first time she had done it. I found myself liking her. I had always wanted to, but this was the first chance she had given me.

“Thanks. I'll bear it in mind. Shall we go?”

I stepped out first. You feel nothing at all when you step through a force-curtain. You can't step through it at all unless you have a suit generator installed, but with it turned on, the field just forms around your body as you step through. I turned around and could see nothing but a perfectly flat, perfectly reflective mirror. It bulged out as I watched in the shape of a nude woman, and the bulge separated from the curtain. What was left was a silver-plated Jubilant.

The suit generator causes the field to follow the outlines of your body, but from one to one and a half millimeters from the skin. It oscillates between those limits, and the changing volume means a bellows action forces the carbon dioxide out through your intake valve. You expel waste gas and cool yourself in one operation. The field is perfectly reflective except for two pupil-sized discontinuities that follow your eye movements and let in enough light to see by, but not enough to blind you.

“What happens if I open my mouth?” she mumbled. It takes a while to get the knack of subvocalizing clearly.

“Nothing. The field extends over your mouth, like it does over your nostrils. It won't go down your throat.”

A few minutes later: “I sure would like to take a breath.” She would get over it. “Why is it so hot?”

“Because at the most efficient setting your suit doesn't release enough carbon dioxide to cool you down below about thirty degrees. So you'll sweat a bit.”

**“It feels like thirty-five or forty.”**

“It must be your imagination. You can change the setting by turning the nozzle of your air valve, but that means your tank will be releasing some oxygen with the CO<sub>2</sub>, and you never know when you’ll need it.”

### **“How much of a reserve is there?”**

“You’re carrying forty-eight hours’ worth. Since the suit releases oxygen directly into your blood, we can use about ninety-five percent of it, instead of throwing most of it away to cool you off, like your loonie suits do.” I couldn’t resist that one.

“The term is Lunarian,” she said, icily. Oh, well. I hadn’t even known the term was derogatory.

“I think I’ll sacrifice some margin for comfort now. I feel bad enough as it is in this gravity without stewing in my own sweat.”

“Suit yourself. You’re the environment expert.”

She looked at me, but I don’t think she was used to reading expressions on a reflective face. She turned the nozzle that stuck out above her left breast, and the flow of steam from it increased.

“That should bring you down to about twenty degrees, and leave you with about thirty hours of oxygen. That’s under ideal conditions, of course; sitting down and keeping still. The more you exert yourself, the more oxygen the suit wastes keeping you cool.”

She put her hands on her lips. “Timothy, are you telling me that I shouldn’t cool off? I’ll do whatever you say.”

“No, I think you’ll be all right. It’s a thirty-minute trip to my house. And what you say about the gravity has merit; you probably need the relief. But I’d turn it up to twenty-five as a reasonable compromise.”

### **She silently readjusted the valve.**

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Jubilant thought it was silly to have a traffic conveyor that operated in two-kilometer sections. She complained to me the first three or four times we got off the end of one and stepped onto another. She shut up about it when we came to a section knocked out by a quake. We had a short walk between sections of the temporary slideway, and she saw the crews working to bridge the twenty-meter gap that had opened beneath the old one.

We only had one quake on the way home. It didn’t amount to anything; just enough motion that we had to do a little dance to keep our feet under us. Jubilant didn’t seem to like it much. I wouldn’t have noticed it at all, except Jubilant yelped when it hit.

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Our house at that time was situated at the top of a hill. We had carried it up there after the big quake seven darkyears before that had shaken down the cliffside where we used to live. I had been buried for ten hours in that one—the first time I ever needed digging out. Mercurians don’t like living in valleys. They have a tendency to fill up with debris during the big quakes. If you live at the top of a rise, you have a better chance of being near the top of the rubble when it slides down. Besides, my mother and I both



liked the view.

Jubilant liked it, too. She made her first comment on the scenery as we stood outside the house and looked out over the valley we had just crossed. Mercury Port was sitting atop the ridge, thirty kilometers away. At that distance you could just make out the hemispherical shape of the largest buildings.

But Jubilant was more interested in the mountains behind us. She pointed to a glowing violet cloud that rose from behind one of the foothills and asked me what it was.

“That’s quicksilver grotto. It always looks like that at the start of retrograde summer. I’ll take you over there later. I think you’ll like it.”

### **Dorothy greeted us as we stepped through the wall.**

I couldn’t put my finger on what was bothering Mom. She seemed happy enough to see Jubilant after seventeen years. She kept saying inane things about how she had grown and how pretty she looked. She had us stand side by side and pointed out how much we looked like each other. It was true, of course, since we were genetically identical. She was five centimeters taller than me, but she could lose that in a few months in Mercury’s gravity.

“She looks just like you did two years ago, before your last Change,” she told me. That was a slight misstatement; I hadn’t been quite as sexually mature the last time I was a female. But she was right in essence. Both Jubilant and I were genotypically male, but Mom had had my sex changed when I first came to Mercury, when I was a few months old. I had spent the first fifteen years of my life female. I was thinking of Changing back, but wasn’t in a hurry.

“You’re looking well yourself, Glitter,” Jubilant said.

Mom frowned for an instant. “It’s Dorothy now, honey. I changed my name when we moved here. We use Old Earth names on Mercury.”

“I’m sorry, I forgot. My mother always used to call you Glitter when she spoke of you. Before she, I mean before I...”

There was an awkward silence. I felt like something was being concealed from me, and my ears perked up. I had high hopes of learning some things from Jubilant, things that Dorothy had never told me no matter how hard I prodded her. At least I knew where to start in drawing Jubilant out.

It was a frustrating fact at that time that I knew little of the mystery surrounding how I came to grow up on Mercury instead of in Luna, and why I had a clone-sister. Having a clone twin is a rare enough thing that it was inevitable I’d try to find out how it came to pass. It wasn’t socially debilitating, like having a fraternal sibling or something scandalous like that. But I learned early not to mention it to my friends. They wanted to know how it happened, how my mom managed to get around the laws that forbid that kind of unfair preference. One Person, One Child: that’s the first moral lesson any child learns, even before Thou Shalt Not Take a Life. Mom wasn’t in jail, and so it must have been legal. But how? And why? She wouldn’t talk, but maybe Jubilant would.

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Dinner was eaten in a strained silence, interrupted by awkward attempts at conversation. Jubilant was suffering from culture shock and an attack of nerves. I could understand it, looking around me with her

eyes. Loonies, pardon me, Lunarians, live all their lives in burrows down in the rock and come to need the presence of solid, substantial walls around them. They don't go outside much. When they do, they are wrapped in a steel and plastic cocoon that they can feel around them, and they look out of it through a window. She was feeling terribly exposed and trying to be brave about it. When inside a force-bubble house, you might as well be sitting on a flat platform under the blazing sun. The bubble is invisible from the inside.

When I realized what was bothering her, I turned up the polarization. Now the bubble looked like tinted glass.

"Oh, you needn't," she said, gamely. "I have to get used to it. I just wish you had walls somewhere I could look at."

It was more apparent than ever that something was upsetting Dorothy. She hadn't noticed Jubilant's unease, and that's not like her. She should have had some curtains rigged to give our guest a sense of enclosure.

I did learn some things from the intermittent conversation at the table. Jubilant had divorced her mother when she was ten E-years old, an absolutely extraordinary age. The only grounds for divorce at that age are really incredible things like insanity of religious evangelism. I didn't know much about Jubilant's foster mother-not even her name-but I did know that she and Dorothy had been good friends back in Luna. Somehow, the question of how and why Dorothy had abandoned her child and taken me, a chip off the block, to Mercury, was tied up in that relationship.

"We could never get close, as far back as I can remember," Jubilant was saying. "She told me crazy things, she didn't seem to fit in. I can't really explain it, but the court agreed with me. It helped that I had a good lawyer."

"Maybe part of it was the unusual relationship," I said, helpfully. "You know what I mean. It isn't all that common to grow up with a foster mother, instead of your real mother." That was greeted with such a dead silence that I wondered if I should just shut up for the rest of dinner. There were meaningful glances exchanged.

"Yes, that might have been part of it. Anyway, within three years of your leaving for Mercury. I knew I couldn't take it. I should have gone with you. I was only a child, but even then I wanted to come with you." She looked appealingly at Dorothy, who was studying the table. Jubilant had stopped eating.

**"Maybe I'd better not talk about it."**

To my surprise, Dorothy agreed. That cinched it for me. They wouldn't talk about it because they were keeping something from me.

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Jubilant took a nap after dinner. She said she wanted to go to the grotto with me but had to rest from the gravity. While she slept I tried once more to get Dorothy to tell me the whole story of her life on the moon.

"But why am I alive at all? You say you left Jubilant, your own child, three years old, with a friend who would take care of her in Luna. Didn't you want to take her with you?"

She looked at me tiredly. We'd been over this ground before.

"Timmy, you're an adult now, and have been for three years. I've told you that you're free to leave me if you want. You will soon, anyway. But I'm not going into it any further."

"Mom, you know I can't insist. But don't you have enough respect for me not to keep feeding me that story? There's more behind it."

"Yes! Yes, there is more behind it. But I prefer to let it lie in the past. It's a matter of personal privacy. Don't you have enough respect for me to stop grilling me about it?" I had never seen her this upset. She got up and walked through the wall and down the hill. Halfway down, she started to run. I started after her, but came back after a few steps. I didn't know what I'd say to her that hadn't already been said.

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We made it to the grotto in easy stages. Jubilant was feeling much better after her rest, but still had trouble on some of the steep slopes.

I hadn't been to the grotto for four light-years and hadn't played in it for longer than that. But it was still a popular place with the kids. There were scores of them.

We stood on a narrow ledge overlooking the quicksilver pool, and this time Jubilant was really impressed. The quicksilver pool is at the bottom of a narrow gorge that was blocked off a long time ago by a quake. One side of the gorge is permanently in shade, because it faces north and the sun never gets that high in our latitude. At the bottom of the gorge is the pool; twenty meters across, a hundred meters long, and about five meters deep. We think it's that deep, but just try sounding a pool of mercury. A lead weight sinks through it like thick molasses, and just about everything else floats. The kids had a fair-sized boulder out in the middle, using it for a boat.

That's all pretty enough, but this was retrograde summer, and the temperature was climbing toward the maximum. So the mercury was near the boiling point, and the whole area was thick with the vapor. When the streams of electrons from the sun passed through the vapor, it lit up, flickering and swirling in a ghostly indigo storm. The level was down, but it would never all boil away because it kept condensing on the dark cliffside and running back into the pool.

"Where does it all come from?" Jubilant asked, when she got her breath.

"Some of it's natural, but the majority comes from the factories in the port. It's a byproduct of some of the fusion processes that they can't find any use for, and so they release it into the environment. It's too heavy to drift away, and so during darkyear, it condenses in the valleys. This one is especially good for collecting it. I used to play here when I was younger."

She was impressed. There's nothing like it on Luna. From what I hear, Luna is plain dull on the outside. Nothing moves for billions of years.

"I never saw anything so pretty. What do you do in it, though? Surely it's too dense to swim in?"

"Truer words were never spoken. It's all you can do to force your hand half a meter into the stuff. If you could balance, you could stand on it and sink in just about fifteen centimeters. But that doesn't mean you can't swim, you swim on it. Come on down, I'll show you."

She was still gawking at the ionized cloud, but she followed me. That cloud can hypnotize you. At first you think it's all purple; then you start seeing other colors out of the corners of your eyes. You can never see them plainly, they're too faint. But they're there. It's caused by local impurities of other gases.

I understand people used to make lamps using ionized gases: neon, argon, mercury, and so forth. Walking down into quicksilver gully is exactly like walking into the glow of one of those old lamps.

Halfway down the slope, Jubilant's knees gave way. Her suit field stiffened with the first impact when she landed on her behind and started to slide. She was a rigid statue by the time she plopped into the pool, frozen into an awkward posture trying to break her fall. She slid across the pool and came to rest on her back.

I dived onto the surface of the pool and was easily carried all the way across to her. She was trying to stand up and finding it impossible. Presently she began to laugh, realizing that she must look pretty silly.

"There's no way you're going to stand up out here. Look, here's how you move." I flipped over on my belly and started moving my arms in a swimming motion. You start with them in front of you, and bring them back to your sides in a long circular motion. The harder you dig into the mercury, the faster you go. And you keep going until you dig your toes in. The pool is frictionless.

Soon she was swimming along beside me, having a great time. Well, so was I. Why is it that we stop doing so many fun things when we grow up? There's nothing in the solar system like swimming on mercury. It was coming back to me now, the sheer pleasure of gliding along on the mirror-bright surface with your chin plowing up a wake before you. With your eyes just above the surface, the sensation of speed is tremendous.

Some of the kids were playing hockey. I wanted to join them, but I could see from the way they eyed us that we were too big and they thought we shouldn't be out here in the first place. Well, that was just tough. I was having too much fun swimming.

After several hours, Jubilant said she wanted to rest. I showed her how it could be done without going to the side, forming a tripod by sitting with your feet spread wide apart. That's about the only thing you can do except lie flat. Any other position causes your support to slip out from under you. Jubilant was content to lie flat.

"I still can't get over being able to look right at the sun," she said. "I'm beginning to think you might have the better system here. With the internal suits, I mean."

"I thought about that," I said. "You loo... Lunarians don't spend enough time on the surface to make a force-suit necessary. It'd be too much trouble and expense, especially for children. You wouldn't believe what it costs to keep a child in suits. Dorothy won't have her debts paid off for twenty years."

"Yes, but it might be worth it. Oh, I can see you're right that it would cost a lot, but I won't be outgrowing them. How long do they last?"

"They should be replaced every two or three years." I scooped up a handful of mercury and let it dribble through my hands and onto her chest. I was trying to think of an indirect way to get the talk onto the subject of Dorothy and what Jubilant knew about her. After several false starts, I came right out and asked her what they had been trying not to say.

**She wouldn't be drawn out.**

“What’s in that cave over there?” she asked, rolling over on her belly.

**“That’s the grotto.”**

**“What’s in it?”**

**“I’ll show you if you’ll talk.”**

She gave me a look. “Don’t be childish, Timothy. If your mother wants you to know about her life in Luna, she’ll tell you. It’s not my business.”

“I won’t be childish if you’ll stop treating me like a child. We’re both adults. You can tell me whatever you want without asking my mother.”

**“Let’s drop the subject.”**

“That’s what everyone tells me. All right, go on up to the grotto by yourself.” And she did just that. I sat on the lake and glowered at everything. I don’t enjoy being kept in the dark, and I especially don’t like having my relatives talk around me.

I was just a little bemused to find out how important it had become to find out the real story of Dorothy’s trip to Mercury. I had lived seventeen years without knowing, and it hadn’t harmed me. But now that I had thought about the things she told me as a child, I saw that they didn’t make sense. Jubilant arriving here had made me reexamine them. Why did she leave Jubilant in Luna? Why take a cloned infant instead?

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The grotto is a cave at the head of the gully with a stream of quicksilver flowing from its mouth. That happens all light-year, but the stream gets more substantial during the height of summer. It’s caused by the mercury vapor concentrating in the cave, where it condenses and drips off the walls. I found Jubilant sitting in the center of a pool, entranced. The ionization glow in the cave seems much brighter than outside, where it has to compete with sunlight. Add to that the thousands of trickling streams of mercury throwing back reflections, and you have a place that has to be entered to be believed.

**“Listen, I’m sorry I was pestering you. I...”**

“Shhh.” She waved her hands at me. She was watching the drops fall from the roof to splash without a ripple into the isolated pools on the floor of the cave. So I sat beside her and watched it, too.

“I don’t think I’d mind living here,” she said, after what might have been an hour.

**“I guess I never really considered living anywhere else.”**

She faced me, but turned away again. She wanted to read my face, but all she could see was the distorted reflection of her own.

**“I thought you wanted to be a ship’s captain.”**

“Oh, sure. But I’d always come back here.” I was silent for another few minutes, thinking about

something that had bothered me more and more lately.

**“Actually, I might get into another line of work.”**

**“Why?”**

“Oh, I guess commanding a spaceship isn’t what it used to be. You know what I mean?”

She looked at me again, this time tried even harder to see my face.

**“Maybe I do.”**

“I know what you’re thinking. Lots of kids want to be ship’s captains. They grow out of it. Maybe I have. I think I was born a century too late for what I want. You can hardly find a ship anymore where the captain is much more than a figurehead. The real master of the ship is a committee of computers. They handle all the work. The captain can’t even overrule them anymore.”

**“I wasn’t aware it had gotten that bad.”**

“Worse. All of the passenger lines are shifting over to totally automated ships. The high-gee runs are already like that, on the theory that after a dozen trips at five gees, the crew is pretty much used up.”

I pondered a sad fact of our modern civilization: The age of romance was gone. The solar system was tamed. There was no place for adventure.

“You could go to the cometary zone,” she suggested.

“That’s the only thing that’s kept me going toward pilot training. You don’t need a computer out there hunting for black holes. I thought about getting a job and buying passage last darkyear, when I was feeling really low about it. But I’m going to try to get some pilot training before I go.”

**“That might be wise.”**

“I don’t know. They’re talking about ending the courses in astrogation. I may have to teach myself.”

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**“You think we should get going? I’m getting hungry.”**

“No. Let’s stay here a while longer. I love this place.”

I’m sure we had been there for five hours, saying very little. I had asked her about her interest in environmental engineering and gotten a surprisingly frank answer. This was what she had to say about her chosen profession: “I found after I divorced my mother that I was interested in making safe places to live. I didn’t feel very safe at that time.” She found other reasons later, but she admitted that it was a need for security that still drove her. I meditated on her strange childhood. She was the only person I ever knew who didn’t grow up with her natural mother.

“I was thinking about heading outsystem myself,” she said after another long silence. “Pluto, for instance. Maybe we’ll meet out there someday.”

**“It’s possible.”**

There was a little quake; not much, but enough to start the pools of mercury quivering and make Jubilant ready to go. We were threading our way through the pools when there was a long, rolling shock, and the violet glow died away. We were knocked apart, and fell in total darkness.

“What was that?” There was the beginning of panic in her voice. “It looks like we’re blocked in. There must have been a slide over the entrance. Just sit tight and I’ll find you.”

**“Where are you?”**

**“I can’t find you. Timothy!”**

“Just hold still and I’ll run into you in a minute. Stay calm, just stay calm, there’s nothing to worry about. They’ll have us out in a few hours.”

“Timothy, I can’t find you, I can’t...” She smacked me across the face with one of her hands, then was swarming all over me. I held her close and soothed her. Earlier in the day I might have been contemptuous of her behavior, but I had come to understand her better. Besides, no one likes to be buried alive. Not even me. I held her until I felt her relax.

**“Sorry.”**

“Don’t apologize, I felt the same way the first time. I’m glad you’re here. Being buried alone is much worse than just being buried alive. Now sit down, and do what I tell you. Turn your intake valve all the way to the left. Got it? Now we’re using oxygen at the slowest possible rate. We have to keep as still as possible so we don’t heat up too much.”

**“All right. What next?”**

**“Well, for starters, do you play chess?”**

“What? Is that all? Don’t we have to turn on a signal or something?”

**“I already did.”**

“What if you’re buried solid and your suit freezes to keep you from being crushed? How do you turn it on then?”

“It turns on automatically if the suit stays rigid for more than one minute.”

“Oh. All right. Pawn to king four.”

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We gave up on the game after the fifteenth move. I’m not that good at visualizing the board, and while she was excellent at it, she was too nervous to plan her game. And I was getting nervous. If the entrance was blocked with rubble as I had thought, they should have had us out in under an hour. I had practiced estimating time in the dark and made it to be two hours since the quake. It must have been bigger than I thought. It could be a full day before they got around to us.

“I was surprised when you hugged me that I could touch you. I mean your skin, not your suit.”

“I thought I felt you jump. The suits merge. When you touch me, we’re wearing one suit instead of two. That comes in handy, sometimes.”

We were lying side by side in a pool of mercury, arms around each other. We found it soothing.

“You mean... I see. You can make love with your suit on. Is that what you’re saying?”

“You should try it in a pool of mercury. That’s the best way.”

**“We’re in a pool of mercury.”**

“And we don’t dare make love. It would overheat us. We might need our reserve.”

She was quiet, but I felt her hands tighten behind my back. “Are we in trouble, Timothy?”

“No, but we might be in for a long stay. You’ll get thirsty by and by. Can you hold out?”

“It’s too bad we can’t make love. It would have kept my mind off it.”

**“Can you hold out?”**

**“I can hold out.”**

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“Timothy. I didn’t fill my tank before we left the house. Will that make a difference?”

I don’t think I tensed, but she scared me badly. I thought about it, and didn’t see how it mattered. She had used an hour’s oxygen at most getting to the house, even at her stepped-up cooling rate. I suddenly remembered how cool her skin had been when she came into my arms.

“Jubilant, was your suit set at maximum cooling when you left the house?”

“No, but I set it up on the way. It was so hot. I was about to pass out from the exertion.”

**“And you didn’t turn it down until the quake?”**

**“That’s right.”**

I did some rough estimations and didn’t like the results. By the most pessimistic assumptions, she might not have more than about five hours of air left. At the outside, she might have twelve hours. And she could do simple arithmetic as well as I; there was no point in trying to hide it from her.

“Come closer to me,” I said. She was puzzled, because we were already about as close as we could get. But I wanted to get our intake valves together. I hooked them up and waited three seconds.

**“Now our tank pressures are equalized.”**

“Why did you do that? Oh, no, Timothy, you shouldn’t have. It was my own fault for not being



careful.”

“I did it for me, too. How could I live with myself if you died in here and I could have saved you? Think about that.”

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“Timothy, I’ll answer any question you want to ask about your mother.”

That was the first time she got me mad. I hadn’t been angry at her oversight with the refilling of the tank. Not even about the cooling. That was more my fault than hers. I had made it a game about the cooling rate, not really telling her how important it was to maintain a viable reserve. She hadn’t taken me seriously, and now we were paying for my little joke. I had made the mistake of assuming that because she was an expert at Lunar safety, she could take care of herself. How could she do that if she didn’t have a realistic estimate of the dangers?

But this offer sounded like repayment for the oxygen, and you don’t do that on Mercury. In a tight spot, air is always shared freely. Thanks are rude.

“Don’t think you owe me anything. It isn’t right.”

“That’s not why I offered. If we’re going to die down here, it seems silly for me to be keeping secrets. Does that make sense?”

“No. If we’re going to die, what’s the use in telling me? What good will it do me? And that doesn’t make sense, either. We’re not even near dying.”

**“It would at least be something to pass the time.”**

I sighed. At that time, it really wasn’t important to know what I had been trying to learn from her.

“All right. Question one: Why did Dorothy leave you behind when she came here?” Once I had asked it, the question suddenly became important again.

“Because she’s not our mother. I divorced our mother when I was ten.”

I sat up, shocked silly.

“Dorothy’s not... then she’s... she’s my foster mother? All this time she said she was...”

“No, she’s not your foster mother, not technically. She’s your father.”

**“WHAT?”**

**“She’s your father.”**

“Who the hell... father? What kind of crazy game is this? Who the hell ever knows who their father is?”

“I do,” she said, simply. “And now you do.”

**“I think you had better tell it from the top.”**

**She did, and it all stood up, bizarre as it was.**

Dorothy and Jubilant’s mother (my mother!) had been members of a religious sect called the First Principles. I gathered they had a lot of screwy ideas, but the screwiest one of all had to do with something called the “nuclear family.” I don’t know why they called it that, maybe because it was invented in the era when nuclear power was first harnessed. What it consisted of was a mother and a father, both living in the same household, and dozens of kids.

The First Principles didn’t go that far; they still adhered to the One Person-One Child convention-and a damn good thing, too, or they might have been lynched instead of queasily tolerated-but they liked the idea of both biological parents living together to raise the two children.

So Dorothy and Gleam (that was her name; they were Glitter and Gleam back in Luna) “married,” and Gleam took on the female role for the first child. She conceived it, birthed it, and named it Jubilant.

Then things started to fall apart, as any sane person could have told them it would. I don’t know much history, but I know a little about the way things were back on Old Earth. Husbands killing wives, wives killing husbands, parents beating children, wars, starvation; all those things. I don’t know how much of that was the result of the nuclear family, but it must have been tough to “marry” someone and find out too late that it was the wrong someone. So you took it out on the children. I’m no sociologist, but I can see that much.

Their relationship, while it may have glittered and gleamed at first, went steadily downhill for three years. It got to the point that Glitter couldn’t even share the same planet with his spouse. But he loved the child and had even come to think of her as his own. Try telling that to a court of law. Modern jurisprudence doesn’t even recognize the concept of fatherhood, any more than it would recognize the divine right of kings. Glitter didn’t have a legal leg to stand on. The child belonged to Gleam.

But my mother (foster mother, I couldn’t yet bring myself to say father) found a compromise. There was no use mourning the fact that he couldn’t take Jubilant with him. He had to accept that. But he could take a piece of her. That was me. So he moved to Mercury with the cloned child, changed his sex, and brought me up to adulthood, never saying a word about First Principles.

I was calming down as I heard all this, but it was certainly a revelation. I was full of questions, and for the time, survival was forgotten.

“No, Dorothy isn’t a member of the church any longer. That was one of the causes of the split. As far as I know, Gleam is the only member today. It didn’t last very long. The couples that formed the church pretty much tore each other apart in marital strife. That was why the court granted my divorce; Gleam kept trying to force her religion on me, and when I told my friends about it, they laughed at me. I didn’t want that, even at age ten, and told the court I thought my mother was crazy. The court agreed.”

“So... so Dorothy hasn’t had her one child yet. Do you think she can still have one? What are the legalities of that?”

“Pretty cut-and-dried, according to Dorothy. The judges don’t like it, but it’s her birthright, and they can’t deny it. She managed to get permission to have you grown because of a loophole in the law, since she was going to Mercury and would be out of the jurisdiction of the Lunar courts. The loophole was closed shortly after you left. So you and I are pretty unique. What do you think about that?”

“I don’t know. I think I’d rather have a normal family. What do I say to Dorothy now?”

She hugged me, and I loved her for that. I was feeling young and alone. Her story was still settling in, and I was afraid of what my reaction might be when I digested it to its conclusion.

“I wouldn’t tell her anything. Why should you? She’ll probably get around to telling you before you leave for the cometary zone, but if she doesn’t, what of it? What does it matter? Hasn’t she been a mother to you? Do you have any complaints? Is the biological fact of motherhood all that important? I think not. I think love is more important, and I can see that was there.”

**“But she’s my father! How do I relate to that?”**

“Don’t even try. I suspect that fathers loved their children in pretty much the same way mothers did, back when fatherhood was more than just insemination.”

“Maybe you’re right. I think you’re right.” She held me close in the dark.

**“Of course I’m right.”**

Three hours later, there was a rumble and the violet glow surrounded us again.

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We walked into the sunlight hand in hand. The rescue crew was there to meet us, grinning and patting us on the back. They filled our tanks, and we enjoyed the luxury of wasting oxygen to drive away the sweat.

**“How bad was it?” I asked the rescue boss.**

“Medium-sized. You two are some of the last to be dug out. Did you have a hard time in there?”

I looked at Jubilant, who acted as though she had just been resurrected from the dead, grinning like a maniac. I thought about it.

“No. No trouble.”

We climbed the rocky slope, and I looked back. The quake had dumped several tons of rock into quicksilver gully. Worse still, the natural dam at the lower end had been destroyed. Most of the mercury had drained out into the broader valley below. It was clear that the quicksilver grotto would never be the magic place it had been in my youth. That was a sad thing. I had loved it, and it seemed that I was leaving a lot behind me down there.

I turned my back on it and walked down toward the house and Dorothy.

## **THE FLYING DUTCHMAN**

It was dark when the plane reached O’Hare, three hours late. Snow swirled in white tornadoes over the frozen field. The plowing crews had kept just one runway clear. Planes were stacked up back to New Jersey. Flights were being diverted to St. Louis, Cleveland, Dayton, and other places people didn’t really want to go when they intended to go there.

The 727 hit the icy tarmac like a fat lady on skates, slewed to the left, then straightened out as the nose came down and the thrust reversers engaged. Then the plane taxied for thirty minutes.

When the jetway finally reached them and the fasten seat belts sign went off, Peter Meers stood up. He was immediately bumped back into his seat by a large man across the aisle. Somebody stepped on his foot.

He struggled to his feet again, reached for his carry-on bag under the seat. When he jerked on the handle, it snagged on something. He pushed at it with his foot, being jostled from behind and almost falling into the man from Seat B, waiting for Meers to get out. He yanked again, and heard a sound that meant there was a new, deep scratch on the expensive leather.

He looked up in time to have a filthy duffel bag fall from the overhead compartment into his face. A filthier hand appeared and yanked on the canvas strap, and the bag vanished into the press of bodies. Meers glimpsed a ragged man with a beard. How had such a man got aboard an airplane? he wondered. Could you buy airline tickets with food stamps?

Retrieving his briefcase and his laptop computer, he slung everything over his shoulders. It was another ten minutes of shuffling before he reached the closet at the front of the plane where a harried flight attendant was helping people reclaim their garment bags. He found his, grabbed it, and slung it over his shoulder. Then he waddled sideways toward the door and the jetway. On the way out he barked his shin against a folded golf cart leaning against the exit door. Then he was trudging up the jetway into O'Hare.

O'Hare. ORD. On a snowy night with one runway operating, an inner circle of Hell. Meers shuffled down the concourse with several million other lost souls, all looking to make a connection. Those who had abandoned all hope-at least for the night-slumped in chairs or against walls or just stood, asleep on their feet.

At O'Hare, connections were made not on shadowy street corners, cash for tiny baggies, but at the ends of infinite queues shaped, twisted, and redoubled by yellow canvas bands strung between stainless steel poles, under lights as warm and homey as an operating theater. Meers found the right line and stood at the end of it. In ten minutes, he shoved his garment bag, his carry-on, his briefcase, and his laptop forward three feet with the tip of his shoe. Ten minutes later, he did it again. He was hungry.

When he reached the ticket counter the agent told him he had missed his connecting flight for home, and that there would be no more flights that night.

"However," she said, frowning at her computer screen, "I have one seat available on a flight to Atlanta. You ought to be able to make a connection from there in the morning." She looked up at him and smiled.

Meers took the rewritten ticket. The departure gate was a good three miles from where he stood. He shouldered his burdens and went off in search of food.

Everything was closed except one snack bar near his gate. Airport unions were on strike. The menu on the wall had been covered with a sheet of butcher paper, hand lettered: hot dogs \$4. cokes \$2. no coffee. Behind the counter were two harried workers, a fiftyish woman with gray wisps of hair straggling from her paper cap, and a Hispanic man in his twenties with mustard and ketchup stains all over his apron.

When Meers was still a good distance away, the counterman suddenly threw down his hot dog tongs, snatched the hat from his head and crumpled it into a ball.

“I’m through with this shit!” he shouted. “I quit. No mas!”- He continued to scream in Spanish as he ran through a door in the back. The woman was shouting his name, which was Eduardo, but the man paid no attention. He hit the red emergency bar on a fire door and an alarm sounded as he scrambled down the stairs outside.

Meers could see a little through the glass. The Hispanic man was short and stocky, but a good runner. He charged away from the building. From somewhere beneath, two uniformed security guards charged out, guns in their hands. Eduardo was nowhere to be seen. The guards kept going. There was a flash of light. Gunfire? There was too much noise from jet engines for Meers to be sure. He shivered, and turned back toward the snack counter.

He was still ten people back in line when they announced his flight to Atlanta. He was three back when they made the second announcement. The gray-haired woman, still distracted by the flight of Eduardo, slapped a hot dog into his hand and spilled a third of his Coke on the counter as another call came over the public address. Meers hurried to a stand-up counter. There were no onions, no relish. He squeezed some mustard out of a plastic packet, half of it squirting cleverly onto his tan overcoat. Cursing, dabbing at the mustard, Meers took a bite. It was lukewarm on one end, cold on the other.

Gulping Coke and choking down cold wienie and stale bun, Meers hurried to the boarding area. Down the jetway and into the 727. Most of the passengers were seated except a few struggling with crammed overhead compartments. He sidled down to seat 28B. In 28C was a woman who had to be three hundred pounds, most of it in the hips. In 28A was a man who was more like three-fifty, his face shiny with sweat. Meers looked around desperately, but he already knew this was the last, the absolute last seat on the plane.

The woman glared at him as she stood. Meers got his carry-on under the seat, then popped the overhead rack. There was about enough space to store a wallet. The next one was just as full. A flight attendant took his briefcase and laptop and hurried away.

He wedged himself into the seat. The lady wedged herself into hers. He felt his ribs compressing. From his right came gusts of a sickening lilac perfume. From the left, waves of stale terror.

**“My first flight,” the fat man confided.**

**“Oh, really?” Meers said.**

**“I’m real scared.”**

“No need to be.” The fat lady scrambled in her purse for a box of tissue, then blew her nose loud enough to frighten a walrus. She crumpled the noisome tissue and dropped it on Meers’s shoe.

They were pushed back, they taxied, they waited two hours and taxied some more, they were deiced and waited another hour. All of which took much longer than it takes to tell about it. Then they were in the air. The fat man promptly threw up into the little white bag.

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Atlanta. ATL. They landed under a thick pall of black smoke. Somewhere to the west, a large part of

Georgia was tinder-dry and burning. Hartsfield International sweltered in hundred-degree heat, and soot swirled across the runways. It was dark as night.

The fat man had filled barf bags all through the flight. In spite of this, he had eaten like a starving hyena. Meers had been unable to eat. He could barely get his hands to his mouth. He had stared at the meal on his tray table, as immobilized as if bound to his seat, until the stewardess took it away.

Just before reaching the gate the flight attendant arrived for the fat man's latest delivery. Meers eyed the bulging bottom of the bag in horror as it passed over his lap, but it didn't break.

The heat slammed him as he left the plane. It didn't abate when he entered the terminal. The air was thick, hot syrup. The forest fires had downed power lines, and the air conditioning was off. So were the lights. So were the computers and telephones.

Somehow the ticketing staff were still working, though Meers couldn't imagine how. He joined the endless line and began shuffling forward. He shuffled for five hours. At the end of that time, nearing starvation, the agent told him he hadn't a hope of a connection to his home, but he could put Meers on a flight to Dallas-Fort Worth where his chances would be better. The flight would leave in nine hours.

Meers roamed the ovenlike interior of the airport. None of the restaurants and snack bars were open. With no refrigeration and no electricity to run the stoves, there was no point. The bars were open and serving warm beer, but had not so much as a pretzel. People sat wilted in their chairs, stunned by the heat, looking out over the ashen landscape. A nuclear holocaust might look a lot like this, Meers thought.

A few profiteers were selling ice water at five dollars a bottle. The lines were enormous. Meers found a clear space against a wall and sat down on his luggage. When he leaned forward sweat dripped off his nose.

He heard a commotion, and saw a man approaching with boxes on a hand truck. He was the pied piper of Atlanta, trailed by a mob of jostling people.

He stopped at an empty vending machine. When he opened the front someone in the crowd started pulling at a box. Someone else grabbed the other end. The box burst and spilled Snickers bars on the floor. In moments all the boxes had been torn open. When the tide ebbed away, the delivery man sat on the floor, feeling himself cautiously, amazed he hadn't been ripped to shreds. He got up and wandered away.

Meers had snagged a bag of peanuts and a Three Musketeers. He ate every bite, then made himself as comfortable as possible against the wall and nodded off.

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A lost soul was screaming. Meers opened his eyes, found himself curled up over his possessions, a rope of drool coming from his mouth. He wiped it away and sat up. Across the concourse a man in the remains of a suit and tie had gone berserk.

"Air!" he shrieked. "I gotta have air!" His shirt was torn at the neck, his coat on the floor. He swung a fire ax at a plate glass window. The ax bounced off and he swung it again, shattering the glass. He leaned out the window and tried to breathe the smoke outside. He shouted again and began struggling with his pants. His hands were spouting blood, deeply slashed on the jagged sill, but he didn't seem to notice.

Off he ran, naked but for his pants trailing from one ankle and a blue silk tie like a noose around his neck.

Half a dozen security guards converged on him. They hit the man with their nightsticks and sprayed pepper in his face. They zapped him with tasers until he flopped around like a fish slick with his own blood. Then they cuffed and hogtied him and carried him away.

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The flight to Dallas was another 727. Half the passengers were under ten years old, in Atlanta for a Peewee beauty contest. The boys were in tuxedos and the girls in evening gowns, or what was left of them after twenty-four hours living rough at the airport with no luggage. Some of them were cranky and some were playful, and all were spoiled rotten, so they either sat in their seats and screamed, or turned the aisle into a rough-and-tumble racetrack. Supervision consisted of the occasional fistfight between fathers when a child's nose was bloodied.

Meers had a window seat, next to a father who spent the whole flight carping about the judging. His son had not made the finals. The son, who Meers felt should have been left out for wolves to devour along with the afterbirth, sat on the aisle and spent his time tripping running children.

There was no meal. The catering services had been just as crippled as the snack bars at the airport. Meers was given a pack of salted peanuts.

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Dallas-Fort Worth. DFW. It had been raining forty days and forty nights when the 727 landed. The runways were invisible under sheets of water. The mud between the taxiways was so deep and thick it swallowed jetliners like mammoths in a tar pit. Meers saw three planes mired to the wingtips. Passengers were deplaning into knee-deep muck, sloggng toward buses unable to get any closer lest they sink and never be seen again.

The airport was almost empty. DFW was operating in spite of the weather, but flights were not arriving from other major hubs. Meers made it to the ticket counter where the small line moved at glacial speed because only one agent had made it through the floods. When his turn came he was told all flights to his home had been canceled, but he could board a flight to Denver in six hours, where a connection could be made. It was on another airline, so he would have to take the automated tram to another terminal.

On the way to the tram he stopped at a phone booth. There was no dial tone. The one next to it was dead, too. All the public telephones in the airport were dead. The flood had washed them out. He knew his wife must be very worried by now. There had been no time for a call from O'Hare, and Atlanta and now Dallas were cut off. But surely the situation would be on the news. She would know he was stranded somewhere. It would be great to get back home to Annie. Annie and his two lovely daughters, Kimberly and...

He stopped walking, seized by panic. His heart was hammering. He couldn't recall the name of his youngest daughter. The airport was spinning around him, about to fly into a million pieces.

Megan! Her name was Megan. God, I must be punchy, he thought. Well, who wouldn't be? The hunger had made him light-headed. He breathed deeply and moved off toward the tram.

The door had closed behind him before he noticed the man lying on the floor at the other end of the car. There was no one else on board.

The man was curled up in a pool of vomit and spilled purple wine. He wore a filthy short jacket and had a canvas duffel bag at his feet. He looked like the man Meers had seen on arrival in Chicago, though that hardly seemed likely.

The tram made a few automated announcements, then pulled away from the concourse and out into the rain. It was pitch black. The rain pounded on the roof. There were flashes of distant lightning and a high, whistling wind. The tram pulled into the next concourse and the doors opened.

Three security guards in khaki uniforms stormed aboard. Without warning, one of them kicked the sleeping vagrant in the face. The man cried out, and the guards began battering him with their batons and boots. Blood and rotten teeth fountained from the man's mouth and nose. Peter Meers sat very still, his feet and knees drawn together protectively.

One of the security men took a handful of the screaming man's hair and another grabbed the seat of his pants, and they dragged him through the rear door of the tram and onto the platform. The third looked over at Meers. He smiled, touched the brim of his hat with his nightstick, and followed the others.

The door closed and the tram moved away. Meers could see the three still beating the man as the car moved out into the night.

Just short of the next concourse the lights flickered and went out, and the tram car stopped. Rain hammered down relentlessly. It gushed in rivers over the windows. Meers got up and paced his end of the car. He was careful not to walk as far as the stain of wine, urine, and blood at the other end, which looked black in the light of distant street lamps. He thought about what he had seen, and about his family waiting for him back home. He had never wanted so badly to get home.

After a few hours the lights came back on and the tram delivered him to the right concourse. He had to hurry to make the flight on time.

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This time he was on a wide-bodied aircraft, a DC-10. There were not many passengers. He was assigned an aisle seat. The takeoff was a little bumpy, but once at altitude the plane rode smooth as a Cadillac on a showroom floor. This late at night he was given a box containing a tuna sandwich, a package of cookies, and some grapes. He ate it all, and was grateful. By the window was an old man wearing an overcoat and a fedora.

"All those lights down there," the old man said, gesturing toward the window. "All those little towns, little lives. Makes you wonder, huh?"

**"About what?" Meers said.**

"You don't feel a part of the world when you're up here," the man said. "Those people down there, going about their lives. Us up here, disconnected. They look up, see a few flashing lights. That's us."

Meers had no idea what the codger was getting at, but he nodded.

"Used to be the same feeling, in my day. Trains back then. Night trains. When you're traveling, you're



out of your life. Going from somewhere to somewhere else, not really knowing where you are. You could lie there in your berth and look out the window at the night. Moonlight, starlight. Hear the crossing signals as you passed them, see the trucks waiting. Who was driving them? More lost souls.” He fell silent, looking out at the lights below. Meers hoped that was the end of it.

“I always wear a hat now,” the old man went on. “Had a little haberdashery shop in Oklahoma City, opened it right after the war. Not far from where that building blew up. Got into the haberdashery business just in time for men to stop wearing hats.” He chuckled. “One day it’s nineteen forty-nine, everybody wears hats. Then it’s nineteen fifty, suddenly all the hats are gone. Some say it was Eisenhower. Ike didn’t wear hats much. Well, I did okay. Sold a lot of cuff links. Men’s hosiery, silk handkerchiefs. Now I travel. Mostly at night.”

**Meers smiled pleasantly and nodded.**

“You ever feel that way? Cut off? Trapped in something you don’t understand?” He didn’t give Meers time to answer.

“I recall the first time I thought of it. Got my discharge in New Jersey, nineteen and forty-six. I took the train under the river. Came out where that World Trade Center is now. Say, they bombed that, too, didn’t they? Anyway, I thought I’d see Times Square. I went to the subway token booth. Not much bigger than a phone booth, and there’s this little... gnome in there. Dirty window, bars in front, a dip in the wooden counter so money could slide under the window, back and forth, money in, tokens out. It looked like that dip had been worn in the wood. Over the years, over the centuries. Like a glacier cutting through solid rock. I slid over my nickel and he slid back a token, and I asked him how to get to Times Square. He mumbled something. I had to ask him to repeat it, and he mumbled again. This time I got it, and I took my token. All that time he never looked at me, never looked up from that worn dip in the wood. I watched him for a while, and he never looked up. He answered more questions, and I thought he probably knew the route and schedule of every train in that system, where to get off, where to transfer.

“And I got the funniest thought. I was convinced he never left that booth. That he was a prisoner in there, a creature of the night, a troll down in the underground darkness where it was never daytime. That he’d long ago resigned himself to his lot, which was to sell tokens.” The old man fell quiet, looking out the window and nodding to himself.

“Well,” Meers said, reluctantly. “The night shift comes to an end, you know.”

**“It does?”**

“Sure. The sun comes up. Somebody comes to relieve the guy. He goes home to his wife and children.”

“Used to, maybe,” the old man said. “Used to. Now he’s trapped. Something happened-I don’t know what- and he came loose from our world where the sun eventually does come up. But does it have to?”

**“Well, of course it does.”**

“Does it? Seems to me it’s been a long time since I’ve seen the sun. Seems I’ve been on this airplane ever so long, and I have no way of telling that it’s actually getting anywhere. Maybe it isn’t. Maybe the plane will never land, it’ll just keep on its way from somewhere to somewhere else. Just like that train, a long time ago.”

Meers didn't like the conversation. He was about to say something to the old man when he was touched lightly on the shoulder. He looked up to see a stewardess leaning toward him.

"Sir, the Captain would like to speak to you in the cockpit."

For a moment the words simply didn't register. Captain? Cockpit?

**"Sir, if you'd just come this way...?"**

Meers got up, glanced at the old man, who smiled and waved.

At first he could see little in the darkened cockpit. In front of the plane was clear night, stars, the twinkling lights of small towns. Then he saw the empty flight engineer's seat to his right. As he moved forward, he kicked empty cans. The cabin smelled of beer and cigar smoke. The captain turned around and gestured.

"Clear the crap off that and siddeown," he said, around the cigar clamped in his teeth. Meers moved a pizza box with stale crusts off the copilot's chair, and slid into it. The pilot unfastened his harness and got up.

"If I don't take a crap in thirty seconds, I'm gonna do it in my drawers," he said, and started toward the rear. "Just hold 'er steady."

**"Hey! Wait a goddamn minute!"**

**"You got a problem with that?"**

**"Problem? I don't know how to fly an airplane!"**

"What's to know?" The pilot was dancing up and down, but pointed to the instruments. "That's your compass. Keep her right where she is, three one zero. This here's your altimeter. Thirty-two thousand feet."

**"But don't you have an autopilot?"**

"Packed it in, weeks ago," the pilot muttered, and banged hard with his fist on an area with dials that weren't lit up. "Bastard. Look, I really gotta go."

**And Meers was alone in the cockpit.**

He had a wild notion to just get up, pretend this never happened. Return to his seat. Surely the pilot would come back. It had to be some sort of joke.

The plane seemed level and steady. He touched the column lightly, felt the plane nose down the tiniest bit, saw the altimeter move slowly. He pulled and the big bird settled back at thirty-two thousand.

He quickly learned the biggest problem a pilot faced on a long night flight: boredom. There was nothing to do but glance at the two dials from time to time. His mind wandered, back to what the old man had been saying. And it just didn't add up. Well, of course the plane was getting somewhere. He could see the lights moving beneath him. Those brighter lights at the horizon; could that be Denver? As for the

sun not rising, that was just ridiculous. The world turned. One moment followed another. Eventually it was day.

The pilot came back in a cloud of cigar smoke. He reached into an open cooler near his seat and got out a can of beer, popped the top, and drained it in one gulp. He belched, crushed the can, and tossed it over his shoulder.

“Looks like I fucked up,” he said, with no apparent concern. “Sent for the wrong guy. Sorry about that, pardner.” He laughed.

**“What do you mean?”**

“Thought you was in the know. Looks like it was that old guy. Somebody wrote down the wrong seat number. Who’s runnin’ this fucking airline, anyway?”

**Meers would have liked to know the same thing.**

“Don’t you have a copilot? What do you mean, ‘in the know’?”

“Copilot had him a little accident. Night cops. They broke his fuckin’ arm for him. He’s in the hospital.” The man shuddered. “Could be three, four months yet till he gets out.”

**“For a broken arm?”**

The pilot gave him a tired look. He jerked his thumb back toward the cabin.

“Screw, why don’cha? Get outta here. You’ll get it, one of these days.”

**Meers stared at him, then got up.**

**“He’s dead, anyway,” the pilot said.**

**“Who’s dead?” The pilot ignored him.**

Meers made his way down the aisle. The old man seemed asleep. His eyes were slightly open, and so was his mouth. Meers reached over and lightly touched the old man’s hand. It was cold.

A big fly with a metallic blue back crawled out of the old man’s nostril and stood there, rubbing its hideous forelegs together.

Meers was out of his seat like a shot. He hurried five rows forward and collapsed into an empty seat. He was breathing hard. He couldn’t work up any spit.

Later, he saw the stewardess put a blue blanket over the old man.

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Denver. DEN. Tonight, it made Chicago seem like Bermuda. The sky was hard and fuming as dry ice, and the color of a hollow-point bullet. Temperature a few degrees below zero, but add in the wind chill and it was cold enough to freeze rubber to the runway.

The huge plate-glass windows rattled and bulged as Meers lurched down the concourse, his luggage caroming off his hips, ribs, and knees. A chill reached right through the floor and swept around his feet. He hurried into the men's room and set his bags down on the floor. He ran water in the sink and splashed it on his face. The room echoed with each drop of water.

**He couldn't bear to look at himself in the mirror.**

He had to find the airline ticket counter. Had to get his boarding pass. Needed to find the gate, board the plane, make his connection. He had to get home.

Something told him to get out. Leave everything. Go.

He walked quickly through the nearly deserted departure area, slammed through the doors and out onto the frozen sidewalk. He hurried to the front of a rank of taxis. It was an old yellow Checker, a big, boxy, friendly sort of car. He got in the back.

**“Where to, Mac?”**

“Downtown. A good hotel.”

“You got it.” The cab driver put his car in gear and carefully pulled out onto the packed snow and ice. Soon they were moving down the wide road away from the airport. Meers looked out the back window. The Denver airport was like a cubist prairie schooner, a big, horribly expensive tent to house modern transients.

**“One ugly mother, ain't she?” the cabbie said.**

Meers saw the cab driver in profile as the man looked in the rearview mirror. Bushy eyebrows under an old-fashioned yellow Checker Cab hat with a shiny black brim. A wide face, chin covered with stubble. Big hands on the wheel. The name on the cab medallion was V. Krzywcz. A New York medallion.

“Krizz-wozz,” the man provided. “Virgil Krzywcz. Us Polacks, we sold all our vowels to the frogs. Now we use all the consonants the Russians didn't have no use for.” He chuckled.

**“Aren't you a little far from home?” Meers ventured.**

“Let me tell you a little story,” Krzywcz said. “Once upon a time, a thousand years ago for all I know, I was takin' this fare in from LaGuardia. To the Marriott, Times Square. I figure, that time of night, the Triborough, down the Roosevelt, there you are. But this guy'd looked at a map, it's gotta be the BQE, then the midtown tunnel. Okay, I sez, it's your money. And whattaya know, we make pretty good time. Only coming outta the tunnel what do I see? Not the Empire State, but the fuckin' bitch of a terminal building. I'm in Denver. I never been ta Denver. So I looks back over my shoulder,” Krzywcz suited the action to his words, and Meers got a whiff of truly terrible breath, “and no tunnel, just a lotta cars honkin' at me, me bein' stopped in my tracks. And that's the way it's been ever since.”

Krzywcz accelerated through a yellow light and up onto an icy freeway. Meers saw a green sign indicating downtown. Straight ahead, just above the horizon, was a full moon. Traffic was light, not surprising since the roadway was frozen hard. It didn't bother the cabbie, and the old Checker was steady as a rock.

**“So you decided to stay out here?” Meers asked.**

“Decided didn’t have nothin’ to do with it. You figure I went on a bender, drove here in a blackout, something like that?” Krzywcz looked over his shoulder at Meers. In a sweep of streetlamp light Meers saw the left side of the driver’s face was black and swollen. His left eye was shut. There was a long, scabbed-over wound on his cheek, a slash that had not been stitched. “Well, suit yourself. Fact is, none of these roads go to New York. And believe me, buddy, I’ve tried ‘em all.”

**Meers didn’t know what to make of that statement.**

**“What happened to your face?” he asked.**

“This? Had a little run-in with the night cops. A headlight out, would you believe it? I got lucky. One whack upside the head and they let me go. Hell, I’ve had a lot worse. A lot worse.”

Hadn’t the pilot said something about night cops? They had sent his copilot to the hospital. Something was very wrong here.

“What do you mean, these roads don’t go to New York? It’s an Interstate highway. They all connect.”

“You’re trying to make sense,” Krzywcz said. “You’d better learn to stop that.”

“What are you trying to tell me?” Meers asked, feeling his frustration rise. “What’s going on?”

“You mean, are we in the fuckin’ Twilight Zone, or something?” Krzywcz looked at Meers again, then back to the road, shaking his head. “You got me, pal. I think we’re in Denver, all right: Only it’s like Denver is all twisted up, or something.”

“We’re in hell,” a voice said over the radio.

**“Aw, shut the fuck up, Moskowitz, you stupid kike.”**

“It’s the only thing that makes sense,” the voice of Moskowitz said.

“It don’t make no damn sense to me,” Krzywcz shouted into his mike. “Look around you. You see any guys with pitchforks? Horns? You seen any burnin’ pits fulla... Mia-”

**“Brimstone?” Meers suggested.**

“There you go. Brimstone.” He gestured with the mike. “Moskowitz, my dispatcher,” he explained to Meers. “You seen any lost souls screamin’?”

“I’ve heard plenty of screamin’ souls over the radio,” Moskowitz said. “I scream sometimes, myself. And I sure as shit am lost.”

“Listen to him,” Krzywcz said, with a chuckle. “I gotta listen to this shit every night.”

“Why do ya think it’s gotta be guys with horns?” Moskowitz went on. “That guy, that Dante, you think everything he said was right?”

“Moskowitz reads books,” the cabby said over his shoulder.

“Why do you figure hell has to stay the same? You think they don’t remodel? Look how many people there are today. Where they gonna put ‘em? In the new suburbs, that’s where. Hell useta have boats and horse wagons. Now it’s got jet airplanes and cabs.”

“And night cops, and hospitals, don’t forget that.”

“Shut your mouth, you dumb hunky!” Moskowitz shouted. “You know I don’t want nobody to talk about that over my radio.”

“Sorry, sorry.” Krzywcz smirked over his shoulder and shrugged. Hey, what can you do? Meers smiled back weakly.

“It don’t make sense any other way,” Moskowitz went on. “My life is hell. Your life is hell. Everybody you get in that freakin’ cab is livin’ in hell. We died and gone to hell.”

### **Krzywcz was furious again.**

“Died, is it? You remember dyin’? Huh, Moskowitz? You sit in that stinking office livin’ on pizza and 7-Up, nothin’ happens for months in that shithole. You’d think you’d notice a thing like dyin’.”

“Heart attack,” Moskowitz shouted back. “I musta had a heart attack. And I floated outta my body, and they put me here...Right where I was before, only now it’s forever, and now I can’t leave! Either it’s hell, or limbo.”

“Aw, limbo up a rope. What’s a Jew know about limbo? Or hell?” He switched off the radio, glanced again at Meers. “I think he means purgatory. You wanna know from hell, you ask a Catholic Polack. We know hell.”

### **Meers had finally had enough.**

“I think you’re both crazy,” he said, defiantly.

“Yeah,” Krzywcz agreed. “We oughta be, we been here long enough.” He studied Meers in his mirror. “But you don’t know, buddy. I could tell soon as you got in my cab. You’re one a those airplane pukers. Round and round ya go, schleppin’ your Gucci suitcases, cost what I make in a month. In and out of airports, off planes, onto planes. Round and round, and you think things are still makin’ sense. You still think tomorrow comes after today and all roads go everywhere. You think that ‘cause the sun went down, it’s gonna come up again. You think two plus two is always gonna equal three.”

“Four,” Meers said.

**“Huh?”**

**“Two plus two equals four.”**

“Well, pal, two plus two, sometimes it equals you can’t get there from here. Sometimes two plus two equals a kick in the balls and a nightstick upside the head and a tunnel that don’t go to Manhattan no more. Don’t ask me why ‘cause I don’t know. If this is hell, then I guess we was bad, right? But I’m not that bad a guy. I went to mass, I didn’t commit no crimes. But here I am. I got no home but this cab. I

eat outta drive-thru's and I piss in beer bottles. I slipped offa something somewheres, I fell outta the world where you could go home after your shift. I turned into one of the night people, like you."

Meers was not going to protest that he wasn't one of the "night people," whatever they were. He was a little afraid of the mad cabbie. But he couldn't follow the logic of it, and that made him stubborn.

**"So we're in a different world, that's what you're saying?"**

"Naw, we're still inna world. We're right here, we've always been here, night people, only nobody don't notice us, that we're in a box. The hooker on the stroll, they think she goes home when the sun comes up, with her pimp in the purple Caddy. Only they don't never go home. The street they're on, it don't lead home. That lonely DJ you hear on the radio. The subway motorman, it's night there alia time. The guy drivin' the long-haul truck. Janitors. Night watchmen."

**"All of them?"**

"How do I know all of 'em? I'm gonna drive my cab inna office building, ask the cleaning crew? 'Hey, you stuck in purgatory, like me?' "

**"Not me."**

"Yeah, you airplane pukes. Most of us, we know. Oh, some of 'em, they gone bugfuck. Nothin' left of 'em but eyeballs like gopher holes. But you been here long enough, you stop thinkin' you're gonna find that tunnel back home, you know? Except you 'passengers.' Like they sez in the program. In..."

**"Denial."**

"In denial. You said it. Look ahead there."

Meers looked out the windshield and there it was, just below the yellow moon. The sprawling canopy of the Denver Airport, like some exotic, poison rain-forest caterpillar. He stared at it as the cab eased down an off-ramp.

"Always a full moon in Denver," Krzywcz cackled. "Makes it nice for the werewolves. And all roads lead to the airport, which is bad news for airplane pukes."

Meers threw open the cab door and spilled out onto the frozen roadway. He scrambled to his feet, hearing the shouts of the driver. He clambered up an embankment and onto the freeway, where he dodged six lanes of traffic and tumbled down the other side. There were a lot of closed businesses there, warehouses, car lots, and one that was open, a Circle-K market. He ran toward it, certain it would vanish like a mirage, but when he hit the door it was wonderfully prosaic and solid. Inside it was warm. Two clerks, a tall black youth and a teenage white girl, stood behind the counter.

He paced up and down the abbreviated aisles, hoping he looked like someone who belonged there. When he heard the door security buzzer, he picked up a box of cereal and pretended to study it.

He saw two police officers walk past the counter. They've come for me, he thought.

But the cops walked toward the back of the store. One opened the beer cooler, while the other took a box and loaded it with donuts.

Both officers passed within ten feet of him. One had two six-packs of Coors hooked in a black-gloved hand-and he cradled a huge black weapon that had a shotgun bore but a fat round magazine like a tommy gun. The other wore two automatic pistols on her belt. She glanced at Meers, and gave him a smile both insolent and sexual. She wore bright red lipstick.

They strolled past the clerks, who were very busy with other things, things that put their backs to the police officers. They went out the door. There was a moment of silence, then a huge explosion.

Meers saw a plate-glass window shatter. Beyond it, the male cop was firing his shotgun into the store as fast as he could pump it. His partner had a gun in each hand.

He hit the floor in a snowstorm of corn flakes and shredded toilet paper. Both cops were emptying their weapons, and they had a lot of ammunition. But finally it was over. In the silence, he heard the police laughing, then opening their car doors. He got to his knees and peeked over the ruined display counter.

The patrol car was backing out. He caught a glimpse of the woman drinking from a beer can as the cruiser pulled out on the road. In a second, a yellow Checker cab pulled into the lot, the battered face of Krzywcz behind the wheel. He saw Meers and motioned frantically.

Shattered glass and raisin bran crunched under his feet as Meers walked down the aisle. Behind the counter the black man was crouched down near the safe. The girl was lying on her back in a pool of blood, holding her gut and moaning. Meers hesitated, then Krzywcz leaned on the horn. He turned his back on the girl and pushed out through the aluminum door frame, empty now of glass.

Krzywcz took it slow and careful out of the lot. Parked off to the left was the police car, headlights turned off, facing them. Meers couldn't breathe, but Krzywcz turned the other way and the police car did not move.

"They'll be piggin' out on beer and sinkers for a while," the cabbie said.

**"That girl... she-"**

"She'll be all right." Krzywcz pointed ahead at flashing red lights. In a moment an ambulance rushed by in the other direction. He hunched down in his seat until it had gone by. "Eventually."

"What is it with the hospital?" Meers asked. "Moskowitz didn't even-"

"Hospitals is where you get hurt," Krzywcz said. "There's diseases in hospitals. Your wounds, they get infected. They give you the wrong pills, make you puke your guts up. All kinds of things can go wrong. Then you hear about the 'experiments.' " He shook his head. "Better to stay out. Them night doctors and night nurses, they ain't human."

Meers asked, but Krzywcz would say no more about "experiments."

The cab pulled up to the terminal building and Meers got out. He ran.

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They fired at him, but he kept running. They chased him, but he was pretty sure now they had lost him. He was out on the runways. A fog had moved in; the terminal was no longer visible.



This was no place for a human being, even on a summer night. He kept moving, avoiding the lumbering, shrieking silver whales that taxied through the darkness. He stopped by a low, poisonous blue strobe light that drove cold icepicks into his eyeballs every time it flashed. He had no idea where he was, no idea where to go.

**“... help me...”**

It was more whimper than word. It came from just beyond the range of the light.

**“... for the love of God...”**

Something was crawling toward him. It moved slowly into the light, a human figure pulling itself along with bloody hands. Meers fell back a step.

**“... please help me...”**

It was Eduardo, from the O’Hare snack bar. His white shirt was a few blood-soaked scraps, black in the alien light. His pants were gone. One of Ms legs was gone, too. Torn off. Shattered white thighbone protruded.

Meers became aware of others. Like beasts hovering beyond the range of the campfire, figures were suggested by a blue-steel glint, a patch of pale cheek. They were darkened patches against the black of night. They wore fighter-pilot black visors, black helmets, Terminator sunglasses. Shiny black boots. Belts and jackets creaked like motorcycle cops. Somewhere out there were ranks of black Harleys, he was sure of it. He smelled gun oil and old leather.

There were other shapes, other beasts. These were black, too, with fangs snarling blue in the night. They strained at their leashes, silently.

Meers began to back away. If he didn’t make a sudden movement they might not come after him. Perhaps they hadn’t even seen him.

Soon the shapes were swallowed back into the fog. Not once had he seen a distinct human figure.

Something brushed against his leg. He did not look down, but kept backing. Dark areas on the ground, seen peripherally, resembled body parts. But they were moving.

He heard a distant siren, saw flashing red and blue lights. A boxy white ambulance pulled up, a big orange stripe on its side with the words emergency rescue. The rear doors flew open. The light inside was dim and reddish. The angle was wrong for Meers to see very far inside. A black cloud of flies exploded into the air. He could hear them buzzing. A thick, black fluid seeped over the floor and ran over the bumper to pool on the frozen ground, steaming. Meers understood that in white light the stuff would be dark and red.

From the far side of the ambulance men and women appeared, clad in crisp whites or baggy surgical blues. They all wore gauze masks. The masks, their rubber-gloved hands, and their clothing were all spattered with gore. None of them had horns or carried pitchforks. Their attitude was efficient and workmanlike.

The doctors and nurses lifted Eduardo and tossed him into the open ambulance doors like a sack of

laundry. One nurse loomed out of the fog with Eduardo's leg. The leg was twitching. She tossed it after Eduardo.

Meers was going backward at a walking pace now. A man in blue surgical scrubs looked in his direction. All the rest did, too. He turned and ran.

The world began to spin again, and this time it did not stop. He felt himself flying apart, and when he came back together, not everything fit in just the way it had before. He felt much better. He was smiling.

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He had found the terminal building again. He stood there on the sidewalk for a moment, getting his breathing under control. A big man with a battered face stood leaning against a taxi painted bright yellow with a checkerboard stripe down the side. The man held up a thumb. When Meers stared at him blankly, the cabbie switched to his middle ringer and muttered something about "airplane pukes." Meers brushed snow and ice from his overcoat and ran his hands through his unruly hair. He entered the terminal.

Inside were Christmas lights, tinsel and holly. It was jammed with a sea of humanity, few of them showing any Christmas spirit.

He glanced to his left, and there was his luggage, sitting neatly against the wall. Meers hefted his possessions. Someone had put a strip of silver duct tape over the gash in his carry-on.

Meers was still smiling after three hours in line. The harried ticket agent smiled back at him, and told him there was no chance of reaching his home that night.

"You won't get home for Christmas morning," she said, "but I can get you on a flight to Chicago that's leaving in a few minutes."

"That'll be fine," Meers said, smiling. She wrote out the ticket.

"Happy holidays," she said.

"And a Merry Christmas to you," Meers said.

They were already announcing his flight. "... to Chicago, with stops at Amarillo, Oklahoma City, Topeka, Omaha, Rapid City, Fargo, Duluth, and Des Moines."

Christmas, Meers thought. Everyone trying to go somewhere at once. Pity the poor business traveler caught in the middle of it. Puddle-jumping through most of the medium-sized cities on the Great Plains. It sounded like air-travel hell. But he took heart. Soon he would be home with his family. Home with his sweet wife... and his lovely children... he was sure he'd think of their names in a moment.

He shouldered his burdens like Marley's Ghost shouldered the chains he had forged in life, and shuffled along with the slow crowd toward his boarding gate. He would be home in no time. No time at all.

In Fading Suns and Dying Moons Within the memories of our lives gone by, afraid to die, we learn to lie and measure out the time in coffee spoons In fading suns, and dying moons -from "Aftertones" by Janis Ian The first time they came through the neighborhood there really wasn't much neighborhood to speak of. Widely dispersed hydrogen molecules, only two or three per cubic meter. Traces of heavier

elements from long-ago supernovas. The usual assortment of dust particles, at a density of one particle every cubic mile or so. The “dust” was mostly ammonia, methane, and water ice, with some more complex molecules like benzene. Here and there these thin ingredients were pushed into eddies by light pressure from neighboring stars.

Somehow they set forces in motion. I picture it as a Cosmic Finger stirring the mix, out in the interstellar wastes where space is really flat, in the Einsteinian sense, making a whirlpool in the unimaginable cold. Then they went away.

Four billion years later they returned. Things were brewing nicely. The space debris had congealed into a big, burning central mass and a series of rocky or gaseous globes, all sterile, in orbit around it.

They made a few adjustments and planted their seeds, and saw that it was good. They left a small observer/recorder behind, along with a thing that would call them when everything was ripe. Then they went away again.

A billion years later the timer went off, and they came back.

I had a position at the American Museum of Natural History in New York City, but of course I had not gone to work that day. I was sitting at home watching the news, as frightened as anyone else. Martial law had been declared a few hours earlier. Things had been getting chaotic. I’d heard gunfire from the streets outside.

Someone pounded on my door.

“United States Army!” someone shouted. “Open the door immediately!”

I went to the door, which had four locks on it.

“How do I know you’re not a looter?” I shouted.

“Sir, I am authorized to break your door down. Open the door, or stand clear.”

I put my eye to the old-fashioned peephole. They were certainly dressed like soldiers. One of them raised his rifle and slammed the butt down on my doorknob. I shouted that I would let them in, and in a few seconds I had all the locks open. Six men in full combat gear hustled into my kitchen. They split up and quickly explored all three rooms of the apartment, shouting out, “All clear!” in brisk, military voices. One man, a bit older than the rest, stood facing me with a clipboard in his hand.

“Sir, are you Doctor Andrew Richard Lewis?”

“There’s been some mistake,” I said. “I’m not a medical doctor.”

“Sir, are you Doctor-”

“Yes, yes. I’m Andy Lewis. What can I do for you?”

“Sir, I am Captain Edgar and I am ordered to induct you into the United States Army Special Invasion Corps effective immediately, at the rank of Second Lieutenant. Please raise your right hand and repeat after me.”

I knew from the news that this was now legal, and I had the choice of enlisting or facing a long prison term. I raised my hand and in no time at all I was a soldier.

“Lieutenant, your orders are to come with me. You have fifteen minutes to pack what essentials you may need, such as prescription medicine and personal items. My men will help you assemble your gear.”

I nodded, not trusting myself to speak.

“You may bring any items relating to your specialty. Laptop computer, reference books...” He paused, apparently unable to imagine what a man like me would want to bring along to do battle with space aliens.

“Captain, do you know what my specialty is?”

“My understanding is that you are a bug specialist.”

“An entomologist, Captain. Not an exterminator. Could you give me...any clue as to why I’m needed?”

For the first time he looked less than totally self-assured.

“Lieutenant, all I know is...they’re collecting butterflies.”

They hustled me to a helicopter. We flew low over Manhattan. Every street was gridlocked. All the bridges were completely jammed with mostly abandoned cars.

I was taken to an air base in New Jersey and hurried onto a military jet transport that stood idling on

the runway. There were a few others already on board. I knew most of them; entomology is not a crowded field.

The plane took off at once.

There was a colonel aboard whose job was to brief us on our mission, and on what was thus far known about the aliens: not much was really known that I hadn't already seen on television.

They had appeared simultaneously on seacoasts worldwide. One moment there was nothing, the next moment there was a line of aliens as far as the eye could see. In the western hemisphere the line stretched from Point Barrow in Alaska to Tierra del Fuego in Chile. Africa was lined from Tunis to the Cape of Good Hope. So were the western shores of Europe, from Norway to Gibraltar. Australia, Japan, Sri Lanka, the Philippines, and every other island thus far contacted reported the same thing: a solid line of aliens appearing in the west, moving east.

Aliens? No one knew what else to call them. They were clearly not of Planet Earth, though if you ran into a single one, there would be little reason to think them very odd. Just millions and millions of perfectly ordinary people dressed in white coveralls, blue baseball caps, and brown boots, within arm's reach of each other.

Walking slowly toward the east.

Within a few hours of their appearance someone on the news had started calling it the Line, and the creatures who were in it Linemen. From the pictures on the television they appeared rather average and androgynous.

"They're not human," the colonel said. "Those coveralls, it looks like they don't come off. The hats, either. You get close enough, you can see it's all part of their skin."

"Protective coloration," said Watkins, a colleague of mine from the Museum. "Many insects adapt colors or shapes to blend with their environment."

"But what's the point of blending in," I asked, "if you are made so conspicuous by your actions?"

"Perhaps the 'fitting in' is simply to look more like us. It seems unlikely, doesn't it, that evolution would have made them look like..."

"Janitors," somebody piped up.

The colonel was frowning at us.

"You think they're insects?"

"Not by any definition I've ever heard," Watkins said. "Of course, other animals adapt to their surroundings, too. Arctic foxes in winter coats, tigers with their stripes. Chameleons."

The colonel mulled this for a moment, then resumed his pacing.

"Whatever they are, bullets don't bother them. There have been many instances of civilians shooting at the aliens."

Soldiers, too, I thought. I'd seen film of it on television, a National Guard unit in Oregon cutting loose with their rifles. The aliens hadn't reacted at all, not visibly...until all the troops and all their weapons just vanished, without the least bit of fuss.

And the Line moved on.

We landed at a disused-looking airstrip somewhere in northern California. We were taken to a big motel, which the Army had taken over. In no time I was hustled aboard a large Coast Guard helicopter with a group of soldiers-a squad? a platoon?-led by a young lieutenant who looked even more terrified than I felt. On the way to the Line I learned that his name was Evans, and that he was in the National Guard.

It had been made clear to me that I was in charge of the overall mission and Evans was in charge of the soldiers. Evans said his orders were to protect me. How he was to protect me from aliens who were immune to his weapons hadn't been spelled out.

My own orders were equally vague. I was to land close behind the Line, catch up, and find out everything I could.

"They speak better English than I do," the colonel had said. "We must know their intentions. Above all, you must find out why they're collecting..." and here his composure almost broke down, but he took a deep breath and steadied himself.

“Collecting butterflies,” he finished.

We passed over the Line at a few hundred feet. Directly below us individual aliens could be made out, blue hats and white shoulders. But off to the north and south it quickly blurred into a solid white line vanishing in the distance, as if one of those devices that make chalk lines on football fields had gone mad.

Evans and I watched it. None of the Linemen looked up at the noise. They were walking slowly, all of them, never getting more than a few feet apart. The terrain was grassy, rolling hills, dotted here and there with clumps of trees. No man-made structures were in sight.

The pilot put us down a hundred yards behind the Line.

“I want you to keep your men at least fifty yards away from me,” I told Evans. “Are those guns loaded? Do they have those safety things on them? Good. Please keep them on. I’m almost as afraid of being shot by one of those guys as I am of...whatever they are.”

And I started off, alone, toward the Line.

How does one address a line of marching alien creatures? Take me to your leader seemed a bit peremptory. Hey, bro, what’s happening...perhaps overly familiar. In the end, after following for fifteen minutes at a distance of about ten yards, I had settled on Excuse me, so I moved closer and cleared my throat. Turns out that was enough. One of the Linemen stopped walking and turned to me.

This close, one could see that his features were rudimentary. His head was like a mannequin, or a wig stand: a nose, hollows for eyes, bulges for cheeks. All the rest seemed to be painted on.

I could only stand there idiotically for a moment. I noticed a peculiar thing. There was no gap in the Line.

I suddenly remembered why it was me and not some diplomat standing there.

“Why are you collecting butterflies?” I asked.

“Why not?” he said, and I figured it was going to be a long, long day. “You should have no trouble understanding,” he said. “Butterflies are the most beautiful things on your planet, aren’t they?”

“I’ve always thought so.” Wondering, did he know I was a lepidopterist? “Then there you are.” Now he began to move. The Line was about twenty yards away, and through our whole conversation he never let it get more distant than that. We walked at a leisurely one mile per hour.

Okay, I told myself. Try to keep it to butterflies. Leave it to the military types to get to the tough questions: When do you start kidnapping our children, raping our women, and frying us for lunch? “What are you doing with them?”

“Harvesting them.” He extended a hand toward the Line, and as if summoned, a lovely specimen of *Adelpha bredowii* fluttered toward him. He did something with his fingers and a pale blue sphere formed around the butterfly.

“Isn’t it lovely?” he asked, and I moved in for a closer look. He seemed to treasure these wonderful creatures I’d spent my life studying.

He made another gesture, and the blue ball with the *Adelpha* disappeared. “What happens to them?” I asked him.

“There is a collector,” he said.

“A lepidopterist?”

“No, it’s a storage device. You can’t see it because it is...off to one side.”

Off to one side of what? I wondered, but didn’t ask.

“And what happens to them in the collector?”

“They are put in storage in a place where...time does not move. Where time does not pass. Where they do not move through time as they do here.” He paused for a few seconds. “It is difficult to explain.”

“Off to one side?” I suggested.

“Exactly. Excellent. Off to one side of time. You’ve got it.”

I had nothing, actually. But I plowed on.

“What will become of them?”

“We are building a...place. Our leader wishes it to be a very special place. Therefore, we are making it of these beautiful creatures.”

“Of butterfly wings?”

“They will not be harmed. We know ways of making...walls in a manner that will allow them to fly freely.”

I wished someone had given me a list of questions.

“How did you get here? How long will you stay?”

“A certain...length of time, not a great length by your standards.”

“What about your standards?”

“By our standards...no time at all. As to how we got here...have you read a book entitled Flatland?”

“I’m afraid not.”

“Pity,” he said, and turned away, and vanished.

Our operation in Northern California was not the only group trying desperately to find out more about the Linemen, of course. There were Lines on every continent, and soon they would be present in every nation. They had covered many small Pacific islands in only a day, and when they reached the Eastern shores, they simply vanished, as my guide had.

News media were doing their best to pool information. I believe I got a lot of those facts before the general population, since I had been shanghaied into the forefront, but our information was often as garbled and inaccurate as what the rest of the world was getting. The military was scrambling around in the dark, just like everyone else.

But we learned some things:

They were collecting moths as well as butterflies, from the drabest specimen to the most gloriously colored. The entire order Lepidoptera.

They could appear and vanish at will. It was impossible to get a count of them. Wherever one stopped to commune with the natives, as mine had, the Line remained solid, with no gaps. When they were through talking to you, they simply went where the Cheshire Cat went, leaving behind not even a grin.

Wherever they appeared, they spoke the local language, fluently and idiomatically. This was true even in isolated villages in China or Turkey or Nigeria, where some dialects were used by only a few hundred people.

They didn’t seem to weigh anything at all. Moving through forests, the Line became more of a wall, Linemen appearing in literally every tree, on every limb, walking on branches obviously too thin to bear their weight and not even causing them to bend. When the tree had been combed for butterflies, the crews vanished, and appeared in another tree.

Walls meant nothing to them. In cities and towns nothing was missed, not even closed bank vaults, attic spaces, closets. They didn’t come through the door, they simply appeared in a room and searched it. If you were on the toilet, that was just too bad.

Any time they were asked about where they came from, they mentioned that book, Flatland. Within hours the book was available on hundreds of Web sites. Downloads ran to the millions.

The full title of the book was Flatland: A Romance of Many Dimensions. It was supposedly written by one Mr. A. Square, a resident of Flatland, but its actual author was Edwin Abbott, a nineteenth century cleric and amateur mathematician. A copy was waiting for me when we got back to camp after that first frustrating day.

The book is an allegory and a satire, but also an ingenious way to explain the concept of multidimensional worlds to the layman, like me. Mr. Square lives in a world of only two dimensions. For him, there is no such thing as up or down, only forward, backward, and side to side. It is impossible for us to really see from Square’s point of view: A single line that extends all around him, with nothing above it or below it. Nothing. Not empty space, not a black or white void...nothing.

But humans being three-dimensional, can stand outside Flatland, look up or down at it, see its inhabitants from an angle they can never have. In fact, we could see inside them, examine their internal organs, reach down and touch a Flat-lander’s heart or brain with our fingers.

In the course of the book Mr. Square is visited by a being from the third dimension, a Sphere. He can move from one place to another without apparently traversing the space between point A and point B. There was also discussion of the possibilities of even higher dimensions, worlds as inscrutable to us as the 3-D world was to Mr. Square.

I'm no mathematician, but it didn't take an Einstein to infer that the Line, and the Linemen, came from one of those theoretical higher planes.

The people running the show were not Einstein either, but when they needed expertise they knew where to go to draft it.

Our mathematician's name was Larry Ward. He looked as baffled as I must have looked the day before and he got no more time to adjust to his new situation than I did. We were all hustled aboard another helicopter and hurried out to the Line. I filled him in, as best I could, on the way out.

Again, as soon as we approached the Line, a spokesman appeared. He asked us if we'd read the book, though I suspect he already knew we had. It was a creepy feeling to realize he, or something like him, could have been standing...or existing, in some direction I couldn't imagine, only inches away from me in my motel bedroom, looking at me read the book just as the Sphere looked down on Mr. A. Square.

A flat, white plane appeared in the air between us and geometrical shapes and equations began drawing themselves on it. It just hung there, unsupported. Larry wasn't too flustered by it, nor was I. Against the background of the Line an antigravity blackboard seemed almost mundane.

The Lineman began talking to Larry, and I caught maybe one word in three. Larry seemed to have little trouble with it at first, but after an hour he was sweating, frowning, clearly getting out of his depth.

By that time I was feeling quite superfluous, and it was even worse for Lieutenant Evans and his men. We were reduced to following Larry and the Line at its glacial but relentless pace. Some of the men took to slipping between the gaps in the Line to get in front, then doing all sorts of stupid antics to get a reaction, like tourists trying to rattle the guards at the Tower of London. The Linemen took absolutely no notice. Evans didn't seem to care. I suspected he was badly hung over.

"Look at this, Doctor Lewis."

I turned around and saw that a Lineman had appeared behind me, in that disconcerting way they had. He had a pale blue sphere cupped in his hands, and in it was a lovely specimen of *Papilio zelicaon*, the Anise Swallowtail, with one blue wing and one orange wing.

"A gynandromorph," I said, immediately, with the spooky feeling that I was back in the lecture hall. "An anomaly that sometimes arises during gametogenesis. One side is male and the other is female."

"How extraordinary. Our...leader will be happy to have this creature existing in his...palace."

I had no idea how far to believe him. I had been told that at least a dozen motives had been put forward by Line spokesmen, to various exploratory groups, as the rationale for the butterfly harvest. A group in Mexico had been told some substance was to be extracted-harmlessly, so they said-from the specimens. In France, a lepidopterist swore a Lineman told her the captives were to be given to fourth-dimension children, as pets. It didn't seem all the stories could be true. Or maybe they could. Step One in dealing with the Linemen was to bear in mind that our minds could not contain many concepts that, to them, were as basic as up and down to us. We had to assume they were speaking baby talk to us.

But for an hour we talked butterflies, as Larry got more and more bogged down in a sea of equations and the troops got progressively more bored. The creature knew the names of every Lepidopteran we encountered that afternoon, something I could not claim. That fact had never made me feel inadequate before. There were around 170,000 species of moth and butterfly so far cataloged, including several thousand in dispute. Nobody could be expected to know them all...but I was sure the Linemen did. Remember, every book in every library was available to them, and they did not have to open them to read them. And time, which I had been told was the fourth dimension but now learned was only a fourth dimension, almost surely did not pass for them in the same way as it passed for us. Larry told me later that a billion years was not a formidable...distance for them. They were masters of space, masters of time, and who knew what else?

The only emotion any of them had ever expressed was delight at the beauty of the butterflies. They showed no anger or annoyance when shot at with rifles; the bullets went through them harmlessly. Even when assaulted with bombs or artillery rounds they didn't register any emotion, they simply made the assailants and weapons disappear. It was surmised by those in charge, whoever they were, that these

big, noisy displays were dealt with only because they harmed butterflies.

The troops had been warned, but there's always some clown...

So when an *Antheraea polyphemus* fluttered into the air in front of a private named Paulson, he reached out and grabbed it in his fist. Or tried to; while his hand was still an inch away, he vanished.

I don't think any of us quite credited our senses at first. I didn't, and I'd been looking right at him, wondering if I should say something. There was nothing but the Polyphemus moth fluttering in the sunshine. But soon enough there were angry shouts. Many of the soldiers unslung their rifles and pointed them at the Line.

Evans was frantically shouting at them, but now they were angry and frustrated. Several rounds were fired. Larry and I hit the deck as a machine gun started chattering. Looking up carefully, I saw Evans punch the machine gunner and grab the weapon. The firing stopped.

There was a moment of stunned silence. I got to my knees and looked at the Line. Larry was okay, but the "blackboard" was gone. And the Line moved placidly on.

I thought it was all over, and then the screaming began, close behind me. I nearly wet myself and turned around quickly.

Paulson was behind me, on his knees, hands pressed to his face, screaming his lungs out. But he was changed. His hair was all white and he'd grown a white beard. He looked thirty years older, maybe forty. I knelt beside him, unsure what to do. His eyes were full of madness...and the name patch sewn on the front of his shirt now read: "They reversed him," Larry said.

He couldn't stop pacing. Myself, I'd settled into a fatalistic calm. In the face of what the Linemen could do, it seemed pointless to worry much. If I did something to piss them off, then I'd worry.

Our Northern California headquarters had completely filled the big Holiday Inn. The Army had taken over the whole thing, this bizarre operation gradually getting the encrustation of barnacles any government operation soon acquires, literally hundreds of people bustling about as if they had something important to do. For the life of me, I couldn't see how any of us were needed, except for Larry and a helicopter pilot to get him to the Line and back. It seemed obvious that any answers we got would come from him, or someone like him. They certainly wouldn't come from the troops, the tanks, the nuclear missiles I'm sure were targeted on the Line, and certainly not from me. But they kept me on, probably because they hadn't yet evolved a procedure to send anybody home. I didn't mind. I could be terrified here just as well as in New York. In the meantime, I was bunking with Larry...who now reached into his pocket and produced a penny. He looked at it, and tossed it to me.

"I grabbed that when they were going through his pockets," he said. I looked at it. As I expected, Lincoln was looking to the left and all the inscriptions were reversed.

"How can they do that?" I asked.

He looked confused for a moment, then grabbed a sheet of motel stationery and attacked it with one of the pens in his pocket. I looked over his shoulder as he made a sketch of a man, writing L by one hand and R by the other. Then he folded the sheet without creasing it, touching the stick figure to the opposite surface.

"Flatland doesn't have to be flat," he said. He traced the stick man onto the new surface, and I saw it was now reversed. "Flatlanders can move through the third dimension without knowing they're doing it. They slide around this curve in their universe. Or, a third-dimensional being can lift them up here, and set them down here. They've moved, without traveling the distance between the two points."

We both studied the drawing solemnly for a moment.

"How is Paulson?" I asked.

"Catatonic. Reversed. He's left-handed now, his appendectomy scar is on the left, the tattoo on his left shoulder is on the right now."

"He looked older."

"Who can say? Some are saying he was scared gray. I'm pretty sure he saw things the human eye just isn't meant to see...but I think he's actually older, too. The doctors are still looking him over. It wouldn't be hard for a fourth-dimensional creature to do, age him many years in seconds."

"But why?"



“They didn’t hire me to find out ‘why.’ I’m having enough trouble understanding the ‘how.’ I figure the why is your department.” He looked at me, but I didn’t have anything helpful to offer. But I had a question.

“How is it they’re shaped like men?”

“Coincidence?” he said, and shook his head. “I don’t even know if ‘they’ is the right pronoun. There might be just one of them, and I don’t think it looks anything like us.” He saw my confusion, and groped again for an explanation. He picked up another piece of paper, set it on the desk, drew a square on it, put the fingertips of his hand to the paper.

“A Flatlander, Mr. Square, perceives this as five separate entities. See, I can surround him with what he’d see as five circles. Now, imagine my hand moving down, through the plane of the paper. Four circles soon join together into an elliptical shape, then the fifth one joins, too, and he sees a cross section of my wrist: another circle. Now extend that...” He looked thoughtful, then pulled a comb from his back pocket and touched the teeth to the paper surface.

“The comb moves through the plane, and each tooth becomes a little circle. I draw the comb through Flatland, Mr. Square sees a row of circles coming toward him.”

It was making my head hurt, but I thought I grasped it.

“So they...or it, or whatever, is combing the planet...”

“Combing out all the butterflies. Like a fine-tooth comb going through hair, pulling out...whaddayou call ‘em...lice eggs...”

“Nits.” I realized I was scratching my head. I stopped. “But these aren’t circles, they’re solid, they look like people...”

“If they’re solid, why don’t they break tree branches when they go out on them?” He grabbed the goosenecked lamp on the desk and pointed the light at the wall. Then he laced his hands together. “You see it? On the wall? This isn’t the best light...”

Then I did see it. He was making a shadow image of a flying bird. Larry was on a roll; he whipped a grease pencil from his pocket and drew a square on the beige wall above the desk. He made the shadow-bird again.

“Mr. Square sees a pretty complex shape. But he doesn’t know the half of it. Look at my hands. Just my hands. Do you see a bird?”

“No,” I admitted.

“That’s because only one of many possible cross sections resembles a bird.” He made a dog’s head, and a monkey. He’d done this before, probably in a lecture hall.

“What I’m saying, whatever it’s using, hands, fingers, whatever shapes its actual body can assume in four-space, all we’d ever see is a three-dimensional cross section of it.”

“And that cross section looks like a man?”

“Could be.” But his hands were on his hips now, regarding the square he’d drawn on the wall. “How can I be sure? I can’t. The guys running this show, they want answers, and all we can offer them is possibilities.”

By the end of the next day, he couldn’t even offer them that.

I could see he was having tough sledding right from the first. The floating blackboard covered itself with equations again, and the...Instructor? Tutor? Translator?...stood patiently beside it, waiting for Larry to get it. And, increasingly, he was not.

The troops had been kept back, almost a quarter mile behind the Line. They were on their best behavior, as that day there was some brass with them. I could see them back there, holding binoculars, a few generals and admirals and such.

Since no one had told me to do differently, I stayed up at the Line near Larry. I wasn’t sure why. I was no longer very afraid of the Linemen, though the camp had been awash in awful rumors that morning. It was said that Paulson was not the first man to be returned in a reversed state, but it had been hushed up to prevent panic. I could believe it. The initial panics and riots had died down quite a bit, we’d been told, but millions around the globe were still fleeing before the advancing Line. In some places around the globe, feeding these migrant masses was getting to be a problem. And in some places, the moving mob

had solved the problem by looting every town they passed through.

Some said that Paulson was not the worst that could happen. It was whispered that men had been “vanished” by the Line and returned everted. Turned inside out. And still alive, though not for long...

Larry wouldn't deny it was possible.

But today Larry wasn't saying much of anything. I watched him for a while, sweating in the sun, writing on the blackboard with a grease pencil, wiping it out, writing again, watching the Lineman patiently writing new stuff in symbols that might as well have been Swahili.

Then I remembered I had thought of something to ask the night before, lying there listening to Larry snoring in the other king-size bed.

“Excuse me,” I said, and instantly a Lineman was standing beside me. The same one? I knew the question had little meaning.

“Before, I asked, ‘Why butterflies?’ You said because they are beautiful.”

“The most beautiful things on your planet,” he corrected.

“Right. But...isn't there a second best? Isn't there anything else, anything at all, that you're interested in?” I floundered, trying to think of something else that might be worth collecting to an aesthetic sense I could not possibly imagine. “Scarab beetles,” I said, sticking to entomology. “Some of them are fabulously beautiful, to humans anyway.”

“They are quite beautiful,” he agreed. “However, we do not collect them. Our reasons would be difficult to explain.” A diplomatic way of saying humans were blind, deaf, and ignorant, I supposed. “But yes, in a sense. Things are grown on other planets in this solar system, too. We are harvesting them now, in a temporal way of speaking.”

Well, this was new. Maybe I could justify my presence here in some small way after all. Maybe I'd finally asked an intelligent question.

“Can you tell me about them?”

“Certainly. Deep in the atmospheres of your four gas giant planets, Jupiter, Saturn, Uranus, and Neptune, beautiful beings have evolved that...our leader treasures. On Mercury, creatures of quicksilver inhabit deep caves near the poles. These are being gathered as well. And there are life-forms we admire that thrive on very cold planets.”

Gathering cryogenic butterflies on Pluto? Since he showed me no visual aids, the image would do until something better came along.

The Lineman didn't elaborate beyond that, and I couldn't think of another question that might be useful. I reported what I had learned at the end of the day. None of the team of expert analysts could think of a reason why this should concern us, but they assured me my findings would be bucked up the chain of command.

Nothing ever came of it.

The next day they said I could go home, and I was hustled out of California almost as fast as I'd arrived. On my way I met Larry, who looked haunted. We shook hands.

“Funny thing,” he said. “All our answers, over thousands of years. Myths, gods, philosophers...What's it all about? Why are we here? Where do we come from, where do we go, what are we supposed to do while we're here? What's the meaning of life? So now we find out, and it was never about us at all. The meaning of life is...butterflies.” He gave me a lopsided grin. “But you knew that all along, didn't you?”

Of all the people on the planet, I and a handful of others could make the case that we were most directly affected. Sure, lives were uprooted, many people died before order was restored. But the Linemen were as unobtrusive as they could possibly be, given their mind-numbing task, and things eventually got back to a semblance of normalcy. Some people lost their religious faith, but even more rejected out of hand the proposition that there was no God but the Line, so the holy men of the world registered a net gain.

But lepidopterists...let's face it, we were out of a job.

I spent my days haunting the dusty back rooms and narrow corridors of the museum, opening cases and drawers, some of which might not have been disturbed for decades. I would stare for hours at the

thousands and thousands of preserved moths and butterflies, trying to connect with the childhood fascination that had led to my choice of career. I remembered expeditions to remote corners of the world, miserable, mosquito-bitten, and exhilarated at the same time. I recalled conversations, arguments about this or that taxonomic point. I tried to relive my elation at my first new species, *Hypolimnes lewisii*.

All ashes now. They didn't even look very pretty anymore.

On the twenty-eighth day of the invasion, a second Line appeared on the world's western coasts. By then the North American Line stretched from a point far in the Canadian north through Saskatchewan, Montana, Wyoming, Colorado, and New Mexico, reaching the Gulf of Mexico somewhere south of Corpus Christi, Texas. The second Line began marching east, finding very few butterflies but not seeming to mind.

It is not in the nature of the governmental mind to simply do nothing when faced with a situation. But most people agreed there was little or nothing to be done. To save face, the military maintained a presence following the Line, but they knew better than to do anything.

On the fifty-sixth day the third Line appeared.

Lunar cycle? It appeared so. A famous mathematician claimed he had found an equation describing the Earth-Moon orbital pair in six dimensions, or was it seven? No one cared very much.

When the first Line reached New York, I was in the specimen halls, looking at moths under glass. A handful of Line-men appeared, took a quick look around. One looked over my shoulder at the displays for a moment. Then they all went away, in their multidimensional way.

And there it is.

I don't recall who it was that first suggested we write it all down, nor can I recall the reason put forward. Like most literate people of the Earth, though, I dutifully sat down and wrote my story. I understand many are writing entire biographies, possibly an attempt to shout out "I was here!" to an indifferent universe. I have limited myself to events from Day One to the present.

Perhaps someone else will come by, some distant day, and read these accounts. Yes, and perhaps the Moon is made of green butterflies.

It turned out that my question, that last day of my military career, was the key question, but I didn't realize I had been given the answer.

The Lineman never said they were growing creatures on Pluto.

He said there were things they grew on cold planets.

After one year of combing the Earth, the Linemen went away as quickly as they appeared.

On the way out, they switched off the light.

It was night in New York. From the other side of the planet the reports came in quickly, and I climbed up to the roof of my building. The moon, which should have been nearing full phase, was a pale ghost and soon became nothing but a black hole in the sky.

Another tenant had brought a small TV. An obviously frightened astronomer and a confused news anchor were counting seconds. When they reached zero, a bit over twenty minutes after the events at the antipodes, Mars began to dim. In thirty seconds it was invisible.

He never mentioned Pluto as their cold-planet nursery...

In an hour and a half Jupiter's light failed, then Saturn.

When the sun came up in America that day, it looked like a charcoal briquette, red flickerings here and there, and soon not even that. When the clocks and church bells struck noon, the Sun was gone.

Presently, it began to get cold.

## MANIKINS

"You're sure she's not dangerous?"

"Not at all. Not to you, anyway."

Evelyn closed the sliding window in the door and made an effort to control the misgivings that tugged at her. It was a little late to discover in herself a queasiness about crazy people.

She looked around and discovered with relief that it wasn't the patients she feared. It was the fortress

atmosphere of the Bedford Institution. The place was a nightmare of barred windows, padded rooms, canvas sheets and straightjackets and hypodermics and burly attendants. It was a prison. With all the precautions it was only natural that she should feel nervous about the people it was built to contain.

She peeked into the room again. The woman inside was so small, so quiet and composed to be the cause of all this fuss.

Doctor Burroughs closed the thick file he had been scanning. Barbara Endicott.

Age: 28. Height: 5' 3". Weight: 101. Diagnosis: Paranoid Schizophrenic. Remarks:

Subject is to be considered dangerous. Remanded for observation from criminal court, Commonwealth of Massachusetts, murder. Intense hostility to men. There was more, much more. Evelyn had read some of it.

"She's got a massively defended psychosis. As usual, granting the illogical assumptions, the delusional system is carefully worked out and internally consistent."

"I know," Evelyn said.

"Do you? Yes, I suppose you do, from books and films." He closed the file and handed it to her. "You'll find it's a little different actually talking to one of them. They're sure of the things they say in a way that no sane person is ever likely to be. We all live with our little doubts, you know. They don't.

They've seen the truth, and nothing will convince them otherwise. It takes a strong grip on reality to deal with them. You're likely to be a bit shaken when you're through with her."

Evelyn wished he'd finish and open the door. She had no worries about her sense of reality. Did he really worry that the woman would unsettle her with the kind of rubbish that was down in that file?

"We've had her on electroshock treatments for the last week," he said. He shrugged, helplessly. "I know what your teachers have said about that. It wasn't my decision. There's just no way to reach these people. When we run out of reason and persuasion, we try the shocks. It's not doing her any good. Her psychosis is as defended as it ever was." He rocked back on his heels, frowning.

"I guess you might as well go on in. You're perfectly safe. Her hostility is directed only at men." He gestured to the white-suited attendant, who looked like an NFL lineman, and the man turned a key in the lock. He opened the door, standing back to let her pass.

Barbara Endicott sat in a chair by the window. The sunlight streamed through and the bars made a cross-hatched pattern over her face. She turned, but did not get up.

"Hello, I'm... I'm Evelyn Winters." The woman had turned away as soon as she started talking. Evelyn's confidence, feeble enough in this forbidding place, threatened to leave her entirely.

"I'd like to talk to you, if you don't mind. I'm not a doctor, Barbara."

The woman turned back and looked at her.

"Then what are you doing in that white coat?"

Evelyn looked down at the lab smock. She felt silly in the damn thing.

"They told me I had to wear it."

"Who is 'they?' " Barbara asked, with the hint of a chuckle. "You sound paranoid, my dear."

Evelyn relaxed a little. "Now that should have been my question. 'They' are the staff of this... place." Damn it, relax! The woman seemed friendly enough now that she saw Evelyn wasn't a doctor. "I guess they want to know if I'm a patient."

"Right. They'd give you one of these blue outfits if you were."

"I'm a student. They said I could interview you."

"Shoot." Then she smiled, and it was such a friendly, sane smile that Evelyn smiled back and extended her hand. But Barbara was shaking her head.

"That's a man thing," she said, indicating the hand. " 'See? I have no weapons.

I'm not going to kill you.' We don't need that, Evelyn. We're women."

"Oh, of course." She awkwardly stuffed the hand into the pocket of the lab coat, clenched. "May I sit down?"

"Sure. There's just the bed, but it's hard enough to sit on."

Evelyn sat on the edge of the bed, the file and notebook in her lap. She poised there, and found that her weight was still on the balls of her feet, ready to leap away. The bleakness of the room assaulted her.

She saw flaking gray paint, yellow window glass set in a well behind a mesh screen, gun-metal bolts securing it to the wall. The floor was concrete, damp and unfriendly. The room echoed faintly. The only furniture was the chair and the bed with gray sheets and blanket.

Barbara Endicott was small, dark-haired, with the smooth perfection of features that reminded Evelyn of an oriental. She looked pale, probably from two months in the cell. Under it, she had robust health. She sat in a checkerboard of sunlight, soaking up what rays passed through the glass. She wore a blue bathrobe with nothing underneath, belted at the waist, and cloth slippers.

"So I'm your assignment for the day. Did you pick me, or someone else?"

"They told me you'd only speak to women."

"That's true, but you didn't answer my question, did you? I'm sorry. I didn't mean to make you nervous, really. I won't be like that again. I'm acting like a crazy woman."

"What do you mean?"

"Being bold, aggressive. Saying whatever I want to. That's how all the crazy people around here act. I'm not crazy, of course." Her eyes were twinkling.

"I can't tell if you're putting me on," Evelyn admitted, and suddenly felt much closer to the woman. It was an easy trap to fall into, thinking of deranged people as mentally defective, lacking in reasoning powers. There was nothing wrong with Barbara Endicott in that direction. She could be subtle.

"Of course I'm crazy," she said. "Would they have me locked up here if I wasn't?" She grinned, and Evelyn relaxed. Her back loosened up; the bedspring creaked as she settled on them.

"All right. Do you want to talk about it?"

"I'm not sure if you want to hear. You know I killed a man, don't you?"

"Did you? I know the hearing thought you did, but they found you incapable of standing trial."

"I killed him, all right. I had to find out."

"Find out what?"

"If he could still walk with his head cut off."

And there it was; she was an alien again. Evelyn suppressed a shudder. The woman had said it in such a reasonable tone of voice, without any obvious try for shock value. And indeed, it had not affected her as strongly as it might have a few minutes ago. She was revolted, but not scared.

"And what made you think he might be able to?"

"That's not the important question," she chided. "Maybe it's not important to you, but it is to me. I wouldn't have done a thing like that unless it was important to know."

"To know... oh. Well, did he?"

"He sure did. For two or three minutes, he blundered around that room. I saw it, and I knew I was right."

"Will you tell me what led you to think he could?"

Barbara looked her over.

"And why should I? Look at you. You're a woman, but you've swallowed all the lies. You're working for them."

"What do you mean?"

"You've painted yourself up. You've scraped the hair off your legs and covered them with nylon, and you're walking inefficiently with a skirt to hobble your legs and heels designed to make you stumble if you run from them when they try to rape you. You're here doing their work for them. Why should I tell you? You wouldn't believe me."

Evelyn was not alarmed by this turn in the conversation. There was no hostility in what Barbara was saying. If anything, there was pity. Barbara would not harm her, simply because she was a woman. Now that she understood that, she could go on with more assurance.

"That may be true. But don't you owe it to me, as a woman, to tell me about this threat if it's really so important?"

Barbara slapped her knees in delight.

"You got me, doc. You're right. But that was sure tricky, turning my own delusions against me."

Evelyn wrote in her notebook: Can be glib when discussing her delusional-complex. She is assured

enough of her rightness to make jokes about it.

"What are you writing?"

"Huh? Oh..." Be honest, she'll know if you lie. Be straight with her and match her irreverence. "...just notes on your condition. I have to make a diagnosis to my instructor. He wants to know what kind of crazy you are."

"That's easy. I'm paranoid schizophrenic. You don't need a degree to see that."

"No, I guess not. All right, tell me about it."

"Basically, what I believe is that the Earth was invaded by some kind of parasite at some point back in pre-history. Probably in cave-dwelling days. It's hard to tell for sure, since history is such a pack of lies. They rewrite it all the time, you know."

Again, Evelyn didn't know if she was being played with, and the thought amused her. This was a complex, tricky woman. She'd have to stay on her toes. That speech had been such an obvious paranoid construction, and Barbara was well aware of it.

"I'll play your game. Who is 'they?' "

" 'They' is the all-purpose paranoid pronoun. Any group that is involved in a conspiracy, conscious or not, to 'get' you. I know that's crazy, but there are such groups."

"Are there?"

"Sure. I didn't say they had to be holding meetings to plot ways to bedevil you.

They don't. You can admit the existence of groups whose interests are not your own, can't you?"

"Certainly."

"The more important thing is it doesn't matter if they're really an explicit conspiracy, or just have the same effect because that's the way they function.

It doesn't have to be personal, either. Each year, the IRS conspires to rob you of money that you earned, don't they? They're in a plot with the President and Congress to steal your money and give it to other people, but they don't know you by name. They steal from everybody. That's the kind of thing I'm talking about."

Justifies her fear of external, inimical forces by pointing to real antagonistic groups.

"Yes, I can see that. But we all know the IRS is out there. You're talking about a secret that only you see. Why should I believe you?"

Her face got more serious. Perhaps she was realizing the strengths of her opponent. Her opponent always had the stronger arguments, it was the nature of things. Why are you right and everyone else wrong?

"That's the tough part. You can offer me reams of 'proof' that I'm wrong, and I can't show you anything. If you'd been there when I'd killed that fellow, you'd know. But I can't do it again." She drew a deep breath, and seemed to settle in for a long debate.

"Let's get back to these parasites," Evelyn said. "They're men? Is that what you're saying?"

"No, no." She laughed, without humor. "There's no such thing as a man, the way you're thinking about it. Only women who've been taken over at birth by these, these..." she groped in the air for a word hideous enough to express her distaste. She couldn't find it. "Things. Organisms. I said they invaded the Earth, but I'm not sure. They might be from here. There's no way to know, they've taken over too completely."

Leaves flexibility in her rationale. Yes, that would fit with what the books said. It would be hard to stump her, to ask her a question she couldn't answer in terms of her delusion. She admitted not knowing everything about the subject, and she was free to reject whole categories of argument as having been tampered with, like history.

"So how is it... no, wait. Maybe you'd better tell me more about these parasites. Where do they hide? How is it that no one but you is aware of them?"

She nodded. She now seemed totally serious. She could not joke about this subject when they got this specific.

"They're not strictly parasites. They're sort of symbiotic. They don't kill their hosts, not quickly. They even help the host in the short run, making them stronger and larger and more capable of domination. But

in the long run, they sap the strength of the host. They make her more susceptible to disease, weaken her heart. As to what they look like, you've seen them. They're blind, helpless, immobile worms. They attach themselves to a woman's urinary tract, filling and covering the vagina and extending nerves into the ovaries and uterus. They inject hormones into her body and cause her to grow up with deformities, like facial hair, enlarged muscles, reduced thinking capacity, and wildly defective emotions. The host becomes aggressive and murderous. Her breasts never develop.

She is permanently sterile."

Evelyn scribbled in her notebook to cover her emotions. She wanted to laugh; she felt like crying. Who could figure the human mind? She shuddered to think of the pressures that must have driven this outwardly normal woman to such a bizarre way of looking at the universe. Father? Lover? Was she raped? Barbara had been unhelpful in talking about these things, maintaining that they were no one's business but her own. Besides, they had no bearing on what she saw as the facts of the case.

"I hardly know where to begin," Evelyn said.

"Yes, I know. It's not the sort of thing they'd allow you to seriously consider, is it? It's too alien to what you've been led to believe. I'm sorry. I hope I can help you."

Damn! she wrote, then scratched it out. Puts questioners on the defensive. Shows sympathy with their inability to see things as she sees them.

"Call it the new biology," Barbara said, getting up and slowly walking back and forth in the confined space. Her loose slippers slipped off her heels with each step. "I began to suspect it several years ago. The world just didn't make sense any other way. You've got to begin to doubt what you've been told. You've got to trust the evidence of your intellect. You've got to allow yourself to look through your woman's eyes as a woman would, not as an imperfect man would.

They've trained you to believe in their values, their system. What you begin to realize is that they are imperfect women, not the other way around. They can't reproduce themselves, shouldn't that tell you something? 'Males' live on our bodies as parasites, they use our fertility to perpetuate their species." She turned to Evelyn, and her eyes were burning. "Can you try to look at it that way? Just try? Don't try to be a man; redefine! You don't know what you are. All your life you've struggled to be a man. They've defined the role you should play. And you're not made for it. You don't have that parasite eating at your brain. Can you accept that?"

"I can, for the sake of argument."

"That's good enough."

Evelyn was treading cautiously. "Uh, just what do I have to do to... 'see things as a woman?' I feel like a woman right now."

"Feel! That's it, just feel. You know what 'woman's intuition' is? It's the human way to think. They've laughed at it to the point where we automatically distrust it. They had to; they've lost the capacity to see a truth intuitively.

I can see you don't like that phrase. You wouldn't. It's been laughed at so much that an 'enlightened woman' like yourself doesn't believe it exists. That's what they want you to think. All right, don't use the word 'intuition.' Use something else. What I'm talking about is the innate capacity of a human being to feel the truth of a matter. We all know we have it, but we've been trained to distrust it. And it's gotten screwed up. Haven't you ever felt you're right for no reason you could name except that you knew you were right?"

"Yes, I guess I have. Most people do." Rejects logical argument as being part of her oppression. She decided to test that.

"What I've been... trained to do, is to apply the rules of logic to analyze a question. Right? And you say it's no good, despite thousands of years of human experience?"

"That's right. It's not human experience, though. It's a trick. It's a game, a very complicated game."

"What about science? Biology, in particular."

"Science is the biggest game of all. Have you ever thought about it? Do you seriously feel that the big questions of the universe, the important truths that should be easily in our grasp, will be solved by scientists haggling over how many neutrinos can dance on the head of a pin? It's a tail-eating snake,

relevant only to itself. But once you accept the basic ground rules, you're trapped. You think that counting and sorting and numbering will teach you things. You have to reject it all and see the world with new eyes. You'll be astounded at what is there, ready for you to pick up."

"Genetics?"

"Hogwash. The whole structure of genetics has been put there to explain an untenable position: that there are two sexes, neither of them worthwhile alone, but together they're able to reproduce. It doesn't hold up when you think about it. Genes and chromosomes, half from each parent: no, no, no! Tell me, have you ever seen a gene?"

"I've seen pictures."

"Hah!" That seemed enough for the moment. She paced the floor, overwhelmed by the scope of it. She turned again and faced Evelyn.

"I know, I know. I've thought about it enough. There's this... this basic set of assumptions we all live by. We can't get along without accepting almost all of it, right? I mean, I could tell you that I don't believe in... Tokyo, for instance, that Tokyo doesn't exist simply because I haven't been there to see it for myself. The news films I've seen were all clever hoaxes, right? Travelogues, books, Japanese; they're all in a conspiracy to make me think there's such a place as Tokyo."

"You could make a case for it, I guess."

"Sure I could. We all exist, all of us, in our own heads, looking out through the eyeballs. Society isn't possible unless we can believe in second-hand reports of certain things. So we've all conspired together to accept what other people tell us unless we can think of a reason why we're being lied to. Society can be seen as a conspiracy of unquestioning acceptance of unprovable things. We all work together at it, we all define a set of things as needing no proof."

She started to say more, but shut her mouth. She seemed to be considering if she should go on. She looked speculatively at Evelyn.

Evelyn shifted on her cot. Outside, the sun was setting in a haze of red and yellow. Where had the day gone? What time had she come into this room, anyway?

She was unsure. Her stomach grumbled at her, but she wasn't too uncomfortable.

She was fascinated. She felt a sort of lassitude, a weakness that made her want to lie down on the bed.

"Where was I? Oh, the untested assumptions. Okay. If we can't accept anything that's told us, we can't function in society. You can get away with not accepting a lot. You can believe the world is flat, or that there are no such things as photons or black holes or genes. Or that Christ didn't rise from the grave. You can go a long way from the majority opinion. But if you evolve an entirely new world picture, you start to get in trouble."

"What's most dangerous of all," Evelyn pointed out, "is starting to live by these new assumptions."

"Yes, yes. I should have been more careful, shouldn't I? I could have kept this discovery to myself. Or I could have gone on wondering. I was sure, you see, but in my foolishness I had to have proof. I had to see if a man could live with his head cut off, against what all the medical books had told me. I had to know if it was the brain that controlled him, or if it was that parasite."

Evelyn wondered what to ask as Barbara quieted for a moment. She knew it wasn't necessary to ask anything. The woman was off now; she would not wind down for hours. But she felt she ought to try and guide her.

"I was wondering," she finally ventured, "why you didn't need a second case."

A... a check from the other side. Why didn't you kill a woman, too, to see if..." The hair stood up on the back of her neck. Of all the things she should have kept her mouth shut about, and to a homicidal paranoid! She was painfully aware of her throat. She controlled her hand, which wanted to go to her neck in feeble protection. She has no weapons, but she could be very strong...

But Barbara didn't pick up the thought. She didn't appear to notice Evelyn's discomfort.

"Foolish!" she exploded. "I was foolish. Of course I should have taken it on faith. I felt I was right; I knew I was right. But the old scientific orientation finally drove me to the experiment. Experiment." She spat the word out. She paused again, calming down, and seemed to think back.



"Kill a woman?" She shook her head and gave Evelyn a wry smile. "Dear, that would be murder. I'm not a killer. These 'men' are already dead from my viewpoint; killing them is a mercy, and a defensive act. Anyhow, after I'd done the first experiment I realized I had really proved nothing. I had only disproved the assumption that a man cannot live with his head cut off. That left a whole range of possibilities, you see? Maybe the brain is not in the head.

Maybe the brain isn't good for anything. How do you know what's inside you? Have you ever seen your brain? How do you know that you're not really a wired-up midget, two inches tall, sitting in a control room in your head? Doesn't it feel like that sometimes?"

"Ah..." Barbara had hit on a common nerve. Not the midget, which was only a fanciful way of putting it, but the concept of living in one's head with eye-sockets as windows on the universe.

"Right. But you reject the gut feelings. I listen to them."

The light in the room was rapidly failing. Evelyn looked at the bare bulb in the ceiling, wondering when it would come on. She was getting sleepy, so tired. But she wanted to hear more. She leaned back farther on the cot and let her legs and arms relax.

"Maybe you should..." she yawned, wider and wider, unable to control it. "Excuse me. Maybe you should tell me more about the parasites."

"Ah. All right." She went back to her chair and sat in it. Evelyn could barely see her in the shadows. She heard a faint creaking, as of wooden slats on a rocking chair. But the chair wasn't a rocker. It wasn't even made of wood.

Nevertheless, Barbara's shadow was moving slowly and rhythmically, and the creaking went on.

"The parasites, I've already told you what they do. Let me tell you what I've managed to deduce about their life-cycle."

Evelyn grinned in the dark. Life-cycle. Of course they'd have one. She leaned on one elbow and rested her head on the wall behind her. It would be interesting.

"They reproduce asexually, like everything else. They grow by budding, since the new ones are so much smaller than the mature ones. Then doctors implant them into women's wombs when they know they're pregnant, and they grow up with the embryo."

"Wait a minute," Evelyn sat up a little straighter. "Why don't they implant them on all children? Why are girls allowed to... oh, I see."

"Yes. They need us. They can't reproduce by themselves. They need the warmth of the womb to grow in, and we have the wombs. So they've systematically oppressed the women they've allowed to remain uninfested so they'll have a docile, ready supply of breeders. They've convinced us that we can't have children until we've been impregnated, which is the biggest lie of all."

"It is?"

"Yes. Take a look."

Evelyn peered through the gloom and saw Barbara, standing in profile. She was illuminated by a sort of flickering candlelight. Evelyn did not wonder about it, but was bothered by a strange feeling. It was rather like wondering why she was not curious.

But before even that ephemeral feeling could concern her, Barbara loosened the cloth belt on her wrap and let it fall open. There was a gentle swell in her belly, unmistakably an early pregnancy. Her hand traced out the curve.

"See? I'm pregnant. I'm about four or five months along. I can't say for sure, you see, because I haven't had intercourse for over five years."

Hysterical pregnancy, Evelyn thought, and groped for her notebook. Why couldn't she find it? Her hand touched it in the dark, then the pencil. She tried to write, but the pencil broke. Did it break, she wondered, or was it bending?

She heard the creaking of the floorboards again, and knew Barbara had sat down in her rocker. She looked sleepily for the source of light, but could not find it.

"What about other mammals?" Evelyn asked, with another yawn.

"Uh-huh. The same. I don't know if it's only one sort of parasite which is adaptable to any species of mammal, or if there's one breed for each. But there are no males. Nowhere. Only females, and infested

females."

"Birds?"

"I don't know yet," she said, simply. "I suspect that the whole concept of the sexes is part of the game. It's such an unlikely thing. Why should we need two?"

One is enough."

Leaves flexibility, she wrote. But no, she hadn't written, had she? The notebook was lost again. She burrowed down into the pile of blankets or furs on the cot, feeling warm and secure. She heard a sliding sound.

There in the peephole, ghostly in the candlelight, was a man's face. It was the attendant, looking in on them. She gasped, and started to sit up as the light got brighter around her. There was the sound of a key grating in a lock.

Barbara was kneeling at the side of the bed. Her robe was still open, and her belly was huge. She took Evelyn's hands and held them tight.

"The biggest giveaway of all is childbirth," she whispered. The light wavered for a moment and the metallic scraping and jiggling of the doorknob lost pitch, growled and guttered like a turntable losing speed. Barbara took Evelyn's head in her arms and pulled her down to her breasts. Evelyn closed her eyes and felt the taut skin and the movement of something inside the woman. It got darker.

"Pain. Why should giving birth involve pain? Why should we so often die reproducing ourselves? It doesn't feel right. I won't say it's illogical; it doesn't feel right. My intuition tells me that it isn't so. It's not the way it was meant to be. Do you want to know why we die in childbirth?"

"Yes Barbara, tell me that." She closed her eyes and nuzzled easily into the warmth.

"It's the poison they inject into us." She gently rubbed Evelyn's hair as she spoke. "The white stuff, the waste product. They tell us it's the stuff that makes us pregnant, but that's a lie. It warps us, even those of us they do not inhabit. It pollutes the womb, causes us to grow too large for the birth canal.

When it comes time for us to be born, girl and half-girl, we must come through a passage that has been savaged by this poison. The result is pain, and sometimes death."

"Ummm." It was very quiet in the room. Outside, the crickets were starting to chirp. She opened her eyes once more, looked for the door and the man. She couldn't find them. She saw a candle sitting on a wooden table. Was that a fireplace in the other room?

"But it doesn't have to be that way. It doesn't. Virgin birth is quite painless.

I know. I'll know again very soon. Do you remember now, Eve? Do you remember?"

"What? I..." She sat up a little, still holding to the comforting warmth of the other woman. Where was the cell? Where was the concrete floor and barred window?

She felt her heart beating faster and began to struggle, but Barbara was strong.

She held her tight to her belly.

"Listen, Eve. Listen, it's happening."

Eve put her hand on the swollen belly and felt it move. Barbara shifted slightly, reached down and cradled something wet and warm, something that moved in her hand. She brought it up to the light. Virgin birth. A little girl, tiny, only a pound or two, who didn't cry but looked around her in curiosity.

"Can I hold her?" she sniffed, and then the tears flowed over the little human.

There were other people crowding around, but she couldn't see them. She didn't care. She was home.

"Are you feeling any better now?" Barbara asked. "Can you remember what happened?"

"Only a little," Eve whispered. "I was... I remember it now. I thought I was... it was awful. Oh, Barbara, it was terrible. I thought..."

"I know. But you're back. There's no need to be ashamed. It still happens to all of us. We go crazy. We're programmed to go crazy, all of us in the infected generation. But not our children. You relax and hold the baby, darling. You'll forget it. It was a bad dream."

"But it was so real!"

"It was what you used to be. Now you're back with your friends, and we're winning the struggle. We have to win; we've got the wombs. There's more of our children every day."

Our children. Her own, and Barbara's and... and Karen's, yes, Karen. She looked up and saw her

old friend, smiling down at her. And Clara, and there was June, and Laura. And over there with her children was Sacha. And... who was that?

It's...

"Hello, Mother. Do you feel better now?"

"Much better, dear. I'm all right. Barbara helped me through it. I hope it won't happen again." She sniffed and wiped her eyes. She sat up, still cradling the tiny baby. "What are you naming her, Barb?"

Barbara grinned, and for the last time Eve could see the ghostly outline of that cell, the blue robe, Doctor Burroughs. It faded out forever.

"Let's call her Evelyn."

## EQUINOCTIAL

Parameter knew she was being followed. They had been behind her for days, always far enough behind that they couldn't get a permanent fix on her, but never so far that she could lose them. She was in danger, but now was not the time to worry about it.

Now was one of the big moments in her life. She proposed to savor it to the full and refused to be distracted by the hunters. She was giving birth to quintuplets.

Uni, Duo, Tri, Quad... Hopelessly trite. Doc, Happy, Sneezzy, Grumpy-no, there were seven of those. Army, Navy, Marine, Airforce, Coastguard? That was a pentagon, for an interesting pun. But who wanted to be called Coastguard? What was a Coastguard, anyway?

She put the naming ordeal out of her mind. It wasn't important; they would pick their own names when the time came. She just thought it might be nice with five to have something to tag them with, if only for bookkeeping purposes.

"They just got another sighting," she thought, but it wasn't her own thought. It was the voice of Equinox. Equinox was Parameter's companion, her environment, her space suit, her alter ego; her Symb. She looked in the direction she had come from.

She looked back on the most spectacular scene in the solar system. She was 230,000 kilometers from the center of Saturn, according to the figures floating in the upper left corner of her field of vision. To one side of her was the yellow bulk of the giant planet, and all around her was a golden line that bisected the universe. She was inside the second and brightest of the Rings.

But Saturn and the Rings was not all she saw. About ten degrees away from Saturn and in the plane of the Rings was a hazy thing like the bell of a trumpet. It was transparent. The wide end of the bell was facing her. Within this shape were four lines of red that were sharp and well-defined far away but became fuzzy as they neared her. These were the hunters. All around her, but concentrated in the plane of the Rings, were slowly moving lines of all colors, each with an arrow at one end, each shifting perspective in a dazzling 3-D ballet.

None of it-the lines, the bells, the "hunters," even Saturn itself-none of it was any more real than the image in a picture tube. Some of it was even less real than that. The shifting lines, for instance, were vector representations of the large chunks of rock and ice within radar range of Equinox.

The bell was closer than it had been for days. That was bad news, because the space-time event it represented was the approach of the hunters and their possible locations projected from the time of the last fix. The fuzzy part was almost touching her. That meant they could be very close indeed, though it wasn't too likely. They were probably back in the stem where the projection looked almost solid, and almost certainly within the four lines that were their most probable location. But it was still too close.

"Since they know where we are, let's get a fix on them," Parameter decided, and as she thought it the bell disappeared, to be replaced by four red points that grew tails even as she watched.

"Too close. Way too close." Now they had two fixes on her: one of their own, and the one she had given them by bouncing a signal off them. From this, their Symb could plot a course; therefore, it was time to alter it.

She couldn't afford to change course in the usual way, by bouncing off a rock.

The hunters were close enough that they would detect the change in the rock's velocity and get a

better idea of where she was. It was time for thrusters, though she could ill afford the wasted mass.

"Which way?" she asked.

"I suggest you move out of the plane. They won't expect that yet. They don't know you're in labor."

"That's pretty dangerous. There's nothing to hide in out there."

Equinox considered it. "If they get any closer, you'll have to do something at least that drastic, with less chance of success. But I only advise."

"Sure. All right, do it, my green pasture."

The world around her jerked, and all the colored lines started moving down around her, bending as their relative velocity changed. There was a gentle pressure at the small of her back.

"Keep an eye on them. I'm going back to the business of giving birth. How are they doing, by the way?"

"No sweat. One of the girls is in the tube right now-you can feel her-"

"You can tell me that three times..."

"-and she's a little puzzled by the pressure. But she's taking it well. She tells you not to worry, she'll be all right."

"Can I talk to her yet?"

"Not for another few hours. Be patient."

"Right. It shouldn't be long now."

And that was very true. She felt the wave of sensation as her uterus contracted again. She looked down at herself, absently expecting to see the first head coming out. But she could no longer see that far; her belly stuck out.

Nothing that Parameter saw was real; all was illusion. Her head was completely enclosed in the thick, opaque substance of Equinox, and all the sensory data she received was through the direct connection from Equinox's senses into her own brain. Much of this information was edited and embellished in ways that made it easier for Parameter to interpret.

So it was that when she looked down at herself she saw not the dark-green surface of Equinox, but her own brown skin. She had asked for that illusion long ago, when it had become a matter of some importance to her to believe she still had her own body. The illusion was flawless. She could see the fingerprints on her hand, the mole on her knee, the color of her nipples, the sentimental scar on her forearm, all illuminated by the soft diffusion of light from the Rings.

But if she tried to touch herself, her hand would be stopped while still a good distance from what she saw as the surface of her body. Equinox was invisible to her, but she was certainly there.

She watched as the contraction caused her stomach to writhe and flow like putty.

This was more like it. She remembered her other deliveries, before she married Equinox. One had been "natural" and it hadn't worked all that well. She didn't regret it, but it had been painful, not something she would want to repeat. The other had been under anesthetic, and no fun at all. She might as well not have bothered; there had been no pain, no pleasure, no sensation. It was like reading about it in the newspaper. But this one, her third birth, was different. It was intense, so intense she had difficulty concentrating on eluding the hunters. But there was no pain. All she felt was a series of waves of pleasure-pain that didn't hurt, and could be related to no other sensation humans had ever experienced.

One of the lines ahead seemed to point almost directly at her. It was a thick red line, meaning it was seventy percent ice and about a million kilograms in mass. The vector was short. It was moving slowly enough that rendezvous would be easy.

She took the opportunity and altered course slightly with the sure instinct she had developed. The line swung, foreshortened even more, then flashed brighter and began to pulse. This was the collision warning from Equinox's plotting sector.

When the rock was close enough to see as an object rather than a simulated projection, she rotated until her legs pointed at it. She soaked up the shock of the landing, then began to scuttle over the surface in a manner quite astonishing, and with a speed not to be believed. She moved with the coordinated complexity of a spider, all four limbs grasping at the rock and ice.

To an observer, she was a comical sight. She looked like a barbell with arms and legs and a bulge at

the top that just might be a head. There were no creases or sharp lines anywhere on the outer surface of Equinox; all was gentle curves, absolutely featureless except for short claws on the hands and feet. At the ends of her legs were grasping appendages more like oversized hands than feet. And her legs bent the wrong way. Her knees were hinged to bend away from each other.

But she swarmed over the rock with effortless ease, not even hampered by her pregnancy, though the labor "pains" were getting intense.

When she was where she wanted to be, she pushed off with both hands and peds, rising rapidly. She was now on a course about ninety degrees away from her pursuers. She hoped they would not be expecting this. Now she had to rely on the screening effect of the billions of tiny rocks and ice crystals around her. For the next few hours she would be vulnerable if they beamed in her direction, but she didn't think it likely they would. Their Symbs would be plotting a course for her almost opposite to the one she was actually taking. If she had continued that way they would certainly have caught her later when she was burdened with five infants. Now was the time for audacity.

Having done that, she put the matter out of her mind again, and none too soon.

The first baby had arrived.

The head was just emerging as she pushed off the rock. She savored the delicious agony as the head forced its way through her body, struggling to reach the air.

It would never reach it. There was no air out here, just another womb that Equinox had prepared, a womb the baby would live in for the rest of its life. No first breath for Parameter's children; no breath at all.

The babies were not full-term. Each had been growing only seven months and would not be able to survive without extensive care. But Equinox was the world's best incubator. She had counseled, and Parameter had agreed, that it would be best to birth them while they were still small and get them out where Equinox could keep a closer eye on them.

Parameter moved her strangely articulated legs, bringing the hand-like peds up to the baby. She pressed slowly and felt the peds sink in as Equinox absorbed the outer covering. Then she felt the head with her own nerve endings. She ran her long fingers over the wet ball. There was another contraction and the baby was out. She was holding it in her peds. She couldn't see much of it, and suddenly she wanted to.

"This is one of the girls, right?"

"Yes. And so are two, three, and five. Navy, Marine, and Coastguard, if you want to get more personal."

"Those were just tags," she laughed. "I didn't even like them."

"Until you think of something else, they'll do."

"They won't want them."

"Perhaps not. Anyway, I'm thinking of shifting the boy around to fifth position.

There's a little tangling of the cords."

"Whatever you want. I'd like to see her. 'Army,' I mean."

"Do you want a picture, or should I move her?"

"Move her." She knew it was only a semantic quibble as to whether she would actually "see" her child. The projection Equinox could provide would look just as real, hanging in space. But she wanted the picture to coincide with the feel she was getting of the baby against her skin.

By undulating the inner surface of her body, Equinox was able to move the infant around the curve of Parameter's belly until she was visible. She was wet, but there was no blood; Equinox had already absorbed it all.

"I want to touch her with my hands," Parameter thought.

"Go ahead. But don't forget there's another coming in a few minutes."

"Hold it up. I want to enjoy this one first."

She put her hands on the invisible surface of Equinox and they sank in until she was holding the child. It stirred and opened its mouth, but no sound came. There seemed to be no trauma involved for the brand-new human being; she moved her arms and legs slowly but seemed content to lie still for the most

part. Compared to most human children, she hadn't really been born at all. Parameter tried to interest her in a nipple, but she didn't want it. She was the prettiest thing Parameter had ever seen.

"Let's get the next one out," she said. "This is so extravagant I still can't believe it. Five!"

She drifted into a wonderful haze as the others arrived, each as pretty as the last. Soon she was covered with tiny bodies, each still tied to an umbilicus.

The cords would be left in place until Equinox had finished her childbirth and had five semiautonomous baby Symbys to receive the children. Until then, the children were still a part of her. It was a feeling Parameter loved; she would never be closer to her children.

"Can you hear them yet?" Equinox asked.

"No, not yet."

"You'll have to wait a while longer for mind contact. I'm tuning out. Are you all right? I shouldn't be longer than about two hours."

"Don't worry about me. I'll be fine. In fact, I've never been happier." She stopped verbalizing and let a wave of intense love flood over her; love for her invisible mate. It was answered by such an outpouring of affection that Parameter was in tears. "I love you, earthmother," she said.

"And you, sunshine."

"I hope it'll be as good for you as it was for me."

"I wish I could share it with you. But back to business. I really think we've shaken the hunters. There's been no signal from them for an hour, and their projected path is well away from us. I think we'll be safe, at least for a few hours."

"I hope so. But don't worry about me. I'll get along while you're away. I'm not scared of the dark."

"I know. It won't be for long. See you later."

Parameter felt her mate slipping away. For a moment she was afraid, but not of the dark. She was afraid of the loneliness. Equinox would be unavailable to her for the time it took to give birth to her children, and that meant she would be cut off from the outside. That didn't matter, but the absence of Equinox from Parameter's mind was a little frightening. It recalled an unpleasant incident in her past.

But as the lights faded she realized she was not alone. Cut off from sight, sound, smell, and taste by the shutdown of Equinox's interpretative faculties, she still had touch, and that was enough.

She floated in total darkness and felt the sharp tingle as a mouth found a nipple and began to suck. Imperceptibly, she drifted into sleep.

She awoke to a vague feeling of discomfort. It was small and nagging, and impossible to ignore. She felt in her mind for Equinox, and couldn't find her.

So she was still in the process of giving birth.

But the feeling persisted. She felt helpless in the dark, then she realized it wasn't totally dark. There was a faint pinkness, like looking into closed eyelids. She could not account for it. Then she knew what was wrong, and it was worse than she could have imagined. The babies were gone.

She felt over her body with increasing panic, but they were nowhere to be found.

Before her panic overwhelmed her, she tried to think of what could have happened that would have separated them, and all she could come up with was the hunters.

But why would they take the babies? Then she lost control; there was nothing she could do in the darkness without Equinox to create the universe for her.

She was drawn back to rationality by a thought so black she could hardly credit it. In torment, she opened her eyes.

She could see.

She was floating in the center of a room hollowed out of bare rock. There was another person in the room, or rather another symbiote; all she could see was the dark-green, curved form of the Symb.

"Equinox!" she yelled, and heard herself. In a dream, she looked down at her body and felt the bare reality of it. She touched herself; there was no resistance. She was alone. Half of her was gone.

Her mind was dissolving; She watched it go, and knew it to be preferable to facing life without Equinox. She said good-bye to the last shreds of reality, rolled her eyes up into her head, and swallowed her tongue.

The figure looked like a cartoon of a human drawn by a three-year-old, one who was confused about sex. The broad shoulders and bullish neck were ludicrously like the build of a weightlifter, and the narrowing waist and bulbous ass were a moron's idea of a well-built woman. He was green, and featureless except for an oval opening where his mouth should have been.

"Just why do you want to become a Ringer?" The sound issued from the hole in his "face."

Parameter sighed and leaned back in her chair. The operation at Titan was anything but efficient. She had spent three days talking to people who had been no help at all and finally found this man, who seemed to have the authority to give her a Symb. Her patience-never very long-was at an end.

"I should make a tape," she said. "You're the fourth bastard who's asked me that today."

"Nevertheless, I must have your answer. And why don't you keep the smart remarks to yourself? I don't need them. For two cents I'd walk out of here and forget about you."

"Why don't you? I don't think you can even get out of that chair, much less walk out of here. I never expected anything like this. I thought you Consers wanted new people, so why are you giving me such a runaround? I might get up and walk out myself. You people aren't the only Ringers."

He proved her wrong by rising from the chair. He was awkward but steady, and, even more interesting, there was something in his hand that could only be a gun.

She was amazed. He was sitting in a bare room, and had been empty-handed.

Suddenly there was this gun, out of nowhere.

"If you mean that you're thinking of going over to the Engineers, it's my duty to blow your brains out. You have ten seconds to explain yourself." There was no trace of anger. The gun never wavered.

She swallowed hard, keeping very still.

"Uh, no, that's not what I meant."

The gun dropped slightly.

"It was a foolish remark," she said, her ears burning with shame and anger. "I'm committed to the Conservationists."

The gun vanished into the Symb he was wearing. It could still be in his hand for all she could tell.

"Now you can answer my question."

Keeping her anger rigidly in check, she started her story. She was quite good at it by now, and had it condensed nicely. She recited it in a singsong tone that the interrogator didn't seem to notice.

"I am seventy-seven Earth years old, I was born on Mercury, the Helios Enclave, the child of an extremely wealthy energy magnate. I grew up in the rigid, confining atmosphere that has always existed in Mercury, and I hated it. When I turned twelve, my mother gave me twenty percent of her fortune and said she hoped I'd use it wisely. Luckily for me, I was an adult and beyond her reach, because I disappointed her badly.

"I bought passage on the first ship leaving the planet, which happened to be going to Mars. For the next sixty years I devoted myself to experiencing everything the human organism can experience and still survive.

"It would be tedious and overlong to tell you everything I did, but so you won't think I'm hiding something, I can give you a random sample.

"Drugs: I tried them all. Some only once. Others for years at a time. I had to have my personality rebuilt three times and lost a lot of memory in the process.

"Sex: with two, three, four partners; seven partners; thirty partners; three hundred partners. All-week orgies. Men, women, girls, boys. Infants. Elephants.

Pythons. Corpses. I changed sex so many times I'm not sure if I grew up as a male or a female.

"I killed a man. I got away with it. I killed a woman and got away again. I got caught the third time and spent seven years in rehabilitation.

"I traveled. I went to the Belt, to Luna, to the moons of Saturn, Uranus, Neptune. I went to Pluto, and beyond with a holehunter.

"I tried surgery. I joined up with a pair-cult and was connected for a year to another woman as a Siamese twin. I tried out weird new organs and sex systems. I tried on extra limbs.

"A few years ago I joined a passivity cult. They believed all action was meaningless, and demonstrated

it by having their arms and legs amputated and relying on the mercy of random strangers to feed them and keep them alive. I lay for months in the public square beneath Coprates. Sometimes I went hungry and thirsty. Sometimes I stewed in my own filth; then someone would clean me up, usually with a stern lecture to quit this way of life and go straight. I didn't care.

"But the second time a dog used me for a urinal, I gave it up. I asked someone to carry me to a doctor, and walked out a changed woman. I decided I had done everything and had better start looking for an elaborate and original suicide. I was so bored, so jaded, that breathing seemed like too much of a bother.

"Then I thought of two places I'd never been: the sun and the Rings. The sun is the fancy suicide I told you about. The only way to get to the Rings is in a Symb. I tend to sympathize with you people over the Engineers. So here I am."

She settled back in her chair. She was not optimistic about being allowed to join the Conservationist Church, and was already planning ways to get over to the Engineers. If there was ever an unprepossessing story, it was hers, and she knew it. These Consers were supposed to be dedicated people, and she knew she couldn't present a very convincing line. In point of fact, she didn't give any thought at all to the Grand Design of the Engineers. Why should she care if a band of religious fanatics were trying to paint one of Saturn's Rings?

"The next to the last statement was a lie," the man informed her.

"Right," she spat. "You self-righteous bastards. It's the custom in polite society to inform someone when they're undergoing a lie-detector test. Even ask their consent." She got up to go.

"Please sit down, Parameter." She hesitated, then did so.

"It's time some false impressions were cleared up. First, this is not 'polite society,' this is war. Religious war, which is the dirtiest kind. We do what we have to in the interest of security. The sole purpose of this interview was to determine if your story was true. We don't care what you have done, as long as you haven't been consorting with our enemy. Have you?"

"No."

"That is a true statement. Now for the other mistake. We are not self-righteous bastards. We're pragmatists. And we're not religious fanatics, not really, though we all come to believe deeply in what we're doing out here. And that brings us to the third mistake. The primary reasons we're out here have little to do with defeating the Engineers. We're all out here for our own personal reasons, too."

"And what are they?"

"They're personal. Each of us had a different reason for coming. You are out here to satisfy the last dregs of a jaded appetite; that's a common reason. You have some surprises coming up, but you'll stay. You'll have to. You won't be able to bear leaving. And you'll like it. You might even help us fight the Engineers."

She looked at him with suspicion.

"We don't care why you're out here. Your story doesn't impress me one way or the other. You probably expected condemnation or contempt. Don't flatter yourself.

As long as you're not here to help paint Ring Beta red, we don't care."

"Then when do I get a Symb?"

"As soon as you can undergo a bit of surgery." For the first time he unbent a little. The corners of the slit that covered his mouth bent up in a silly attempt at a smile. "I must confess that I was interested by one thing you said.

How do you have sex with an elephant?"

Parameter kept a perfectly straight face.

"You don't have sex with an elephant. The best you can do is have sex at an elephant."

The Symb was a soft-looking greenish lump in the center of the room. With the best will in the world, Parameter could not see that it resembled anything so much as a pile of green cow manure. It was smaller than she had expected, but that was because it had no occupant. She was about to remedy that.

She stumped over to it and looked down dubiously. She had no choice but to walk awkwardly; her legs were no longer built for walking. They had been surgically altered so that the best she could do was



a grotesque bowlegged prancing, stepping high so her long fingers would clear the floor. She was now ideally suited for a weightless existence. In a gravitational field, she was clumsy beyond belief.

The man who had interviewed her, whom she now knew by the name of Bushwacker, was the only other occupant of the room. He handled himself better than she did, but only slightly. He was itching to get back to the Rings; this base duty galled him. Gravity was for poor flatfoots.

"Just touch it, that's all?" she said. Now that it had come to it, she was having second thoughts.

"That's right. The Symb will do the rest. It won't be easy. You'll have between six weeks and three months of sensory deprivation while the personality develops. You'd go crazy in two days, but you won't be alone. All you'll have to hang on to will be the mind of the Symb. And it'll be a baby, hard to get along with. You'll grow up together."

She took a deep breath, wondering why she was so reluctant. She had done things easily that were much more repulsive than this. Perhaps it was the dawning realization that this would be much more than a simple lark. It could last a long time.

"Here goes." She lifted her leg and touched one of her ped-fingers to the blob.

It stuck. The Symb slowly began stirring.

The Symb was... warm? No, at first she thought so, but it would be more accurate to say it was no temperature at all. It was thirty-seven degrees: blood temperature. It oozed up her leg, spreading itself thinner as it came. In a short time it was inching up her neck.

"Inhale," Bushwacker advised. "It'll help a little."

She did so, just as the Symb moved over her chin. It moved over her mouth and nose, then her eyes.

There was a moment of near-panic when part of her brain told her she must take a breath, and she dutifully tried to. Nothing happened, and she wanted to scream.

But it was all right. She didn't need to breathe. When she opened her mouth the Symb flowed down her throat and trachea. Soon her lungs were filled with the interface tissue whose function it was to put oxygen in her blood and remove carbon dioxide. It filled her nasal passages, slithered up the eustachian tube to her inner ear. At that point she lost her balance and fell to the floor. Or she thought she did; she could no longer be sure. She had felt no impact. A wave of dizziness swept over her; she wondered what a Symb would do about vomiting.

But it didn't happen, and she suspected it never would.

It was a shock, even though she had expected it, when the Symb entered her anus and vagina. Not a bad shock. Rather a thrill, actually. It filled the spaces in her uterus, wound into the urethra to fill the bladder, then up the ureter to mingle with the kidneys. Meanwhile another tendril had filled the large and small intestine, consuming the nutrients it found there, and joined with the tendril coming from her mouth. When it was done, she was threaded like the eye of a serpentine needle, and was revealed to any that could see as a topological example of a torus.

The silence closed in. It was absolutely quiet for a period of time she was powerless to measure, but couldn't have been longer than five minutes.

The obvious place where the human brain is accessible without violating any solid membranes is alongside the eyeball and through the supraorbital foramen.

But the Symb would not be able to get a very substantial tendril through in the tight confines of the eye. So the genetic engineers, elaborating on the basic design for oxygen breathers received over the Ophiuchi Hotline, had given the Symb the capability of forcing an entry through the top of the skull.

Parameter felt a twinge of pain as a two-centimeter hole was eaten in the top of her head. But it subsided as the Symb began to feel out the proper places to make connections. The Symb was still a mindless thing, but was guided infallibly by the carefully designed instinct built into it.

Suddenly she was surrounded by fear; childish, inconsolable fear that frightened her out of her wits but did not come from her mind. She fought it, but it only became more insistent. In the end, she abandoned herself to it and cried like a baby. She became an infant, sloughing off her seventy-odd years there in the impalpable darkness like they had never happened.

There was nothing; nothing but two very lost voices, crying in the void.

There had been a debate raging for centuries as to whether the Symbiotic Space-Environment

Organisms were really a form of artificial intelligence. (Or alien intelligence, depending on your definition.) The people who lived in them were unanimously of the opinion that they were. But the other side—who were mostly psychologists—pointed out that the people who actually lived in them were in the worst possible place to judge. Whatever one's opinion on the subject, it was based on personal prejudice, because there could be no objective facts.

The Symb was genetically tailored organisms that could provide a complete, self-contained environment for a single human being in space. They thrived on human waste products: urine, feces, heat, and carbon dioxide.

They contained several chlorophyll-like enzymes and could accomplish photosynthesis utilizing the human's body heat, though at a low efficiency. For the rest of the energy needs of the pair, the Symb could use sunlight. They were very good at storing energy in chemical compounds that could be broken down later at need. Together with a human, a Symb made a self-contained heat engine.

They were a closed ecology, neither host nor parasite: a symbiosis.

To the human being, the Symb was a green pasture, a running brook, a fruit tree, an ocean to swim in. To the Symb, the human was rich soil, sunshine, gentle rain, fertilizer, a pollinating bee. It was an ideal team. Without the other, each was at the mercy of elaborate mechanical aids to survive. Humans were adapted to an environment that no longer existed for their use in a natural state; wherever humans lived since the occupation of the Earth, they had to make their own environment. Now the Symb was to provide that environment free of charge.

But it hadn't worked that way.

The Symb was more complicated than they looked. Humans were used to taking from their surroundings, bending or breaking them until they fit human needs.

The Symb required more of humanity; they made it necessary to give.

When inside a Symb, a human was cut off entirely from the external universe. The human component of the symbiosis had to rely on the Symb's faculties. And the sensory data were received in an unusual way.

The Symb extended a connection directly into the human brain and fed data into it. In the process, it had to get tied up in the brain in such a way that it could be difficult to say where human left off and Symb began. The Symb reorganized certain portions of the human brain, freeing its tremendous potential for computation and integration, and using those abilities to translate the sensory data into pictures, sounds, tastes, smells, and touches, going directly through the sensorium. In the process, a mind was generated.

The Symb had no brain of its own, it merely was able to utilize the human brain on a time-sharing basis, and utilize it better than its original owner had been able to. So it would seem impossible that it could have a mind of its own. But every Ringer in the system would swear it had. And that was the crux of the debate: Was it actually an independent mind, parasitically using the human brain as its vehicle for sentient thought, or was it merely schizophrenia, induced by isolation and projection?

It was impossible to decide. Without a human inside it, there is nothing more helpless than a Symb. Without the human brain in combination with the genetic information and enzymatically coded procedures, the Symb can do no more than lie there inert like the green turd it so closely resembles. It has only rudimentary musculature, and doesn't even use that when alone. There is no good analogy for a Symb without a human; nothing else is so dependent on anything else.

Once combined with a human, the pair is transformed, becoming much more than the sum of its parts. The human is protected against the harshest environment imaginable. The livable range with a Symb extends from just outside the orbit of Earth (radiation limit) to the orbit of Neptune (sunlight limit). The pair feed each other, water each other, and respire each other. The human brain is converted into a supercomputer. The Symb has radio and radar sender and receiver organs, in addition to sensors for radiation and the electromagnetic spectrum from one thousand to sixteen thousand angstroms. The system can gain mass by ingesting rock and ice and the Symb can retain the valuable minerals and water and discard the rest. About all the pair cannot do is change velocity without a chunk of rock to push against. But it is a small matter to carry a rocket thruster instead of the whole apparatus of a space suit. In the Rings, they didn't even do that. The Symb could manufacture enough gas for attitude control.

For major velocity changes, the Ringers carried small bottles of compressed gas.

So why weren't all humans in space installed in Symb's?

The reason was that the Symb's needed more than most people were willing to give.

It wasn't a simple matter of putting it on when you needed it and taking it off later. When you took off your Symb, the Symb ceased to exist.

It was probably the heaviest obligation a human ever had to face. Once mated with a Symb, you were mated for life. There had never been a closer relationship; the Symb lived inside your mind, was with you even when you slept, moving independently through your dreams. Compared with that, Siamese twins were utter strangers who pass in the night.

It was true that all the humans who had ever tried it swore they hadn't even been alive before they joined their Symb. It looked attractive in some ways, but for most people the imagined liabilities outweighed the gains. Few people are able to make a commitment they know will be permanent, not when permanent could mean five or six hundred years.

After an initial rush of popularity the Symb craze had died down. Now all the Symb's in the system were in the Rings, where they had made possible a nomadic existence never before known.

Ringers are loners by definition. Humans meet at long intervals, mate if they are of a mind to, and go their separate ways. Ringers seldom see the same person twice in a lifetime.

They are loners who are never alone.

"Are you there?" ?????

"I can sense you. We have to do something. I can't stand this darkness, can you?"

Listen: Let there be light!" ?????

"Oh, you're hopeless. Why don't you get lost?"

Sorrow. Deep and childish sorrow. Parameter was drawn into it, cursing herself and the infantile thing she was caught with. She tried for the thousandth time to thrash her legs, to let someone out there know she wanted out. But she had lost her legs. She could no longer tell if she was moving them.

From the depths of the Symb's sorrow, she drew herself up and tried to stand away from it. It was no use. With a mental sob, she was swallowed up again and was no longer able to distinguish herself from the infant alien.

Her chest was rising and falling. There was an unpleasant smell in her nostrils.

She opened her eyes.

She was still in the same room, but now there was a respirator clamped to her face, forcing air in and out of her lungs. She rolled her eyes and saw the grotesque shape of the other person in the room with her. It floated, bandy legs drawn up, hands and peds clasped together.

A hole formed in the front of the blank face.

"Feeling any better?"

She screamed and screamed until she thankfully faded back into her dream world.

"You're getting it. Keep trying. No, that's the wrong direction; whatever you were doing just then, do the opposite."

It was tentative; Parameter hadn't the foggiest idea of what opposite was, because she hadn't the foggiest idea of what the little Symb was doing in the first place. But it was progress. There was light. Faint, wavering, tentative; but light.

The undefined luminance flickered like a candle, shimmered, blew out. But she felt good. Not half as good as the Symb felt; she was flooded by a proud feeling of accomplishment that was not her own. But, she reflected, what does it matter if it's my own or not? It was getting to where she no longer cared to haggle about whether it was she who felt something or the Symb. If they both had to experience it, what difference did it make?

"That was good. We're getting there. You and me, kid. We'll go places. We'll get out of this mess yet."

Go? Fear. Go? Sorrow. Go? Anger?

The emotions were coming labeled with words now, and they were extending in range.

"Anger? Anger, did you say? What's this? Of course, I want to get out of here, why do you think we're going through this? It ain't easy, kid. I don't remember anything so hard to get a grip on since I tried

to control my alpha waves, years ago. Now wait a minute..." Fear, fear, fear. "Don't do that, kid, you scare me.

Wait. I didn't mean it..." Fear, fear loneliness, fear, FEAR! "Stop! Stop, you're scaring me to death, you're..." Parameter was shivering, becoming a child again.

Black, endless fear. Parameter slipped away from her mind; fused with the other mind; chided herself; consoled herself; comforted herself; loved herself.

"Here, take some water, it'll make you feel better."

"Ggggwwway."

"What?"

"Goway. Gway. Goaway. GO. A. WAY!"

"You'll have to drink some water first. I won't go away until you do."

"Go 'way. Murder. Murder'r."

Parameter was at a loss.

"Why, why won't you do it? For me. Do it for Parameter."

Negation.

"You mean 'no.' Where do you get those fancy words?"

Your memory. No. Will not do it.

Parameter sighed, but she had acquired patience, infinite patience. And something else, something that was very like love. At least it was a profound admiration for this spunky kid. But she was still scared, because the Symb was beginning to win her over and it was only with increasing desperation that she hung onto her idea of getting the child to open the outside world so she could tell someone she wanted out.

And the desperation only made matters worse. She couldn't conceal it from the Symb, and the act of experiencing communicated it in all its raw, naked panic.

"Listen to me. We've got to get off this merry-go-round. How can we talk something over intelligently if I keep communicating my fear to you, which makes you scared, which scares me, which makes you panicky, which scares me more, which... now stop that!"

Not my fault. Love, love. You need me. You are incomplete without me. I need commitment before I'll cooperate.

"But I can't. Can't you see I have to be me? I can't be you. And it's you who's incomplete without me, not the way you said."

Wrong. Both incomplete without the other. It's too late for you. You are no longer you. You are me, I am you.

"I won't believe that. We've been here for centuries, for eons. If I haven't accepted you yet, I never will. I want to be free, in time to see the sun burn out."

Wrong. Here for two months. The sun is still burning.

"Aha! Tricked you, didn't I? You can see out, you're further along than you told me. Why did you trick me like that? Why didn't you tell me you knew what time it was? I've been aching to know that. Why didn't you tell me?"

You didn't ask.

"What kind of answer is that?"

An honest one.

Parameter simmered. She knew it was honest. She knew she was belaboring the child, who couldn't tell a lie any more than she could. But she clung to her anger with the sinking feeling that it was all she had left of herself.

You hurt me. You are angry. I've done nothing to you. Why do you hate me? Why? ????? I love you. I'm afraid you'll leave me.

"I... I love you. I love you, godhelpme, I really do. But that's not me. No!

It's something else. I don't know what yet, but I'll hang on. Hang on to it.

Hang on to it."

Where are you?

Parameter?

"I'm here. Go away."

"Go away."

"You have to eat something. Please, try this. It's good for you. Really it is.

Try it."

"Eat!" She turned in the air with sudden cramps of hunger and revulsion. She retched up stale air and thin fluid. "Get away from me. Don't touch me. Equinox!

Equinox!"

The figure touched her with its hand. The hand was hard and cold.

"Your breasts," he said. "They've been oozing milk. I was wondering..."

"Gone. All gone."

Parameter.

"What is it? Are you ready to try again with that picture?"

No. No need. You can go.

"Huh?"

You can go. I can't keep you. You think you are self-sufficient; maybe you're right. You can go.

Parameter was confused.

"Why? Why so sudden?"

I've been looking into some of the concepts in your memory. Freedom.

Self-determination. Independence. You are free to go.

"You know what I think, what I really think about those concepts, too. Unproven at best. Fantasies at worst."

You are cynical. I recognize that they may indeed be real, so you should be free. I am detaining you against your will. This is contrary to most ethical codes, including the ones you accept more than any others. You are free to go.

It was an awkward moment. It hurt more than she would have thought possible. And she was unsure of whose hurt she was feeling. Not that it mattered.

What was she saying? Here was what might be her one and only chance, and she was acknowledging what the kid had said all along, that they were already fused. And the kid had heard it, like she heard everything.

Yes, I heard it. It doesn't matter. I can hear your doubts about many things. I can feel your uncertainty. It will be with you always.

"Yes. I guess it will. But you. I can't feel much from you. Not that I can distinguish."

You feel my death.

"No, no. It isn't that bad. They'll give you another human. You'll get along.

Sure you will."

Perhaps. Despair. Disbelief.

Parameter kicked herself in the mental butt, told herself that if she didn't get out now, she never would.

"Okay. Let me out."

Fade. A gradual withdrawal that was painful and slow as the tendril began to disengage. And Parameter felt her mind being drawn in two.

It would always be like that. It would never get any better.

"Wait, kid. Wait!"

The withdrawal continued.

"Listen to me. Really! No kidding, I really want to discuss this with you. Don't go."

It's for the best. You'll get along.

"No! No more than you will. I'll die."

No you won't. It's like you said; if you don't get out now, you never will.

You'll... all right... bye...

"No! You don't understand. I don't want to go anymore. I'm afraid. Don't leave me like this. You can't leave me."

Hesitation.

"Listen to me. Listen. Feel me. Love. Love. Commitment, pure and honest commitment-forever-and-ever-till-death-us-do-part. Feel me."

"I feel you. We are one."

She had eaten, only to bring it back up. But her jailer was persistent. He was not going to let her die.

"Would it be any better if you got inside with me?"

"No. I can't. I'm half gone. It would be no good. Where is Equinox?"

"I told you I don't know. And I don't know where your children are. But you won't believe me."

"That's right. I don't believe you. Murderer."

She listened groggily as he explained how she came to be in this room with him.

She didn't believe him, not for a minute.

He said he had found her by following a radio beacon signaling from a point outside the plane of the Rings. He had found a pseudosymb there; a simplified Symb created by budding a normal one without first going through the conjugation process. A pseudo can only do what any other plant can do: that is, ingest carbon dioxide and give out oxygen from its inner surface. It cannot contract into contact with a human body. It remains in the spherical configuration. A human can stay alive in a pseudosymb, but will soon die of thirst.

Parameter had been inside the pseudo, bruised and bleeding from the top of her head and from her genitals. But she had been alive. Even more remarkable, she had lived the five days it had taken to get her to the Conser emergency station.

The Consers didn't maintain many of the stations. The ones they had were widely separated.

"You were robbed by Engineers," he said. "There's no other explanation. How long have you been in the Rings?"

After the third repeat of the question, Parameter muttered, "Five years."

"I thought so. A new one. That's why you don't believe me. You don't know much about Engineers, do you? You can't understand why they would take your Symb and leave you alive, with a beacon to guide help to you. It doesn't make sense, right?"

"I... no, I don't know. I can't understand. They should have killed me. What they did was more cruel."

No emotion could be read on the man's "face," but he was optimistic for the first time that she might pull through. At least she was talking, if fitfully.

"You should have learned more. I've been fighting for a century, and I still don't know all I'd like to know. They robbed you for your children, don't you see? To raise them as Engineers. That's what the real battle is about: population. The side that can produce the most offspring is the one that gains the advantage."

"I don't want to talk."

"I understand. Will you just listen?"

He took her lack of response to mean she would.

"You've just been drifting through your life. It's easy to do out here; we all just drift from time to time. When you think about the Engineers at all, it's just a question of evading them. That isn't too hard. Considering the cubic kilometers out here, the hunted always has the advantage over the hunter. There are so many places to hide; so many ways to dodge.

"But you've drifted into a rough neighborhood. The Engineers have concentrated a lot of people in this sector. Maybe you've noticed the high percentage of red rocks. They hunt in teams, which is not something we Consers have ever done.

We're too loose a group to get together much, and we all know our real fight doesn't begin for another thousand years.

"We are the loosest army in the history of humanity. We're volunteers on both sides, and on our side, we don't require that individuals do anything at all to combat the Engineers. So you don't know anything about them, beyond the fact that they've vowed to paint Ring Beta red within twenty-five thousand years."

He at last got a rise out of her.

"I know a little more than that. I know they are followers of Ringpainter the Great. I know he lived almost two hundred years ago. I know he founded the Church of Cosmic Engineering."

"You read all that in a book. Do you know that Ringpainter is still alive? Do you know how they plan to paint the Ring? Do you know what they do to Consers they catch?"

He was selective in his interpretations. This time he took her silence to mean she didn't know.

"He is alive. Only he's a she now. Her 'Population Edict' of fifty years ago decreed that each Engineer shall spend ninety percent of her time as a female, and bear three children every year. If they really do that, we haven't got a chance. The Rings would be solid Engineers in a few centuries."

She was slightly interested for the first time in weeks.

"I didn't know it was such a long-term project."

"The longest ever undertaken by humans. At the present rate of coloring, it would take three million years to paint the entire Ring. But the rate is accelerating."

He waited, trying to draw her out again, but she lapsed back into listlessness.

He went on.

"The one aspect of their religion you don't seem to know about is their ban on killing. They won't take a human or Symb life."

That got her attention.

"Equinox! Where..." she started shaking again.

"She's almost certainly alive."

"How could they keep her alive?"

"You're forgetting your children. Five of them."

The last thing anyone said to Parameter for two years was, "Take this, you might want to use it. Just press it to a red rock and forget about it. It lasts forever."

She took the object, a thin tube with a yellow bulb on each end. It was a Bacteriophage Applicator, filled with the tailored DNA that attacked and broke down the deposits of red dust left by the Engineers' Ringvirus. Touching the end of it to a coated rock would begin a chain reaction that would end only when all the surface of the rock was restored to its original color.

Parameter absently touched it to her side, where it sank without a trace in the tough integument of Equinox's outer hide. Then she shoved out the airlock and into fairyland.

"I never saw anything like this, Equinox," she said.

"No, you certainly haven't." The Symb had only Parameter's experiences to draw on.

"Where should we go? What's that line around the sky? Which way is it to the Ring?"

Affectionate laughter. "Silly planteater. We're in the Ring. That's why it stretches all around us. All except over in that direction. The sun is behind that part of the Ring, so the particles are illuminated primarily from the other side. You can see it faintly, by reflected light."

"Where did you learn all that?"

"From your head. The facts are there, and the deductive powers. You just never thought about it."

"I'm going to start thinking a lot more. This is almost frightening. I repeat:

Where do we go from here?"

"Anywhere at all, as long as it's away from this awful place. I don't think I want to come back to the Ringmarket for about a decade."

"Now, now," Parameter chided her. "Surely we'll have to go back before that."

Aren't you feeling the least bit poetic?"

The Ringmarket was the clearinghouse for the wildly variant and irresistibly beautiful art that was the byproduct of living a solitary life in the Rings. Art brokers, musicmongers, poetry sellers, editors, moodmusic vendors... all the people who made a living by standing between the artist and the audience and raking off a profit as works of art passed through their hands; they all gathered at the Ringmarket bazaar and bought exquisite works for the equivalent of pretty-colored beads. The Ringers had no need of money. All exchanges were straight barter: a fresh gas bottle for a symphony that would crash through the mind with unique rhythms and harmonies. A handful of the mineral pellets the Ringers needed every decade to supply trace elements that were rare in the Rings could buy a painting that would bring millions

back in civilization. It was a speculative business. No one could know which of the thousands of works would catch the public taste at high tide and run away with it. All the buyers knew was that for unknown reasons the art of the Rings had consistently captured the highest prices and the wildest reviews. It was different. It was from a whole new viewpoint.

"I can't feel poetic back there. Besides, didn't you know that when we start to create, it will be music?"

"I didn't know that. How do you know?"

"Because there's a song in my heart. Off-key. Let's get out of here."

They left the metallic sphere of the market and soon it was only a blue vector line, pointed away from them.

They spent two years just getting used to their environment. The wonder never wore off. When they met others, they avoided them. Neither was ready for companionship; they had all they needed.

She was sinking, and glad of it. Every day without Equinox was torture. She had come to hate her jailer, even if his story was true. He was keeping her alive, which was the cruelest thing he could do. But even her hatred was a weak and fitful thing.

She stared into the imaginary distance and seldom noticed his comings and goings.

Then one day there were two of them. She noted it dispassionately, watched as they embraced each other and began to flow. So the other person was a female; they were going to mate. She turned away and didn't see, as the two Symbs merged in their conjugation process and slowly expanded into a featureless green sphere within which the humans would couple silently and then part, probably forever.

But something nagged at her, and she looked back. A bulge was forming on the side of the sphere that was facing her. It grew outward and began to form another, smaller sphere. A pink line formed the boundary between the two globes.

She looked away again, unable to retain an interest as the Symbs gave birth. But something was still nagging.

"Parameter."

The man (or was it the woman?) was floating beside her, holding the baby Symb.

She froze. Her eyes filled with horror.

"You're out of your mind."

"Maybe. I can't force it on you. But it's here. I'm going now, and you'll never see me again. You can live or die, whichever you choose. I've done all I can."

It was a warm day in the Upper Half. But then it was always a warm day, though some were warmer than others.

Ringography is an easy subject to learn. There are the Rings: Alpha, Beta, and the thin Gamma. The divisions are called Cassini and Encke, each having been created by the gravitational tug-of-war between Saturn and the larger moons for possession of the particles that make up the Rings. Beyond that, there is only the Upper Half and the Lower Half, above and below the plane, and Inspace and Outspace. The Ringers never visited Inspace because it included the intense Van Allen-type radiation belts that circle Saturn. Outspace was far from the traveled parts of the Rings, but was a nice place to visit because the Rings were all in one part of the sky from that vantage point. An odd experience for children, accustomed from birth to see the sky cut in half by the Rings.

Parameter was in the Upper Half to feed on the sunlight that was so much more powerful there than in the Rings. Equinox was in her extended configuration. The pair looked like a gauzy parabolic dish, two hundred meters across. The dish was transparent, with veins that made it look like a spider web. The illusion was heightened by the small figure spread-eagled in the center of it, like a fly.

The fly was Parameter.

It was delicious to float there. She looked directly at the sun, which was bright even this far away and would have burned her eyes quickly if she had been really looking at it. But she saw only a projection. Equinox's visual senses were not nearly as delicate as human eyes.

The front of her body was bathed in radiance. It was highly sensual, but in a new way. It was the mindless joy of a flower unfolding to the sun that Parameter experienced, not the hotter animal passions she was used to. Energy coursed through her body and out into the light-gathering sheets that Equinox



had extended. Her mind was disconnected more completely than she would have believed possible. Her thoughts came hours apart, and were concerned with sluggish, vegetable pleasures. She saw herself as naked, exposed to the light and the wind, floating in the center of a silver circle of life. She could feel the wind on her body in this airless place and wondered vacantly how Equinox could be so utterly convincing in the webs of illusion she spun.

There was a sudden gust.

"Parameter. Wake up, my darling."

"Hmmm?"

"There's a storm coming up. We've got to furl the sails and head into port."

Parameter felt other gusts as she swam through the warm waters back to alertness.

"How far are we from the Ring?"

"We're all right. We can be there in ten minutes if I tack for a bit and then use a few seconds of thrust."

In her extended configuration, Equinox was a moderately efficient solar sail. By controlling the angle she presented to the incoming sunlight she could slowly alter velocity. All Parameter had to do was push off above or below the Rings in a shallow arc. Equinox could bring them back into the Rings in a few days, using solar pressure. But the storm was a danger they had always to keep in mind.

It was the solar wind that Equinox felt, a cloud of particles thrust out from the sun by storms beneath the surface. Her radiation sensors had detected the first speed-of-light gusts of it, and the dangerous stuff would not be far behind.

Radiation was the chief danger of life in the Rings. The outer surface of a Symb was proof against much of the radiation the symbiotic pair would encounter in space. What got through was not enough to worry about, certainly never enough to cause sickness. But stray high-energy particles could cause mutations of the egg and sperm cells of the humans.

The intensity of the wind was increasing as they furled their sails and applied the gas thrusters.

"Did we get moving in time?" Parameter asked.

"There's a good margin. But we can't avoid getting a little hard stuff. Don't worry about it."

"What about children? If I want to have some later, couldn't that be a problem?"

"Naturally. But you'll never give birth to a mutation. I'll be able to see any deviations in the first few weeks and abort it and not even have to tell you."

"But you would tell me, wouldn't you?"

"If you want me to. But it isn't important. No more than the daily control I exert over any of your other bodily processes."

"If you say so."

"I say so. Don't worry; I said. You just handle the motor control and leave the busy work to me. Things don't seem quite real to me unless they're on the molecular level."

Parameter trusted Equinox utterly. So much so that when the really hard wind began buffeting them, she didn't worry for a second. She spread her arms to it, embraced it. It was strange that the "wind" didn't blow her around like a leaf.

She would have liked that. All she really missed was her hair streaming around her shoulders. She no longer had any hair at all. It got in the way of the seal between the two of them.

As soon as she thought it, long black hair whipped out behind her, curling into her face and tickling her eyes. She could see it and feel it against her skin, but she couldn't touch it. That didn't surprise her, because it wasn't there.

"Thank you," she laughed. And then she laughed even harder as she looked down at herself. She was covered with hair; long, flowing hair that grew as she watched it.

They reentered the Ring, preceded by a twisting, imaginary train of hair a kilometer long.

Three days later she was still staring at the floating ball.

On the fifth day her hand twitched toward it.

"No. No. Equinox. Where are you?"

The Symb was in its dormant state. Only an infant Symb could exist without a human to feed and water it; once it had become attached to a human, it would die very quickly without one. But in

dormancy, they could live for weeks at a low energy level. It only needed the touch of her hand to be triggered into action.

The hunger was eating its way through her body; she ignored it completely. It had become a fact of life, something she clutched to her to forget about the real hunger that was in her brain. She would never be forced to accept the Symb from hunger. It didn't even enter the question.

On the ninth day her hand began moving. She watched it, crying for Equinox to stop the movement, to give her strength.

She touched it.

"I think it's time we tried out the new uterus."

"I think you're right."

"If that thing out there is a male, we'll do it." Equinox had in her complex of capabilities the knack of producing a nodule within her body that could take a cloned cell and nurture it until it grew into a complete organ; any organ she wished. She had done that with one of Parameter's cells. She removed it, cloned it, and let it grow into a new uterus. Parameter's old one had run out of eggs long ago and was useless for procreation, but the new one was brimming with life.

She had operated on her mate, taking out the old one and putting in the new. It had been painless and quick; Parameter had not even felt it.

Now they were ready to have a seed planted in it. "Male," came the voice of the other figure. Before, Parameter would have answered by saying, "Solitude," and he would have gone on his way.

Now she said, "Female."

"Wilderness," he introduced himself.

"Parameter."

The mating ritual over, they fell silent as they drifted closer. She had computed it well, if a little fast. They hit and clung together with all their limbs. Slowly the Symbms melted into each other.

A sensation of pleasure came over Parameter. "What is it?"

"What do you think? It's heaven. Did you think that because we're sexless, we wouldn't get any pleasure out of conjugation?"

"I guess I hadn't thought about it. It's... different. Not bad at all. But nothing like an orgasm."

"Stick around. We're just getting started." There was a moment of insecurity as Equinox withdrew her connections, leaving only the one into her brain. She shuddered as an unfamiliar feeling passed over her, then realized she was holding her breath. She had to start respirating again. Her chest crackled as she brought long-unused muscles into play, but once the reflex was started she was able to forget about it and let her hindbrain handle the chore.

The inner surface started to phosphoresce, and she made out a shadowy figure floating in front of her. The light got brighter until it reached the level of bright moonlight. She could see him now.

"Hello," she said. He seemed surprised she wanted to talk, but grinned at her.

"Hello. You must be new."

"How did you know?"

"It shows. You want to talk. You probably expect me to go through an elaborate ritual." And with that he reached for her and pulled her toward him.

"Hold on there," she said. "I'd like to know you a little better first."

He sighed, but let her go. "I'm sorry. You don't know yet. All right, what would you like to know about me?"

She looked him over. He was small, slightly smaller than her. He was completely hairless, as was she. There didn't seem to be any way to guess his age; all the proper clues were missing. Growing out of the top of his head was a snaky umbilicus.

She discovered there was really little to ask him, but having made a point of it, she threw in a token question.

"How old are you?"

"Old enough. Fourteen."

"All right, let's do it your way." She touched him and shifted in space to accommodate his entry.

To her pleasant surprise, it lasted longer than the thirty seconds she had expected. He was an accomplished lover; he seemed to know all the right moves.

She was warming deliciously when she heard him in her head.

"Now you know," he said, and her head was filled with his laughter.

Everything before that, good as it was, had been just a warm-up.

Parameter and the baby Symb howled with pain.

"I didn't want you," she cried, hurling waves of rejection at the child and at herself. "All I want is Equinox."

That went on for an endless time. The stars burnt out around them. The galaxy turned like a whirligig. The universe contracted; exploded; contracted again.

Exploded. Contracted and gave it up as a waste of time. Time ended as all events came to an end. The two of them floated, howling at each other.

Wilderness drifted away against the swirling background of stars. He didn't look back, and neither did Parameter. They knew each other too well to need good-byes. They might never meet again, but that didn't matter either, because each carried all they needed of the other.

"In a life full of cheap thrills, I never had anything like that."

Equinox seemed absorbed. She quietly acknowledged that it had, indeed, been superduper, but there was something else. There was a new knowledge.

"I'd like to try something," she said.

"Shoot."

Parameter's body was suddenly caressed by a thousand tiny, wet tongues. They searched out every cranny, all at the same time. They were hot, at least a thousand billion degrees, but they didn't burn; they soothed.

"Where were you keeping that?" Parameter quavered when it stopped. "And why did you stop?"

"I just learned it. I was watching while I was experiencing. I picked up a few tricks."

"You've got more?"

"Sure. I didn't want to start out with the intense ones until I saw how you liked that one. I thought it was very nice. You shuddered beautifully; the delta waves were fascinating."

Parameter broke up with laughter. "Don't give me that clinical stuff. You liked it so much you scared yourself."

"That comes as close as you can come to describing my reaction. But I was serious about having things I think we'll like even better. I can combine sensations in a novel way. Did you appreciate the subtle way the 'heat' blended into the sensation of feathers with an electric current through them?"

"It sounds hideous when you say it in words. But that was what it was, all right. Electric feathers. But pain had nothing to do with it."

Equinox considered it. "I'm not sure about that. I was deep into the pain-sensation center of you. But I was tickling it in a new way, the same way Wilderness tickled you. There is something I'm discovering. It has to do with the reality of pain. All you experience is more a function of your brain than of your nerve endings. Pain is no exception. What I do is connect the two centers-pain and pleasure-and route them through other sensorium pathways, resulting in..."

"Equinox." ?????

"Make love to me."

She was in the center of the sun, every atom of her body fusing in heat so hot it was icy. She swam to the surface, taking her time through the plastic waves of ionized gas, where she grew until she could hold the whole sputtering ball in her hand and rub it around her body. It flicked and fumed and smoked, gigantic prominences responding to her will, wreathing her in fire and smoke that bit and tickled. Flares snaked into her, rearing nerves with needle-sharp pins of gas that were soft as a kiss. She was swallowed whole by something pink that had no name, and slid down the slippery innards to splash in a pool of sweet-smelling sulfur.

It melted her; she melted it. Equinox was there; she picked her up and hurled her and herself in a wave of water, a gigantic wave that was gigatons of pent-up energy, rearing itself into a towering breaker a

thousand kilometers high. She crashed on a beach of rubbery skin, which became a forest of snakes that squeezed her until the top of her head blew off and tiny flowers showered around her, all of them Equinox.

She was drawn back together from the far corners of the solar system and put into a form that called itself "Parameter" but would answer to anything at all.

Then she was rising on a rocket that thrust deep into her vagina, into recesses that weren't even there but felt like mirrors that showed her own face. She was a fusion warhead of sensation; primed to blow. Sparks whipped around her, and each was a kiss of electric feathers. She was reaching orbital velocity; solar escape velocity; the speed of light. She turned herself inside out and contained the universe. The speed of light was a crawl slower than any snail; she transcended it.

There was an explosion; an implosion. She drew away from herself and fell into herself, and the fragments of her body drifted down to the beach, where she and Equinox gathered them and put them in a pile of quivering parts, each smaller than an atom.

It was a long job. They took their time.

"Next time," Parameter suggested, "try to work in some elephants."

Someone had invented a clock. It ticked.

Parameter woke up.

"Did you do that?"

No answer.

"Shut the damn thing off."

The ticking stopped. She rolled over and went back to sleep. Around her, a trillion years passed.

It was no good; she couldn't sleep. "Are you there?" Yes.

"What do you think we ought to do?" Despair. We've lost Equinox. "You never knew her."

Part of her will always be with you. Enough to hurt you. We will always hurt.

"I want to live again."

Live with hurt?

"If there's no other way. Come on. Let's start. Try to make a light. Come on, you can do it. I can't tell you how; you have to do that yourself. I love you.

Blend with me, wash me clean, wipe out the memory."

Impossible. We cannot alter ourselves. I want Equinox.

"Damn you, you never knew her."

Know her as good as you. Better. In a way, I am Equinox. But in another way, I can never be.

"Don't talk in riddles. Merge with me."

Cannot. You do not love me yet.

"You want to sleep on it another few thousand years?"

Yes. You are much nicer when you are asleep.

"Is that an insult?"

No. You have loved me in your sleep. You have talked to me, you have taught me, given me love and guidance, grown me up to an adult. But you still think I'm Equinox. I'm not. I am me.

"Who is that?"

No name. I will have a name when you start really talking to me.

"Go to sleep. You confuse me."

Love. Affection. Rockabye, rockabye, rockabye.

"You have a name yet?"

"Yes. My name is Solstice."

Parameter cried, loud and long, and washed herself clean in her own tears.

It took them four years to work their way around to Ringmarket. They traded a song, one that had taken three years to produce, a sweet-sad dirge that somehow rang with hope, orchestrated for three lutes and synthesizer; traded it and a promise of four more over the next century to a tinpan alleycat for an elephant gun. Then they went out on a trail that was four years cold to stalk the memory of those long-ago pachyderm days.

In the way that an earlier generation of humans had known the shape of a hill, the placement of trees and flowers on it, the smell and feel of it; and another generation could remember at a glance what a street corner looked like; or still another the details of a stretch of corridor beneath the surface of the moon; in that same way, Parameter knew rocks. She would know the rock she had pushed off from on that final day just before Equinox was taken from her, the rock she now knew to have been an Engineer way-station. She knew where it had been going on that day, and how fast, and for how long. She knew where it would be now, and that was where she and Solstice were headed. The neighborhood would be different, but she could find that rock.

They found it, in only three years of search. She knew it instantly, knew every crevice and pit on the side she had landed on. The door was on the other side.

They picked a likely rock a few kilometers away and settled down for a long wait.

Seventy-six times Saturn turned below them while they used the telescopic sight of the gun to survey the traffic at the station. By the end of that time, they knew the routine of the place better than the residents did. When the time came for action they had worked over each detail until it was almost a reflex.

A figure came out of the rock and started off in the proper direction. Parameter squinted down the barrel of the gun and drew a bead. The range was extreme, but she had no doubt of a hit. The reason for her confidence was the long red imaginary line that she saw growing from the end of the barrel. It represented the distance the bullet would travel in one-thousandth of a second. The figure she was shooting at also had a line extending in front of it, not nearly so long. All she had to do was bring the ends of the two lines together and squeeze the trigger.

It went as planned. The gun was firing stunbullets, tiny harmonic generators that would knock out the pair for six hours. The outer hide of a Symb was proof against the kinetic energy contained in most projectiles, natural or artificial.

She didn't dare use a beam stunner because the Engineers in the station would detect it.

They set out in pursuit of the unconscious pair. There was no hurry; the longer it took to rendezvous, the farther they would be from danger.

It took five hours to reach them. Once in contact, Solstice took over. She had assured Parameter that it would be possible to fuse with an unconscious Symb, and she was right. Soon Parameter was floating in the dark cavity with the Engineer, a female. She put the barrel of the gun under the other's chin and waited.

"I don't know if I can do it, Solstice," she said.

"It won't be something you'll ever be proud of, but you know the reasons as well as I. Just keep thinking of Equinox."

"I wonder if that's a good idea? I'd rather do something for her that I would be proud of."

"Want to back out? We can still get away. But if she wakes up and sees us, it could get awkward if we let her live."

"I know. I have to do it. I just don't like it."

The Engineer was stirring. Parameter tightened her grip on the rifle.

She opened her eyes, looked around, and seemed to be listening. Solstice was keeping the other Symb from calling for help.

"I won't give you any trouble," the woman said. "But is it asking too much to allow me a few minutes for my death ritual?"

"You can have that and more if you're a fast talker. I don't want to kill you, but I confess I think I'll have to. I want to tell you some things, and to do it, I'll need your cooperation. If you don't cooperate, I can take what I need from you anyway. What I'm hoping is that there'll be some way you can show me that will make your death unnecessary. Will you open your mind to me?"

A light came into the woman's eyes, then was veiled. Parameter was instantly suspicious.

"Don't be nervous," the Engineer said, "I'll do as you ask. It was just something of a surprise." She relaxed, and Parameter eased herself into the arms of Solstice, who took over as go-between.

They had a lot staked on the outcome of this mutual revelation.

It came in a rush, the impalpable weight of the religious fervor and dedication.

And above it all, the Great Cause, the project that would go on long after everyone now alive was dead. The audacity of it! The vision of Humanity the mover, the controller, the artist; the Engineer. The universe would acknowledge the sway of Humanity when it gazed at the wonder that was being wrought in the Rings of Saturn.

Ringpainter the Great was a Utopian on a grand scale. He had been bitterly disappointed in the manner in which humanity had invaded the solar system. He thought in terms of terraforming and of shifting planets in their courses. What he saw was burrows in rock.

So he preached, and spoke of Dyson spheres and space arks, of turning stars on and off at will, of remodeling galaxies. To him and his followers, the universe was an immensely complex toy that they could do beautiful things with. They wanted to unscrew a black hole and see what made it tick. They wanted to unshift the red shift. They believed in continuous creation, because the big bang implied an end to all their efforts.

Parameter and Solstice reeled under the force of it; the conviction that this admittedly symbolic act could get humanity moving in the direction Ringpainter wanted. He had an idea that there were beings out there keeping score, and they could be impressed by the Grand Gesture. When they saw what a pretty thing Ring Beta had become, they would step in and give the forces of Ring-painter a hand.

The woman they had captured, whose name they learned was Rosy-Red-Ring 3351, was convinced of the truth of these ideas. She had devoted her life to the furtherance of the Design. But they saw her faith waver as she beheld what they had to show her. She cringed away from the shrunken, hardened, protectively encased memory of the days after the theft of Equinox. They held it up and made her look at it, peeling away the layers of forgetfulness they had protected themselves with and thrusting it at her.

At last they let her go. She crouched, quivering, in the air.

"You've seen what we've been."

"Yes." She was sobbing.

"And you know what we have to do to find Equinox. You saw that in my mind. What I want to know is, can this cup pass from us? Do you know another way? Tell me quick."

"I didn't know," she cried. "It's what we do to all the Consers we capture. We can't kill them. It's against the Law. So we separate them, keep the Symb, leave the human to be found. We know most of them are never found, but it's the best we can do. But I didn't know it was so bad. I never thought of it. I almost think-

"No need to think. You're right. It would be more merciful to kill the human. I don't know about the Symb. I'll have to talk to Equinox about that. At first I wanted to kill all the Engineers in the Rings, with a lot of care put into the project so they didn't die too quick. I can't do that any more. I'm not a Conser. I never was. I'm not anything but a seeker, looking for my friend. I don't care if you paint the Ring; go ahead. But I have to find Equinox, and I have to find my children. You have to answer my question now. Can you think of a way I can let you live and still do what I have to do?"

"No. There's no other way."

Parameter sighed. "All right. Get on with your ritual."

"I'm not sure if I want to any more."

"You'd probably better. Your faith has been shaken, but you might be right about the scorekeepers. If you are, I'd hate to be the cause of you going out the wrong way." She was already putting her distance between herself and this woman she would kill. She was becoming an object, something she was going to do something unpleasant to; not a person with a right to live.

Rosy-Red-Ring 3351 gradually calmed as she went through the motions of her auto-extreme unction. By the time she had finished she was as composed as she had been at the start of her ordeal.

"I've experienced the fullness of it," she said quietly. "The Engineers do not claim to know everything. We were wrong about our policy of separating symbiotic pairs. My only regret is that I can't tell anyone about our mistake." She looked doubtfully at Parameter, but knew it was useless. "I forgive you. I love you, my killer. Do the deed." She presented her white neck and closed her eyes.

"Umm," Parameter said. She had not heard her victim's last words; she had cut herself off and could

see only the neck. She let Solstice guide her hands. They found the pressure points as if by instinct, pressed hard, and it was just like Solstice had said it would be. The woman was unconscious in seconds. Now she must be kept alive for a few minutes while Solstice did what she had to do.

"Got it," came Solstice's shaken thought.

"Was it hard?" Parameter had kept away from it.

"Let's don't talk about it. I'll show it to you in about a decade and we can cry for a year. But I have it."

So the other Symb was already dead, and Solstice had been with it as it died.

Parameter's job would not be nearly so hard.

She put her thumbs on the woman's neck again, bent her ear to the chest. She pressed, harder this time. Soon the heartbeat fluttered, raced briefly. There was a convulsion, then she was dead.

"Let's get out of here."

What they had acquired was the Symb-Engineer frequency organ. It was the one way the inhabitants of the Rings had of telling friend from foe. The radio organs of the Symb were tuned from birth to send on a specific frequency, and the Engineers used one band exclusively. The Consers employed another, because they had a stake in identifying friends and foes, too. But Parameter no longer identified with either side, and now had the physical resources to back up her lack of conviction. She could send on either band now, according to the needs of the moment, and so could move freely from one society to the other. If caught, she would be seen as a spy by either side, but she didn't think of herself as one.

It had been necessary to kill the Engineer pair because the organ could not be removed without causing the death of the Symb. The organ could be cloned, and that was the escape Parameter had offered the other two. But it had been refused. So now Solstice had two voices; her own, and the one from the other organ which she had already implanted in herself.

In addition to the double voice, they had picked up information about the life of the Engineers without which it would be impossible to function without immediate exposure. They knew the customs and beliefs of the Engineers and could fit in with them as long as they didn't go into sexual rapport. That could get sticky, but they had a dodge. The most reliable way to avoid intercourse was to be pregnant, and that was what they set out to do.

It didn't seem too important, but his name was Appoggiatura. They had encountered him during the third week after the murder. It was a risk-a small one, but a risk all the same. He had been easy about it. He learned all about Parameter's deeds and plans during their intercourse and remained unperturbed.

Fanatic dedication was rare among Consers; the only real fanatic Parameter had met was Bushwhacker, who had offered to shoot her at the hint of treason.

Parameter and Solstice were aware that what they were doing was treason to the Conser cause. Appoggiatura didn't seem to care, or if he did, he thought it was justified after what they had been through.

"But have you thought about what you'll do if you find Equinox? I don't know what you think, but it sounds like a thorny problem to me."

"It's thorny, all right," Solstice agreed. "To me, especially. Don't talk to me about problems until you've gone through the insecurity I've felt when I think about that day."

"It's my insecurity, too," Parameter said. "We don't know. But we do know we have to find her. And the children, though that isn't so strong. I only saw them for a few minutes, and they'll be seven years old now. I can't expect much there."

"I wouldn't expect much from Equinox, either," he said. "I know something about what happens to a Symb when it's separated from a human. Something dies; I don't know what. But it has to start over again from the beginning. She'll be a part of one of your children now, whichever one of them she took over when she was separated from you. You won't know her, and she won't know you."

"Still, we have to do this. I want to leave you now."

For six months they drifted, allowing Parameter's body to swell to the point that it would be obvious she was pregnant and not available for sex. During that time they thought.

Countless times they decided they were being foolish; that to complete their search would be to finish their life's mission and be faced with what to do with the next thousand years. But they could not just go

through the motions. Perhaps one person could do that, but it wouldn't work with two. There was always that alter ego telling you by her very presence that you were living a lie.

And there was Rosy-Red-Ring 3351. If they quit, her murder would have been for no purpose. That would have been too much to bear. They had her in their memory, always cherishing her, always ashamed of what they had done. And the Symb, whose name Solstice had not yet been able to mention. One day Parameter would have to go through that killing again, but closer. Solstice was, if anything, even more determined than Parameter to verify the necessity of that terrible act.

So they started back to the Engineer-infested sector where so long ago Equinox had been made a prisoner of war.

There was a nervous moment the first time they used the stolen transmitter organ, but it went off smoothly. After that, they were able to move freely in Engineer society. It was a strange world, steeped in ritual that would have instantly confounded a novice. But they had received an instant course in religion and fell back on the memories of Rosy-Red-Ring that were burned into their minds.

They took the name Earth-Revenger 9954f, a common name attached to a random number with the "f" added as a mark of status. Only Engineers who had borne a hundred children were supposed to add the letter to their names. Theoretically, births were supposed to be recorded at Ringpainter Temple, clear across the Ring from them, where what records it was possible to keep in Ring society were stored. But there was no danger once they had verified that their stolen transmitter would fool the Engineers. Even in Engineer society, where social contact was more important than among Consers, the chance of meeting the same person twice was small. The chance of Parameter and Solstice meeting the real Earth-Revenger 9954f was not even worth thinking about.

The place they stayed around was the very rock she had pushed off from on the day of her capture, the rock from which Rosy-Red-Ring had left on her final day.

It was a communications center, a social hall, a gossip rendezvous; the means by which the Engineers were able to keep their cohesiveness against the formidable odds of empty space.

She took over the job of station manager, a largely informal, voluntary post that meant you stayed in the station and loosely coordinated the activities there. These consisted of posting in written form information that was too important to entrust to word of mouth, and generally trying to pump each incoming Engineer for that type of information. As such, it was ideally suited for what she wanted to do.

There was the problem of her pregnancy. Pregnant women needed a lot of sunshine and rock and ice, and generally didn't take the job. She faced a lot of questions about it, but got away with her story about just plain liking the job so much she didn't want to give it up.

But the problem of getting enough sunlight was real. The location of the station was deep enough inside the Rings by now that the incident sunlight was low. She should have gone above the plane to where the light wasn't scattered off so many rocks, but she couldn't.

She compromised by spending all her free time outside the station with Solstice in her extended configuration.

The prime topic of conversation was the failure of the Pop Edict, and it was this that led her to information about Equinox.

Under the Edict, each Engineer was to undergo a sex change and spend nine years as a female for every year as a male. Three children were to be borne each of those years. The figures told a different story.

It was the first resistance to an Edict; unorganized, but still disturbing.

There was much debate about it, and much solemn rededication. Everyone vowed to bear as many children as she could, but Parameter wondered how sincere it was.

Her own sampling of Engineers revealed that females did outnumber males, but only by three to one, not nine to one.

There were several causes discussed for it. One, and the most obvious, was simple preference. Statistically, 90 percent of all people had a preferred sex, and of those, it was evenly divided as to which sex was the preferred one. For the target percentages to be in effect, 35 percent of the Engineers would have to be living as the sex they did not prefer. The actual figures indicated that not many of them were



doing so. They were remaining defiantly male.

Then there was the logistical problem. To gain enough useful mass to produce one baby, a Symb-human pair had to ingest almost a thousand kilograms of rock and ice. Only a tiny fraction of it was the chemicals needed to produce a baby.

Then, to convert the mass to useful form, energy was required. The pair had to spend long hours in the sunlight. After all that, there was little time for painting the Ring, and that was what most Engineers saw as their prime mission, not becoming baby factories.

It was said that Ringpainter was in meditation, and had been for the past ten years, trying to find a way out of the dilemma. She saw her Grand Gesture being slowed down to the point where it was actually in jeopardy. If, in the far future, the Engineer birthrate didn't outstrip the Conser birthrate, it would mean trouble. The time of the great Conser effort was yet to come. As things now stood, a Conser might not even see a painted rock in three or four days; they were too far apart. But as the number of painted rocks grew, the rate of recoloring would also grow. Then the Engineers would have to depend on the sheer rate of repainting to overpower the negative effect of the Consers. If their populations were nearly equal, it would be a stalemate, and only the Consers could win a stalemate. To accomplish the Grand Design, 90 percent of the rock in Ring Beta must be painted. To reach this figure, the Engineers must outnumber the Consers by ten to one, otherwise the number of painted rocks would stabilize below the target figure. It was a crisis of the first magnitude, though no one alive would see the outcome.

In discussing this with one of the Engineers, a woman named Glorious-Red-Ring 43f, the break came. She was one of the early followers of Ringpainter, had been in the Ring for two hundred years. She had birthed 389 children, and acknowledged it was below her quota. She was living proof that the goals of Ringpainter were unrealistic, but she had unshakable faith that it was the right policy. She blamed herself that she had not had six hundred children, and had dedicated herself to meeting her quota within the next century. To do that, she must bear five hundred children. Parameter thought she was pathetic. She was pregnant with septuplets.

"I see these young ones coming in here with twins in their wombs and wonder how they can call themselves Engineers," she complained. "Only last month I saw one with a single child on the way. One! Can you imagine? How many do you have there?"

"Three. Maybe it should have been more." Parameter tried to sound guilty about it.

"That's all right. Three is the right number. I won't ask if you had three last year.

"And the number of males I see makes me weep. I make it 7.43 to 2.57, female to male." She lapsed into a brooding silence.

"If that wasn't bad enough," Parameter prompted, "I understand the Conser birthrate has equalled ours."

"Has it?" She was concerned at this bit of news, and would have been relieved to learn it was totally spurious. Parameter used that line frequently to lead someone into a discussion of Conser women in general and one Conser in particular who had been captured around here several years ago while birthing quint.

"But it shouldn't surprise me," the Engineer said. "So many of the Consers we've taken lately have been pregnant with three, four, even five."

This was more like it. Parameter considered remarks that might draw the woman out.

"I recall, almost ten years ago... or was it five? I get confused. There was this Conser some of our people took. Five children she had just borne."

Parameter was so surprised she almost let the opportunity slip by.

"Five?" she managed to croak. It was enough.

"That's right. How long has it been since you saw one of ours give birth to five? And those anarchists don't even have a Pop Edict to tell them to do it.

She was doing it for fun."

"Were you there when it happened? When they captured the woman?"

"I heard about it later. They had the pups around here for a few days. Didn't know what to do with them. No one had heard about the crèche."

"Crèche?"

"You, too. The newsmongering around here has fallen down. It should have been posted and circulated."

"I'll surely see that it's done if you'll tell me about it."

"There's a crèche for POW children about fifty thousand kilometers forward from here. That's where we're supposed to take captured Conser children for indoctrination."

They digested that, didn't like the taste of it.

"The indoctrination's pretty successful, is it?"

"Great Red Ring, I hope so. Haven't been there myself. But we need everything we can get these days."

"Just where is this crèche? I should post the orbital elements around here."

The triplets were a failure. During the tenth month, on the way to the crèche, Solstice notified Parameter that it was hopeless; they hadn't gotten enough energy and raw materials during their stay at the way-station. It was no longer possible to hold their development back, and it was too late to amass the necessary minerals to do the job.

Solstice aborted them and reabsorbed the dead bodies. With the extra energy from the abortion, they were able to make good time to the crèche. It only took two years.

The crèche was deserted; an empty shell. News traveled slowly in the Ring.

Inquiring around, Parameter discovered that it had not been operating for fifteen years. So her children had never arrived, though they had set out.

This was the time for despair, but they were beyond despair. Somewhere on the way to the crèche they had stopped believing it was possible to do what they were trying to do. So it wasn't a blow to find the crèche deserted. Still, it was hard to accept that their search ended here; they had been on the trail for nine years.

But the figures were unimpeachable. The volume of Ring Beta was seventy billion cubic kilometers, and any one of them could hide a thousand children.

They hung around the crèche for a few weeks, questioning Engineers, trying to find an angle that would enable them to defeat the statistics. Without a known destination for their children, there was no way out; they could be anywhere, and that was so vast it didn't bear thinking about.

In the end they left, and didn't know where they were bound.

Three days later they encountered another Conser, a male, and mated with him. He was sympathetic to their plight, but agreed with them that there was no chance of finding their children. Solstice carefully saw to it that Parameter was not fertilized. They had had enough of pregnancy for the next century or so.

And after they left the Conser, they found themselves falling asleep. Only they knew it wasn't sleep.

Before she even opened her eyes, Parameter reached frantically for the top of her head.

"Solstice..."

"I'm here. Don't make any sudden moves. We've been captured. I don't know by whom, but he's armed."

She opened her eyes. She was in a conjugation sphere and the tendril from Solstice was still firmly planted in her head. There was another person with her, a small person. He waved his gun at her and she nodded.

"Don't be alarmed," he said. "If you can answer a few questions you'll probably come out of this alive."

"You can set your mind at ease. I won't cause any trouble."

She realized he was a child, about eleven years old. But he seemed to know about stunners.

"We've been watching you for about a week," he said. "You talked to Engineers, so we naturally assumed you were one. But just now you spoke to a Conser, and on the Conser frequency. I want an explanation."

"I was originally a Conser. Recently I killed an Engineer and stole her transmitter organ." She knew she couldn't think of a convincing lie quickly enough to be safe from his stunner. She wasn't sure there was a convincing lie to cover her situation.

"Which side do you identify with now?"

"Neither side. I want to be independent if anyone will allow that."

He looked thoughtful. "That may be easier than you know. Why did you kill the Engineer?"

"I had to do it so I could move in Engineer society, so I could hunt for my children and the Symb who was taken from me several years ago. I have been-"

"What's your name?"

"Parameter, and Solstice."

"Right. I've got a message for you, Parameter. It's from your children. They're all right, and looking for you around here. We should be able to find them in a few days' search."

The children recognized the awkwardness of the situation. As they joined the group conjugation, emerging from the walls of the slowly enlarging sphere, they limited themselves to a brief kiss, then withdrew into a tangle of small bodies.

Parameter and Solstice were so jittery they could hardly think. The five children they could get to know, but Equinox? What about her?

They got the distinct feeling that the children recognized Parameter, then realized it was possible. Equinox had been talking to them while still in the womb, urging their minds to develop with pictures and sounds. Some of the pictures would have been of Parameter.

Ring children are not like other human children. They are born already knowing most of what they need to survive in the Rings. Then they are able to join with an infant Symb and help guide its development into an adult in a few weeks. From there, the Symb takes over for three years, teaching them and leading them to the places they need to go to grow up strong and healthy. For all practical purposes they are mature at three years. They must be; they cannot count on being with their mother more than the few weeks it takes them to acquire an adult Symb. From that time, they are on their own. Infant physical shortcomings are made up by the guidance and control of the Symb.

Parameter looked at these strange children, these youngsters whose backyard was billions of cubic kilometers wide and whose toys were stars and comets. What did she know of them? They might as well be another species. But that shouldn't matter; so was Solstice.

Solstice was almost hysterical. She was gripped in fear that in some way she couldn't understand she was going to lose Parameter. She was in danger of losing her mind. One part of her loved Equinox as hopelessly as Parameter did; another part knew there was room for only one Symb for any one human. What if it came to a choice? How would they face it?

"Equinox?"

There was a soundless scream from Solstice. "Equinox?" ?????

"Is that you, Equinox?"

The answer was very faint, very far away. They could not hear it.

"It's me. Parameter."

"And Solstice. You don't know me-"

I know you. You are me. I used to be you. I remember both of you. Interesting.

But the voice didn't sound interested. It was cool.

"I don't understand." No one was sure who said it.

But you do. I am gone. There is a new me. There is a new you. It is over.

"We love you."

Yes. Of course you do. But there is no me left to love.

"We're confused."

You will get over it.

The children floated together: quietly, respectfully; waiting for their mother to come to grips with her new reality. At last she stirred.

"Maybe we'll understand it some day," Parameter said.

One of the girls spoke.

"Equinox is no more, Mother," she said. "And yet she's still with us. She made a choice when she knew we were going to be captured. She reabsorbed her children and fissioned into five parts. None of us got all of her, but we all got enough."

Parameter shook her head and tried to make sense out of it. The child who had brought her here had not been willing to tell her anything, preferring to wait until her children could be with her.

"I don't understand how you came to find me."

"All it took was patience. We never reached the crèche; we were liberated on the way here by Alphans. They killed all the Engineers who were guarding us and adopted us themselves."

"What's an Alphan?"

"Alphans are the Ringers who live in Ring Alpha, who are neither Conser nor Engineer. They are renegades from both sides who have opted out of the conflict.

They took care of us, and helped us when we said we wanted to find you. We knew where we had been going, and knew it was only a matter of time until you showed up here, if you were still alive. So we waited. And you got here in only nine years. You're very resourceful."

"Perhaps." She was looking at her children's legs. They were oddly deformed. And what were those blunt instruments at the ends of them? How odd.

"Feet, Mother," the child said. "There are surgeons in Alpha, but we could never afford to go there until we had found you. Now we'll go. We hope you'll go with us."

"Huh? Ah, I guess I should. That's across the Cassini Division, isn't it? And there's no war there? No killing?"

"That's right. We don't care if they paint Ring Beta with stripes and polka dots. They're freaks: Conser and Engineers. We are the true Ringers."

"Solstice?"

"Why not?"

"We'll go with you. Say, what are your names?"

"Army," said one of the girls.

"Navy," said another.

"Marine."

"Airforce."

"And Elephant," said the boy.

## BELLMAN

The woman stumbled down the long corridor, too tired to run. She was tall, her feet were bare, and her clothes were torn. She was far advanced in pregnancy.

Through a haze of pain, she saw a familiar blue light. Airlock. There was no place left to go. She opened the door and stepped inside, shut it behind her.

She faced the outer door, the one that led to vacuum. Quickly, she undogged the four levers that secured it. Overhead, a warning tone began to sound quietly, rhythmically. The outer door was now held shut by the air pressure inside the lock, and the inner door could not be opened until the outer latches were secured.

She heard noises from the corridor, but knew she was safe. Any attempt to force the outer door would set off enough alarms to bring the police and air department.

It was not until her ears popped that she realized her mistake. She started to scream, but it quickly died away with the last rush of air from her lungs. She continued to beat soundlessly on the metal walls for a time, until blood flowed from her mouth and nose. The blood bubbled.

As her eyes began to freeze, the outer door swung upward and she looked out on the lunar landscape. It was white and lovely in the sunlight, like the frost that soon coated her body.

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Lieutenant Anna-Louise Bach seated herself in the diagnostic chair, leaned back, and put her feet in the stirrups. Doctor Erickson began inserting things into her. She looked away, studying the people in the waiting room through the glass wall to her left. She couldn't feel anything-which in itself was a disturbing

sensation-but she didn't like the thought of all that hardware so close to her child.

He turned on the scanner and she faced the screen on her other side. Even after so long, she was not used to the sight of the inner walls of her uterus, the placenta, and the fetus. Everything seemed to throb, engorged with blood. It made her feel heavy, as though her hands and feet were too massive to lift; a different sensation entirely from the familiar heaviness of her breasts and belly.

And the child. Incredible that it could be hers. It didn't look like her at all. Just a standard squinch-faced, pink and puckered little ball. One tiny fist opened and shut. A leg kicked, and she felt the movement.

"Do you have a name for her yet?" the doctor asked.

"Joanna." She was sure he had asked that last week. He must be making conversation, she decided. It was unlikely he even recalled Bach's name.

"Nice," he said, distractedly, punching a note into his clipboard terminal. "Uh, I think we can work you in on Monday three weeks from now. That's two days before optimum, but the next free slot is six days after. Would that be convenient? You should be here at 0300 hours."

Bach sighed.

"I told you last time, I'm not coming in for the delivery. I'll take care of that myself."

"Now, uh..." he glanced at his terminal. "Anna, you know we don't recommend that. I know it's getting popular, but--"

"It's Ms. Bach to you, and I heard that speech last time. And I've read the statistics. I know it's no more dangerous to have the kid by myself than it is in this damn fishbowl. So would you give me the goddam midwife and let me out of here? My lunch break is almost over."

He started to say something, but Bach widened her eyes slightly and her nostrils flared. Few people gave her any trouble when she looked at them like that, especially when she was wearing her sidearm.

Erikson reached around her and fumbled in the hair at the nape of her neck. He found the terminal and removed the tiny midwife she had worn for the last six months. It was gold, and about the size of a pea. Its function was neural and hormonal regulation. Wearing it, she had been able to avoid morning sickness, hot flashes, and the possibility of miscarriage from the exertions of her job. Erikson put it in a small plastic box, and took out another that looked just like it.

"This is the delivery midwife," he said, plugging it in. "It'll start labor at the right time, which in your case is the ninth of next month." He smiled, once again trying for a bedside manner. "That will make your daughter an Aquarius."

"I don't believe in astrology."

"I see. Well, keep the midwife in at all times. When your time comes, it will re-route your nerve impulses away from the pain centers in the brain. You'll experience the contractions in their full intensity, you see, but you won't perceive it as pain. Which, I'm told, makes all the difference. Of course, I wouldn't know."

"No, I suppose you wouldn't. Is there anything else I need to know, or can I go now?"

"I wish you'd reconsider," he said, peevishly. "You really should come into the natatorium. I must confess, I can't understand why so many women are choosing to go it alone these days."

Bach glanced around at the bright lights over the horde of women in the waiting room, the dozens sitting in examination alcoves, the glint of metal and the people in white coats rushing around with frowns on their faces. With each visit to this place the idea of her own bed, a pile of blankets, and a single candle looked better.

"Beats me," she said.

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There was a jam on the Leystrasse feeder line, just before the carousel. Bach had to stand for fifteen minutes wedged in a tight mass of bodies, trying to protect her belly, listening to the shouts and screams ahead where the real crush was, feeling the sweat trickling down her sides. Someone near her was wearing shoes, and managed to step on her foot twice.

She arrived at the precinct station twenty minutes late, hurried through the rows of desks in the command center, and shut the door of her tiny office behind her. She had to turn sideways to get behind her desk, but she didn't mind that. Anything was worth it for that blessed door.

She had no sooner settled in her chair than she noticed a handwritten note on her desk, directing her to briefing room 330 at 1400 hours. She had five minutes.

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One look around the briefing room gave her a queasy feeling of disorientation. Hadn't she just come from here? There were between two and three hundred officers seated in folding chairs. All were female, and visibly pregnant.

She spotted a familiar face, sidled awkwardly down a row, and sat beside Sergeant Inga Krupp. They touched palms.

"How's it with you?" Bach asked. She jerked her thumb toward Krupp's belly. "And how long?"

"Just fightin' gravity, trying not to let the entropy get me down. Two more weeks. How about you?"

"More like three. Girl or boy?"

"Girl."

"Me, too." Bach squirmed on the hard chair. Sitting was no longer her favorite position. Not that standing was all that great. "What is this? Some kind of medical thing?"

Krupp spoke quietly, from the corner of her mouth. "Keep it under your suit. The crosstalk is that pregnancy leave is being cut back."

"And half the force walks off the job tomorrow." Bach knew when she was being put on. The union was far too powerful for any reduction in the one-year child-rearing sabbatical. "Come on, what have you heard?"

Krupp shrugged, then eased down in her chair. "Nobody's said. But I don't think it's medical. You notice you don't know most of the people here? They come from all over the city."

Bach didn't have time to reply, because Commissioner Andrus had entered the room. He stepped up to a small podium and waited for quiet. When he got it, he spent a few seconds looking from face to face.

"You're probably wondering why I called you all here today."

There was a ripple of laughter. Andrus smiled briefly, but quickly became serious again.

"First the disclaimer. You all know of the provision in your contract relating to hazardous duty and pregnancy. It is not the policy of this department to endanger civilians, and each of you is carrying a civilian. Participation in the project I will outline is purely voluntary; nothing will appear in your records if you choose not to volunteer. Those of you who wish to leave now may do so."

He looked down and tactfully shuffled papers while about a dozen women filed out. Bach shifted uncomfortably. There was no denying she would feel diminished personally if she left. Long tradition decreed that an officer took what assignments were offered. But she felt a responsibility to protect Joanna.

She decided she was sick to death of desk work. There would be no harm in hearing him out.

Andrus looked up and smiled bleakly. "Thank you. Frankly, I hadn't expected so many to stay. Nevertheless, the rest of you may opt out at any time." He gave his attention to the straightening of his papers by tapping the bottom edges on the podium. He was a tall, cadaverous man with a big nose and hollows under his cheekbones. He would have looked menacing, but his tiny mouth and chin spoiled the effect.

"Perhaps I should warn you before--"

But the show had already begun. On a big holo screen behind him a picture leaped into focus. There was a collective gasp, and the room seemed to chill for a moment. Bach had to look away, queasy for the first time since her rookie days. Two women got up and hurried from the room.

"I'm sorry," Andrus said, looking over his shoulder and frowning. "I'd meant to prepare you for that. But none of this is pretty."

Bach forced her eyes back to the picture.

One does not spend twelve years in the homicide division of a metropolitan police force without becoming accustomed to the sight of violent death. Bach had seen it all and thought herself unshockable, but she had not reckoned on what someone had done to the woman on the screen.

The woman had been pregnant. Someone had performed an impromptu Caesarian section on her. She was opened up from the genitals to the breastbone. The incision was ragged, hacked in an irregular semi-circle with a large flap of skin and muscle pulled to one side. Loops of intestine bulged through ruptured fascial tissue, still looking wet in the harsh photographer's light.

She was frozen solid, posed on a metal autopsy table with her head and shoulders up, slumped against a wall that was no longer there. It caused her body to balance on its buttocks. Her legs were in an attitude of repose, yet lifted at a slight angle to the table.

Her skin was faint blue and shiny, like mother-of-pearl, and her chin and throat were caked with rusty brown frozen blood. Her eyes were open, and strangely peaceful. She gazed at a spot just over Bach's left shoulder.

All that was bad enough, as bad as any atrocity Bach had ever seen. But the single detail that had leaped to her attention was a tiny hand, severed, lying frozen in the red mouth of the wound.

"Her name was Elfreda Tong, age twenty-seven, a life-long resident of New Dresden. We have a biographical sheet you can read later. She was reported missing three days ago, but nothing was developed.

"Yesterday we found this. Her body was in an airlock in the west quadrant, map reference delta-omicron-sigma 97. This is a new section of town, as yet underpopulated. The corridor in question leads nowhere, though in time it will connect a new warren with the Cross-Crisium.

"She was killed by decompression, not by wounds. Use-tapes from the airlock service module reveal that she entered the lock alone, probably without a suit. She must have been pursued, else why would she have sought refuge in an airlock? In any case, she unsealed the outer door, knowing that the inner door could not then be moved." He sighed, and shook his head. "It might have worked, too, in an older lock. She had the misfortune to discover a design deficiency in the new-style locks, which are fitted with manual pressure controls on the corridor phone plates. It was simply never contemplated that anyone would want to enter a lock without a suit and unseal the outer door."

Bach shuddered. She could understand that thinking. In common with almost all Lunarians, she had a deep-seated fear of vacuum, impressed on her from her earliest days. Andrus went on.

"Pathology could not determine time of death, but computer records show a time line that might be significant. As those of you who work in homicide know, murder victims often disappear totally on Luna. They can be buried on the surface and never seen again. It would have been easy to do so in this case. Someone went to a lot of trouble to remove the fetus-for reasons we'll get to in a moment-and could have hidden the body fifty meters away. It's unlikely the crime would have been discovered.

"We theorize the murderer was rushed. Someone attempted to use the lock, found it not functioning because of the open outer door, and called repair service. The killer correctly assumed the frustrated citizen in the corridor would go to the next lock and return on the outside to determine the cause of the obstruction. Which he did, to find Elfreda as you see her now. As you can see," he pointed to a round object partially concealed in the wound, "the killer was in such haste that he or she failed to get the entire fetus. This is the child's head, and of course you can see her hand."

Andrus coughed nervously and turned from the picture. From the back of the room, a woman hurried for the door.

"We believe the killer to be insane. Doubtless this act makes sense according to some tortured pathology unique to this individual. Psychology section says the killer is probably male. Which does not rule out female suspects.

"This is disturbing enough, of course. But aside from the fact that this sort of behavior is rarely isolated-the killer is compelled eventually to repeat it-we believe that Ms. Tong is not the first. Analysis of missing persons reveals a shocking percentage of pregnant females over the last two years. It seems that someone is on the loose who preys on expectant mothers, and may already have killed between fifteen

and twenty of them.”

Andrus looked up and stared directly at Bach for a moment, then fixed his gaze on several more women in turn.

“You will have guessed by now that we intend using you as bait.”

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Being bait was something Bach had managed to avoid in twelve eventful years on the force. It was not something that was useful in homicide work, which was a gratifyingly straightforward job in a world of fuzzy moral perplexities. Undercover operations did not appeal to her.

But she wanted to catch this killer, and she could not think of any other way to do it.

“Even this method is not very satisfactory,” she said, back in her office. She had called in Sergeants Lisa Babcock and Erich Steiner to work with her on the case. “All we really have is computer printouts on the habits and profiles of the missing women. No physical evidence was developed at the murder scene.”

Sergeant Babcock crossed her legs, and there was a faint whirring sound. Bach glanced down. It had been a while since the two of them had worked together. She had forgotten about the bionic legs.

Babcock had lost her real ones to a gang who cut them off with a chain knife and left her to die. She didn't, and the bionic replacements were to have been temporary while new ones were grown. But she had liked them, pointing out that a lot of police work was still legwork, and these didn't get tired. She was a small brunette woman with a long face and lazy eyes, one of the best officers Bach had ever worked with.

Steiner was a good man, too, but Bach picked him over several other qualified candidates simply because of his body. She had lusted after him for a long time, bedded him once, thirty-six weeks before. He was Joanna's father, though he would never know it. He was also finely muscled, light brown, and hairless, three qualities Bach had never been able to resist.

“We'll be picking a place-taproom, sensorium, I don't know yet-and I'll start to frequent it. It'll take some time. He's not going to just jump out and grab a woman with a big belly. He'll probably try to lure her away to a safe place. Maybe feed her some kind of line. We've been studying the profiles of his victims-”

“You've decided the killer is male?” Babcock asked.

“No. They say it's likely. They're calling him ‘The Bellman.’ I don't know why.”

“Lewis Carroll,” Steiner said.

“Huh?”

Steiner made a wry face. “From ‘The Hunting of the Snark.’ But it was the snark that made people ‘softly and suddenly vanish away,’ not the Bellman. He hunted the snark.”

Bach shrugged. “It won't be the first time we've screwed up a literary reference. Anyway, that's the code for this project: BELLMANXXX. Top security access.” She tossed copies of bound computer printout at each of them. “Read this, and tell me your thoughts tomorrow. How long will it take you to get your current work squared away?”

“I could clear it up in an hour,” Babcock said.

“I'll need a little more time.”

“Okay. Get to work on it right now.” Steiner stood and edged around the door, and Bach followed Babcock into the noisy command center.

“When I get done, how about knocking off early?” Babcock suggested. “We could start looking for a spot to set this up.”

“Fine. I'll treat you to dinner.”

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Hobson's Choice led a Jekyll and Hyde existence: a quiet and rather staid taproom by day, at night



transformed by hologrammatic projection into the fastest fleshparlor in the East 380's. Bach and Babcock were interested in it because it fell midway between the posh establishments down at the Bedrock and the sleazy joints that dotted the Upper Concourses. It was on the sixtieth level, at the intersection of the Midtown Arterial slides, the Heidelberg Senkrechstrasse lifts, and the shopping arcade that lined 387strasse. Half a sector had been torn out to make a parkcube, lined by sidewalk restaurants.

They were there now, sitting at a plastwood table waiting for their orders to arrive. Bach lit a cheroot, exhaled a thin cloud of lavender smoke, and looked at Babcock.

“What do you make of it?”

Babcock looked up from the printouts. She frowned, and her eyes lost their focus. Bach waited. Babcock was slow, but not stupid. She was methodical.

“Victims lower middle class to poor. Five out of work, seven on welfare.”

“Possible victims,” Bach emphasized.

“Okay. But some of them had better be victims, or we're not going to get anywhere. The only reason we're looking for the Bellman in these lower-middle-class taprooms is that it's something these women had in common. They were all lonely, according to the profiles.”

Bach frowned. She didn't trust computer profiles. The information in the profiles was of two types: physical and psychological. The psych portion included school records, doctor visits, job data, and monitored conversations, all tossed together and developed into what amounted to a psychoanalysis. It was reliable, to a point.

Physical data was registered every time a citizen passed through a pressure door, traveled on a slideway or tube, spent money, or entered or left a locked room; in short, every time the citizen used an identiplate. Theoretically, the computers could construct a model showing where each citizen had gone on any day.

In practice, of course, it didn't work that way. After all, criminals owned computers, too.

“Only two of them had steady lovers,” Babcock was saying. “Oddly, both of the lovers were women. And of the others, there seems to be a slight preference for homosex.”

“Means nothing,” Bach said.

“I don't know. There's also a predominance of male fetuses among the missing. Sixty percent.”

Bach thought about it. “Are you suggesting these women didn't want the babies?”

“I'm not suggesting anything. I'm just curious.”

The waiter arrived with their orders, and the Bellman was shelved while they ate.

“How is that stuff?” Babcock asked.

“This?” Bach paused to swallow, and regarded her plate judiciously. “It's okay. About what you'd expect at the price.” She had ordered a tossed salad, steakplant and baked potato, and a stein of beer. The steakplant had a faint metallic taste, and was overdone. “How's yours?”

“Passable,” Babcock lisped around a mouthful. “Have you ever had real meat?”

Bach did not quite choke, but it was a close thing.

“No. And the idea makes me a little sick.”

“I have,” Babcock said.

Bach eyed her suspiciously, then nodded. “That's right. You emigrated from Earth, didn't you?”

“My family did. I was only nine at the time.” She toyed with her beer mug. “Pa was a closet carnivore. Every Christmas he got a chicken and cooked it. Saved money for it most of the year.”

“I'll bet he was shocked when he got up here.”

“Maybe, a little. Oh, he knew there wasn't any black market meat up here. Hell, it was rare enough down there.”

“What... what's a chicken?”

Babcock laughed. “Sort of a bird. I never saw one alive. And I never really liked it that much, either. I like steak better.”

Bach thought it was perverted, but was fascinated anyway.

“What sort of steak?”

“From an animal called a cow. We only had it once.”

“What did it taste like?”

Babcock reached over and speared the bite Bach had just carved. She popped it into her mouth.

“A lot like that. A little different. They never get the taste just right, you know?”

Bach didn't know-had not even realized that her steakplant was supposed to taste like cow-and felt they'd talked about it enough, especially at mealtime.

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They returned to Hobson's that night. Bach was at the bar and saw Steiner and Babcock enter. They took a table across the dance floor from her. They were nude, faces elaborately painted, bodies shaved and oiled.

Bach was dressed in a manner she had avoided for eight months, in a blue lace maternity gown. It reached to her ankles and buttoned around her neck, covering everything but her protruding belly. There was one other woman dressed as she was, but in pink, and with a much smaller bulge. Between the two of them, they wore more clothing than everyone else in Hobson's put together.

Lunarians tended to dress lightly if at all, and what was covered was a matter of personal choice. But in flesh parlors it was what was uncovered that was important, and how it was emphasized and displayed. Bach didn't care for the places much. There was an air of desperation to them.

She was supposed to look forlorn. Damn it, if she'd wanted to act, she would have made a career on the stage. She brooded about her role as bait, considered calling the whole thing off.

“Very good. You look perfectly miserable.”

She glanced up to see Babcock wink as she followed Steiner onto the dance floor. She almost smiled. All right, now she had a handle on it. Just think about the stinking job, all the things she'd rather be doing, and her face would take care of itself.

“Hey there!”

She knew instantly she'd hate him. He was on the stool next to her, his bulging pectorals glistening in the violet light. He had even, white teeth, a profile like a hatchet, and a candy-striped penis with a gold bell hanging from the pierced foreskin.

“I'm not feeling musically inclined,” she said.

“Then what the hell are you doing here?”

Bach wished she knew.

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“It's definitely the wrong sort of place,” Babcock said, her eyes unfocused and staring at Bach's ceiling.

“That's the best news I've heard in months,” Steiner said. There were dark circles under his eyes. It had been a strenuous night.

Bach waved him to silence and waited for Babcock to go on. For some reason, she had begun to feel that Babcock knew something about the Bellman, though she might not know she knew it. She rubbed her forehead and wondered if that made any sense.

The fact remained that when Babcock had said to wear blue instead of pink, Bach had done so. When she said to look lonely and in despair, Bach had done her best. Now she said Hobson's was wrong. Bach waited.

“I don't care if the computers say they spent their time in places like that,” she said. “They probably did, but not toward the end. They would have wanted something quieter. For one thing, you don't take somebody home from a place like Hobson's. You fuck them on the dance floor.” Steiner moaned, and Babcock grinned at him. “Remember, it was in the line of duty, Erich.”

“Don't get me wrong,” Steiner said. “You're delightful. But all night long? And my feet hurt.”

“But why a quieter place?” Bach asked.

“I’m not sure. The depressive personalities. It’s hard to cope with Hobson’s when you’re depressed. They went there for uncomplicated fucking. But when they got really blue they went looking for a friend. And the Bellman would want a place where he could hope to take someone home. People won’t take someone home unless they’re getting serious.”

That made sense to Bach. It followed the pattern of her own upbringing. In the crowded environment of Luna it was important to keep a space for yourself, a place you invited only special friends.

“So you think he made friends with them first?”

“Again, I’m only speculating. Okay, look. None of them had any close friends. Most of them had boy fetuses, but they were homosexual. It was too late to abort. They’re not sure they want the kids, they got into it in the first place because the idea of a kid sounded nice, but now they don’t think they want a son. The decision is to keep it or give it to the state. They need someone to talk to.” She let it hang there, looking at Bach.

It was all pretty tenuous, but what else was there to go on? And it wouldn’t hurt to find another spot. It would probably help her nerves, not to mention Steiner’s.

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“Just the place for a snark,” Steiner said.

“Is it?” Bach asked, studying the façade of the place and failing to notice Steiner’s sarcasm.

Maybe it was the place to find the Bellman, she decided, but it didn’t look too different from fifteen other places the team had haunted in three weeks.

It was called The Gong, for reasons that were not apparent. It was an out-of-the-way taproom on 511strasse, level seventy-three. Steiner and Babcock went in and Bach walked twice around the block to be sure she was not associated with them, then entered.

The lighting was subdued without making her wish for a flashlight. Only beer was served. There were booths, a long wooden bar with a brass rail and swiveling chairs, and a piano in one corner where a small, dark-haired woman was taking requests. The atmosphere was very twentieth-century, a little too quaint. She found a seat at one end of the bar.

Three hours passed.

Bach took it stoically. The first week had nearly driven her out of her mind. Now she seemed to have developed a facility for staring into space, or studying her reflection in the bar mirror, leaving her mind a blank.

But tonight was to be the last night. In a few hours she would lock herself in her apartment, light a candle beside her bed, and not come out until she was a mother.

“You look like you’ve lost your best friend. Can I buy you a drink?”

If I had a tenth-mark for every time I’ve heard that, Bach thought, but said, “Suit yourself.”

He jingled as he sat, and Bach glanced down, then quickly up to his face. It was not the same man she had met on the first night at Hobson’s. Genital bells had become the overnight sensation, bigger than pubic gardening had been three years before, when everyone ran around with tiny flowers growing in their crotches. When men wore the bells they were called dong-a-lings, or, with even more cloying cuteness, ding-a-lingams.

“If you ask me to ring your bell,” Bach said, conversationally, “I’ll bust your balls.”

“Who, me?” he asked, innocently. “Farthest thing from my mind. Honest.”

She knew it had been on his lips, but he was smiling so ingenuously she had to smile back. He put out his palm, and she pressed it.

“Louise Brecht,” she said.

“I’m Ernst Freeman.”

But he was not, not really, and it surprised Bach, and saddened her. He was by far the nicest man she had talked to in the last three weeks. She allowed him to coax out her make-believe life history, the one Babcock had written the second day, and he really seemed to care. Bach found she almost believed the story herself, her sense of frustration giving a verisimilitude to Louise Brecht’s crashingly boring life that

Bach had never really achieved before.

So it was a shock when she saw Babcock walk behind her on her way to the toilet.

Babcock and Steiner had not been idle during the twenty minutes she had been talking to "Freeman." A microphone hidden in Bach's clothing enabled them to hear the conversation, while Steiner operated a tiny television camera. The results were fed to a computer, which used voiceprint and photo analysis to produce a positive ident. If the result didn't match, Babcock was to leave a note to that effect in the toilet. Which she was presumably doing now.

Bach saw her go back to the table and sit down, then caught her eye in the mirror. Babcock nodded slightly, and Bach felt goose pimples break out. This might not be the Bellman—he could be working any of a number of cons, or have something else in mind for her—but it was the first real break for the team.

She waited a decent interval, finishing a beer, then excused herself, saying she would be right back. She walked to the rear of the bar and through a curtain.

She pushed through the first door she saw, having been in so many taprooms lately that she felt she could have found the toilet with her feet shackled in a blackout. And indeed it seemed to be the right place. It was twentieth century design, with ceramic washbasins, urinals, and commodes, the latter discreetly hidden in metal stalls. But a quick search failed to produce the expected note. Frowning, she pushed back out through the swinging door, and nearly bumped into the piano player, who had been on her way in.

"Excuse me," Bach murmured, and looked at the door. It said "Men."

"Peculiarity of The Gong," the piano player said. "Twentieth century, remember? They were segregated."

"Of course. Silly of me."

The correct door was across the hall, plainly marked "Women." Bach went in, found the note taped to the inside of one of the stall doors. It was the product of the tiny faxprinter Babcock carried in her purse, and crammed a lot of fine print onto an eight-by-twelve millimeter sheet.

She opened her maternity dress, sat down, and began to read.

His real, registered name was Bigfucker Jones. With a handle like that, Bach was not surprised that he used aliases. But the name had been of his own choosing. He had been born Ellen Miller, on Earth. Miller had been black, and her race and sex changes had been an attempt to lose a criminal record and evade the police. Both Miller and Jones had been involved in everything from robbery to meatlegging to murder. He had served several terms, including a transportation to the penal colony in Copernicus. When his term was up, he had elected to stay on Luna.

Which meant nothing as far as the Bellman was concerned. She had been hoping for some sort of sexual perversion record, which would have jibed more closely with the profile on the Bellman. For Jones to be the Bellman, there should have been money involved.

It was not until Bach saw the piano player's red shoes under the toilet stall door that something that had been nagging at her came to the surface. Why had she been going into the males-only toilet? Then something was tossed under the door, and there was a bright purple flash.

Bach began to laugh. She stood up, fastening her buttons.

"Oh, no," she said, between giggles. "That's not going to work on me. I always wondered what it'd be like to have somebody throw a flashball at me." She opened the stall door. The piano player was there, just putting her protective goggles back in her pocket.

"You must read too many cheap thriller novels," Bach told her, still laughing. "Don't you know those things are out of date?"

The woman shrugged, spreading her hands with a rueful expression. "I just do what I'm told."

Bach made a long face, then burst out laughing again.

"But you should know a flashball doesn't work unless you slip the victim the primer drug beforehand."

"The beer?" the woman suggested, helpfully.

"Oh, wow! You mean you... and, and that guy with the comic-book name... oh, wow!" She couldn't help it, she just had to laugh aloud again. In a way, she felt sorry for the woman. "Well, what can I tell you? It didn't work. The warranty must have expired, or something." She was about to tell the woman

she was under arrest, but somehow she didn't want to hurt her feelings.

“Back to the old drawing board, I guess,” the woman said. “Oh, yeah, while I've got you here, I'd like for you to go to the West 500th tube station, one level up. Take this paper with you, and punch this destination. As you punch each number, forget it. When you've done that, swallow the paper. You have all that?”

Bach frowned at the paper. “West 500th, forget the number, eat the paper.” She sighed. “Well, I guess I can handle that. But hey, you gotta remember I'm doing this just as a favor to you. Just as soon as I get back, I'm going to-”

“Okay, okay. Just do it. Exactly as I said. I know you're humoring me, but let's just pretend the flashball worked, okay?”

It seemed like a reasonable enough suggestion. It was just the break Bach needed. Obviously, this woman and Jones were connected with the Bellman, whoever he or she was. Here was Bach's big chance to catch him. Of course, she was not going to forget the number.

She was about to warn the woman she would be arrested as soon as she returned from the address, but she was interrupted again.

“Go out the back door. And don't waste any time. Don't listen to anything anyone else says until someone says ‘I tell you three times.’ Then you can pretend the game is over.”

“All right.” Bach was excited at the prospect. Here at last was the sort of high adventure that everyone thought was a big part of police work. Actually, as Bach knew well, police work was dull as muzak.

“And I'll take that robe.”

Bach handed it to her, and hurried out the back door wearing nothing but a big grin.

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It was astonishing. One by one she punched in the numbers, and one by one they vanished from her mind. She was left with a piece of paper that might have been printed in Swahili.

“What do you know,” she said to herself, alone in the two-seat capsule. She laughed, crumpled the paper, and popped it into her mouth, just like a spy.

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She had no idea where she might be. The capsule had shunted around for almost half an hour, and come to rest in a private tube station just like thousands of others. There had been a man on hand for her arrival. She smiled at him.

“Are you the one I'm supposed to see?” she asked.

He said something, but it was gibberish. He frowned when it became clear she didn't understand him. It took her a moment to see what the problem was.

“I'm sorry, but I'm not supposed to listen to anyone.” She shrugged, helplessly. “I had no idea it would work so well.”

He began gesturing with something in his hands, and her brow furrowed, then she grinned widely.

“Charades? Okay. Sounds like...” But he kept waving the object at her. It was a pair of handcuffs.

“Oh, all right. If it'll make you happy.” She held out her wrists, close together, and he snapped them on.

“I tell you three times,” he said.

Bach began to scream.

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It took hours to put her mind back together. For the longest time she could do nothing but shake and whimper and puke. Gradually she became aware of her surroundings. She was in a stripped apartment room, lying on a bare floor. The place smelled of urine and vomit and fear.

She lifted her head cautiously. There were red streaks on the walls, some of them bright and new, others almost brown. She tried to sit up, and winced. Her fingertips were raw and bloody.

She tried the door first, but it didn't even have an interior handle. She probed around the cracks, biting her tongue when the pain became too great in her shackled hands, satisfied herself that it could not be opened. She sat down again and considered her situation. It did not look promising, but she made her preparations to do what she could.

It might have been two hours before the door opened. She had no way to tell. It was the same man, this time accompanied by an unfamiliar woman. They both stood back and let the door swing inward, wary of an ambush. Bach cowered in the far corner, and as they approached she began to scream again.

Something gleamed in the man's hand. It was a chain knife. The rubber grip containing the battery nestled in his palm and the blunt, fifteen-centimeter blade pointed out, rimmed with hundreds of tiny teeth. The man squeezed the grip, and the knife emitted a high whine as the chain blurred into motion. Bach screamed louder, and got to her feet, backed against the wall. Her whole posture betrayed defenselessness, and evidently they fell for it just enough because when she kicked at the man's throat his answering slash was a little bit too late, missing her leg, and he didn't get another try. He hit the floor, coughing blood. Bach grabbed the knife as it fell.

The woman was unarmed, and she made the right decision, but again it was too late. She started toward the door, but tripped over Bach's outstretched leg and went down on her face.

Bach was going to kick her until she died, but all the activity had strained muscles that should not have been used so roughly; a cramp nearly doubled her over and she fell, arms out to break her fall and protect her stomach. Her manacled hands were going to hit the woman's arm and Bach didn't dare let go of the knife, nor did she dare take the fall on her abused fingertips, and while she agonized over what to do in that long second while she fell in the dreamy lunar gravity her fists hit the floor just behind the woman's arm.

There was an almost inaudible buzzing sound. A fine spray of blood hit Bach's arm and shoulder, and the wall three meters across the room. And the woman's arm fell off.

Both of them stared at it for a moment. The woman's eyes registered astonishment as she looked over to Bach.

"There's no pain," she said, distinctly. Then she started to get up, forgetting about the arm that was no longer there, and fell over. She struggled for a while like an overturned turtle while the blood spurted and she turned very white, then she was still.

Bach got up awkwardly, her breath coming in quick gasps. She stood for a moment, getting herself under control.

The man was still alive, and his breathing was a lot worse than Bach's. She looked down at him. It seemed he might live. She looked at the chain knife in her hand, then knelt beside him, touched the tip of the blade to the side of his neck. When she stood up, it was certain that he would never again cut a child from a mother's body.

She hurried to the door and looked carefully left and right. No one was there. Apparently her screams had not been anything remarkable, or she had killed everyone involved.

She was fifty meters down the corridor before the labor pains began.

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She didn't know where she was, but could tell it was not anywhere near where Elfreda Tong had met her death. This was an old part of town, mostly industrial, possibly up close to the surface. She kept trying doors, hoping to find a way into the public corridors where she would have a chance to make a phone call. But the doors that would open led to storerooms, while the ones that might have been offices were locked up for the night.

Finally one office door came open. She looked in, saw it led nowhere. She was about to close the door and resume her flight when she saw the telephone.

Her stomach muscles knotted again as she knelt behind the desk and punched BELLMANXXX. The

screen came to life, and she hastily thumbed the switch to blacken it.

“Identify yourself, please.”

“This is Lieutenant Bach, I've got a Code One, officer in trouble. I need you to trace this call and send me some help, and I need it quick.”

“Anna, where are you?”

“Lisa?” She couldn't believe it was Babcock.

“Yes. I'm down at headquarters. We've been hoping you'd find a way to report in. Where do we go?”

“That's just it. I don't know. They used a flashball on me and made me forget where I went. And-”

“Yes, we know all that. Now. After you didn't show up for a couple of minutes, we checked, and you were gone. So we arrested everyone in the place. We got Jones and the piano player.”

“Then get her to tell you where I am.”

“We already used her up, I'm afraid. Died under questioning. I don't think she knew, anyway. Whoever she worked for is very careful. As soon as we got the pentothal in her veins, her head blew itself all over the interrogation room. She was a junkie, we know that. We're being more careful with the man, but he knows even less than she did.”

“Great.”

“But you've got to get away from there, Lieutenant. It's terrible. You're in... shit, you know that.” Babcock couldn't seem to go on for a moment, and when she did speak, her voice was shaking. “They're meatleggers, Anna. God help me, that's come to Luna now, too.”

Bach's brow furrowed. “What are you talking about?”

“They procure meat for carnivores, goddam it. Flesh junkies. People who are determined to eat meat, and will pay any price.”

“You're not trying to tell me...”

“Why the hell not?” Babcock flared. “Just look at it. On Earth there are still places you can raise animals, if you're careful. But here, we've got everything locked up so tight nobody dares try it. Somebody smells them, or the sewage monitors pick up traces of animal waste. Can't be done.”

“Then why...?”

“So what kind of meat's available?” Babcock went on, remorselessly. “There's tons of it on the hoof, all around you. You don't have to raise it or hide it. You just harvest it when you have a customer.”

“But cannibalism?” Bach said, faintly.

“Why not? Meat's meat, to someone who wants it. They sell human meat on Earth, too, and charge a high price because it's supposed to taste... ah. I think I'm going to be sick.”

“Me, too.” Bach felt another spasm in her stomach. “Uh, how about that trace? Have you found me yet?”

“Still proceeding. Seems to be some trouble.”

Bach felt a chill. She had not expected that, but there was nothing to do but wait. Surely the computers would get through in time.

“Lisa. Babies? They want babies?”

Babcock sighed. “I don't understand it, either. If you see the Bellman, why don't you ask him? We know they trade in adults, too, if it makes you feel any better.”

“Lisa, my baby's on her way.”

“Dear God.”

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Several times in the next quarter hour Bach heard running feet. Once the door opened and someone stuck his head in, glanced around, and failed to see Bach behind the desk with one hand covering the ready light on the phone and the other gripping the chain knife. She used the time to saw through the metal band of her handcuffs with the knife. It only took a moment; those tiny razors were sharp.

Every few minutes Babcock would come back on the line with a comment like “We're getting routed through every two-mark enclave in Luna.” That told Bach that the phone she was using was protected

with anti-tracer devices. It was out of her hands now. The two computers-the Bellman's and Babcock's-were matching wits, and her labor pains were coming every five minutes.

“Run!” Babcock shouted. “Get out of there, quick!”

Bach struggled to ignore the constriction in her gut, fought off fogginess. She just wanted to relax and give birth. Couldn't a person find any peace, anywhere? “What? What happened?”

“Somebody at your end figured out that you might be using a phone. They know which one you're using, and they'll be there any second. Get out, quick!”

Bach got to her feet and looked out the door. Nothing. No sounds, no movement. Left or right?

It didn't seem to matter. She doubled over, holding her belly, and shuffled down the corridor.

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At last, something different.

The door was marked FARM: AUTHORIZED PERSONNEL ONLY. PRESSURE SUIT AREA. Behind it was corn, corn growing on eight-meter-high stalks, corn in endless rows and files that made dizzying vanishing points in the distance. Sunlight beat down through a clear plastic bubble-the harsh, white sunlight of Luna.

In ten minutes she was lost. At the same time, she knew where she was. If only she could get back to the phone, but it was surely under guard by now.

Discovering her location had been easy. She had picked one of the golden ears, long as her arm and fat as her thigh, peeled back the shuck, and there, on each thumb-sized yellow kernel was the trademark: a green discoloration in the shape of a laughing man with his arms folded across his chest. So she was in the Lunafood plantation. Oddly, it was only five levels above the precinct house, but it might as well have been a billion kilometers.

Being lost in the cornstalks didn't seem like such a bad idea just now. She hobbled down the rows as long as she could stay on her feet. Every step away from the walls should make the search that much more difficult. But her breathing was coming in huge gasps now, and she had the squeasy urge to hold her hands tightly against her crotch.

It didn't hurt. The midwife was working, so while she was in the grip of the most intense sensations she had ever imagined, nothing hurt at all. But it could not be ignored, and her body did not want to keep moving. It wanted to lie down and give up. She wouldn't let it.

One foot in front of the other. Her bare feet were caked in mud. It was drier on the rows of mounds where the corn grew; she tried to stay on them, hoping to minimize her trail.

Hot. It must have been over fifty degrees, with high humidity. A steam bath. Sweat poured from her body. She watched it drip from her nose and chin as she plodded on.

Her universe narrowed to only two things: the sight of her feet moving mechanically in and out of her narrowed vision, and the band of tightness in her gut.

Then her feet were no longer visible. She worried over it for a moment, wondering where they had gone. In fact, nothing was visible at all.

She rolled over onto her back and spit out dirt. A stalk of corn had snapped off at the base when she tumbled into it. She had a clear view upward of the dome, a catwalk hanging below it, and about a dozen golden tassels far overhead, drooping languidly in the still air. It was pretty, the view from down here. The corn tassels all huddled close to the black patch of sky, with green stalks radiating away in all directions. It looked like a good place to stay. She never wanted to get up again.

And this time it hurt some, despite the midwife. She moaned, grabbed the fallen cornstalk in both hands, and gritted her teeth. When she opened her eyes again, the stalk was snapped in two.

Joanna was here.

Bach's eyes bulged in amazement and her mouth hung open. Something was moving down through her body, something far too large to be a baby, something that was surely going to split her wide open.

She relaxed for just a moment, breathing shallowly, not thinking of anything, and her hands went down over her belly. There was a round wet thing emerging from her. She felt its shape, found tiny hollows on



the underside. How utterly amazing.

She smiled for the first time in a million years, and bore down. Her heels dug into the sod, then her toes, and her hips lifted from the black dirt. It was moving again. She was moving again. Joanna, Joanna, Joanna was being born.

It was over so quickly she gasped in surprise. Wet slithering, and her child fell away from her and into the dirt. Bach rolled to her side and pressed her forehead to the ground. The child nestled in blood and wetness between her legs.

She did what had to be done. When it came time to cut the cord, her hand automatically went to the chain knife. She stopped, seeing a man's threatening hand, hearing an almost supersonic whir that would in seconds disembowel her and rip Joanna away.

She dropped the knife, leaned over, and bit down hard.

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Handfuls of corn silk pressed between her legs eventually stopped the bleeding. The placenta arrived. She was weak and shaky and would have liked nothing better than to just lie there in the mothering soil and heat.

But there was a shout from above. A man was up there, leaning over the edge of the catwalk. Answering shouts came from all around her. Far down at the end of her row, almost at the vanishing point, a tiny figure appeared and started coming toward her.

She had not thought she could get up, but she did. There seemed little point in running, but she ran, holding the chain knife in one hand and hugging Joanna in the other. If they would only come up to her and fight, she would die on a heap of slashed bodies.

A green finger of light sizzled into the ground at her heels. She instantly crossed into an adjacent row. So much for hand to hand combat.

The running was harder now, going over the hills rather than between them. But the man behind her could not keep her in view long enough for another shot.

Yet she had known it couldn't last. Vast as the corn plantation was, she could now see the end of it. She came out onto the ten-meter strip of bare ground between the corn plants and the edge of the dome.

There was a four-meter wall of bare metal in front of her. On top of the wall was the beginning of the clear material of the dome. It was shaped and anchored by a network of thin cables attached to the top of the wall on the outside.

It seemed there was no place to run, until she spotted the familiar blue light.

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Inner door latches shut, outer ones open. Bach quickly did what Tong had done, but knew she had a better chance, if only for a while. This was an old lock, without an outside override. They would have to disconnect the alarms inside, then burn through the door. That would take some time.

Only after she had assured herself that she was not vulnerable to a depressurize command from the outside—a possibility she had not thought about before, but which she could negate by opening one of the four inner door latches, thus engaging the safety overrides—only then did she look around the inside of the lock.

It was a five-person model, designed to pass work gangs. There was a toolbox on the floor, coils of nylon rope in one corner. And a closet built into the wall.

She opened it and found the pressure suit.

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It was a large one, but Bach was a large woman. She struggled with adjustment straps until she had the middle let out enough to take both her and Joanna.

Her mind worked furiously, fighting through the exhaustion.

Why was the suit here?

She couldn't find an answer at first, then recalled that the man who had shot at her had not been wearing a suit, nor had the man on the catwalk. There were others chasing her that she hadn't seen, and she was willing to bet they didn't have suits on, either.

So the posted sign she had passed was a safety regulation that was widely ignored. Everyone knew that air conservation and safety regs were many times more stringent than they had to be. The farm had a plastic dome that was the only surface separating it from vacuum, and that automatically classified it as a vacuum-hazard area. But in reality it was safe to enter it without a pressure suit.

The suit was kept there for the rare occasions when it was necessary for someone to go outside. It was a large suit so it would fit anyone who happened to need it, with adjustment.

Interesting.

Joanna cried for the first time when Bach got the suit sealed. And no wonder. The child was held against her body, but there was no other support for her. She quickly got both tiny legs jammed down one of the suit legs, and that couldn't have been too comfortable. Bach tried her best to ignore it, at the same time noting how hard it was to resist the impulse to try and touch her with her hands. She faced the lock controls.

There was a manual evacuation valve. She turned it slowly, opening it a crack so the air would bleed off without making a racket the people inside would hear. Part of the inner door was beginning to glow now. She wasn't too worried about it; hand lasers were not likely to burn through the metal. Someone would be going for heavy equipment by now. It would do them no good to go to adjacent airlocks-which would probably have suits in them, too-because on the outside they couldn't force the door against the air pressure, and they couldn't force the lock to cycle as long as she was inside to override the command.

Unless it occurred to them that she would be suiting up, and someone would be waiting outside as soon as the outer door opened...

She spent a few bad minutes waiting for the air to leak to the outside. It didn't help her state of mind when the Bellman began to speak to her.

"Your situation is hopeless. I presume you know that."

She jumped, then realized he was speaking to her through the intercom, and it was being relayed to her suit radio. He didn't know she was in the suit, then.

"I don't know anything of the kind," she said. "The police will be here in a few minutes. You'd better get going while you've got the chance."

"Sorry. That won't work. I know you got through, but I also know they didn't trace you."

The air pressure dial read zero. Bach held the chain knife and pulled the door open. She stuck her head out. No one was waiting for her.

She was fifty meters away across the gently rolling plain when she suddenly stopped.

It was at least four kilometers to the nearest airlock that did not lead back into the plantation. She had plenty of air, but was not sure about her strength. The midwife mercifully spared her the pain she should have been going through, but her arms and legs felt like lead. Could they follow her faster than she could run? It seemed likely.

Of course, there was another alternative.

She thought about what they had planned for Joanna, then loped back to the dome. She moved like a skater, with her feet close to the ground.

It took three jumps before she could grab the upper edge of the metal wall with one gauntlet, then she could not lift her weight with just the one arm. She realized she was a step away from total exhaustion. With both hands, she managed to clamber up to stand on a narrow ledge with her feet among the bolts that secured the hold-down cables to the top of the wall. She leaned down and looked through the transparent vacuplast. A group of five people stood around the inner lock door. One of them, who had been squatting with his elbows on his knees, stood up now and pressed a button beside the lock. She could only see the top of his head, which was protected by a blue cap.

"You found the suit, didn't you?" the Bellman said. His voice was quiet, unemotional. Bach said

nothing. "Can you still hear me?"

"I can hear you," Bach said. She held the chain knife and squeezed the handle; a slight vibration in her glove was the only indication that it was working. She put the edge of the blade to the plastic film and began to trace the sides of a square, one meter wide.

"I thought you could," he said. "You're on your way already. Of course, I wouldn't have mentioned the suit, in case you hadn't found it, until one of my own men reached the next lock and was on his way around the outside. Which he is."

"Um-hmm." Bach wanted him to keep talking. She was worried they would hear the sound of the knife as it slowly cut its way through the tough plastic.

"What you might like to know is that he has an infrared detector with him. We used it to track you inside. It makes your footprints glow. Even your suit loses heat enough through the boots to make the machine useful. It's a very good machine."

Bach hadn't thought of that, and didn't like it at all. It might have been best to take her chances trying to reach the next airlock. When the man arrived he would quickly see that she had doubled back.

"Why are you telling me all this?" she asked. The square was now bordered with shallow grooves, but it was taking too long. She began to concentrate just on the lower edge, moving the knife back and forth.

"Thinking out loud," he said, with a self-conscious laugh. "This is an exhilarating game, don't you agree? And you're the most skilled quarry I've pursued in many years. Is there a secret to your success?"

"I'm with the police," Bach said. "Your people stumbled into a stake-out."

"Ah, that explains a lot," he said, almost gratefully.

"Who are you, anyway?" she asked.

"Just call me the Bellman. When I heard you people had named me that, I took a fancy to it."

"Why babies? That's the part I can't understand."

"Why veal? Why baby lamb chops? How should I know? I don't eat the stuff. I don't know anything about meat, but I know a good racket, and a fertile market, when I see them. One of my customers wants babies, that's what he gets. I can get any age." He sighed again. "And it's so easy, we grow sloppy. We get careless. The work is so routine. From now on we'll kill quickly. If we'd killed you when you got out of the tube, we'd have avoided a lot of bother."

"A lot more than you expect, I hope." Damn! Why wasn't the knife through yet? She hadn't thought it would take this long. "I don't understand, frankly, why you let me live as long as you did. Why lock me up, then come to kill me hours later?"

"Greed, I'm afraid," the Bellman said. "You see, they were not coming to kill you. You over-reacted. I was attempting to combine one business with another. There are uses for live pregnant women. I have many customers. Uses for live babies, too. We generally keep them for a few months."

Bach knew she should question him about that, as a good police officer. The department would want to know what he did. Instead, she bore down on the knife with all her strength and nearly bit through her lower lip.

"I could use someone like you," he said. "You don't really think you can get away, do you? Why don't you think it over? We could make..."

Peering down through the bubble, Bach saw the Bellman look up. He never finished his offer, whatever it was. She saw his face for an instant—a perfectly ordinary face that would not have seemed out of place on an accountant or a bank teller—and had the satisfaction of seeing him realize his mistake. He did not waste time in regrets. He instantly saw his only chance, abandoned the people working on the lock without warning them, and began to run at full speed back into the cornfield.

The bottom edge of the square parted at that moment. Bach felt something tugging on her hand, and she moved along the narrow ledge away from the hole. There was no sound as the sides of the square peeled back, then the whole panel broke free and the material began to tear from each of the corners. The surface of the bubble began to undulate sluggishly.

It was eerie; there was nothing to hear and little to see as the air rushed out of the gaping hole. Then suddenly storms of cornstalks, shorn of leaves and ears, erupted like flights of artillery rockets and flung themselves into the blackness. The stream turned white, and Bach could not figure out why that should

be.

The first body came through and sailed an amazing distance before it impacted in the gray dust.

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The place was a beehive of activity when Lisa Babcock arrived. A dozen police crawlers were parked outside the wall with dozens more on their way. The blue lights revolved silently. She heard nothing but her own breathing, the occasional terse comment on the emergency band, and the faint whirring of her legs.

Five bodies were arranged just outside the wall, beside the large hole that had been cut to give vehicle access to the interior of the plantation. She looked down at them dispassionately. They looked about as one would expect a body to look that had been blown from a cannon and then quick-frozen.

Bach was not among them.

She stepped inside the dome for a moment, unable to tell what the writhing white coating of spongy material was until she picked up a handful. Popcorn. It was twenty centimeters deep inside, and still growing as raw sunlight and vacuum caused the kernels to dry and explode. If Bach was in there, it could take days to find her body. She went back outside and began to walk along the outer perimeter of the wall, away from where all the activity was concentrated.

She found the body face down, in the shadow of the wall. It was hard to see; she had nearly tripped over it. What surprised her was the spacesuit. If she had a suit, why had she died? Pursing her lips, she grabbed one shoulder and rolled it over.

It was a man, looking down in considerable surprise at the hilt of a chain knife growing from his chest, surrounded by a black, broken flower of frozen blood. Babcock began to run.

When she came to the lock she pounded on the metal door, then put her helmet to it. After a long pause, she heard the answering taps.

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It was another fifteen minutes before they could bring a rescue truck around and mate it to the door. Babcock was in the truck when the door swung open, and stepped through first by the simple expedient of elbowing a fellow cop with enough force to bruise ribs.

At first she thought that, against all her hopes, Bach was dead. She sprawled loosely with her back propped against the wall, hugging the baby in her arms. She didn't seem to be breathing. Mother and child were coated with dirt, and Bach's legs were bloody. She seemed impossibly pale. Babcock went to her and reached for the baby.

Bach jerked, showing surprising strength. Her sunken eyes slowly focused on Babcock's face, then she looked down at Joanna and grinned foolishly.

"Isn't she the prettiest thing you ever saw?"

## **THE BLACK HOLE PASSES**

Jordan looked up from the log of the day's transmissions and noted with annoyance that Treemonisha was lying with her legs half-buried in the computer console. He couldn't decide why that bothered him so much, but it did. He walked over to her and kicked her in the face to get her attention, his foot sailing right through her as if she wasn't there, which she wasn't. He waited, tapping his foot, for her to notice it.

Twenty seconds later she jumped, then looked sheepish.

"You blinked," Jordan crowed. "You blinked. You owe me another five dollars." Again he waited, not even conscious of waiting. After a year at the station he had reached the point where his mind simply edited out the twenty-second time lag. Given the frantic pace of life at the station, there was little chance he would miss anything.

"All right, so I blinked. I'm getting tired of that game. Besides, all you're doing is wiping out your old

debts. You owe me... four hundred and fifty-five dollars now instead of four hundred sixty."

"You liked it well enough when you were winning," he pointed out. "How else could you have gotten into me for that kind of money, with my reflexes?" (Wait) "I think the totals show who has the faster reflexes. But I told you a week ago that I don't appreciate being bothered when I'm reading." She waved her facprinted book, her thumb holding her place.

"Oh, listen to you. Pointing out to me what you don't like, while you're all spread out through my computer. You know that drives me up the wall." (Wait) She looked down at where her body vanished into the side of the computer, but instead of apologizing, she flared up.

"Well, so what? I never heard of such foolishness; walking around chalk marks on the floor all the time so I won't melt into your precious furniture. Who ever heard of such-" She realized she was repeating herself. She wasn't good at heated Invective, but had been getting practice at improving it in the past weeks. She got up out of the computer and stood glowering at Jordan, or glowering at where he had been.

Jordan had quickly scanned around his floor and picked out an area marked off with black tape. He walked over to it and stepped over the lines and waited with his arms crossed, a pugnacious scowl on his face.

"How do you like that?" he spat out at her. "I've been very scrupulous about avoiding objects in your place. Chalk marks, indeed. If you used tape like I told you, you wouldn't be rubbing them off all the time with that fat ass of yours." But she had started laughing after her eyes followed to where he was now standing, and it soon got out of control. She doubled over, threatened to fall down she laughed so hard. He looked down and tried to remember what it was that the tape marked off at her place. Was that where she kept the toilet?

He jumped hastily out of the invisible toilet and was winding up a scathing remark, but she had stopped laughing. The remarks about the fat ass had reached her, and her reply had crawled back at the speed of light.

As he listened to her, he realized anything he could say would be superfluous; she was already as angry as she could be. So he walked over to the holo set and pressed a switch. The projection he had been talking to zipped back into the tank, to become a ten-centimeter angry figure, waving her arms at him.

He saw the tiny figure stride to her own set and slap another button. The tank went black. He noticed with satisfaction, just before she disappeared, that she had lost her place in the book.

Then, in one of the violent swings of mood that had been scaring him to death recently, he was desolately sorry for what he had done. His hands trembled as he pressed the call button, and he felt the sweat popping out on his forehead. But she wasn't receiving.

"Great. One neighbor in half a billion kilometers, and I pick a fight with her."

He got up and started his ritual hunt for a way of killing himself that wouldn't be so grossly bloody that it would make him sick. Once again he came to the conclusion that there wasn't anything like that in the station.

"Why couldn't they think of things like that?" he fumed. "No drugs, no poison gas, no nothing. Damn air system has so goddam many safeties on the damn thing I couldn't raise the CO2 count in here if my life depended on it. Which it does. If I don't find a painless way to kill myself, it's going to drive me to suicide."

He broke off, not only because he had played back that last rhetorical ramble, but because he was never comfortable hearing himself talk to himself. It sounded too much like a person on the brink of insanity.

"Which I am!"

It felt a bit better to have admitted it out loud. It sounded like a very sane thing to say. He grasped the feeling, built steadily on it until it began to feel natural. After a few minutes of deep breathing he felt something approximating calm. Calmly, he pressed the call button again, to find that Treemonisha was still not at home. Calmly, he built up spit and fired it at the innocent holo tank, where it dripped down obscenely. He grinned. Later he could apologize, but right now it seemed to be the right course to stay

angry.

He walked back to the desk and sat down before the computer digest of the three trillion bits that had come over the hotline in the last twenty-four hours. Here was where he earned his salary. There was an added incentive in the realization that Treemonisha had not yet started her scan of her own computer's opinions for the day. Maybe he could scoop her again.

Jordan Moon was the station agent for Star Line, Inc., one of the two major firms in the field of interstellar communication. If you can call listening in on a party line communication.

He lived and worked in a station that had been placed in a slow circular orbit thirteen billion kilometers from the sun. It was a lonely area; it had the sole virtue of being right in the center of the circle of greatest signal strength of the Ophiuchi Hotline.

About all that anyone had ever known for sure about the Ophiuchites was the fact that they had one hell of a big laser somewhere in their planetary system, 70 Ophiuchi. Aside from that, which they couldn't very well conceal, they were an extremely closemouthed race. They never volunteered anything about themselves directly, and human civilization was too parsimonious to ask. Why build a giant laser, the companies asked when it was suggested, when all that lovely information floods through space for free?

Jordan Moon had always thought that an extremely good question, but he turned it around: why did the Ophiuchites bother to build a giant laser? What did they get out of it? No one had the slightest idea, not even Jordan, who fancied himself an authority on everything.

He was not far wrong, and that was his value to the company.

No one had yet succeeded in making a copyright stand up in court when applied to information received over the Hotline. The prevailing opinion was that it was a natural resource, like vacuum, and free to all who could afford the expense of maintaining a station in the cometary zone. The expense was tremendous, but the potential rewards were astronomical. There were fifteen companies elbowing each other for a piece of the action, from the giants like Star Line and HotLine, Ltd., down to several free-lancers who paid hole-hunters to listen in when they were in the vicinity.

But the volume of transmissions was enough to make a board chairman weep and develop ulcers. And the aliens, with what the company thought was boorish inconsideration, insisted on larding the valuable stuff with quintillions of bits of gibberish that might be poetry or might be pornography or recipes or pictures or who-knew-what, which the computers had never been able to unscramble and which had given a few the galloping jitters. The essential problem was that ninety-nine percent of what the aliens thought worth sending over the Line was trash to humans. But that one percent... .. the Symbiotic Spacesuits, that had made it possible for a human civilization to inhabit the Rings of Saturn with no visible means of support, feeding, respirating, and watering each other in a closed-ecology daisy chain. ...the Partial Gravitational Rigor, which made it possible to detect and hunt and capture quantum black holes and make them sit up and do tricks for you, like powering a space drive. ...Macromolecule Manipulation, without which people would die after only two centuries of life. ...Null-field and all the things it had made possible.

Those were the large, visible things that had changed human life in drastic ways but had not made anyone huge fortunes simply because they were so big that they quickly diffused through the culture because of their universal application. The real money was in smaller, patentable items, like circuitry, mechanical devices, chemistry, and games.

It was Jordan's job to sift those few bits of gold from the oceans of gossip or whatever it was that poured down the Line every day. And to do it before Treemonisha and his other competitors. If possible, to find things that Treemonisha missed entirely. He was aided by a computer that tirelessly sorted and compared, dumping the more obvious chaff before printing out a large sheet of things it thought might be of interest.

Jordan scanned that sheet each day, marking out items and thinking about them. He had a lot to think about, and a lot to think with. He was an encyclopedic synthesist, a man with volumes of major and minor bits and pieces of human knowledge and the knack of putting it together and seeing how it might fit with the new stuff from the Line. When he saw something good, he warmed up his big laser and fired it off special delivery direct to Pluto. Everything else-including the things the computer had rejected as

nonsense, because you never could tell what the monster brains on Luna might pick out of it on the second or third go-round-he recorded on a chip the size of a flyspeck and loaded it into a tiny transmitter and fired it off parcel post in a five-stage, high-gee message rocket. His aim didn't have to be nearly as good as the Ophiuchites'; a few months later, the pay-load would streak by Pluto and squeal out its contents in the two minutes it was in radio range of the big dish.

"I wish their aim had been a little better," he grouched to himself as he went over the printout for the fourth time. He knew it was nonsense, but he felt like grouching.

The diameter of the laser beam by the time it reached Sol was half a billion kilometers. The center of the beam was twice the distance from Pluto to the sun, a distance amounting to about twenty seconds of arc from 70 Ophiuchi. But why aim it at the sun? No one listening there. Where would the logical place be to aim a message laser?

Jordan was of the opinion that the aim of the Ophiuchites was better than the company president gave them credit for. Out here, there was very little in the way of noise to garble the transmissions. If they had directed the beam through the part of the solar system where planets are most likely to be found-where they all are found-the density of expelled solar gases would have played hob with reception. Besides, Jordan felt that none of the information would have been much good to planet-bound beings, anyway. Once humanity had developed the means of reaching the cometary zone and found that messages were being sent out there rather than to the Earth, where everyone had always expected to find them, they were in a position to utilize the information.

"They knew what they were doing, all right," he muttered, but the thought died away as something halfway down the second page caught his eye. Jordan never knew for sure just what he was seeing in the digests. Perhaps a better way to make cyanide stew, or advice to lovelorn Ophiuchites. But he could spot when something might have relevance to his own species. He was good at his work. He looked at the symbols printed there, and decided they might be of some use to a branch of genetic engineering.

Ten minutes later, the computer had lined up the laser and he punched the information into it. The lights dimmed as the batteries were called upon to pour a large percentage of their energy into three spaced pulses, five seconds apart. Jordan yawned and scratched himself. Another day's work done; elapsed time, three hours. He was doing well-that only left twenty-one hours before he had anything else he needed to do.

Ah, leisure.

He approached the holo tank again and with considerable trepidation pressed the call button. He was afraid to think of what he might do if Treemonisha did not answer this time.

"You had no call to say what you said," she accused, as she appeared in the tank.

"You're absolutely right," he said, quickly. "It was uncalled for, and untrue. Tree, I'm going crazy, I'm not myself. It was a childish insult and you know it was without basis in fact."

She decided that was enough in the way of apology. She touched the projection button and joined him in the room. So beautiful, so alive, and so imaginary he wanted to cry again. Jordan and Treemonisha were the system's most frustrated lovers. They had never met in the flesh, but had spent a year together by holo projection.

Jordan knew every inch of Treemonisha's body, every pore, every hair. When they got unbearably horny, they would lie side by side on the floor and look at each other. They would strip for each other, taking hours with each garment. They developed the visual and aural sex fantasy to a pitch so fine that it was their own private language. They would sit inches apart and pass their hands close to each other, infinitely careful never to touch and spoil the illusion. They would talk to each other, telling what they would do when they finally got together in person, then they would sit back and masturbate themselves into insensibility.

"You know," Treemonisha said, "you were a lousy choice for this job. You look like shit, you know that? I worry about you, this isolation is... well, it's not good for you."

"Driving me crazy, right?" He watched her walk to one of the taped-off areas on his floor and sit; as she touched the chair in her room, the holo projector picked it up and it winked into existence in his world. She was wearing a red paper blouse but had left off the pants, as a reproach, he thought, and a

reminder of how baseless his gibe had been. She raised her left index finger three times. That was the signal for a scenario, "Captain Future Meets the Black Widow," one of his favorites. They had evolved the hand signals when they grew impatient with asking each other, "Do you want to play 'Antony and Cleopatra'?"-one of her favorites.

He waved his hand, negating his opening lines. He was impatient with the games and fantasies. He was getting impatient with everything. Besides, she wasn't wearing her costume for the Black Widow.

"I think you're wrong," he said. "I think I was the perfect choice for this job. You know what I did after you shut off? I went looking for a way to kill myself."

For once, he noticed the pause. She sat there in her chair, mouth slightly open, eyes unfocused, looking as though she was about to drool all over her chin. Once they had both been fascinated with the process by which their minds suspended operations during the time lag that was such a part of their lives. He had teased her about how stupid she looked when she waited for his words to catch up with her. Then once he had caught himself during one of the lags and realized he was a slack-jawed imbecile, too. After that, they didn't talk about it.

She jerked and came to life again, like a humanoid robot that had just been activated.

"Jordan! Why did you do that?" She was half out of the chair in a reflex comforting gesture, then suppressed it before she committed the awful error of trying to touch him.

"The point is, I didn't. Try it sometime. I found nine dozen ways of killing myself. It isn't hard to do, I'm sure you can see that. But, you see, they have gauged me to a nicety. They know exactly what I'm capable of, and what I can never do. If I could kill myself painlessly, I would have done it three months ago, when I first started looking. But the most painless way I've doped out yet still involves explosive decompression. I don't have the guts for it."

"But surely you've thought of... ah, never mind."

"You mean you've thought of a way?" He didn't know what to think. He had been aware for a long time that she was a better synthesist than he; the production figures and several heated communications from the home office proved that. She could put nothing and nothing together and arrive at answers that astounded him. What's more, her solutions worked. She seldom sent anything over her laser that didn't bear fruit and often saw things he had overlooked.

"Maybe I have," she evaded, "but if I did, you don't think I'd tell you after what you just said. Jordan, I don't want you to kill yourself. That's not fair. Not until we can get together and you try to live up to all your boasting. After that, well, maybe you'll have to kill yourself."

He smiled at that, and was grateful she was taking the light approach. He did get carried away describing the delights she was going to experience as soon as they met in the flesh.

"Give me a hint," he coaxed. "It must involve the life system, right? It stands to reason, after you rule out the medical machines, which no one, no one could fool into giving out a dose of cyanide. Let's see, maybe I should take a closer look at that air intake. It stands to reason that I could get the CO2 count in here way up if I could only-"

"No!" she exploded, then listened to the rest of his statement. "No hints. I don't know a way. The engineers who built these things were too smart, and they knew some of us would get depressed and try to kill ourselves. There's no wrenches you could throw into the works that they haven't already thought of and countered. You just have to wait it out."

"Six more months," he groaned. "What does that come to in seconds?"

"Twenty less than when you asked the question, and didn't that go fast?"

Looked at that way, he had to admit it did. He experienced no subjective time between the question and the answer. If only he could edit out days and weeks as easily as seconds.

"Listen, honey, I want to do anything I can to help you. Really, would it help if I tried harder to stay out of your furniture?"

He sighed, not really interested in that anymore. But it would be something to do.

"All right."

So they got together, and she carefully laid out strips of tape on her floor marking the locations of objects in his room. He coached her, since she could see nothing of his room except him. When it was



done, she pointed out that she could not get into her bedroom without walking through his auxiliary coelostat. He said that was all right as long as she avoided everything else.

When they were through, he was as depressed as ever. Watching her crawl around on her hands and knees made him ache for her. She was so lovely, and he was so lonely. The way her hair fell in long, ashen streams over the gathered materials of her sleeves, the curl of her toes as she knelt to peel off a strip of tape, the elastic give and take of the tendons in her legs—all the myriad tiny details he knew so well and didn't know at all. The urge to reach out and touch her was overpowering.

"What would you like to do today?" she said when they were through with the taping.

"I don't know. Everything I can't do."

"Would you like me to tell you a story?"

"No."

"Would you tell me a story?" She crossed her legs nervously. She didn't know how to cope with him when he got in these unresponsive moods.

Treemonisha was not subject to the terrors of loneliness that were tearing Jordan apart. She got along quite well by herself, aside from the sometimes maddening sexual pressures. But masturbation satisfied her more than it did Jordan. She expected no problems while waiting out the six months until they were rotated back to Pluto. There was even a pleasurable aspect of the situation for her: the breathless feeling of anticipation waiting for the moment when they would finally be in each other's arms.

Jordan was no good at all at postponing his wants. Those wants, surprisingly to him, were not primarily sexual. He longed to be surrounded by people. To be elbow to elbow in a crowd, to smell the human smell of them around him, to be jostled, even shoved. Even to be punched in the face if necessary. But to be touched by another human being. It didn't have to be Treemonisha, though she was his first choice. He loved her, even when he yelled at her for being so maddeningly insubstantial.

"All right, I'll tell you a story." He fell silent, trying to think of one that had some aspect of originality. He couldn't, and so he fell back on "The Further Exploits of the Explorers of the Pink Planet." For that one, Treemonisha had to take off all her clothes and lie on her back on the floor. He sat very close to her and put the trio of adventurers through their paces.

Captain Rock Rogers, commander of the expedition, he who had fearlessly led the team over yawning wrinkles and around pores sunk deep into the treacherous surface of the pink planet. The conqueror of Leftbreast Mountain, the man who had first planted the flag of the United Planets on the dark top of that dangerously unstable prominence and was planning an assault on the fabled Rightbreast Mountain, home of the savage tribe of killer microbes. Why?

"Because it's there," Treemonisha supplied.

"Who's telling this story?"

Doctor Maryjane Peters, who single-handedly invented the epidermal polarizer that caused the giant, radioactive, mutated crab lice to sink into the epithelium on the trio's perilous excursion into the Pubic Jungle.

"I still think you make that up about the crab lice."

"I reports what I sees. Shut up, child."

And Trog, half-man, half-slime mold, who had used his barbarian skills to domesticate Jo-jo, the man-eating flea, but who was secretly a spy for the Arcturian Horde and was working to sabotage the expedition and the hopes of all humanity.

As we rejoin the adventurers, Maryjane tells Rock that she must again venture south, from their base at the first sparse seedlings of the twisted Pubic Jungle, or their fate is sealed.

"Why is that, my dear?" Rock says boyishly.

"Because, darling, down at the bottom of the Great Rift Valley lie the only deposits of rare musketite on the whole planet, and I must have some of it to repair the burnt-out denoxifier on the overdrive, or the ship will never..."

Meanwhile, back at reality, Treemonisha caused her Left Northern Promontory to move southwards and rub itself lightly through the Great Rift Valley, causing quite an uproar among the flora and fauna there.

"Earthquake!" Trog squeaks, and runs howling back toward safety in the great crater in the middle of the Plain of Belly.

"Strictly speaking, no," Maryjane points out, grabbing at a swaying tree to steady herself. "It might more properly be called a Treemonisha-qua-

"Treemonisha. Must you do that while I'm just getting into the story? It plays hell with the plot line."

She moved her hand back to her side and tried to smile. She was willing to patronize him, try to get him back to himself, but this was asking a lot. What were these stories for, she reasoned, but to get her horny and give her a chance to get some relief?

"All right, Jordan, I'll wait."

He stared silently down at her. A tear trembled on the tip of his nose, hung there, and fell down toward her abdomen. And of course it didn't get her wet. It was followed by another, and another, and still she wasn't wet, and he felt his shoulders begin to shake. He fell forward onto the soft, inviting surface of her body and bumped his head hard on the deck. He screwed his eyes shut tight so he couldn't see her and cried silently.

After a few helpless minutes, Treemonisha got up and left him to recover in privacy.

Treemonisha called several times over the next five days. Each time Jordan told her he wanted to be alone. That wasn't strictly true; he wanted company more than he could say, but he had to try isolation and see what it did to him. He thought of it as destructive testing—a good principle for engineering but questionable for mental equilibrium. But he had exhausted everything else.

He even called up The Humanoid, his only other neighbor within radio range. He and Treemonisha had named him that because he looked and acted so much like a poorly constructed robot. The Humanoid was the representative of Lasercom. No one knew his name, if he had one. When Jordan had asked passing holehunters about him, they said he had been out in that neighborhood for over twenty years, always refusing rotation.

It wasn't that The Humanoid was unfriendly; he just wasn't much of anything at all. When Jordan called him, he answered the call promptly, saying nothing. He never initiated anything. He would answer your questions with a yes or a no or an I-don't-know. If the answer required a sentence, he said nothing at all.

Jordan stared at him and threw away his plan of isolating himself for the remainder of his stay at the station.

"That's me in six months," he said, cutting the connection without saying good-bye, and calling Treemonisha.

"Will you have me back?" he asked.

"I wish I could reach out and grab you by the ears and shake some sense back into you. Look." She pointed to where she was standing. "I've avoided your tape lines for five days, though it means threading a maze when I want to get to something. I was afraid you'd call me and I'd pop out in the middle of your computer again and freak you."

He looked ashamed; he was ashamed. Why did it matter?

"Maybe it isn't so important after all."

She lay down on the floor.

"I've been dying to hear how the story came out," she said. "You want to finish it now?"

So he dug out Rock Rogers and Maryjane and sent them into the bushes and, to enliven things, threw in Jo-jo and his wild mate, Gi-gi.

For two weeks Jordan fought down his dementia. He applied himself to the computer summaries, forcing himself to work at them twice as long as was his custom. All it did was reconfirm to him that if he didn't see something in three hours, he wasn't going to see it at all.

Interestingly enough, the computer sheets were getting gradually shorter. His output dwindled as he had less and less to study. The home office didn't like it and suggested he do some work on the antennas to see if there was something cutting down on the quality of the reception. He tried it, but was unsurprised when it changed nothing.

Treemonisha had noticed it, too, and had run an analysis on her computer.

"Something is interfering with the signal," she told him after studying the results. "It's gotten bad enough

that the built-in redundancy isn't sufficient. Too many things are coming over in fragmentary form, and the computer can't handle them."

She was referring to the fact that everything that came over the hotline was repeated from ten to thirty times. Little of it came through in its totality, but by adding the repeats and filling in the blanks the computer was able to construct a complete message ninety percent of the time. That average had dropped over the last month to fifty percent, and the curve was still going down.

"Dust cloud?" Jordan speculated.

"I don't think it could move in that fast. The curve would be much shallower, on the order of hundreds of years, before we would really notice a drop-off."

"Something else, then." He thought about it. "If it's not something big, like a dust cloud blocking the signal, then it's either a drop-off in power at the transmitter, or it could be something distorting the signal. Any ideas?"

"Yes, but it's very unlikely, so I'll think about it some more."

She exasperated him sometimes with her unwillingness to share things like that with him. But it was her right, and he didn't probe.

Three days later Treemonisha suddenly lost a dimension. She was sitting there in the middle of his room when her image flattened out like a sheet of paper, perpendicular to the floor. He saw her edge-on and had to get up and walk around the flat image to really see it.

"I'll call it 'Nude Sitting in a Chair,'" he said. "Tree, you're a cardboard cutout."

She looked up at him warily, hoping this wasn't the opening stanza in another bout with loneliness.

"You want to explain that?"

"Gladly. My receiver must be on the fritz. Your image is only two-dimensional now. Would you like to stand up?"

She grinned, and stood. She turned slowly, and the plane remained oriented the same way but different parts of her were now flattened. He decided he didn't like it, and got out his tools.

Two hours of checking circuitry told him nothing at all. There didn't seem to be anything wrong with the receiver, and when she checked her transmitter, the result was the same. Midway through the testing she reported that his image had flattened out, too.

"It looks like there really is something out there distorting signals," she said. "I think I'll sign off now. I want to check something." And with that she cut transmission.

He didn't care for the abruptness of that and was determined that she wouldn't beat him to the punch in finding out what it was. She could only be searching for the source of the distortion, which meant she had a good idea of what to look for.

"If she can figure it out, so can I." He sat down and thought furiously. A few minutes later he got up and called her again.

"A black hole," she said, when she arrived. "I found it, or at least a close approximation of where it must be."

"I was going to say that," he muttered. But he hadn't found it. He had only figured out what it must be. She had known that three days ago.

"It's pretty massive," she went on. "The gravity waves were what fouled up our reception, and now it's close enough to ruin our transmissions to each other. I thought at first I might be rich, but it looks far too big to handle."

That was why she hadn't said anything earlier. If she could locate it and get a track on it, she could charter a ship and come back to get it later. Black holes were fantastically valuable, if they were small enough to manipulate. They could also be fantastically dangerous.

"Just how big?" he asked.

"I don't know yet, except that it's too big to chase. I..."

Her image, already surreal enough from the flattening, fluttered wildly and dissolved. He was cut off.

He chewed his nails for the next hour, and when the call bell clanged, he almost injured himself getting to the set. She appeared in the room. She was three-dimensional again, wearing a spacesuit, and she didn't look too happy.

"What the hell happened? You didn't do that on purpose, did you? Because-

"Shut up." She looked tired, as though she had been working.

"The stresses. I found myself falling toward the wall, and the whole station shipped around it like zzzip! And all of a sudden everything was creaking and groaning like a haunted house. Bells clanging, lights... Scared the shit out of me." He saw that she was shaking, and it was his turn to suffer the pain of not being able to get up and comfort her.

She got control again and went on.

"It was tidal strains, Jordan, like you read about that can wreck a holehunter if she's not careful. You don't dare get too close. It could have been a lot worse, but as it is, there was a slow blowout, and I only just got it under control. I'm going to stay in this suit for a while longer, because everything was bent out of shape. Not enough to see, but enough. Seams parted. Some glass shattered. Everything rigid was strained some. My laser is broken, and I guess every bit of precision equipment must be out of alignment. And my orbit was altered. I'm moving toward you slightly, but most of my motion is away from the sun."

"How fast?"

"Not enough to be in danger. I'll be in this general area when they get a ship out here to look for me. Oh, yes. You should get off a message as quick as you can telling Pluto what happened. I can't talk to them, obviously."

He did that, more to calm himself than because he thought it was that urgent. But he was wrong.

"I think it'll pass close to you, Jordan. You'd better get ready for it."

Jordan stood in front of the only port in the station, looking out at the slowly wheeling stars. He was wearing his suit, the first time he had had it on since he arrived. There had just been no need for it.

The Star Line listening post was in the shape of a giant dumbbell. One end of it was the fusion power plant, and the other was Jordan's quarters. A thousand meters away, motionless relative to the station, was the huge parabolic dish that did the actual listening.

"Why didn't they give these stations some means of movement?"

He was talking into his suit radio. Treemonisha's holo set had finally broken down and she could not patch it up. There were too many distorted circuits deep in its guts; too many resistances had been altered, too many microchips warped. He realized glumly that even if the passage of the hole left him unscathed he would not see her again until they were rescued.

"Too expensive," she said patiently. She knew he was talking just to keep calm and didn't begrudge providing a reassuring drone for him to listen to. "There's no need under normal circumstances to move the things once they're in place. So why waste mass on thrusters?"

"Normal circumstances," he scoffed. "Well, they didn't think of everything, did they? Maybe there was a way I could have killed myself. You want to tell me what it was, before I die?"

"Jordan," she said gently, "think about it. Isn't it rather unlikely for a black hole to pass close enough to our positions to be a danger? People hunt them for years without finding them. Who expects them to come hunting you?"

"You didn't answer my question."

"After the passage, I promise. And don't worry. You know how unlikely it was for it to pass as close as it did to me. Have some faith in statistics. It's surely going to miss you by a wide margin."

But he didn't hear the last. The floor started vibrating slowly, in long, accelerating waves. He heard a sound, even through the suit, that reminded him of a rock crusher eating its way through a solid wall. Ghostly fingers plucked at him, trying to pull him backwards to the place where the hole must be, and the stars outside the port jerked in dance rhythms, slowing, stopping, turning the other way, sashaying up and down, then starting to whirl.

He was looking for something to grab onto when the port in front of him shattered into dust and he was expelled with a monstrous whoosh as everything in the station that wasn't bolted down tried to fit itself through that meter-wide hole. He jerked his hands up to protect his faceplate and hit the back of his head hard on the edge of the port as he went through.

The stars were spinning at a rate fast enough to make him dizzy. Or were the stars spinning because he was dizzy? He cautiously opened his eyes again, and they were still spinning.

His head was throbbing, but he couldn't sync the throb rate with the pain. Therefore, he declaimed to himself, the stars are spinning. On to the next question. Where am I?

He had no answers and wished he could slip back into that comforting blackness. Blackness. Black.

He remembered and wished he hadn't.

"Treemonisha," he moaned. "Can you hear me?"

Evidently she couldn't. First order of business: stop the spin before my head unscrews. He carefully handled the unfamiliar controls of his suit jets, squirting streams of gas out experimentally until the stars slowed, slowed, and came to rest except for a residual drift that was barely noticeable.

"Very lonely out here," he observed. There was what must be the sun. It was bright enough to be, but he realized it was in the wrong place. It should be, now let's see, where? He located it, and it wasn't nearly as bright as the thing he had seen before.

"That's the hole," he said, with a touch of awe in his voice. Only one thing could have caused it to flare up like that.

The black hole that had wrecked his home was quite a large one, about as massive as a large asteroid. But with all that, it was much smaller than his station had been. Only a tiny fraction of a centimeter across, in fact. But at the "surface," the gravity was too strong to bear thinking about. The light he saw was caused by stray pieces of his station that had actually been swept up by the hole and were undergoing collapse into neutronium, and eventually would go even further. He wondered how much radiation he had been exposed to. Soon he realized it probably wouldn't matter.

There were a few large chunks of the station tumbling close to him, dimly visible in the starlight. He made out one of the three-meter rockets he used to send the day's output back to Pluto. For a wild second he thought he saw a way out of his predicament. Maybe he could work out a way of using the rocket to propel him over to Treemonisha. Then he remembered he had worked all that out on the computer during one of his lonelier moments. Those rockets were designed for accelerating a pea-sized transmitter up to a tremendous velocity, and there was no provision for slowing it down again, or varying the thrust, or turning it on and off. It was useless to him. Even if he could rig it some way so that it would move him instead of drilling straight through his back, the delta-vee he could get from it was enough to let him reach Treemonisha in about three weeks. And that was far, far too long.

He started over to it, anyway. He was tired of hanging out there in space a billion kilometers from anything. He wanted to get close to it, to have something to look at.

He clanged onto it and slowly stopped its rotation. Then he clung to it tightly, like an injured monkey to a tree limb.

A day later he was still clinging, but he had thought of a better metaphor.

"Like a castaway clinging to a log," he laughed to himself. No, he wasn't sure he liked that better. If he cast loose from the rocket, nothing at all would happen to him. He wouldn't drown in salty seas or even choke on hard vacuum. He was like the monkey: very scared and not about to let go of the security that his limb afforded him.

"...calling. Treemonisha calling Jordan, please answer quickly if you can hear me, because I have the radio set to..."

He was too astounded to respond at once, and the voice faded out. Then he yelled until he was hoarse, but there was no answer. He abandoned himself to despair for a time.

Then he pulled himself together and puzzled out with what wits he had left what it was she might be doing. She was scanning the path of strewn debris with a tight radio beam, hoping he was one of the chunks of metal her radar told her were there. He must be alert and yell out the next time he heard her.

Hours later, he was trying to convince himself it hadn't been a hallucination.

"...hear me, because-"

"Treemonisha!"

"-I have the radio set to scan the wreckage of your station, and if you take your time, I won't hear you. Treemonisha call..."

It faded again, and he jittered in silence.

"Jordan, can you hear me now?" The voice wavered and faded, but it was there. She must be aiming

by hand.

"I hear you. I figured it out."

"Figured what out?"

"Your painless way of committing suicide. But you were wrong. It's true that if I had stepped outside the station wearing my suit, I would have died of CO2 poisoning eventually, but you were wrong if you thought I could take this isolation. I would have jetted back to the station in just a few hours-" His voice broke as he forced himself to look again at the bottomless depths that surrounded him.

"You always take the hard way, don't you?" she said, in a voice so gentle and sympathetic that she might have been talking to a child. "Why would you have to step out?"

"Aaaaa..." he gurgled. One step ahead again. Why step outside, indeed? Because that's what you do in a spacesuit. You don't wear it inside the station, sealed off from the fail-safe systems inside unless you want to die when the oxygen in your tanks runs out.

"I'm not that dense, and you know it. You want to tell me why I didn't see that? No, wait, don't. Don't outfigure me in that, too. I'll tell you why. Because I didn't really want to kill myself. If I had been sincere, I would have thought of it."

"That's what I finally hoped was the case. But I still didn't want to take the chance of telling you. You might have felt pressured to go through with it if you knew there was a way."

Something was nagging at him. He furrowed his brow to squeeze it out in the open, and he had it.

"The time lag's shorter," he stated. "How far apart are we?"

"A little over two million kilometers, and still closing. The latest thing I can get out of my computer-which is working in fits and starts-is that you'll pass within about one point five million from me, and you'll be going five thousand per, relative."

She cleared her throat. "Uh, speaking of that, how much reserve do you have left?"

"Why bother yourself? I'll just fade away at the right time, and you won't have to worry because you know how long I have to live."

"I'd still like to know. I'd rather know."

"All right. The little indicator right here says my recyclers should keep right on chugging along for another five days. After that, no guarantees. Do you feel better now?"

"Yes, I do." She paused again. "Jordan, how badly do you need to talk to me right now? I can stay here as long as you need it, but there's a lot of work I have to do to keep this place running, and I can't afford the power drain to talk to you continuously for five days. The batteries are acting badly, and they really do need constant attention."

He tried not to feel hurt. Of course she was fighting her own fight to stay alive-she still had a chance. She wouldn't be Treemonisha if she folded up because the going got rough. The rescue ship would find her, he felt sure, working away to keep the machines going.

"I'm sure I can get along," he said, trying his best to keep the reproach out of his voice. He was ashamed at feeling that way, but he did. The bleak fact was that he had felt for a brief moment that dying wouldn't be so hard as long as he could talk to her. Now he didn't know.

"Well, hang on, then. I can call you twice a day if my figures are right and talk for an hour without draining too much power for what I have to do. Are you sure you'll be all right?"

"I'm sure," he lied.

And he was right. He wasn't all right.

The first twelve-hour wait was a mixture of gnawing loneliness and galloping agoraphobia.

"About half one and half the other," he commented during one of his lucid moments. They were rare enough, and he didn't begrudge himself the luxury of talking aloud when he was sane enough to understand what he was saying.

And then Treemonisha called, and he leaked tears through the entire conversation, but they didn't enter into his voice, and she never suspected. They were happy tears, and they wet the inside of his suit with his boundless love for her.

She signed off, and he swung over to hating her, telling the uninterested stars how awfully she treated him, how she was the most ungrateful sentient being from here to 70 Ophiuchi.

"She could spare the power to talk just a few minutes longer," he raged. "I'm rotting out here, and she has to go adjust the air flow into her bedroom or sweep up. It's so damn important, all that housekeeping, and she leaves me all alone."

Then he kicked himself for even thinking such things about her. Why should she put her life on the line, wasting power she needed to keep breathing, just to talk to him?

"I'm dead already, so she's wasting her time. I'll tell her the next time she calls that she needn't call back."

That thought comforted him. It sounded so altruistic, and he was uncomfortably aware that he was liable to be pretty demanding of her. If she did everything he wanted her to, she wouldn't have any time to do anything else.

"How are you doing, Rock Rogers?"

"Treemonisha! How nice of you to call. I've been thinking of you all day long, just waiting for the phone to ring."

"Is that sincere, or are you hating me again today?"

He sobered, realizing that it might be hard for her to tell anymore, what with his manic swings in mood.

"Sincere. I'll lay it on the line, because I can't stand not talking about it anymore. Have you thought of anything, anything I might do to save myself? I've tried to think, but it seems I can't think in a straight line anymore. I get a glimpse of something, and it fades away. So I'll ask you. You were always faster than me in seeing a way to do something. What can I do?"

She was quiet for a long time.

"Here is what you must do. You must come to terms with your situation and stay alive as long as you can. If you keep panicking like you've been doing, you're going to open your exhaust and spill all your air. Then all bets are off."

"If you were betting, would you bet that it matters at all how much longer I stay alive?"

"The first rule of survival is never give up. Never. If you do, you'll never take advantage of the quirks of fate that can save you. Do you hear me?"

"Treemonisha, I won't hedge around it any longer. Are you doing something to save me? Have you thought of something? Just what 'quirks' did you have in mind?"

"I have something that might work. I'm not going to tell you what it is, because I don't trust you to remain calm about it. And that's all you're getting from me."

"Haven't you considered that not knowing will upset me more than knowing and worrying about it?"

"Yes," she said, evenly. "But frankly, I don't want you looking over my shoulder and jostling my elbow while I try to get this together. I'm doing what I can here, and I just told you what you have to do out there. That's all I can do for you, and you won't change it by trying to intimidate me with one of your temper tantrums. Go ahead, sound off all you want, tell me I'm being unfair, that you have a right to know. You're not rational, Jordan, and you are the one who has to get yourself out of that. Are you ready to sign off? I have a lot of work to do."

He admitted meekly that he was ready.

Her next call was even briefer. He didn't want to remember it, but he had whined at her, and she had snapped at him, then apologized for it, then snapped at him again when he wheedled her for just a teeny tiny hint.

"Maybe I was wrong, not telling you," she admitted. "But I know this: if I give in and tell you now, the next phone call will be full of crap from you telling me why my scheme won't work. Buck up, son. Tell yourself a story, recite prime numbers. Figure out why entropy runs down. Ask yourself what The Humanoid does. But don't do what he does. That isn't your style. I'll see you later."

The next twelve hours marked the beginning of rising hope for Jordan, tinged with the first traces of confidence.

"I think I might be able to hold out," he told the stars. He took a new look at his surroundings.

"You aren't so far away," he told the cold, impersonal lights. It sounded good, and so he went on with it. "Why, how can I feel you're so far away when I can't get any perspective on you? You might as well be specks on my faceplate. You are specks." And they were.

With the discovery that he had some control of his environment, he was emboldened to experiment with it. By using his imagination, he could move the stars from his faceplate to the far-away distance, hundreds of meters away. That made the room he was in a respectable size, but not overwhelming. He tuned his imagination like a focusing knob, moving the stars and galaxies in and out, varying the size of space as he perceived it.

When she called again, he told her with some triumph that he no longer cared about the isolation he was floating in. And it was true. He had moved the stars back to their original positions, light-years away, and left them there. It no longer mattered.

She congratulated him tiredly. There was strain in her voice; she had been working hard at whatever mysterious labors had kept her from the phone. He no longer believed the story about maintenance occupying all her time. If that were true, when would she find time to work on rescuing him? The logic of that made him feel good all over.

He no longer clung to his bit of driftwood as an anchor against the loneliness. Rather, he had come to see it as a home base from which he could wander. He perched on it and looked out at the wide universe. He looked at the tiny, blinding spark that was the sun and wondered that all the bustling world of people he had needed so badly for so long could be contained in such a small space. He could put out his thumb and cover all the inner planets, and his palm took in most of the rest. Billions of people down there, packed solid, while he had this great black ocean to wallow around in.

Jordan's time was down to five hours. He was hungry, and the air in his helmet stank.

"The time," Treemonisha stated, "is fourteen o'clock, and all is well."

"Hmm? Oh, it's you. What is time?"

"Oh, brother. You're really getting into it, aren't you? Time is: the time for my twice-daily call to see how things are in your neck of space. How are you doing?"

"Wonderful. I'm at peace. When the oxygen runs out, I'll at least die a peaceful death. And I have you to thank for it."

"I always hoped I'd go kicking and screaming," she said. "And what's this about dying? I told you I had something going."

"Thank you, darling, but you don't need to carry on with that anymore. I'm glad you did, because for a time there if I hadn't thought you were working to save me, I never would have achieved the peace I now have. But I can see now that it was a device to keep me going, to steady me. And it worked, Tree, it worked. Now, before you sign off, would you take a few messages? The first one is to my mother. 'Dear mom...'"

"Hold on there. I refuse to hear anything so terribly personal unless there's a real need for it. Didn't I find a way for you to kill yourself after you had given it up? Don't I always pull more gold out of those transmissions than you do? Haven't you noticed anything?"

The time lag!

Panic was rising again in his voice as he hoarsely whispered, "Where are you?"

And instantly:

"A thousand kilometers off your starboard fo'c'sle, mate, and closing fast. Look out toward Gemini, and in about thirty seconds you'll see my exhaust as I try to bring this thing in without killing both of us."

"This thing? What is it?"

"Spaceship. Hold on."

He got himself turned in time to see the burn commence. He knew when it shut off exactly how long the burn had been; he had seen it enough times. It was three and five-eighths seconds, the exact burn time for the first stage of the message rockets he had launched every day for almost a year.

"Ooh! Quite a few gees packed into these things," she said.

"But how?"

"Hold on a few minutes longer." He did as he was asked. "Damn. Well, it can't be helped, but I'm going to go by you at about fifty kilometers per hour, and half a kilometer away. You'll have to jump for it, but I can throw you a line. You still have that rocket to push against?"

"Yes, and I have quite a bit of fuel in my backpack. I can get to you. That's pretty good shooting over



that distance."

"Thanks. I didn't have time for anything fancy, but I-"

"Now you hush. I'm going to have to see this to believe it. Don't spoil it for me."

And slowly, closing on him at a stately fifty kilometers per, was... a thing... that she had offhandedly called a spaceship:

It was all roughly welded metal and ungainly struts and excess mass, but it flew. The heart of it was a series of racks for holding the message rocket first stages in clusters of ten. But dozens of fourth and fifth stages stuck out at odd angles, all connected by wire to Treemonisha's old familiar lounging chair. All the padding and upholstery had frozen and been carelessly picked off. And in the chair was Treemonisha.

"Better be ready in about fifty seconds."

"How did you do it? How long did it take you?"

"I just asked myself: 'What would Rock Rogers have done?' and started whipping this into shape."

"You don't fool me for an instant. You never cared for Rock. What would Maryjane Peters, superscientist, have done?"

He could hear the pleased note in her voice, though she tried not to show it.

"Well, maybe you're right. I worked on it for three days, and then I had to go whether it was ready or not, because it was going to take me two days to reach you. I worked on it all the way over here, and I expect to nurse it all the way back. But I intend to get back, Jordan, and I'll need all the help I can get from my crew."

"You'll have it."

"Get ready. Jump!"

He jumped, and she threw the line out, and he snagged it, and they slowly spun around each other, and his arms felt as though they would be wrenched off, but he held on.

She reeled him in, and he climbed into the awkward cage she had constructed. She bustled around, throwing away expended rocket casings, ridding the ship of all excess mass, hooking him into the big oxygen bottle she had fetched.

"Brace yourself. You're going to have bruises all over your backside when I start up."

The acceleration was brutal, especially since he wasn't cushioned for it. But it lasted only three and five-eighths seconds.

"Well, I've lived through three of these big burns now. One more to go, and we're home free." She busied herself with checking their course, satisfied herself, then sat back in the chair.

They sat awkwardly side by side for a long twenty seconds.

"It's... it's funny to be actually sitting here by you," he ventured.

"I feel the same way." Her voice was subdued, and she found it hard to glance over at him. Hesitantly, her hand reached out and took his. It shocked him to his core, and he almost didn't know what to do. But something took over for him when he finally appreciated, through all the conditioned reflexes, that it was all right, he could touch her. It seemed incredible to him that the spacesuits didn't count for anything; it was enough that they could touch. He convulsively swept her into his arms and crushed her to him. She pounded his back, laughing raggedly. He could barely feel it through the suit, but it was wonderful!

"It's like making love through an inflated tire," she gasped when she had calmed down enough to talk.

"And we're the only two people in the universe who can say that and still say it's great because, before, we were making love by postcard." They had another long hysterical laugh over that.

"How bad is it at your place?" he finally asked.

"Not bad at all. Everything we need is humming. I can give you a bath-"

"A bath!" It sounded like the delights of heaven. "I wish you could smell me. No, I'm glad you can't."

"I wish I could. I'm going to run the tub full of hot, hot water, and then I'm going to undress you and lower you into it, and I'm going to scrub all those things I've been staring at for a year and take my time with it, and then-"

"Hey, we don't need stories anymore, do we? Now we can do it."

"We need them for another two days. More than ever now, because I can't reach the place that's begging for attention. But you didn't let me finish. After I get in the tub with you and let you wash me, and

before we head hand in hand for my bedroom, I'm going to get Rock Rogers and Maryjane Peters and the Black Widow and Mark Antony and Jo-jo and his wild mate and hold their heads under the water until they drown."

"No you don't. I claim the right to drown Rock Rogers."

## THE FUNHOUSE EFFECT

"Did you see what's playing at the theater tonight, Mr. Quester?" The stewardess was holding a printed program in her hand.

"No, and I haven't the time now. Where's the captain? There are some things he should-"

"Two old flat movies," she went on, oblivious to his protests. "Have you ever seen one? They're very interesting and entertaining. A Night to Remember and The Poseidon Adventure. I'll make a reservation for you."

Quester called out to her as she was leaving.

"I'm trying to tell you, there's something badly wrong on this ship. Won't anybody listen?"

But she was gone, vanished into the crowd of merrymakers. She was busy enough without taking time to listen to the wild tales of a nervous passenger.

Quester was not quite right in thinking of Hell's Snowball as a ship. The official welcoming pamphlet referred to it as an asterite, but that was advertising jargon. Anyone else would have called it a comet.

Icarus Lines, Inc., the owners, had found it drifting along at a distance of 500 AU. It had been sixty kilometers in diameter, weighing in at about one hundred trillion tons.

Fortunately, it was made up of frozen liquids rich in hydrogen. Moving it was only a matter of installing a very large fusion motor, then sitting back for five years until it was time to slow it down for orbit in the umbra of Mercury.

The company knew they would not get many passengers on a bare snowball. They tunneled into the comet, digging out staterooms and pantries and crew's quarters as they went. The ship-fitters went in and paneled the bare ice walls in metal and plastic, then filled the rooms with furniture. There was room to spare, power to spare. They worked on a grand scale, and they had a grand vision. They intended to use the captive comet for sightseeing excursions to the sun.

Things went well for fifty years. The engine would shove the Snowball out of the protective shadow and, with the expenditure of ten million tons of ice and ammonia for reaction mass, inject it into a hyperbolic orbit that would actually brush the fringes of the solar corona. Business was good. Hell's Snowball became the vacation bonanza of the system, more popular than Saturn's Rings. But it had to end. This was to be the last trip. Huge as it is, there comes a time when a comet has boiled off too much of its mass to remain stable in a close approach to the sun. Hell's Snowball was robbed of a hundred million tons with each trip.

The engineers had calculated it was good for only one more pass before it cracked apart from internal heating. But Quester was beginning to wonder. There was the matter of the engines. Early on the fourth day of the excursion, Quester had gone on a guided tour of the farside of the comet to see the fusion engines.

The guide had quoted statistics all the way through the tunnel, priming the tourists for the mind-wrenching sight of them. They were the largest rocket engines ever constructed. Quester and everyone else had been prepared to be impressed.

He had been impressed; first at the size of the pits that showed where the engines had been, then at the look of utter amazement on the face of the tour guide. Also impressive had been the speed with which the expression had been masked. The guide sputtered for only a moment, then quickly filled in with a story that almost sounded logical.

"I wish they'd tell me these things," he laughed. Did the laugh sound hollow?

Quester couldn't tell for sure. "The engines weren't due for removal until tomorrow. It's part of our accelerated salvage program, you see, whereby we remove everything that can be of use in fitting-out the Icarus, which you all saw near Mercury when you boarded. It's been decided not to slow Hell's

Snowball when we complete this pass, but to let it coast on out where it came from.

Naturally, we need to strip it as fast as possible. So equipment not actually needed for this trip has been removed already. The rest of it will be taken off on the other side of the sun, along with the passengers. I'm not a physicist, but evidently there is a saving in fuel. No need to worry about it; our course is set and we'll have no further need of the engines." He quickly herded the buzzing group of passengers back into the tunnel.

Quester was no physicist, either, but he could work simple equations. He was unable to find a way whereby Icarus Lines would save anything by removing the engines. The fuel was free; by their own admission whatever was left on the comet was to be discarded anyway. So why did it matter if they burned some more?

Further, ships removing passengers and furnishings from the Snowball on the other side would have to match with its considerably velocity, then expend even more to slow down to solar system speeds. It sounded wasteful.

He managed to put this out of his mind. He was along for the ride, to have fun, and he wasn't a worrier. He had probably dropped a decimal point somewhere in his calculations, or was forgetting a little-known fact of ballistics. Certainly no one else seemed worried.

When he discovered that the lifeboats were missing, he was more angry than frightened.

"What are they doing to us?" he asked the steward who had come when he pressed the service bell. "Just because this is the last trip, does that mean we're not entitled to full protection? I'd like to know what's going on."

The steward, who was an affable man, scratched his head in bewilderment as he once more examined the empty lifeboat cradle.

"Beats me," he said, with a friendly grin. "Part of the salvage operation, I guess. But we've never had a spot of trouble in over fifty years. I hear the Icarus won't even carry lifeboats."

Quester fumed. If, sometime in the past, an engineer had decided Hell's Snowball needed lifeboats, he'd have felt a damn sight better if the ship still had lifeboats.

"I'd like to talk to someone who knows something about it."

"You might try the purser," the steward ventured, then quickly shook his head.

"No, I forgot. The purser didn't make this trip. The first mate... no, she's...

I guess that leaves the captain. You might talk to him."

Quester grumbled as he swam down the corridor toward the bridge. The company had no right to strip the ship before its final cruise. On the way there, he heard an announcement over the public address system.

"Attention. All passengers are to report to A Deck at 1300 hours for lifeboat drill. The purser... correction, the second officer will call the roll.

Attendance is required of all passengers. That is all."

The announcement failed to mollify him, though he was puzzled.

The door to the bridge was ajar. There was a string spanning the open doorway with a hand-lettered sign hanging from it.

"The captain can be found at the temporary bridge," it read, "located on F Deck aft of the dispensary." Inside the room, a work crew was removing the last of the electronic equipment. There was the smell of ozone and oil, and the purple crackle of sparks. The room was little more than an ice-walled shell.

"What...?" Quester began.

"See the captain," the boss said tiredly, pulling out one of the last memory banks in a shower of shorting wires. "I just work here. Salvage crew."

Quester was reminded more of a wrecking crew. He started back toward F Deck.

"Correction on that last announcement," the PA said. "Lifeboat drill has been cancelled. The social director wishes to announce that he is no longer taking reservations for tours of the engine room. The second officer... correction, the third officer has requested all personnel to stay clear of the reactor room.

There has been a slight spillage during the salvage program. Passengers are not to worry; this incident

presents no danger to them. The power requirements of the ship are being taken over by the auxiliary reactor. The social director wishes to announce that tours of the auxiliary reactor are suspended. That is all."

"Is it just me?" Quester asked himself as he drifted by the groups of other passengers, none of whom seemed upset by any of this.

He located the temporary bridge, at the end of a little-used corridor that was stacked high with plastic crates marked "Immediate Removal-Rush, Urgent, Highest Priority." He insinuated his way past them with difficulty and was about to knock on the door when he was stopped by the sound of voices on the other side.

The voices were angry.

"I tell you, we should abort this trip at once. I've lost the capability to maneuver the ship in the event of an emergency. I told you I wanted the attitude thrusters to remain in place until after perihelion."

"Captain, there is no use protesting now," said another voice. "Maybe I agree with you; maybe I don't. In any case, the engines are gone now, and there's no chance of installing them again. There is to be no argument with these orders.

The company's in bad shape, what with outfitting the new asterite. Can you picture what it would cost to abort this trip and refund the fares to seven thousand passengers?"

"Hang the company!" the captain exploded. "This ship is unsafe! What about those new calculations I gave you-the ones from Lewiston? Have you looked them over?"

The other voice was conciliatory. "Captain, Captain, you're wasting energy worrying about that crackpot. He's been laughed out of the Lunar Academy; his equations simply do not work."

"They look sound enough to me."

"Take it from me, Captain, the best minds in the system have assured us that the Snowball will hold together. Why, this old hunk of junk is good for a dozen more trips, and you know it. We've erred, if at all, on the conservative side."

"Well, maybe," the captain grumbled. "I still don't like that lifeboat situation, though. How many did you say we had left?"

"Twenty-eight," the other soothed.

Quester felt the hair stand up on the back of his neck. He peeked into the room, not knowing what he would say. But there was no one there. The voices were coming from a speaker on the wall. Evidently the captain was in another part of the ship. He considered going to his cabin and getting drunk, then decided it was a bad idea. He would go to the casino and get drunk. On the way he passed a lifeboat cradle that was not empty. It was the site of bustling activity, with crews hurrying up and down ramps into the ship. He stuck his head in, saw that the seats had been stripped and the interior was piled high with plastic crates.

More were being added every minute.

He stopped one of the workers and asked her what was going on.

"Ask the captain," she shrugged. "They told me to stack these boxes in here, that's all I know."

He stood back and watched until the loading was complete, then was told to stand clear as the nullfield was turned off to allow the boat to drift clear of the Snowball. At a distance of two kilometers, the engines fired and the boat was away, blasting back toward the inner planets.

"Twenty-seven," Quester mumbled to himself and headed for the casino.

"Twenty-seven?" the woman asked.

"Probably less by now," Quester said with a broad shrug. "And they only hold fifty people."

They were sitting together at the roulette table, pressed into close company by the random currents of humanity that ebbed and flowed through the room. Quester was not gambling; his legs had just happened to give out, and the nearest place to collapse had been the chair he was sitting in. The woman had materialized out of his alcoholic mist.

It was nice to get back to gravity after the weightless levels of the Snowball.

But, he discovered, getting drunk in a weightless state was less hazardous. One needn't worry about one's balance. Here in the casino there was the problem of standing. It was too much of a problem for

Quester.

The casino was located at one end of a slowly rotating arm, which was mounted horizontally on a pivoted mast that extended straight up from Hell's Snowball.

On the other end of the arm were the restaurants that served the passengers.

Both modules were spherical; the structure resembled an anemometer with silver balls instead of cups on the ends. The view was tremendous. Overhead was the silver sphere that contained the restaurants. To one side was the slowly moving surface of the comet, a dirty gray even in the searing sunlight. To the other side were the stars and the main attraction: Sol itself, blemished with a choice collection of spots. The viewing was going to be good this trip. If anyone was alive to view it, Quester added to himself.

"Twenty-seven, you say?" the woman asked again.

"That's right, twenty-seven."

"One hundred Marks on number twenty-seven," she said and placed her bet. Quester looked up, wondering how many times he would have to repeat himself before she understood him.

The ball clattered to a stop, on number twenty-seven, and the croupier shoveled a tottering stack of chips to the woman. Quester looked around him again at the huge edifice he was sitting in, the incalculable tonnage of the spinning structure, and laughed.

"I wondered why they built this place," he said. "Who needs gravity?"

"Why did they build it?" she asked him, picking up the chips.

"For him," he said, pointing to the croupier. "That little ball would just hang there on the rim without gravity." He felt himself being lifted to his feet, and stood in precarious balance. He threw his arms wide.

"For that matter, that's what all the gravity in the system's for. To bring those little balls down to the number, the old wheel of fortune; and when they've got your number, there's nothing you can do because your number's up, that's all there is, twenty-seven, that's all..."

He was sobbing and mumbling philosophical truths as she led him from the room.

The ride in the elevator to the hub of the rotating structure sobered Quester considerably. The gradually decreasing weight combined with the Coriolis effect that tended to push him against one wall was more than an abused stomach could take. The management knew that and had provided facilities for it. Quester vomited until his legs were shaky. Luckily, by then he was weightless and didn't need them.

The woman towed him down the passageway like a toy balloon. They ended up in the grand ballroom.

The ballroom was a hemisphere of nullfield sitting on the surface of the Snowball. From inside it was invisible. The dance area was crowded with couples trying out free-fall dances. Most of them had the easy grace of a somersaulting giraffe.

Quester sobered a bit in the near-zero gee. Part of it was the effect of the antinausea drugs he had taken for free-fall; they also tended to reduce the effects of alcohol.

"What's your name?" he asked the woman.

"Solace. You?"

"I'm Quester. From Tharsis, Mars. I'm... I'm confused about a lot of things."

She floated over to a table, still towing Quester, and fastened him to one of the chairs. He turned his attention from the twisting bodies in the dance area to his companion.

Solace was tall, much taller than a man or a woman would naturally grow. He estimated she was two and a half meters from head to toe, though she had no toes. Her feet had been replaced with peds, oversized hands popular with spacers. They were useful in free-fall, and for other things, as he discovered when she reached across the table with one slender leg and cupped his cheek with her ped. Her legs were as limber and flexible as her arms.

"Thanks," she said, with a smile. "For the luck, I mean."

"Hmmm? Oh, you mean the bet." Quester had to drag his attention back from the delightful sensation on his cheek. She was beautiful. "But I wasn't advising you on a bet. I was trying to tell you..."

"I know. You were saying something about the lifeboats."

"Yes. It's astounding, I..." He stopped, realizing that he couldn't remember what was astounding. He was having trouble focusing on her. She was wearing a kaleidoholo suit, which meant she was naked but for a constantly shifting pattern of projections. There seemed to be fifty or sixty different suits contained in

it, none persisting for longer than a few seconds. It would melt smoothly from a silver sheath dress to an almost military uniform with gold braid and buttons to a garland of flowers to Lady Godiva. He rubbed his eyes and went on.

"They're salvaging the ship," he said. "The last I heard there were only twenty-seven lifeboats left. And more are leaving every hour. They're taking the electronic equipment with them. And the furnishings and the machinery and who knows what else. I overheard the captain talking to a company representative.

He's worried, the captain! But no one else seems to be. Am I worrying over nothing, or what?"

Solace looked down at her folded hands for a moment, then brought her eyes back up to his.

"I've been uneasy, too," she said in a low voice. She leaned closer to him.

"I've shared my apprehensions with a group of friends. We... get together and share what we have learned. Our friends laugh at us when we tell them of our suspicions, but..." She paused and looked suspiciously around her.

Even in his befuddled state Quester had to smile. "Go on," he said.

She seemed to make up her mind about him and leaned even closer.

"We'll be meeting again soon. Several of us have been scouting around-I was covering the casino when we met-and we'll share our findings and try to come to a consensus on what to do. Are you with us?"

Quester fought off the feeling, quite strong since his suspicions began to haunt him, that he was somehow trapped in an adventure movie. But if he was, he was just getting to the good part. "You can count me in."

With no further ado, she grabbed his arm in one of her peds and began towing him along, using her hands to grab onto whatever was handy. He thought of objecting, but she was much better than he at weightless maneuvering. "May I have your attention, please?"

Quester looked around and spotted the captain standing in the center of the stage, in front of the band. He was not alone. On each side of him were women dressed in black jumpsuits, their eyes alertly scanning the audience. They were armed.

"Please, please." The captain held up his arms for quiet and eventually got it.

He wiped his brow with a handkerchief.

"There is no cause for alarm. No matter what you may have been hearing, the ship is in no danger. The stories about the main engines having been removed are lies, pure and simple. We are looking for the people who planted these rumors and will soon have all of them in custody. The chief engineer wishes to announce that tours of the engine room will be resumed."

One of the women shot the captain a glance. He mopped his brow again and consulted a slip of paper in his hand. The hand was shaking.

"Ah, a correction. The engineer announces that tours will not be resumed. There is, ah... that is, they are being overhauled, or... or something." The woman relaxed slightly.

"The rumor that the main reactor has been shut down is unfounded. The surgeon has told me that there has been no spillage of radioactive material, and even if there had been, the amount was insignificant and would only have been a danger to those passengers with high cumulative exposures. The surgeon will be collecting dosimeters at 1400 hours tomorrow.

"Let me repeat: there is no cause for alarm. As captain of this ship, I take a very dim view of rumormongering. Anyone caught disseminating stories about the unspaceworthiness of this vessel in the future will be dealt with sternly."

"Lifeboat drill will be held tomorrow on A Deck, as scheduled. Anyone who has not as yet been checked out on his life jacket will do so by noon tomorrow, ship's time. That is... is that all?" This last was addressed to the woman to his left, in a whisper. She nodded curtly, and the three of them walked off the stage, their magnetized shoes sticking to the deck like flypaper.

Solace nudged Quester in the ribs.

"Are those women bodyguards?" she whispered. "Do you think his life is in danger?"

Quester looked at the way the women gripped the captain's elbows. Not bodyguards, but guards, certainly...

"Say, I just remembered I still have some unpacking to do," he said. "Maybe I can join you and your friends later on. I'll just nose around, see what I can pick up, you know, and-"

But he couldn't squirm free of her grip. Those peds were strong.

"May I have your attention, please? Lifeboat drill for tomorrow has been canceled. Repeat, canceled. Passengers showing up at the cradles for lifeboat drill will be interrogated, by order of the captain. That is all."

On the way to Solace's room, the two were shoved out of the way by a group of people in uniform. Their faces were determined, and some of them carried clubs.

"Where does that corridor lead?" he asked.

"To the bridge. But they won't find anything there, it's been-"

"I know."

"I think we're being followed."

"Wha'?" He looked behind him as he bounced along in her wake. There was someone back there, all right. They turned a corner and Solace hauled Quester into a dimly lit alcove, bumping his head roughly against the wall. He was getting fed up with this business of being dragged. If this was an adventure, he was Winnie-the-Pooh following Christopher Robin up the stairs. He started to object, but she clapped a hand around his mouth, holding him close.

"Shhh," she hissed.

A fine thing, Quester grumbled to himself. Can't even speak my mind. He thought he was better off before, alone and puzzled, then he was with this mysterious giantess towing him around.

Of course, things could have been worse, he reflected. She was warm and naked to the touch no matter what his eyes told him. And tall. Floating there in the hall, she extended above and below him by a third of a meter.

"How can I think of something like that at a time like this?" he began, but she hushed him again and her arms tightened around him. He realized she was really scared, and he began to be so himself. The liquor and the sheer unlikelihood of recent events had detached him; he was drifting along, rudderless. Nothing in his life had prepared him to cope with things like the black-suited man who now eased slowly around the corner in shadowy pursuit of them.

They watched him from the concealment of the alcove. Many of the lights in the corridor were not working or were mere empty sockets. Earlier, Quester had been alarmed at this, adding it to his list of ways not to run a spaceship. Now, he was grateful.

"He doesn't look much like a man at all," Solace whispered. And sure enough, he didn't. Nor a woman. He didn't look too human.

"Humanoid, I'd say," Quester whispered back. "Pity no one told us. Obviously the system's been invaded by the first intelligent race of humanoids."

"Don't talk nonsense. And be quiet." The man, or whatever it was, was very close now. They could see the ill-fitting pink mask, the lumps and nodules in odd places under his sweater and pants. He passed them by, leaving a pungent odor of hydrogen sulfide.

Quester found himself laughing. To his surprise, Solace laughed along with him.

The situation was so grotesque that he had to either laugh or scream.

"Listen," he said, "I don't believe in sinister humanoid invaders."

"No? But you believe in superhuman heavy-planet Invaders like the ones that have occupied the Earth, don't you? And you haven't even seen them."

"Are you telling me you do believe that thing was an... an alien?"

"I'm not saying anything. But I'm wondering what those people were doing, earlier, armed with clubs. Do you believe in mutiny?"

"Solace, I'd welcome a mutiny, I'd throw a party, give away all my worldly wealth to charity if only such a normal, everyday thing would happen. But I don't think it will. I think we've fallen through the looking glass."

"You think you're crazy?" She looked at him skeptically.

"Yep. I'm going to turn myself in right now. You're obviously not even here."

Maybe this ship isn't even here."

She twisted slightly in the air, bringing her legs up close to his chest.

"I'll prove to you I'm here," she said, working with all four hands and peds at unbuttoning him.

"Hold it. What are you... how can you think of that at a time like..." It sounded familiar. She laughed, holding his wrists with her hands as her peds quickly stripped him.

"You've never been in danger before," she said. "I have. It's a common reaction to get aroused in a tight spot, especially when the danger's not immediate. And you are, and so am I."

It was true. He was, but didn't like doing it in the hallway.

"There's not room here," he protested. "Another of those critters could come along."

"Yes, isn't it exciting?" Her eyes were alight by now, and her breath was fast and shallow. "And if you think there isn't room, you haven't done it in free-fall yet. Ever tried the Hermesian Hyperbola?"

Quester sighed, and submitted. Soon he was doing more than submitting. He decided she was as crazy as everyone else, or, alternatively, he was crazy and she was as sane as everybody else. But she was right about the free-fall. There was plenty of room.

They were interrupted by a crackle of static from the public address. They paused to listen to it.

"Attention, your attention please. This is the provisional captain speaking. The traitor running-dog lackey ex-captain is now in chains. Long Live the Revolutionary Committee, who will now lead us on the true path of Procreative Anti-Abortionism."

"Free-Birthers!" Quester yelled. "We've been hijacked by Free-Birthers!"

The new captain, who sounded like a woman, started to go on, but her voice was cut short in a hideous gurgle.

"Long Live the Loyalist Faction of the Glorious Siblings of the-" a new voice began, but it, too, was cut short. Voices shouted in rapid succession.

"The counterrevolution has been suppressed," shouted yet another captain.

"Liberate our wombs! Our gonads-our Freedom! Attention, attention! All female persons aboard this ship are ordered to report at once to the infirmary for artificial insemination. Shirkers will be obliterated. That is all."

Neither of them said anything for a long time. At last Solace eased herself away a bit and let him slip out of her. She let out a deep breath.

"I wonder if I could plead double jeopardy?"

"Insanity four, reality nothing," Quester giggled. He was in high spirits as they skulked their way down the dim corridors.

"Are you still on that?" Solace shot back. She sounded a bit tired of him. She kept having to hang back as he struggled to keep up with her supple quadridexterous pace. "Listen, if you want to get fitted for a straitjacket, the tailor's in the other direction. Me, I don't care how ridiculous the situation gets. I'll keep coping."

"I can't help it," he admitted. "I keep feeling that I wrote this story several years ago. Maybe in another life. I dunno."

She peered around another corner. They were on their way to the temporary bridge. They had stopped three times already to watch black-suited figures drift by. Everyone else they had seen- those dressed in holiday clothes-had ducked into doorways as quickly as they themselves. At least it seemed that the passengers were no longer in the holiday mood, were aware that there was something wrong.

"You a writer?" she asked.

"Yes. I write scientificfiction. Maybe you've heard of it. There's a cult following, but we don't reach the general public."

"What's it about?"

"Scientificfiction deals with life on Earth. It's set in the future- each of us creates our own hypothetical future with our own ground rules and set of assumptions. The basic assumption is that we figure out a way to fight the Invaders and reclaim the Earth, or at least a beachhead. In my stories we've managed to rout the Invaders, but the dolphins and whales are still around, and they want their allies back, so humans fight them. It's adventure stuff, purely for thrills. I have a hero called the Panama Kid."



She glanced back at him, and he couldn't read the expression. He was used to taking the defensive about his vocation.

"Is there a living in that?"

"I managed to get aboard the Snowball for the final trip, didn't I? That wasn't cheap, but then you know that. Say, what do you do for a living?"

"Nothing. My mother was a holehunter. She made a strike in '45 and got rich. She went out again and left the money to me. She's due back in about fifty years, unless she gets swallowed by a hole."

"So you were born on Pluto?"

"No. I was born in free-fall, about one hundred AU from the sun. I think that's a record so far." She grinned back at him, looking pleased with herself. "You made up your mind yet?"

"Huh?"

"Have you decided if you're the author or a character? If you really think you're crazy, you can shove off. What can you do but accept the reality of your senses?"

He paused and really thought about it for the first time since he met her.

"I do," he said firmly. "It's all happening. Holy Cetacean, it really is happening."

"Glad to have you with us. I told you you couldn't experience the Hermesian Hyperbola and still doubt your senses.

It hadn't been the love-making, Quester knew. That could be as illusory as anything else; he had the stained sheets to prove it. But he believed in her, even if there was something decidedly illogical about the goings-on around her.

"Attention, attention."

"Oh, shit. What now?" They slowed near a speaker so they could listen without distortion.

"Glad tidings! This is the provisional captain, speaking for the ad hoc steering committee. We have decided to steer this comet into a new, closer approach to the sun, thus gaining speed for a faster departure from solar space. It has been decided to convert this vessel hereafter to be referred to as the Spermatozoa, into an interstellar colony ship to spread the seed of humanity to the stars.

All passengers are hereby inducted into the Proletarian Echelon of the Church of Unlimited Population. Conversion of all resources into a closed-ecology system will begin at once. Save your feces! Breathe shallowly until this crisis is past. Correction, correction, there is no crisis. Do not panic. Anyone found panicking will be shot. The steering committee has determined that there is no crisis. All surviving officers with knowledge of how to work these little gadgets on the bridge are ordered to report immediately."

Quester looked narrowly at Solace.

"Do you know anything about them?"

"I can pilot a ship, if that's what you mean. I've never flown anything quite this... enormous... but the principles are the same. You aren't suggesting that we help them, are you?"

"I don't know," he admitted. "I didn't really think in terms of plans until a few minutes ago. What was your plan? Why are we headed for the bridge?"

She shrugged. "Just to see what the hell's going on, I guess. But maybe we ought to make some preparations. Let's get some life jackets."

They found a locker in the hall containing emergency equipment. Inside were twenty of the nullfield devices called life jackets. More accurately, they were emergency spacesuit generators, with attached water recyclers and oxygen supply.

Each of them was a red cylinder about thirty centimeters long and fifteen in diameter with shoulder straps and a single flexible tube with a metal connector on the end. They were worn strapped to the back with the tube reaching over the shoulder.

In operation, the life jackets generated a nullfield that conformed closely to the contours of the wearer's body. The field oscillated between one and one and a half millimeters from the skin, and the resulting bellows action forced waste air through the exhaust nozzle. The device attached itself to a tiny metal valve that was surgically implanted in all the passengers. The valve's external connection was located under Quester's left collarbone. He had almost forgotten it was there. It was just a brass-colored flower that might be mistaken for jewelry but was actually part of a plumbing system that could route

venous blood from his pulmonary artery to the oxygenator on his back. It then returned through a parallel pipe to his left auricle and on to his body.

Solace helped him get into it and showed him the few manual controls. Most of it was automatic. It would switch on the field around him if the temperature or pressure changed suddenly.

Then they were off again through the silent corridors to confront the hijackers.

At the last turn in the corridor before reaching the temporary bridge, they stopped to manually switch on their suit fields. Solace instantly became a mirror in the shape of a woman. The field reflected all electromagnetic radiation except through pupil-sized discontinuities over her eyes which let in controlled quanta of visible light. It was disquieting. The funhouse effect, it was called, and it looked as if her body had been twisted through another spatial dimension. She almost disappeared, except for a pattern of distortions that hurt Quester's eyes when he looked at it.

They reached the door leading to the bridge and stopped for a moment. It was a perfectly ordinary door. Quester wondered why he was here with this impulsive woman.

"Do we knock first, or what?" she mused. "What do you think, Quester? What would the Panama Kid do?"

"He'd knock it down," Quester said without hesitation. "But he wouldn't have gotten here without his trusty laser. Say, do you think we ought to go back and..."

"No. We'd better do it now before we think about it too hard. These suits are protections against any weapon I know of. The most they can do is capture us."

"Then what?"

"Then you can talk us out of it. You're the one who's fast with words, aren't you?"

Quester remained silent as she backed up and planted herself against the opposite wall, coiled and ready to hit the door with her shoulder. He didn't want to point out that skill with a typer and skill at oratory are not necessarily related. Besides, if she wanted to risk forcible insemination, it was her business.

Just on the off chance, he touched the door plate with his palm. It clicked, and the door opened. It was too late. Solace howled and barreled end-over-end into the room, reaching out with all four limbs like a huge silver starfish to grab onto something. Quester rushed after her, then stopped short as soon as he was into the room. There was no one in it.

"Talk about your anticlimax," Solace breathed, getting herself sorted out from a pile of crates at the far end of the room. "I... never mind. It was my fault.

Who'd have thought it'd be unlocked?"

"I did," Quester pointed out. "Hold it a minute. We're sort of, well, we're being pretty hasty, aren't we? I haven't really had time to stop and think since we got going, but I think we're going at this the wrong way, I really do. Damn it, this isn't an adventure, where everything goes according to a set pattern.

I've written enough of them, I ought to know. This is life, and that means there's got to be a rational explanation."

"So what is it?"

"I don't know. But I don't think we'll find it this way. Things have been happening... well, think about the announcements over the PA, for instance. They are crazy! No one's that crazy, not even Free-Birthers."

Quester's chain of thought was interrupted by the noisy entrance of four people in life jackets. He and Solace jumped up, banged their heads on the ceiling, and were quickly captured.

"All right, which one of you is the provisional captain?"

There was a short silence, then Solace broke it with a laugh.

"Lincoln?" she asked.

"Solace?"

The four were part of Solace's short-lived cabal. It seemed the ship was crawling with people who were concerned enough about the situation to try and do something about it. Before Quester caught all the names, they were surprised by another group of four, with three more close on their heels. The situation threatened to degenerate into a pitched battle of confused identities until someone had a

suggestion.

"Why don't we hang a sign on the door? Anybody who comes in here thinks we're the hijackers." They did, and the sign said the provisional captain was dead.

While new arrivals were pondering that and wondering what to do next, someone had time to explain the situation.

Someone arrived with a tray of drinks, and soon the would-be liberators were releasing their tensions in liquor and argument. There were fifteen pet theories expounded in as many minutes.

Now that he felt he had his feet under him, Quester adopted a wait-and-see attitude. The data was still insufficient.

" 'When you have eliminated the impossible,' " he quoted, " 'whatever is left, however improbable, must be the truth.' "

"So what does that gain us?" Solace asked.

"Only a viewpoint. Me, I think we'll have to wait until we get back to Mercury to find out what's been happening. Unless you bring me a live alien, or Free-Birther, or... some physical evidence."

"Then let's go look for it," Solace said.

"Attention, attention. This is the ship's computer speaking. I have grave news for all passengers. The entire crew has been assassinated. Until now, I have been blocked by a rogue program inserted by the revolutionaries which has prevented me from regaining control of operations. Luckily, this situation has been remedied. Unluckily, the bridge is still in the hands of the pirates! They have access to all my manual controls from their position, and I'm afraid there is but one course open to those of you who wish to avoid a catastrophe. We are on a trajectory that will soon intersect with the solar chromosphere, and I am powerless to correct it until the bridge is regained. Rally to me! Rise in righteous fury and repulse the evil usurpers! Storm the bridge! Long live the counterrevolution!"

There was a short silence as the implications sank in, then a babble of near panic. Several people headed for the door, only to come back and bolt it. There was an ominous roar from outside.

"...chromosphere? Where the hell are we? Has anyone been out on the surface lately?"

"...some pleasure cruise. I haven't even seen the sun and now they say we're about to..."

"...pirates, revolutions, counterrevolutions, Free-Birthers, aliens, for heaven's sake..."

Solace looked helplessly around her, listened to the pounding on the door. She located Quester hunkered down beside an instrument console and crouched beside him.

"Talk your way out of this one, Panama Kid," she yelled in his ear.

"My dear, I'm much too busy to talk. If I can get the back off this thing..." He worked at it and finally pulled off a metal cover. "There was a click from here when the computer came on the line."

There was a recorder inside, with a long reel of tape strung between playback heads. He punched a button that said rewind, watched the tape cycle briefly through, and hit the play button.

"Attention, attention. This is the ship's computer speaking. I have grave news for all passengers."

"We've heard that one already," someone shouted. Quester held his head in his hands for a moment, then looked up at Solace. She opened her mouth to say something, then bit her lip, her eyebrows almost touched in a look of puzzlement so funny that Quester would have laughed out loud. But the roof of the bridge evaporated.

It took only a few seconds. There was a blinding white light and a terrible roaring sound; then he was whisked into the air and pulled toward the outside.

In an instant, everyone was covered in a nullfield and milling around the hole in the roof like a school of silverfish. In two's and three's they were sucked through. Then the room was empty and Quester was still in it. He looked down and saw Solace's hand around his ankle. She was grasping the firmly anchored computer console with one ped. She hauled him down to her and held him close as he found handholds. His teeth were chattering.

The door burst open, and there was another flurry of astonished passengers sucked through the roof. It didn't take as long this time; the hole in the roof was much larger. Beyond the hole was blackness.

Quester was surprised to see how calm he was once his initial shock had dissipated. He thanked Solace for saving him, then went on with what he had been about to say before the blowout.

"Did you talk to anyone who actually saw a mutineer, or a Free-Birther, or whatever?"

"Huh? Is this the time to...? No, I guess I didn't. But we saw those aliens, or whatever they-"

"Exactly. Whatever they were. They could have been anything. Someone is playing an awfully complicated trick on us. Something's happening, but it isn't what we've been led to believe."

"We've been led to believe something?"

"We've been given clues. Sometimes contradictory, sometimes absolutely insane, and encouraged to think a mutiny is going on; and this recorder proves it isn't happening. Listen." And he played back the recordings of various announcements they had heard earlier. It sounded tinny in their middle-ear receivers.

"But what does that prove?" Solace wanted to know. "Maybe this thing just taped them as they happened."

Quester was dumfounded for a moment. The theory of a vast conspiracy had appealed to him, even if he didn't know the reason for it.

He played past the point of the computer's announcement and sighed with relief when he heard that there was more. They let it natter on to no one about crises in the engine room, spillage in the second auxiliary reactor, and so on. It was obvious that it was playing a scenario that could no longer happen. Because the ship had already broken down completely and they were headed directly for...

They seemed to reach that thought simultaneously and scrambled up toward a hole in the ceiling to see what was going on. Quester forgot, as usual, to hang onto something and would have drifted straight up at near-escape velocity but for Solace's grasping hands.

The sun had eaten up the sky. It was huge, huge.

"That's what we paid to see," Solace said, weakly.

"Yeah. But I thought we'd see it from the ballroom. It's sort of... big, isn't it?"

"Do you think we're...?"

"I don't know. I never thought we'd get this close. Something the captain said-no, wait, it wasn't the captain, was it? But one of the recordings said something about..."

The ground heaved under them.

Quester saw the revolving casino complex off to his right. It swayed, danced, and came apart. The twin balls broke open, still rotating, and spilled tables and roulette wheels and playing cards and dishes and walls and carpets to the waiting stars. The debris formed a glittering double spiral of ejecta, like droplets of water spraying from the tips of a lawn sprinkler. Bits of it twisted in the sunlight, cartwheeling, caroming, semaphoring, kicking.

"Those are people."

"Are they...?" Quester couldn't ask it.

"No," Solace answered. "Those suits will protect them. Maybe they can be picked up later. You see, when you hit something wearing one of these suits, you-"

She didn't have time to finish, but Quester soon had a demonstration of what she was talking about. The ground opened a few meters from them. They were swept off their feet and tumbled helplessly across the dirty white surface until they hung suspended over the pit.

Quester hit the far side of the rift and bounced. He felt little of the impact, though he hit quite hard, because the suit field automatically stiffened when struck by a fast-moving object. He had cause to be thankful for that fact, because the rift began to close. He clawed his way along the surface toward the sunlight, but the walls of ice closed on him like a book snapped shut.

For a brief moment he was frozen while the ice and rock around him shook and vaporized under the incredible pressures of shearing force. He saw nothing but white heat as frozen methane and water became gas in an instant without an intermediate liquid stage. Then he was shot free as the masses came apart again.

He was still frozen into a climbing position, but now he could see. He was surrounded by chunks of debris, ranging from fist-sized rocks glowing bright red to giant icebergs that sublimated and disappeared before his eyes. Each time the suit began to lose its rigidity he was hit by another object and frozen into a new position as the suit soaked up the kinetic energy.

In a surprisingly short time, everything had vanished. Every particle of the explosion was impelled away from every other particle by the pressures of expanding superheated steam.

But Solace was still clinging to his ankle. She was the only thing left in his universe apart from a few tiny flashing stars of debris far in the distance, tumbling, tumbling.

And the sun.

He could look directly at it as it swung past his field of vision once every ten seconds. It could barely be seen as a sphere; each second it looked more like a flat, boiling plane. The majestic, crushing presence of it flattened his ego with a weight he could barely tolerate. He found Solace in his arms. He looked at her face, which was endless mirrors showing a vanishing series of suns rebounding from his face to hers and back to infinity. The funhouse effect, so disconcerting only an hour ago, seemed familiar and reassuring now in comparison to the chaos below him. He hugged her and closed his eyes.

"Are we going to hit it?" he asked.

"I can't tell. If we do, it'll be the hardest test these suits have ever had. I don't know if they have limits."

He was astounded. "You mean we might actually...?"

"I tell you, I don't know. Theoretically, yes, we could graze the chromosphere and not feel a thing, not from the heat, anyway. But it would be bound to slow us down pretty quickly. The deceleration could kill us. The suits protect us from outside forces almost completely, but internal accelerations can break bones and rupture organs. This suit doesn't stop gravity or inertia from working."

There was no use thinking too long on that possibility.

They were hurtling through the corona now, building up a wake of ionized particles that trailed after them like the tail of a tiny comet. They looked around them for other survivors but could find nothing. Soon, they could see little but a flickering haze as the electrical potential they had built up began discharging in furry feathers of hot plasma. It couldn't have lasted longer than a few minutes; then it began to fade slowly away.

There came a time when the sun could be seen to have shrunk slightly. They didn't speak of it, just held onto each other.

"What are our chances of pickup?" Quester wanted to know. The sun was now much smaller, receding almost visibly behind them. They were concerned only for the next twenty hours, which was the length of their oxygen reserves.

"How should I know? Someone must know by now that something's happened, but I don't know if any ships can get to us in time. It would depend on where they were at the time of the disaster."

Quester scanned the stars as they swept past his field of vision. They had no way to slow their rotation; so the stars still went around them every ten seconds.

He didn't expect to see anything but was not surprised when he did. It was the next-to-last in a long series of incongruities. There was a ship closing in on them. A voice over the radio told them to stand by to come aboard and asked them how they enjoyed the trip.

Quester was winding up for a reply, but the speaker said one word, slowly and clearly:

"Frightfulness."

And everything changed.

I woke up and found out it had all been a dream.

The very first story I wrote, back when I was five years old, ended with words very much like that last sentence. I'm not ashamed of it. The thought was not new, but it was original with me. It was only later that I learned it's not a fair way to end a story, that the reader deserves more than that.

So here's more.

I woke up and found out it had almost all been a dream. The word,

"frightfulness," was a posthypnotic trigger that caused me to remember all the things which had been blocked from me by earlier suggestion.

I don't know why I'm bothering to explain all this. I guess old writing habits die hard. No matter that this is being written for a board of psychists, mediartists, and flacks; I have to preserve the narrative thread. I've broken the rules by changing to first person at the end, but I found I could not write the account Icarus Lines requested of me unless I did it in the third person.

"I" am Quester, though that's not my real name. I am a sciencefiction writer, but I have no character named the Panama Kid. Solace's name is something else.

It was suggested that I change the names.

I signed aboard Hell's Snowball knowing that it was going to break apart along the way. That's why so much of it had been stripped. They retained only enough to preserve a tenuous illusion that the trip was a normal one, then threw in everything they could think of to scare the daylights out of us.

We knew they would. We agreed to and submitted to a hypnotic treatment that would fool us into thinking we were on a normal trip and were released into the crazy world they cooked up for us. It's the first time they had ever tried it, and so they threw in everything in the book: aliens, accidents, mutiny, confusion, crackpots, and I didn't even see it all. The experience is different for each passenger, but the basic theme is to put us into a scary situation with evident peril of life and limb; shake well, and then let us come through the experience safe and sound.

There was no danger, not from the first to the last. We were on a stable, carefully calculated orbit. The life jackets were enough to keep us absolutely safe against anything we would encounter, and we were conditioned to have them on at the right time. As proof of this, not a single passenger was injured.

We were all nearly scared to death.

It says here you want to know the motive. I remember it clearly now, though I remembered an entirely different one at the time. I went on the Disaster Express because I had just sold a novel and wanted to do something wild, out of character. That was the wildest thing I could think of, and I could wish I had gone to a museum instead. Because the next question you want me to answer is how I feel about it now that it's over, and you won't like it. I hope I'm in the majority and you people at Icarus will give this thing up and never run another like it.

There used to be something called a "haunted house." One was led blindfolded through it and encountered various horrors, the effect being heightened by the unknown nature of the things one touched and was touched by. People have done things like that for as long as we have history. We go to movies to be scared, ride on roller coasters, read books, go to funhouses. Thrills are never cheap, no matter what they say. It takes skill to produce them, and art, and a knowledge of what will be genuinely thrilling and what will be only amusing.

You people had mixed success. Part of it was the kitchen-sink approach you took on this first trip. If you unified your theme the next time, stuck to a mutiny or an invasion, for instance, instead of mucking it up with all the other insanity you put in... but what am I saying? I don't want you to improve it.

It's true that I was a little bemused by the unreality of the opener, but it was stark terror all the way when we approached the sun. My stomach still tightens just to think about it.

But-and I must cry it from the rooftops-you have gone too far. I'm basically conservative, as are all sciencefiction writers, being concerned as we are with the past on Earth rather than the future in the stars. But I can't avoid thinking how frivolous it all was. Have we come to this? While our precious home planet remains under the three-hundred-year Occupation, do we devote ourselves to more and more elaborate ways of finding thrills?

I hope not.

There is a second consideration, one that I find it difficult to put into words.

You hear of the "shipboard romance," when passengers become involved with each other only to part forever at their destination. Something of the sort happened to me and to Solace. We grew close on that loop through the corona. I didn't write about it. It's still painful. We clung to each other for two days. We made love with the stars at our feet.

We might even have remained involved, if our minds had been our own. But upon the utterance of that magic word we suddenly found that we were not the people we had been presenting ourselves as being. It's difficult enough to find out that one you care for is not the person she seemed to be; how much harder when it is you who are not what you thought you were?

It is a tremendous identity crisis, one that I am only now getting over. I, Quester, would not have behaved as I did aboard the Snowball if I had been in possession of all my faculties. We were tested, destructively tested in a way, to see if the injunction against discovering the underlying facts was strong

enough to hold. It was, though I was beginning to see through the veils at the end. With a more consistent emergency I'm sure I would have had no inkling that it was anything but real. And that would be much worse. As it was, I was able to retain a degree of detachment, to entertain the notion that I might be insane. I was right.

The trip to the sun is thrill enough. Leave it at that, please, so that we may be sure of our loves and fears and not come to think that all might be illusion.

I'll always have the memory of the way Solace looked when she woke from the dream she shared with me. The dream was gone; Solace was not the person I thought she might be. I'll have to look for solace elsewhere.

## A CHRISTMAS STORY

### WITH APOLOGIZES TO GRENDEL BRIARTON

Fresh from his stint as a Guest of Honor at this year's World Science Fiction convention, the one and only Ferdinand Feghoot has journeyed through time and space to return to our pages (compliments of Mr. John Varley, who says he made the mistake of letting this caper loose on the Internet a few holidays ago and has subsequently seen it return to him several times, never in the same form twice). Mr. Feghoot has not graced our pages in thirty-nine years-our time-but the chrononaut appears unchanged save for an odd bunch of pals he has brought with him.

ON A DECEMBER TRIP to Frostbite Falls, Minnesota, Ferdinand Feghoot was summoned to the local college, Wossamotta U. by Inspector Fenwick, the Chief of Police. There he was confronted with an appalling scene. Bullwinkle, the town's leading citizen, had been smashed flatter than a kippered herring by a falling safe.

"It's a common enough means of death for cartoon characters," Fenwick opined. "Every year we lose five or six citizens to falling safes. But this time it was no accident. This time, it's murder!"

He showed Feghoot the ingenious deadfall trap rigged to rain financial ruin on an unsuspecting victim. Bullwinkle's antlers were still entangled in the tripwire. Grasped tightly in one hand was a small statue of a Hindu god.

The dead quadruped's best friend, Rocky the flying squirrel, had been with Bullwinkle at the time of his death, but when questioned by Feghoot the distraught rodent said all he could remember was seeing a rabbi fleeing the scene upon, of all things, a pogo stick. Fenwick immediately issued an APB for the rabbi.

"You're wasting your time, Fenwick," said Feghoot grimly, as he stood from his examination of the body. "The rabbi has been framed. When you find him, he will tell you of some elaborate ruse that induced him to be on a pogo stick at this time and this place."

"How do you know that, Feghoot?" asked the Inspector.

"This is the work of the Christmas Killer," Feghoot declared. "I have been on the trail of this fiend for years, and I fear we might never catch him. Every December he arranges one of these grisly messages. Look! Didn't you notice the smile on the victim's face? The corners of his mouth have been propped up... by these!" He displayed two toothpicks he had taken from Bullwinkle's mouth.

"I still don't see how you know the murderer is the Christmas Killer," said Fenwick.

"Isn't it obvious?" Feghoot asked. "Wee Vishnu, a merry crushed moose, and a hoppy Jew near."

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