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To
Beth Appeldoorn who kept pushing
and to
John Bell who kept pulling
with much thanks

AUTHOR'S NOTES

Note #1

The stories in this book are written in a specialized contemporary form —future *fiction* — which is usually (mis)called "science fiction." H.G. Wells, who invented the modern genre, coined the term *scientific romances* for his Utopian Socialist visions of "A World Set Free" from ignorance, injustice, and inequalities by sweet scientific reason and the plenty-for-all of technological progress. Hugo Gernsback, founding publisher/editor of U.S. mass-market "scientifiction," devoted his pulp-paper magazines to forecasting technologies (and technocracy) for the "conquest of nature" by "man."

These dichotomies we have ever with us. Setting aside the confoundment of science with technology, let me emphasize the distinction between prediction and prophecy. If I could forecast the future, I would be making it in banking, betting, religion or politics. As a simple working prophet, I devise hypothetical futures to try to gain some perspective on the dynamics (and possible directions) of the present — much as historians use contemporary hypotheses to seek understanding of how the present developed from the dynamics of the past.

The prophecy business is not always comfortable. If you're not being stoned in the marketplace, you're likely to get hustled off in a straitjacket. The lucky prophet who squeezes between the rock of martyrdom and the hard place of ridicule runs the subtler risk of burial alive by canonization—entombment in holy writ. Finally, there is the unique ambivalence, for a prophet, of becoming "dated."

The Gernsback-era evangelists of space flight are of course overjoyed at the realization of many of their visions—but the more accurate their predictions were, the more likely their stories are to be considered too "dated" for space-age readers.

The stories in this book, mostly written more than thirty years ago, have sadly/happily experienced no such epiphany. All the "conventional science fiction" stories were first published before the first moon landing. (The exceptions are a story-poem and a story-article, both from the seventies.) Those that were set in a near-future on Earth contain some errors of "future history." (One in fact is about a quite different first lunar landing.) I have resisted the temptation to "update" these pieces, but I would urge readers to note the original publication dates: the sad fact is that errors in prediction have not quite blunted the prophetic content. "Real history" has done little or nothing to resolve the various problems to which they were addressed.

Maybe in another thirty years . . . ?

Judith Merril Toronto, 1985

Note #2

S p a c e is sparse

planets are profligate

peripatetic

s p a c e soundless

separate sad?

perhaps

a planet will have

plants plains palaces plateaus plates plots

perambulators

planets swim in solar s p a c e

soliloquize

plantains pearls pastorales petroleum plums purple

penicillin

palominos

people.

Planets

prop up petrels planes and parachutes

proliferate peasantry protozoa pasturage pestilence

pallbearers

paleontology

people

on planets pop up

past all the panic planet pageantry -

plinths plazas pampas patios palms poles poplars—

pop!

poppoppoppoppopulating

pristine parsecs of sane

silent

sanitary

space.

Wish Upon a Star

First Publication: December, 1958.

I WISH, I WISH, I WISH . . .

Sheik sat under the shadow of a broad-leaf shrub, his head back, eyes closed against the glare from overhead, mouth open for a shout of protest he could never voice.

He stifled the thought with the sound, pushed it out of his head as he pushed his body backward, throwing his weight straight-armed on the flat palms of his hands behind him. Flexing his calves below bent knees, he pulled against the long thigh sinews and tightened the slanting muscles of his back, driving all tension from his mind into his body as he raised his buttocks up off the ground and hung suspended, arching from knees to elbows, hands and feet rooted to the soil. Wholly intent on the immedate physical effort, he stayed so till the blood rushing to his head choked in his throat, and arms and legs were trembling beyond control. Then with a last summoning of purpose, he flipped over and sprawled contentedly collapsed on chest and stomach, head turned so one cheek also rested on the resilient softness of the granular stuff that made the plant beds. With each great breath of air his nostrils sucked up the rich sweet damp aroma of the roots.

For a moment there was peace; and then, again, I *wish, I wish, I wish ...*

Tears filled his eyes. He sat up and angrily and brushed them off. He was too old for crying. Crying wouldn't help. He was too old to be sitting idle here, wasting time, wasting wishes on absurdities. Old enough not to be bothered by anything Naomi said or did . . . but not yet old enough (smart enough?) to know better than to try to tell her anything.

She had listened so meekly, watched so quietly, while he repaired the rootpack she had broken, holding the torn parts—just so—together, tamping the soil down—just so—around the fiber, explaining as he worked why it was just this way. He let her silence fool him; well, it was no one's fault but his own. He should have known better by now.

When he was finished, she smiled, very sweetly. "It', so *comforting* to know you'll be here, Sheik," she said, "when *I'm* in charge. You're so *efficient*." Then a quick glance at the chrono, which she must have been watching all the time from the corner of her eye, or she couldn't have timed it all so perfectly. "Oh-OOOh! I better run! I'm late for Sessions now . . ." And she was off, flashing a hand free of dirt or work, leaving him, trowel in hand, to realize he had just finished doing her job for her.

It wasn't fair. Naomi was twelve and a half, more than a year younger than he was. In Standard School she was behind him in almost everything; and never, never as long as she lived, would she be able to handle a plant, to feel it and *understand* it, as he did. But she was the one in Special Sessions classes now, learning the things he ought to know. They'd make her read all the books he wanted, whether she cared or not, and put her to learn in the lab, mastering all the mysteries and intricacies of advanced Bichem. While he, Yashikazu, would go on day after day, trowel in hand, taking her jibes now, and later—much later, when he replaced Abdur in charge of the plantroom—taking her orders as Ab took his orders from Lieutenant Johnson.

It just wasn't *fair*!

I wish, I wish I was ...

He stopped it, cut it off sharply. He was not going to think that way any more. *I wish Sarah was here*, he finished the thought instead. Tonight, maybe, she would ask him again. He had nursery duty, but

if he told Bob . . . *if* she asked him, that was . . . well, if she did, he'd get off duty somehow ...

Without even closing his eyes, he could see her there now, as she had been the night before last, sprawled on the rootpacks beside him, her shining long legs golden under the ultras, her face in the shadow of the leafy shrub a deep dark brown, but somehow giving out the gold-glow, too. Her eyes were closed and her hand, smooth and cool, soft and small, lay inside his as he watched her in warm and perfect comradeship.

For most of an hour, they had barely moved or talked: they just lay there together in the private shadow, sharing what had been his alone, thinking and dreaming silently but not separately at all.

Nothing Naomi said or did ought to matter now, because things-as-they-were had given him this special thing, a place and a significance, to share with Sarah. Never before had he told anyone about the shadows—how he felt about them. (No one but Ab, of course, but that was different; Ab *knew*.) She had seen them, naturally, most every day of her life; everyone in the ship had. The nursery-age children spent at least an hour each day hullside, for ultra exposure and exercise as well as their basic fichem. When they started with Standard School class-work, they were required to spend a half-hour of play-ti me every day under the lamps. But it was the light they came for; the shadows belonged to Sheik.

When he was just old enough to be allowed to go about alone, he started coming down hullside every chance he had; the shadows drew him. Later, the plants became important, too, and now he knew that they would be his work all his life. That was good in itself, but better because the shadows were part of the plants.

Nowhere else in the whole ship was there anything like it. Once in a while, the floorlight or one of the walls in the regular living and work rooms would go out of whack, and for a brief time the diffusion would be distorted and patches of dark-and-bright showed when people moved. But only here, where the thick rootpack lined the whole inner shell of the ship's hull, where then were only struts instead of walls, and the great ultra lamps glared day and night overhead, only here were there real *shadows*, under the plants, stationary, permanent, and shaped.

The ultras were never dimmed. They shone, Sheik thought, with the same brilliant fixity of time and purpose as the pinpointed stars on the black satin of the lounge viewplate. And in the center of this same clump of shrubbery where he lay now there was a hollow spot where some of the oldest, tallest plants grew so thick no light could penetrate, where it was dark, *black*, almost as black as the space between the stars: the way, he thought, a planet's night must be.

And this spot, where he had taken Sarah, was—depending where you held your head—a moonlit planet night, a "twilight," "morning," or "afternoon" . . . all words in books, until they took on meaning here where the leaves and lights produced an infinitude of ever-changing shades and combinations of black, gray, green, brown, and gold.

He had never told anyone how he thought about that. Not Abdur; not even Sarah, yet. But if she asked him to take her here again, he thought, he could tell her; she would really understand.

He sat up sharply, the faint rustling sound like an answer to a prayer. *Sarah*?

Two plant stalks parted cautiously and a small, round, brown face stared into his own.

"What are *you* doing down here now?" Sheik demanded. How had the fool kid found him here?

"I *told* 'm I'd find you," Hari said triumphantly. "I told 'm I could. You better hurry. Ab's mad at you. He has to work onna mew-tay-shuns," the small boy said the new word carefully, "an' you're supposed to be our teacher this time."

Sheik scrambled to his feet. Nursery class here already? *That* late? He'd spent half the afternoon doing nothing, dreaming . . . Ab must be mad, all right!

"You forgot about us," Hari said.

He hadn't forgotten; he had just forgotten time. "Come on, shrimpy," he told Harendra gruffly. "Better hop on if you want to get back *quick*." He squatted and Hari climbed on his shoulders—a rare and special treat; it would make up for his seeming to forget. He started for Abdur's workroom at a trot.

Harendra was three years old now, almost four, but he was Yoshikazu's favorite in the nursery still. He had been Sheik's first full-charge baby; sometimes he didn't seem too sure himself which one was his father, Abdur or Sheik. Certainly he didn't care; he loved them both with the same fierce intensity. And it

upset him if Ab was angry with the Sheik.

Abdur had been spending all his time the past few days struggling to save a planting of mutant seedlings newly developed in the Bichem lab. It was a high-protein lentil with a new flavor, but some mysterious lack in root-pack nourishment—the kind of thing that showed up only in actual growth conditions—made it essential to nurse each plant with extra care while the lab techs tried to find the cause of the trouble.

The intricate, patient skill with which Abdur tended the delicate young plants was fascinating to Sheik. And the young children, he thought, would be interested in the luminous unfamiliar yellow of the sickly leaves.

Abdur agreed with evident satisfaction to having the children visit the sick patch. He rebuked Sheik only briefly and without heat for his forgetfulness, and set out immediately for his plants, taking the way cross-ship, through the central living section, to reach the area on the other side of the hull without further delay. Yoshikazu took his troupe of six around by the huflside route, routinely replying to the inevitable routine questions at each step: why was this plant taller, the other stalk thicker, a leaf a darker green or different shape. To most of the grown people on board, the endless rows of plants covering the whole inner surface of the ship's hull were monotonous 'and near identical. Abdur knew better; so did Sheik; and the nursery kids noticed things sometimes that Yoshikazu hadn't seen himself.

But this time he didn't want to stop at every plant. It was a slow enough trip with their short legs, and he hurried them past spots where he might otherwise have tried to show them something new or slightly changed. Then Dee, silly dimpled shrieking Dina, who, at barely two, should not (in Sheik's opinion) have come into the nursery class as yet, sat herself down on the rootpacks and refused to budge.

Yoshikazu bent to pick her up. He'd carry her, rather than waste time coaxing now. But she pointed to one root, growing wrong, malformed and upended, and stopped progress completely by-spilling out a spurt of only half-coherent but entirely fascinated inquiry.

Well, he had been wrong; she *was* old enough. Sheik sat down beside her and got to work, framing his answer, to her questions carefully, trying to give her a new mystery each time to provoke the next useful question. He pulled packing away from around the upended root, dug down, and placed the root where it belonged, giving all the children a chance to see how the other roots lay in the pack before he covered it. He explained how the roots drank nourishment from the soil, and floundered attempting to explain the action of the ultraviolet lamps.

All the while, Hari hung over his shoulder, watching the boy had seen it all before, when Dina was too little to care, but he drank in every sight and every word as if it were the first time for him, too.

"It's like being tucked in," he broke in suddenly, offering his own level of lucidity in place of Sheik's complications. "Like when your daddy tucks you in at night and kisses you and you feel warm and good all over you and you grow in your sleep."

Dina's black eyes were shining with excitement. "I know," she said. "Every night when I sleep I grow." She lifted a hand to prove the point. "*Way* up!"

"Well, that's how it is," Hari nodded commendation to his pupil. "Only the lights don't have to go out for the plants to sleep, because they're asleep all the time. Underneath there. *That's* why they never go anyplace."

His voice lost some confidence at the end. He looked to Yoshikazu for approval, and Dina looked for confirmation.

Sheik hesitated, failed to find words for a more adequate explanation, and decided Hari had probably put across more than he could for right now. He nodded and smiled at them both. "Come on, now, or we won't have time to see the new plants." They all ran after him.

Lieutenant Johnson was on duty at the children's supper that evening. She strolled casually from one of the four tables to another, listening to a scrap of conversation here, answering a question there, correcting a younger child somewhere else, reminding Fritzi—who at eleven had just become a table leader—to keep her group quieter.

At Sarah's table she paused only briefly; the officer on duty never had to stop there except for a greeting. Sarah and Sheik had seven in their group, more than anyone else, but they never had trouble.

They were a good combination; Sheik glowed inwardly with his awareness of this, and with the feeling that the same thought was passing through Johnson's mind as she looked from one end of the table to the other. He didn't need any smiles from Johnson to keep him happy tonight, though. In the lounge, just before, Sarah *had* asked him. As soon as he could swap his evening duty, he was to meet her and take her down hullside again.

He caught her glance across the table as the Lieutenant walked away and saw her wink at him. With astonishment he thought, *She's as happy as I am! She wants to go, too!*

He knew, though he could not see as she bent over the carving, how her breasts had begun to swell under her shirt, and he knew by heart, though they were hidden behind the table, the long clean curves of those golden legs. Mechanically he added lentils to carrobeet top and passed a plate down, reminding Adolph Liebnitz that there was a fork at his place, and he should use it. He answered a question of Irma's without ever knowing what she asked, filled another plate, kept his eyes off Sarah thinking, *This time . . . this time I'll ...* Added a little extra greens to Justin's plate, skimping on the carrobeets the kid hated . . . *This time I'll* . . . Looked up, caught Sarah's eye again, felt himself going hot and red, and dropped the thought.

He was in a warm daze still when Lieutenant Johnson mounted the rostrum to conclude the meal with the evening prayer. Sheik chanted the familiar words of thanksgiving, suddenly meaningful, and looked directly at Sarah as they finished, saying to her and her alone, "Survive in Peace!"

The Lieutenant read off the cleanup assignments, and then, just as casually as if she were making a routine announcement instead of delivering a stomach punch, added, "There will be gameroom play for Classes Three and Four till bedtime. Special Sessions girls are invited to attend a staff meeting in the wardroom immediate!' after senior supper."

Sarah threw him a look of mild disappointment. "Tomorrow?" she mouthed. He didn't answer, pretended not to see. Tomorrow? Sure. What difference did it make to her?

And then he was angry at himself. It wasn't Sarah's fault. And you couldn't blame her for being excited about a wardroom meeting. It had to be something big for the Sessions to get asked in to wardroom. He tried to meet her eye again, but everyone was getting up; people were moving; he caught a glimpse of her back, and then couldn't see her at all. Desultorily, he drifted with the other older children to the lounge and stood staring at the big screen.

The sun was big now, filling one whole sixteenth sector Maybe the meeting . . . ? He couldn't get excited. There'd been too many false alarms when they began decelerating almost a year ago, rumors and counter rumors and waves of excitement about how the tapes were coming out of the calckers, how it was the planet . . . No, it was poisonous, ammonia atmosphere . . . No, it was just a barren sun . . . It was the right one after all; it had a perfect earth-type atmosphere, one-third the mass . . .

Meaningless words, after all, to those who had been born on board *Survival*; words out of books. The older people had been more excited than the kids. "Earth-type meant something to them.

But that was a year ago, and every day since, the sun had grown bigger on the plate, and no day had brought any real news, except somewhere along the way it had been confirmed officially that there were planets —type as yet unknown. Bob said he thought it would be four or five more months before they came in close enough to give the calckers anything to work on.

Last year, when they first been decelerating, Bob had talked a lot to Sheik, times when they were by themselves in quarters, the little ones napping or asleep for the night. It was the first time, really, since Sheik's nursery years that he and his father had been close. From the time he was six, when he was assigned for training in the plant rooms, Abdur had grown to fill the role of father-advisor more and more. But when the bright sun started to grow faintly brighter on the viewscreen, Bob's excitement was uncontainable; he poured it out on his son, a boy incredibly grown to where, by the time a landing was likely to take place, he would be in effect one of the men.

And the men, Bob told him, would have to work together when that happened. Things on a planet would not be quite the same as on board ship. For weeks, Bob reminisced and daydreamed, talking about Earth and its homes and families and governments, about the launching of the ship, *Survival*, and how and why things were set up on board ship as they were.

Some of it Sheik had heard in class; other parts he was cautioned to forget except in private. Everyone knew that the Survival was Earth's first starship, a colonizing expedition sent to find a planet—*if* there was one—suitable for the spillover of the world's crowded billions. Everyone knew the voyage might take years or decades; the ship was completely self-contained; the ion drive made it possible to carry fuel enough for a hundred years. There were living quarters on either side of those now in use that had never been unlocked; if a third or fourth generation grew up on board ship, they'd be needed.

But if it took that long, it would do Earth no good. If the ship could not return with news of an established colony within fifty years, then it was under orders not to return at all, but to remain and start over altogether in the new place.

This much was common knowledge, and one further fact: that the original crew of twenty-four had included twenty women and four men for obvious biological race-survival reasons.

What they didn't tell in classes was why all of the men were subordinates, none of them trained for astrogation, electronics, communications, or any of the skilled jobs of ship control; why all the officers were women. The children took it for granted as they grew; the ship was the way things were and always had been; the readers that spoke of families and pets and churches, towns and villages and lakes and oceans, aircraft and weather, were fascinating, and in a quaint way, true, no doubt; but reality was the ship with its four family units, domestic fathers, energetic women, school dorms, communal meals.

Bob's talk of men who "ran their own families" and ruled their homes, of male supremacy in the environment of a hostile world, of wives and husbands cleaving one to one faithfully, first intrigued Sheik, then excited him, while he regarded it as fairy-tale stuff. But when his father pointed out one day that there were just as many boys as girls among the children—a fact Yoshikazu somehow had not thought about before—everything the old man said struck home in a new way.

"Then *why* did they put the women in charge of everything?" he demanded for the first time.

Bob's answer was incoherent, angry and fantasizing. Later Sheik took his puzzlement to Ab, who explained, tight-lipped, that women were considered better suited to manage the psychological problems of an ingrown group, and to maintain with patience over many, many years, if needed, the functioning and purpose of the trip.

"Then when we land . . . ?"

"*When* we land, there will be time enough to think about it! Who's been talking to you about all this?"

"Well, I was asking Bob," Sheik said cautiously. "But . . ."

"But nothing," Abdur said sharply. "If you're smart, Sheik, you'll forget it now. If anyone else hears this kind of talk from you, your father will be in trouble. Or I will. Forget it."

And for the most part, he did. Bob never spoke of it again. And Ab spoke only as he always had, of sun and rain, forests and gardens, sunsets and hillsides and farmlands *outdoors* on a planet.

Sheik stared at the giant sun on the viewscreen; if they had found their planet, if they landed here, he was almost a man . . .

No. He was a man. He could do everything a man could do, and he was very strong, stronger than any of the girls. And Sarah, he thought, was very close to womanhood. She was the oldest of the girls; it would be natural. One man and one woman, Bob had said . . . the thought was exciting. There was no other woman he would want to have. Naomi or Fritzi or Beatrice, the other older girls, were *nasty*. As for the crew—Lieutenant Johnson, maybe, but—but when he thought of Sarah the idea of being at the call of four others besides was obscene somehow.

Sheik laughed abruptly and turned and left the lounge. He had spent enough time today dreaming fantasies. There was work to do.

Still, when the last of the little ones was tucked in bed, and the quarters were quiet, Sheik found himself pacing restlessly in the tiny pantry-service room. He had his schoolbooks with him, and had meant to study for the morning's class. But when he tried to read, plant shadows and Sarah's legs and all the things Bob had said raced through his mind, blurring the print. He wished Bob would come back from wherever he was. The kids were asleep; there was only one hour till he himself had to be in dorm, and he was obsessed with the need to go hull-side, to find his cool shadow-corner and lie there where

peace was always to be found.

And obsessed, foolishly, with the idea that after the meeting Sarah might, just *might*, go down to look and see if he was there . . .

Bob didn't come. After a while Yoshikazu closed his book, wrote a quick note, "Hullside. Back in a minute," and went out.

He had never done such a thing before. He had broken rules, yes, but not when the children were in his care. But, really, what could happen? If one of them woke up, if anything went wrong, half an hour could not mean life or death. And ...

And he didn't care. He *had* to go.

Quickly and quietly, exhilarated beyond previous experience by the sense of his guilt, he went down cornpanionways towards the hull. He closed the last hatch behind him and stood on the top step looking down into the shadowed vastness of hullside. He was above the lamps. Beneath them was bright yellow light; then pale green, new leaves at the top of the plant stalks. Darker green below. Brownish-green stalks, some slender swaying things, some thick as his own arm. And underneath, the shadows. He started down, quietly still, but beginning already to feel more at ease.

Then he heard the voice. Bob's voice. Urgent, persuasive.

"I tell you it's *true*. This time it's true. I got it straight."

"Hell, Bob, every time they send in a tech to film something secret, you think that's it. You said the same thing six months ago, and how many times before that?" That was Sean, Sarah's father, who ran the livestock rooms.

"This time I know I'm right," Bob said quietly. His voice was convincing, even to Sheik.

"Well, if it is, what do you want us to do, Bob?" Abdur, this time, also quiet. The voices were coming, Sheik realized, from Abby's little private room near the seedbeds.

"Just that I think it should have been announced. I want to know what they're up to, with that meeting. Ab, have you ever stopped to think that maybe when the time came, *the women wouldn't want to land*?"

Silence, shocked silence; Sheik stood like a statue on his step.

"Come off it, man." Sean. "They're not *that* crazy."

"It's not so crazy, Sean," Abdur said thoughtfully, and then: "But I don't see what we could do about it if they didn't. *And* I don't think they'd hold back, even if they wanted to."

"You got a lot of trust in human nature, Ab."

"No-o-o-o. Well, yes. I guess I do. But that's not why. Listen, Robert, what do you think kept you from going off your nut those first five years?"

"What do you want me to say?" Bob asked bitterly. "God?"

"Well, He may have helped. But that wasn't what I meant. You were in bad shape for a while. After Alice . . ."

"Watch yourself, Ab." Bob growled.

"Take it easy and listen a minute. After what happened—how come you didn't do the same thing?"

Sheik eased himself down to a sitting position on the top step and listened.

A lot of it made no sense. Alice had been one of the women, of course; there were nineteen now. Funny he'd never thought of that before! She must have died when he was still a baby. Most of the kids wouldn't even know the name.

And Bob, Bob had had something to do with Alice. The conversational scraps and fragmentary references were incomplete, but Sheik had a picture, suddenly, of something that had happened to his father, of something like what was, maybe, happening with him and Sarah, and wasn't *supposed* to happen.

He tried to think how he would feel, what he would do, if Sarah suddenly—were no more. He could not imagine it. Nobody ever died. Nobody on the ship was more than forty-five. If Bob had felt that way, and then Alice died, he could see why his father was—*funny*, sometimes. Why he imagined things and made up stories about the time on Earth.

The twin revelation—the knowledge that what he thought and felt for Sarah had happened to *other* people, often, and the shocked glimpse of grief inside his father —almost obscured the more immediate importance of what the men said down there.

"Indoctrination," Ab was saying.

Alice was the only one who hadn't had it. She had been the ship's doctor; "they," the planners, had thought someone on board, the "stablest" one, should be free of "post-hypno." Words, some new, some old but out of context here. *Indoctrinated* . . . the women were indoctrinated, too; they *couldn't* refuse to land the ship. Ab said so.

The others agreed with him. Bob didn't, at first, but after a while, though he kept arguing, Sheik knew even Bob was convinced.

Gradually, the voices turned more casual; the conversation slowed. Sheik thought it must be getting close to dorm curfew. He raised the hatch above him cautiously, hoisted himself up through it and let it down with silent care. He reached his own family quarters again without meeting anyone.

Inside, he put his note down the disposall, checked on the sleeping children, and arranged himself in the galley with a book on his lap, his feet on the counter, and a yawn of boredom on his face. When Bob returned, he hung around hopefully a little while, but Bob was not feeling talkative.

Sheik had a few minutes till curfew still; without planning it, he found himself in the nightlit empty lounge, at the big screen, watching the giant sun, almost imagining he could see it grow bigger and closer against the dead black , of space, straining his eyes absurdly for the planet . . .

Planet!

The pieces began to come together.

Voices came down the corridor, and a far part of his mind remembered the wardroom meeting, Sarah, the evening's plans. Just coming out now? Maybe he could see her still. That was silly—curfew soon. Well, tomorrow . . . Just coming out now? That was some meeting ...

Meeting! And Bob said he knew for sure this time the tapes on the planet were through: It was a good one. They could land on it, and live.

Live on a planet.

His stomach felt funny for a minute, and he thought that was foolish, what was there to be *afraid* of?

Live on a planet. He thought the words slowly and purposefully. Planet. Plants. Plants on a planet. On a planet, plants grew everywhere, by themselves, naturally. That's what Ab said. He said they grew all over, so you'd have to *tear them out* to make a place to build your house.

House. Family. Inside-outside. They were all words in the books. Hills, sunsets, animals. *Wild* animals. Danger. But now he wasn't afraid; he *liked* the thought. Wild animals, he thought again, savoring it. Houses, inside and outside; inside, the family; outside, the animals. And plants. The sunshine . . . daytime . . . and night ...

Shadows!

The light brightened around him. On a planet, there would be shadows all the time everywhere.
"Sheik . . ."

"Yes, ma'am." He turned. The response was automatic . . . "indoctrinated"; . . . even before his mind reoriented.

The room was daylit again. Five of the women were standing just inside the door. Lieutenant Johnson was smiling, watching him.

"Better hop, boy. Curfew."

"Yes, ma'am." He moved past the others. Johnson, closest to the doorway, reached out a hand and rumpled up his hair.

"Do your dreaming in bed, Sheik," she said tenderly, as if he were in the nursery still. But something was in her eyes that made him know she did not think he was a little boy. He felt better when he, got outside.

The girls' dorm was to the right; he could see the last of the senior class girls disappearing through the door. If he moved faster ...

He turned to the left, walked up to the boys' dorm, and almost missed hearing the sharp whispered

noise from the cross-corridor beyond.

He looked back. No one in sight. Raced up the corridor, and she was there, waiting. Waiting for him.

"Sheik! Shhh . . . I just wanted to make sure . . . Tomorrow night?"

"Sure," he said.

Her eyes were shining. Like the Lieutenant, she was looking at him *differently*. But it was a different kind of difference, and he liked it. Very much.

"Sure," he said again. "Tomorrow night for sure." But neither one moved. A gong sounded softly. Curfew time.

"You better get back," she said. "I have a pass." Even her whispering voice was different. She was vibrating with excitement. It was *true*!

"Okay," he said. "Listen, Sarah. Let's not wait. What about tonight?"

"Tonight?"

"After inspection."

"You mean . . . ?"

"Sneak down. It's easy," he promised out of the practice of an hour ago, and lied. "I've done it lots of times."

"Who with?"

He smiled. From inside the lounge they heard voices. "Listen, I got to get back. Right now. I'll meet you in Cargo G in half an hour. Then I'll show you how."

"But, Sheik . . ."

He didn't wait for her answer. He didn't dare. Johnson or one of the others would be out for inspection any minute now. He ran on his toes, silently, back down the corridor, tore off his clothes, jumped into bed, pulled covers up, and did not open his eyes even to peek and see what officer it was when she came in to inspect the row of beds. He just lay there, astonished at what he had said and what he was—beyond hesitation—going to do.

He thought of the times he had waited and wanted and hoped for Sarah to ask him, to notice him, to pick him to dance with or play with or for a work partner. Now, all of a sudden, he had thrown himself at her head, suggested ...

He began to be horrified. It wasn't the idea of breaking curfew rules. Yesterday, even this afternoon, that would have shocked him, but now—knowing about the planet changed all *that*. What bothered him now was the brazenness of it, the way he had practically begged her to come, and hadn't even waited to find out ...

He wouldn't go. She'd never go. He was crazy to think ...

She was laughing at him now.

I wish, he thought miserably*, I wish I was . . .*

Only he didn't. He didn't envy girls any more.

He lay very quietly in bed for fifteen minutes. Then he got up and pulled on his shorts. He looked at the six other beds in the schoolboys' dorm. Joel, the youngest, was nine, still a kid. The others were twelve, thirteen, eleven, eleven, twelve. Five of them who would soon be men. Like Bob and Ab, Bomba and Sean, and Sheik himself. He left the dorm, slipped down the corridor, thinking as he went of the words he had read somewhere, that he "moved like a shadow."

I wish, he thought, and turned round a corner to safety, *I wish that she comes*. And then: *I wish that we land on a planet very soon.*

DAUGHTERS OF EARTH

First Publication: 1952.

I

MARTHA BEGAT JOAN, and Joan begat Ariadne. Ariadne lived and died at home on Pluto, but her daughter, Emma, took the long trip out to a distant planet of an alien sun.

Emma begat Leah, and Leah begat Carla, who was the first to make her bridal voyage through sub-space, a long journey faster than the speed of light itself.

Six women in direct descent—some brave, some beautiful, some brilliant: smug or simple, wilful or compliant, all different, all daughters of Earth, though half of them never set foot on the Old Planet.

This story could have started anywhere. It began with un-spoken prayer, before there were words, when an unnamed man and woman looked upward to a point of distant light, and won-dered. Started again with a pointing pyramid; once more with the naming of a constellation; and once again with the casting of a horoscope.

One of its beginnings was in the squalid centuries of churchly darkness, when Brahe and Bruno, Kepler, Copernicus, and Galileo ripped off the veils of godly ignorance so men could see the stars again. Then in another age of madness, a scant two centuries ago, it began with the pioneer cranks, Goddard and Tsiolkovsky, and the compulsive evangelism of Ley and Gernsback and Clarke. It is beginning again now, here on Uller. But in this narrative, it starts with Martha:

Martha was born on Earth, in the worst of the black decades of the 20th century, in the year 1941. She lived out her time, and died of miserable old age at less than eighty years at home on Earth. Once in her life, she went to the Moon.

She had two children. Her son, Richard, was a good and dutiful young man, a loving son, and a sober husband when he married. He watched his mother age and weaken with worry and fear after the Pluto expedition left, and could never bring himself to hurt her again as his sister had done.

Joan was the one who got away.

II

centure easegone manlookttuthe stahzanprade eeee maythem hizgozzenn izz gahandenno thawthen izzgole...

'It's—beautiful!'

Martha nodded automatically, but she heard the catch in the boy's voice, the sudden sharp inhalation of awe and envy, and she shivered and reached for his hand.

Beautiful, yes: beautiful, brazen, deadly, and triumphant. Martha stared at the wickedly gleaming flanks of the great rocket resting majestically on its bed of steel, and hated it with all the stored and unspent venom of her life.

She had not planned to come. She had produced a headache, claimed illness, ignored the amused understanding in her hus-band's eyes.

Even more, she dreaded having Richard go. But his father voiced one rarely-used impatient word, and she knew there was no arguing about the boy.

In the end she had to do it too: go and be witness at disaster for herself. The three of them took their places in the Moon rocket—suddenly safe-seeming and familiar—and now they stood together in the shadow of that rocket's monstrous spawn, under the clear plastic skin of Moondome.

rodwee havetrav uldsoslo lee beyewere eeyanway stfulmen
zzz...

The silvery span of runway that would send it off *today* stretched out of sight up the crater wall, the diminishing curve beyond the bloated belly already lost in the distance, it was made to mule. Cameras ground steadily; TV commentators, perched on platforms stilted high like lifeguard chairs, filled in a chattering counterpoint against the drone from the loudspeakers of the well-worn words that had launched the first Moondome expedition, how long back?

Sixteen years? Impossible. Much longer. How many children had painfully memorized those tired

words since? But here was George, listening as though he'd never heard a word of it before, and Richard between them, his face shimmering with reflections of some private glory, and the adolescent fervour of his voice—"It's *beautiful!"*–drawing a baritone-to-tremolo screech across the hypnosoporific of the loudspeakers' drone.

She shivered. 'Yes, dear, it is,' and took his hand, held it too tightly and had to feel him pull away. A camera pointed at them and she tried to fix her face to look the way the commentator would be saying all these mothers here today were feeling.

She looked for the first time at the woman next to her and caught an echo of her own effort at transformation. All around her, she saw with gratitude and dismay, were the faint strained lines at lips and eyes, the same tensed fingers grasping for a hand, or just at air.

Back on Earth, perhaps among the millions crowded around TV sets, there could be honest pride and pleasure at this spec-tacle. But here—?

The cameras stopped roaming, and a man stood up on the raised central dais.

'The President of United Earth,' the speakers boomed sepulchrally.

An instant's hush, then:

'Today we are sending forth two hundred of our sons and daughters to the last outpost of the solar world—the far room from which we hope they may open an exit to the vistas of space itself. Before they go, it is proper that we pause ...'

She stopped listening. The words were different, but it was still the same. No doubt the children would have to memorize this one too.

Did they *feel this way?*

It was a frightening, and then a cooling thought. There was no other way they could have felt, the other mothers who watched that first Moondome rocket leaving Earth.

'... for their children's children, who will reach to the unknown stars.' Silence. That was the end, then.

The silence was broken by the rolling syllables of the two hundred names, as each straight neat white uniform went up to take the hand of the President, and complete the ritual. Then it was over and Joan was standing before her: her daughter, a stranger behind a mask of glory. Seven months ago—seven short and stormy months—a schoolgirl still. Now—what did the Presi-dent say?—an `emissary to the farthest new frontiers.'

Martha reached out a hand, but George was before her, folding the slender girl in a wide embrace, laughing proudly into her eyes, chucking her inanely under the chin. Then Richard, still too young not to spurn sentimentality, shaking Joan's hand, suffering her kiss on his forehead, saying thickly : `You show 'em, sis!'

It was her turn now. Martha leaned forward, coolly kissed the smiling face above the white jacket, and felt the untamed tears press up behind her eyes.

`Joan,' she cried wildly. 'Joan, baby, aren't you *afraid?'*

What *a stupid* thing to say! She wiped hastily at her eyes, and saw that the shine in Joan's eyes was moisture, too.

Joan took her mother's hands, and held them tight.

'I'm petrified,' she said, slowly, gravely, and very low. No one else heard it. Then she turned with her brave smile to Alex, standing at her side.

'Pluto or bust!' she giggled.

Martha kissed Alex, and George shook his hand. Then the two of them went off, in their white uniforms, to join the other couples, all in line.

Martha felt proud.

(Parenthesis to Carla : i)

Josetown, Uller, 3/9/52

Dear Carla...

Forgive me my somewhat dramatic opening. Both the sections that preceded this were written years ago, at rather widely separ-ated times and of course the one about Martha's farewell to Joan involved a good bit of imaginative assumption—though less of it than you may think at this point.

Frankly, I hesitated for some time before I decided it was proper to include such bits in what is primarily intended to be an informational account. But information is not to be confused with statistics, and when I found myself uncertain, later, whether it was all right to include these explanatory asides, I made up my mind that if I were to write the story at all, it would have to be done my own way, with whatever idiosyncratic eccentricities, or godlike presumptions of comprehension might be involved.

As you already know if you are reading this, I am putting this together for you as a sort of good-bye present for your trip. There is little you will be able to take with you, and when you leave, there will be no way to foresee the likelihood of our ever meeting again: even if your trip is entirely successful and you return from it safely, we both know how uncertain the time-trans-formation equations are. You may be back, twenty years older, five minutes after you leave; more probably, it may be many years after my own death that you return—perhaps only a year or two older than you are now.

But however we learn to juggle our bodies through space *or* time, we live our lives on a subjective time scale. Thus, though I was born in 2o26, and the *Newhope* landed on Uller in 2091,I was then, roughly, 27 years old—including two subjective years, overall, for the trip. And although the sixty-one years I have lived here would be counted as closer to sixty-seven on Earth, or on Pluto, I think that the body—and I *know* that the mind—pays more attention to the rhythm of planetary seasons, the alterna-tions of heat and cold and radiation intensities, than to the ticking of some cosmic metronome counting off whatever Abso-lute Time might be. So I call myself 88 years old—and I digress, but not as far as it may seem.

I said, for instance, that Martha died 'of miserable old age' at less than eighty, and this would seem to contradict my talk of seasons-and-subjectivity here. I am not exactly senile, and can look forward to another forty years, in all likelihood, of moderately useful life. We do learn something as we go along: a hundred years before Martha's time (indeed, even at her time, on some parts of Earth) few people lived to see sixty. (You, at twenty-eight, would have been entering middle-age.) Yet the essential *rhythms* of their lives were remarkably similar to our own. The advances of biophysics have enlarged our scope: we have more time for learning and living both; but we have correspondingly more to learn and live. We still progress through adolescence and education (which once ended at 14, then 18, 21, 25...) to youth, marriage, procreation, maturity, middle age, senescence and death. And in a similar way, I think, there are certain rhythms of human history which recur in (widening, perhaps enriched, but increasingly discernible) moderately predictable patterns of motion and emotion both.

A recognition of this sort of rhythm is implicit, I think, in the joke that would not go away, which finally made the official name of the—ship?—in which you will depart *The Ark* (for *Archaic?).* In any case, this story is, on its most basic levels, an exposition of such rhythms: among them is the curious business of the generations, and their alternations: at least it was that thought (or rationale) that finally permitted me to indulge myself with my dramatic opening.

On an equally important, though more superficial, level, my purpose in putting this together is to provide you with—this is embarrassing—a `heritage'. I had something of this sort from Joan Thurman, and found it valuable; whether this will be equally so for you, I do not know. I do know I have only two months left in which to put this together and that is little enough for an inexperienced storyteller like myself. (And glory-be! there *is* something I am inexperienced at. Many things, actually—but the writing of this is the first reminder I have had in a while. It feels *good* to be doing something new and difficult.)

My parenthesis seems to be full of parentheses. Well, I never was what you'd call a straight-line thinker: the side-trails are often more productive, anyhow ...

And there I go again. What I set out to tell you here, Carla, is that this story was lived over many years, and written over a shorter period, but still a long one. There are the odd bits (like the one about Martha preceding this) which I did a long time ago, as a sort of `therapy-writing' and kept, till now, to myself. Other parts, like what follows here, are adapted from Joan Thurman's papers. Some parts are new. And then there is this matter of rhythms again

Some things in life remain vivid in minute detail till the day you die; others are of interest only as background. Some things are very personal and immediate, no matter how remote in time; others seem almost to be happening to another person, even as they occur. Thus, you will find this narrative full of sudden changes of pace and style. I find, for instance, that it is almost impossible in some sections to write about myself as `Emma' in the third person; and other places equally difficult to say 'I' and `me', but I do not think you will have too much trouble following.

III

I WAS BORN on Pluto, in the Earth-year 2026, and I grew up there. I was twenty-two years old when we boarded the *Newhope* to come to Uller. But that was such a long time ago, and so much has happened since, that the words themselves have lost all personal meaning to me. They are statistics. I am Emma Tarbell now, and have been for many years. My home is on Uller. A little girl named Emma Malook grew up on Pluto. Her mother's name was Ariadne, and her father's name was Bob. Her grandmother, Joan Thurman, was a famous pioneer, one of the first-ship colonists.

In the normal course of events, Joan would have taken her degree that spring, and gone to work as a biophysicist until she found a husband. The prospect appalled her. Nineteen months earlier she'd started the accelerated studies, without mentioning it at home; her mother thought she was busy with the usual run of extra-curricular self-expression at school. She'd had a year of avid learning before she passed the prelims, and was ready for advanced special training. That meant a different school, and the beginning of the psych conferences and background inquiries. She had to tell her family then.

The school was too near home for her to live in the already crowded dorms. She had to stick it out at home for six months of battle and persuasion, sleepless nights and stormy mornings. And all the time studying to be done.

She wasn't the only one. Even the dorm residents got it; letters and telegrams and phone calls, and frantic unannounced visita-tions. Two thousand of them entered final training together; less than seven hundred lasted the full six months, and most of those who left did so of their own accord.

Joan stuck it out, and she met Alex, and added to her fears and doubts: if one of them was chosen, and not the other...?

Cautiously, they held back from commitments till the end. And then, in spite of any heaven or earth Martha could move, the decision was made. Joan had her one last month on Earth of joy and triumph: graduation, marriage, four weeks of honeymoon and fame; the planning, the packing, the round of farewells.

Now with her hand in Alex's, she followed the others, all in their gleaming white uniforms, up the ramp to the airlock, and into the third of a waiting line of moon buggies. Ten buggies, ten passengers to each, two trips apiece, and the gaping hole in the side of the giant rocket had swallowed them all.

The rocket was not really large, not from the inside. So much fuel, so much freight, so many passengers; the proportions were flexible only within narrow limits. Each couple passed through the airlock hand in hand, and edged along the corridor, crabwise, to their own cubicle.

Inside, they stripped off the white snowy uniforms, folded them neatly, and piled them in the doorway for collection. Stripped to the skin, they checked their equipment for the last time, and settled themselves side by side, in the grooves and contours carefully moulded to their bodies.

In perfect drilled co-ordination, almost ritualistically, they closed down the compartmented upper sections, starting at the feet, and leaned across each other to latch the complex fasten-ings. When they were enclosed up to the armpits, they laid their heads into the fitted hollow facing each other at one-quarter -view, and strapped down the forehead bands and chin pads. Alex pushed the button that brought down the glassine air-dome over their upper bodies, and both of them set to work testing the supplier tubes and nozzles inside, making certain for one last extra time, that everything reached as far as it should. Then, in perfect unison, as if this too were part of the ritual they had learned, each one extended a hand for a last touch; grasped and held tight, and let loose in haste.

Someone came down the hall—they could still see through the open doorway—collecting the uniforms to be dumped before take-off.

They wriggled their arms down into the cushioned spaces along their sides; later, the arms could be freed again, to manipu-late the supplier tubes, but during acceleration, every part of the body was enwombed, protected from shock and pressure, cold and heat, nauseous fear and killing radiations.

A gong went off inside the head-dome; that meant they were sealed in now. The loudspeaker began to tick off seconds. Frantically, foolishly, Joan tried to move her hips, suddenly certain that a necessary opening in the nest had been misplaced. She never remembered to feel glorious. There was a rending blast of soundless vibration, and a pushing, squeezing pain within the flesh, and brief relief about the placing of the opening, before the blackout came.

IV

PLUTO, PLANET OF MYSTERY

.. frozen dark wastes, forever uninhabitable to man? Or will our pioneering sons and daughters find a new world to live upon? No one can foretell what they will find. Our best astronomers are in dispute. Our largest and most piercing telescopes give us daily—or nightly—new information, which only contradicts the hypotheses of the night before ...

`We literally do not know, even today—and it is now three quarters of a century since Clyde Tombaugh confirmed the existence of the planet—what the size, the mass, or the true temperature of Pluto are ... whether it has a frozen atmosphere or none ... what composes its dark surface ... or whether it is a native of our solar system at all!'

The newspapers and broadcasters of the time speculated loudly on the likelihood that the bright remote planet was a visitor from the stars, a wandering planet caught at the very fringe of the sun's gravitation, or even a watchful outpost of some alien race, a conscious visitant, swinging in distant orbit around this star against the day when men propelled themselves beyond the boundaries of their own system.

They even mentioned, but less often, the great likelihood that the confusing data on the planet merely meant it was composed entirely of very heavy metals. Uranium, for instance ...

But for the far-sighted, for the world planners, the politicians and promoters who had made the trip possible, the near-certainty of heavy metals was second only to one other goal: a starship.

The basic design of the *Newhope* was even then under government lock and key, a full forty years before the first step was taken in its construction. The fuel was in development. Astronomers, sociologists, metallurgists, psychologists, thousands of technicians and researchers on Earth and Mars and the Moon were tackling the thousand and one problems of development. And the entire line of work hinged on one combination: there had to be a source of heavy metals near the building site: and the building site had to be at the outer edges of the System.

But Pluto was on the way *out:* a step to the stars.

They lived in the rocket at first; it was specially designed for that. The fuel tanks had been built for conversion to living quarters, because nobody knew for sure when they set out whether they'd ever be able to live on the surface. So they swung the ship into a steady orbit around the planet, and got to work on conversion. The designs were good; it was only a short time before the living quarters were set up, and they could turn their attention to their new world.

What they found is by now so obvious and so familiar it is hard to conceive of the excitement of the discovery to *them.* But the simple discoveries of that first month could never have been made from Earth, or from Mars. For years astronomers had puzzled over the discrepancy between Pluto's reflective powers and its otherwise extrapolated size and mass. There had never been a valid planetary theory to account for its unique inclina-tion to the ecliptic or the eccentricities of its orbit. Two years of observation by the Ganymede Expedition had added barely enough to what was already known to weigh the balance

in favour the completion of Project Pluto.

But from the vantage point of an orbit around the planet itself, the facts became self-evident. A whole new theory of planetary formation come into being almost overnight—and with it the final justification for the construction of the *Newhope.* There was no longer any doubt that other planetary systems existed; and in a surprisingly short time, the techniques for determining the nature of such planets were worked out as well.

Three months after arrival, the Pluto colonists began ferrying down the material for construction of a dome. Altogether, they lived in the rocket for thirteen Earth-months, before their surface settlement was habitable. But long before that, every one of them had at one time or another been down to the planet, and mining operations had begun.

Message rockets carried the progress reports back to Earth, and financial gears shifted everywhere. The government of the world poured all its power into the energizing of space-travel industries. A new ship was built in a tenth the time the first had taken, and a crew of three piloted urgently-needed supplies to the colonists.

Still, it was a one-way trip. Still, and for years to come, the supply rockets were designed for dismantling on arrival. Every part of a rocket-ship, after all, has an equivalent use on the ground; by building the ships themselves out of needed materials, the effective cargo space could be quadrupled.

From the beginning, every plan was made with one objective in view: the starhop. Nobody knew at first where the ship would go; no one understood *why* it had to go. But go it must, and Pluto was a waystation.

Joan Thurman died young; she was barely sixty-seven when the accumulated strains of the early Pluto years wore her out: at that, she outlasted all but three of her fellow-passengers on that first Pluto rocket; and she outlived her husband, Alex, by 28 years.

Alex Thurman died in '06 in the Dome Collapse at what was to have been Threetown. Joan had been working before that on the theory for open-air cities; but it was after the crash that she turned her whole being to a concentrated effort. The result was TAP: the Thurman Atmosphere Process. Or that was *one* of the results.

When Alex died, Joan had three small children: Ariadne was ten years old, one of the very first Pluto babies; just exactly old enough to be able to take on most of the care of Thomas and John who were four and three respectively.

Adne was born into pioneer hardship and pioneer cheerfulness. Then at the age of ten, the cheerfulness abruptly departed. Her father's seemingly indestructible strength betrayed her; her mother's watchful care was turned elsewhere. From the premature beginnings of her adolescence through its duration, she was effectively mother and housekeeper and wielder of authority to two growing vigorous boys.

When she was nineteen the first 'passenger ships' were established between Pluto and Earth—round-trip transports—and a new kind of colonist began to arrive. The Malooks, who landed in ' 17, were typical and Robert, their son-and-heir, was Ariadne's romantic ideal. When she was twenty they were married, despite everything that was done in either family to avert the expected disaster. For her, it was paradise ... for a while. She read Bob's Earth-microfilms, and learned to imitate his Earth-accent. She never had to do a day's hard work from that time on, and still she had the handling of a charming irresponsible boy-child—as well as his money—until he grew up.

Bob was a year younger, you see ... and till he did grow up, he loved having Adne's sweetly feminine domination exerted on his behalf. She showed him how to spend his money, how to live comfortably under dome conditions, how to adapt his Earth-education to Pluto's circumstances.

The disaster Joan and the Malooks had anticipated did not occur. Adne and Bob simply drifted apart, eventually after a few assertive acts on his part and several unpleasant quarrels. My birth may have precipitated things somewhat: they had managed well enough for ten years before colonial social pressures pushed Ariadne into pregnancy. Perhaps, once I was born, she found an infant daughter more interesting than a full-grown son. I don't know. I knew surprisingly little about either of them at the time; it

is only in retrospect—in parallel perhaps I should say—that I understand Ariadne at all. (If there had been any relatives on hand when Leah was growing up, I expect they'd have said she `took after' her grandmother.)

As for Bob, I hardly knew him at all until after they separated, when I was five or six; after that, he took me out on holidays and excursions, and he was beyond a doubt the most charming, exciting, fascinating man who ever lived—until I got old enough to be awkward for him. I never knew for sure, but I think he was some sort of professional gambler, or high-class con man, later on.

One way and another, I can see why Joe Prell looked good to Ariadne after Bob. I was nine, then.

V

JOE PRELL WAS a brash newcomer, as social standing went on Pluto: a passenger, not a pioneer. But he was energetic and smart. Two years after he landed, he and Ariadne were married.

It made very little difference to Em at first. If anything she was happier after the divorce, because when she saw Bob, she had him all to herself. Anyhow, Joan was still alive then; her death, a year later, was a more serious matter.

By that time, though, Emma had begun to find a life of her own. She already knew that she wanted to be a doctor. She had learned chemistry and biology from her grandmother as easily and inevitably as she'd learned to eat with a spoon or later, to do a picture puzzle. She was still too young to start specializing in school, but she had Joan's library to work with. Joan's personal effects came to Emma, too, but the box of papers and letter-tapes didn't begin to interest her till much later. She spent most of her time, the next few years, bent over a micro-reader unrolling reel after reel of fascinating fact and speculation, absorbing all of it, and understanding little; just letting it accumulate in her mind for later use.

Adne disapproved. She thought Emma should play more, and spend more time with other children. But Adne was too busy to disapprove very forcibly. Joe Prell was not a tyrannical man; he was a demanding one. And somewhere in there the twins came along: two baby sisters called Teenie and Tess. Emma was briefly interested in the phenomena of birth and baby-care, but her 'coldblooded' and 'unnatural' experimental attitudes succeeded in horrifying Ariadne so thoroughly that she returned without much regret, and no further restraint, to the library.

By that time, too, Pluto was becoming a pleasant place to live. The first open-air city, built on the TAP principles, was com-pleted when Emma was fourteen. Of course, only the richest people could afford it. The Prells could. Joe was a man who knew how to make the most out of a growing planet.

His financial operations were typical of his personality: he had a finger in real estate, and a finger in transport, but of course the big thing on Pluto was mining, and he had the other eight fingers firmly clamped into that.

Until they started building the *Newhope.* Or really, when they started talking seriously about it. Prell wised up fast. He let the real estate go and cut down on mining, and wound up with Pluto Transport neatly tied up in a bundle just right for his left hand. From that time on, Prell's right hand sold his left everything that was needed to build the starship Prell was publicly promoting.

It was a really big deal to him. To Emma it was a dream, a goal, the meaning of everything. Joe didn't understand any part of the significance of that ship ... but with his uncanny feel for such things, he was right in the middle of all the important pro-jects. He was in on the actual construction job; he knew about the new designs, and the fuel specs ... knew at least as much as Emma did, or most of the others actually in the expedition. But he and Emma had very different notions of what that fuel meant, and they argued about it right up to the last minute.

Or, rather, she argued. Joe Prell never argued with anybody. If he couldn't find a basis for agreement, he just turned the discus-sion into a joke.

Nothing could have been better calculated to infuriate Emma. She was twenty-four then, and very intense. Life was exciting, but more than that, life was terribly *important.* (As indeed it is, Carla; though I think you now see—or feel—the importance more clearly than I.) Prell wouldn't—couldn't—understand that; he never understood why anyone was willing to make the trip at all ... to take a dangerous voyage to

a distant unknown star!

Oh, he *could* see part of it: the challenge, the adventure. These are common enough stimuli, and the response to them not so different in nature from his own kind of adventurousness. It wasn't just wealth and power Joe was after; it was the getting of them, and he played the game as an artist. Patiently, over and over again (quite clearly feeling his responsibility *in loco)* he ex-plained to Emma, and later to Ken, how little chance there was that the ship would ever reach Uller ... how the voyagers were almost certainly doomed from the start ... and how many other ways there were for restless, bright young people to satisfy their craving for excitement.

Emma sputtered and stammered trying to make him understand, but she succeeded only in making herself ludicrous. Actu-ally, she didn't believe any more than he did that the ship had much chance of getting here. There were so *many* hazards, so many unknown factors; it was almost certain that somewhere in the plans some vital defence, some basic need, had been overlooked.

But the Project itself was important, whatever happened to those who were engaged in it. Just *building* the starship was what mattered: new problems to conquer, new knowledge to gain, new skills to acquire. And beyond that, the dream itself : 'Centuries gone, man looked to the stars and prayed ... He made them his gods, then his garden of thought, then his goals ...'

Emma quoted the speech of a long-dead man, and thought Joe Prell would understand. She even brought him, hesitantly, Joan Thurman's diary to read; that, if anything, should have made him understand.

Prell was amazed, but unconvinced. He expressed at some length, and with considerable wit, his astonishment that the girl who wrote that diary could later have done the painstaking prac-tical work that developed TAP. He couldn't see that all of it was part of the same dream.

He listened a little more respectfully when Ken tried to explain. Curiously enough, the two men got along. Prell liked Tarbell, and Ken at least could understand the other man. (I think, too, Joe was much impressed by Ken's audacity in marry-ing me; it had been firmly concluded at home some time before that I was doomed to single bliss. Too direct, too determined, too intellectual, too *strong;* no man would feel up to it, said Ariadne, and her husband agreed.) Ken spoke more calmly than Emma had, with fewer words, and much less argument, but what he said amounted to the same thing, and Joe Prell couldn't see it. He was too busy making money.

And he made it. He made enough, among other things, to fulfil Ariadne's greatest dream: before she died, she had her trip to Earth; she saw the sights and institutions and museums, made all the tourist stops, brought home souvenirs enough to keep her content for her remaining years.

But before that, she saw her daughter Emma off for Uller.

Ariadne was present when the tender took off from Pluto Port to deliver the lambs to the slaughter, carry them off to the starship that had hovered for months like a giant moon around the planet.

'It's ... beautiful,' someone standing beside her said, looking up, and Ariadne nodded automatically. It *was* beautiful; the most beautiful, most dangerous, most triumphant enemy she'd ever known, and she hated it with all the stored-up passion of her life.

'Emma!' she cried involuntarily in her farewell, 'Emmy, aren't you *afraid?'*

I tried to look at her, to let her look *into* me, but there was as unexpected veil of moisture on my eyes.

'I'm scared stiff,' I said, and it was true, and then I smiled to let her know it didn't matter.

Then Ken had come up from somewhere, and was right beside me: He hadn't heard; at least I hoped he hadn't. I flashed the same smile up at him, and looked away quickly, blinking the tear-mist out of my eyes, and trying to send a wordless warning to my mother. If she said anything now ...

She didn't have a chance.

'Come on, kid,' Ken said. 'They're waiting.' He took my hand in one of his while he was still shaking hands with Joe Prell, and I blew a last kiss each to Tess and Teenie; then we turned and ran to the tender. I can remember being very conscious of our importance at the moment, how we must look to all the people there: two tall slim citizens of the universe, shining symbols of glamour and excitement.

Then we were in the tender, the whole bunch of us on our way up to the giant ship. All the familiar

faces looked just a bit more formal and self-conscious than usual, in spite of being jammed into the inadequate space, and doubled up on the seats.

Somewhere in a corner, a group started singing, but no one else took it up, and it faded out. There wasn't much talk. We just sat there two by two ... men and women, boys and girls really—and tried to visualize what lay ahead.

Somewhere out there, beyond the spatial comprehension of a system-bound being, was a star. They called it Beta Hydri; and a group of strange men in a learned university said it had a planet. They called the planet Uller, and credited it with mass and gravity and atmosphere tolerable to humans.

They could be wrong, of course. In thirty years of star-search-ing from the Pluto Observatory, it was the only one so credited. The professors weren't sure, but...

But someone had to go find out, and we were lucky. Out of the thousands upon thousands who applied for the privilege, we had been chosen. And even before we knew we were both to go, we'd found and chosen each other. We weren't cautious and careful the way Joan and Alex had been ... the way most of the others in training were. The first time we met, we knew how it *had to* be for us. And though we worried, sometimes, that one of us would be picked, and the other left behind, it never seemed very likely; it just wouldn't *happen* that way.

But now we had chosen and been chosen in turn, and we had come to the end of the choosing.

When we left the tender, we knew what to do. We'd all done it dozens of times before in practice drill. We filed behind the couple in front to the ice trays, and took our places, lying down. We got our shots. When the crane lowered us into the hold, we still had our hands firmly intertwined. I know I shivered once, and thought I felt a tremor in Ken's hand and ...

VI

AND WOKE UP slowly, still shivering, tingling in her toes and fingertips and nose and ears, as her body warmed. Her hand was still in Ken's, and he was grinning at her.

'We made it, kid.'

'So far,' she said.

Somebody handed her a bowl of soup. That seemed outlandish, for some reason, and then she realized why. They weren't back on Pluto now; they were in space ... far out ... how far? Her hand shook, and the spoon with it, spilling hot soup on her leg, and there was no reason after all why they shouldn't have soup on a spaceship. How far?

She managed to get a spoonful to her mouth, and became curious. Somebody had given it to her; who? She looked up.

Thad Levine was leaning over her, slipping a tray under the bowl for balance. He looked anxious. Em remembered him, and now consciously remembered everything.

'Where's Sally?' she asked, and found her voice sounded nor-mal.

'Instrument check,' Thad said. The phrase was meaningful within seconds after she heard it, and then, as if a key had been turned in her mind, a whole set of meaning and concepts fell into place, and she was oriented.

Thad was looking down at her, smiling. 'Feels funny, doesn't it?' he said. 'Coming out, I mean.' Of course; he'd been through it all already.

'A lot better than it felt going down!' Ken said explosively.

Em nodded. 'Only I didn't really feel anything then,' she said, 'Did you? I was just...'

'Scared!' Ken picked up promptly on her hesitation. 'You and me, and all the rest of 'em too, baby.'

'The freeze is too fast for you to feel...' Thad started mechanically, and grinned and let it drop. They'd all heard it over and over, said it to each other again and again, during the months of training. They'd had their practice-freeze periods, and come out to reassure each other once more. 'It's too fast to feel anything.' The phrase was drummed into all of them before they went aboard for the last time. They all knew it.

But *cold* was not the only way it might make you feel; they all knew that by now. *Scared* was a

feeling, too.

In training, you went into a room, and lay down in the tray, and you came to again in the same room, with the same people stand-ing around, just a few hours, or even minutes, later. This time .. .

This time, they'd all gone under *not* knowing: not knowing whether they'd ever come out of it alive ... whether their bodies could withstand year after year of frozen suspension, instead of the brief testing period ... whether they'd wake up in the ship, or wind up as floating particles in space, or smashed on the surface of some unknown planet.

The Tarbells, Em and Ken, were just about half-way down the list, their shift of duty was timed for the twenty-fourth year of the voyage. And no one knew for sure that day they left whether the ship would really still be on its way in a quarter of a century.

Sally came in, bustling a little, as always. She was so familiar, she made Em realize for the first time how long it was. *On Pluto we'd be past forty now!*

'Em!' Sally rushed over to kiss her, and Ken must have realized at the same time Emma did that they'd hardly touched each other.

'Hey, she's *mine,'* he said. And with his arms around her, everything was perfectly normal again.

(Parenthesis to Carla: ii)

27/9/52 It is a curious phenomenon of the human mind—or at least of mine—that past pain is painless in recall, but pleasure past and lost is excruciating to remember. I have found that for the purposes of telling this story I can readily undergo Recall Process for almost any desired period. The `Pluto Planet of Mystery' article came up intact from a batch of Joan Thurman's papers that I looked at more than a hundred years ago. And I went back to remember what Joe Prell looked like, and how he laughed at me. That didn't hurt in memory: it made me angry, both at his stupidity and at his unkindness, but it didn't hurt.

Carla, I tried to do Recall on the eighteen months I spent in space with Ken, and with the four other couples who at one time or other were shift-partners. I know it was the *happiest* time I ever spent, but the one little part I remembered in detail, the section you have already read, was so packed with poignant pleasure that it almost stopped this work entirely.

I shall not attempt again to recall my days and nights with Ken. As much as I remember, through a rosy blur, is all I feel competent to talk of. It took years after his death to adjust to the loss. I do not know that I could make that adjustment again, and will not subject myself to it.

As for the details of the trip ... they are interesting, but I'm afraid they're all laid over with the sentimental mist that eman-ates from my happiness. It must have been vastly uncomfortable in the tiny cubicle we had as home. Certainly, we fought claus-trophobia every minute of the time. We worked very hard, I know, and we were never quite without fear.

The starship *Newhope* had accommodation for five hundred passengers in the deep freeze, but only six in the living quarters. Three tiny cubicles surrounded three beds, and the walls were lined with overarm storage space.

The ship had been carefully designed to be run in routine circumstances by a crew of six, and a cautious and foresighted psychologist had arranged for overlapping shifts. When we woke up, the Levines were ending their shift: it was their last night out. We shared the first six months with Ray and Veda Toglio, and the Gorevitches. Six months later, another couple replaced the Toelios and six months after that it rotated again. Shift-change nights were big events. Later, the new couple would read the Log, and catch up on everything, but that first night everything would come out in a jumble of incident and anecdote, gossip and laughter: the no-doubt grossly exaggerated story of the error Jommy Bacon made three shifts back, before the Levines came out ... a joke written into the log by Tom Kielty, fourteen years ago, but still fresh and funny ... the harrowing account of a meeting with a comet in the third year out.

It is difficult to picture the situation. Next month you are going to a planet infinitely farther away than Uller was from Earth, and yet you know with great exactness what you will find there. We had no such

instruments in our day as now exist. All we knew when we set out was that this star appeared to have planets composed of terrestrial elements in quantities and proportions similar to those of the habitable solar planets.

We did not know whether we would find a place with breathable atmosphere, or bearable gravity, or water, or ... or whether we'd find a planet at all. When our shift ended, and we went back into the freeze, it would be with almost as much uncer-tainty as the first time.

There was nothing to be certain of except the difficulties we had yet to face: if everything else worked out, if we completed the trip, and found a suitable planet, we would still be presented with almost insuperable obstacles. It was atomic fuel, after all, that made the starhop possible; it also made unthinkable any such doubling in space as had been designed for the Pluto ship. Our fuel tanks would be too hot for human habitation twenty years after we landed.

We weren't going to be able to live in an orbit; we were going to have to land and establish ourselves—wherever we were going —as quickly as we could.

VII

I DIDN'T GET out of the ship at all in the first thirty-six hours. There were twelve of us medics specially trained for the job of defrosting, and we had equipment to do only three couples at a time. Three medics to a unit, we worked over the humming machinery and the still bodies, testing, checking, adjusting, and checking again. You don't save seconds when the use of a limb or the functioning of an organ is involved.

Every delicate part of the human beings we worked over had to receive the same minute attentions: quick-thaw, circulator, oiler, hydrator ... and then, when they began to come out of it, some familiar face to watch over them, to say the right things, to bring food at the right time.

But that part wasn't our job. Jose Cabrini was in charge in the awakening room. They came into our section frozen and motionless; they went out thawed, still motionless. It was weird and unreal and disheartening. We kept doing it because it was the thing to do, six hours on, three hours off to catnap in one of the cubicles, and back again to the waxen-stiff shapes of human bodies.

Ken was outside all that time. He was in the first batch of defrosts: a construction expert, he was also a third-generation Marsman. He was born in Taptown on Mars—the first TAP settlement—and had grown up under primitive open-air frontier conditions: a big-chested hawk-nosed man, wiry-muscled, steel-boned and almost literally leather-skinned. All the Marsmen we had were sent out in the first groups.

There were fifteen men altogether in his construction gang. In haste and near-total silence, still orienting to consciousness, they ate their bowls of fortified soup, drew their tools from Supply, and filed into the air space between the flimsy backwall of the tanks and the alumalloy sheets of the inner hull.

There was just space enough to stand and work while they pried the first plates loose. After that, they had more space: another twelve inches to the mid-plates.

Here they could begin to see space damage, the dents and warps of imploding matter from outside—even an occasional rent in the metal fabric.

Five of the big plates to make a shelter. Each one went a little more quickly. In twenty minutes they were ready to go Outside. They knew it was safe. Other people were Out there already.

But each of them had lived through eighteen months of that voyage, consciously: eighteen months of smooth plates under-foot and glowing indirect lighting, of cramped quarters enclosed by walls, and cutting corners to save space—eighteen months closed in *from* Space ...

They stood in the lock, and hesitated. Eyes met, and looked away.

Then somebody said:

`What the hell are we waiting for?'

`Sure, let's go out and take a walk.'

`Come on out, the air is fine,' someone else said shrilly.

Ken was Mars-born, and tough; he couldn't remember ever feeling this way before. He noticed it was an Earther who finally laid hand on the lever to open the door.

They left the plates in the lock while they got their footing on the terrain, and blinked back the light of the sun.

Some of the others were cold, but Ken had chased sand devils on Mars at to below. He let the strange sun hit his head, drew the strange breath into his lungs, and exultation exploded inside him.

He wanted to shout; he wanted to run; he wanted to kiss the ground beneath his feet, embrace the man next to him. He wanted to get Emma and pull her out of the ship. He turned to the others.

`Come on!' he shouted. `Let's go!'

They dragged the heavy plates over the ground to a spot already marked out, and started building.

It was almost too easy.

Everything went according to schedule. The plans for re-use of the inner plates turned out to be sound. The temporary shelters were up and ready for use before the sun went down, and by the next day they were even moderately comfortable inside. Every bit of material that had gone into the construction of the starship, save the fuel areas and the outer hull, had been designed to serve a double purpose, and almost every design was satisfactory and practicable.

Oh, it wasn't easy in terms of work. Every man and woman of the five hundred worked till they dropped, those first two days. It wasn't just construction and renovation. There was an infinite amount of testing and retesting to be done, checking and rechecking. Round-the-clock shifts were stationed in the labs and at the instruments, for the accumulation of data about the new planet, its star and system, its chemistry and geology and biology.

And through all the furious activity, data continued to accumulate. Almost-continuous broadcasts over the loudspeaker system relayed information to workers in and out of ship.

We heard the story of the landing: how the crew had tested the planets, one by one, with routine spectroscopy and boomer-rocket samplers: the tenth at a distance vastly greater than Pluto's from the sun; the eighth, fifth, fourth (the missing ones were on the other side of the sun); and each time found rock-ribbed wastes, without air, without warmth, without hope of hospitality.

The third could have been made habitable, if necessary. To create an atmosphere is possible, when you have a base from which to work. But to have moved out of our ship into domes would have been difficult. We didn't have to. The second planet was Uller.

To those of us who were still in ship, the reports were probably more impressive than to those outside. If you could *see* the earth and feel it underfoot, if you were actually *breathing* the air, and lifting and carrying against the pull of gravity, the facts and figures wouldn't mean so much.

To me, each new item of information was overwhelming. Atmosphere almost Earth-normal (closer than Mars'; as good as the best open-air city on Pluto).

Gravity almost Earth-normal (closer than any other *solar* planet).

Temperature outside, 8 degrees C. at the equator, where we'd landed. (Warmer than Mars; infinitely warmer than Pluto. *Liveable!)*

First chemical analyses showed a scarcity of calcium, a scarcity of chlorine, an abundance of silicon.

Water: *drinkable!*

That floored me completely. To travel across the void, to an unknown planet, and find good drinking water! Well, not really *good:* the water here is actually a dilute solution of what we used to call 'water glass' back on Pluto. It didn't *taste* right, but it wasn't harmful. (And in the early days in Josetown I got used to the taste, too. We didn't take the trouble to Precipitate it half the time.)

Uller was simply, unbelievably, Earthlike. With the single exception of the silicon change in chemistry, it might almost have been Earth.

These things are easy to remember and record. Speeches and announcements, and the impact of thoughts and words ... but I find it almost impossible to visualize again the way Uller looked to me when I first saw it. It all seems natural and familiar now; I know how strange and beautiful and frightening it was then, but I cannot quite place what was strange, or what was terrifying, or what seemed so lovely. What

was a foreign place has become home.

And if I could remember clearly, how could I describe it to people who have grown here?

I can only describe it as it looked to Emma, who grew up on Pluto, when it was her turn at last to stand with a group of medics in the airlock, and hesitate.

Sound, sight, smell, sensation ... a whole new world, a strange world, a fairyland fantasy world of gem-encrusted trees and opalescent plants, of granular smooth ground laid out in shim-mering changeable striae of colour ...

And all of it the stranger for the incredibly Earth-like sunset. She'd seen that sunset thirty times on Earth, and marvelled every time. Here it was again, the same in every way, except for the sparkling reflections it struck from the impossible tree-trunks and flowers.

Around it all the smell of growing things, subtly familiar, tangy, hard to identify, but undeniably the scent of life.

The double row of alumalloy structures looked dull and ugly in this stage-setting of iridescence.

And it was cool ... cold even, but that didn't matter.

Where's Ken?

For thirty-six hours she had been awake, and she had not yet touched him or talked with him.

She stood there, feeling the gritty granular *earth* beneath her feet, through her boots, not really looking at things not trying to see or hear or taste or smell, but letting everything impinge on her, soak in as it would, while her eyes moved urgently, seeking one person in the weaving patterns around the street of houses, listening for just one voice in the murmuring welter of sound. Thirty-six hours one way, but literally *years,* in another sense ...

'Em!'

He charged across the open space, big and bony and beautiful, grimy, unshaven, hollow-eyed, his coveralls flapping around his legs, his arms reaching out for her long before he got there.

'Em!'

His arms went around her, pulling her against him, lifting her clear off the ground. The bristly hair on his face scratched her cheek and the dirt of the new planet rubbed off his coveralls on to her spotless white jacket, and she smiled and opened her lips to his.

`You're cold,' he said, after a while.

'Cold?' They found each other again, with hands, with eyes, with lips, and they stood close in a warmth of their own while the wind went around them.

Cold?

She laughed against his shoulder, opened her eyes sidewise to a flash of brilliant colour, and backed off to look at *him* instead. 'Break it u-u-p!'

Someone was shouting at them, teasing, and someone else took her arm, and there was a whole crowd of people talking at once; she never remembered who they were, but friends, all of them, familiar faces. Hands to shake and cheeks to kiss, and excited words and gestures. And then more work to do.

Ten couples to a household; that was the plan for the tem-porary settlement. The outer walls and roofs were finished, but inside partitioning was still going on. Everyone helped; they all wanted their own rooms finished for the night.

Someone came around distributing mattress sacks, and Ken went off with Thad Levine to find an air pump. There was wild hilarity and a strange admixture of hysteria with relief, as one couple after another finished off their partitions, and joined the others in the central hall.

Ken and Em stood a little apart from the others, watching, very much aware of the special and extraordinary quality of their own happiness.

Out of a picked group of five hundred healthy eager young men and women, it is not difficult to select two hundred and fifty well-matched couples. Yet, when it is *necessary* to couple off, and all five hundred know it, a true marriage is the exception. Ken and Em were lucky, and they knew it. Em, watching the others, with Ken's arm around her, wanted somehow to share with all of them the flood of emotion in which she herself was caught up. They were all so impoverished by comparison ...

The one unbearable thought ran fleeting across her mind, and left with it a chill track of envy for those other poor ones: *If anything happens to him...*

Her hand tightened on his, and he looked down to her, not smiling, knowing what she felt. Together, they moved away from the group. They went into their empty room, and closed the new-hung door behind them.

A body is a solitary thing. You live with it, live in it, use its parts as best you can. But always it is alone, a thing apart, your own unique and individual portion of space.

It stands alone while the mind flicks out to make contact with the surrounding world; while the brain receives images from the eyes, the nose, the ears; while the mouth tastes and the fingers touch: and even while food is swallowed and ingested. All this time the body, as a whole, is lonely.

At points in time, infinitely far apart from the viewpoint of the cell-components of this body, two people may find unity, com-plete and perfect, with each other. In the act of procreation confluence occurs—or more often in the mimicry of the act.

Many bodies never know anything but solitude. The motions of procreation are gone through again and yet again, without awareness. But Kenneth and Emma Tarbell were fortunate in their bodies. Loneliness called to desperate isolation, and they came together from the first with ease and understanding.

They kissed. That was all, for the time being: mouth to mouth, sealed together, while the breath sweetened between them, his hand on her shoulder, hers against his back, merged to a single entity. They kissed, endlessly, and without reserve.

Then they lay back on the floor together, close and content, relaxed and knowledgeable in their unity with each other.

After a while Ken moved. He lifted himself on an elbow, looked down on her peaceful face, and traced her smile with a fingertip. Her eyes opened, welcoming his touch, and she stretched luxuriously, with great contentment, then turned to meet his hunger with her own.

When Sally came banging on the door, yelling about dinner, they realized they were both starved. They went out and sat in a circle with the others, in the central hall, eating the landing meal of roast beef and corn and fruit that had left with them, and travelled with them in the freezer across the years. And with it they drank, most ceremoniously, coffee made from Uller-water. The vinegar-precipitation gave it an odd taste, but from that day on the taste of vinegar was good to all of them.

Little by little, the realization was sinking in. They were, thus, easily, and without obstacles, established on a planet twenty-one light years from home!

None of them stayed long after dinner. Two by two, they went off to their small separate cubicles, dragging their mattresses with them.

Leah Tarbell was not the only baby conceived that night.

VIII

THEY WOKE up to brilliant sunlight, chill still air, and a hubbub of human activity. The big project now was exploration. The ob-servations made by the landing crew indicated that the near-equatorial spot where they had landed was probably the most favourable location for a settlement. But we wanted closer ground observation before any further effort was made to estab-lish the colony on a permanent basis.

Conditions over the surface of the planet varied widely—*wildly* would be a better word, from the point of view of a solar meteorologist. This was the first human contact with a planet whose axis of rotation lay in the plane of its orbit of revolution. All the solar planets have axes more or less perpendicular to their orbits. On Earth, for instance, there is a short winter-night and corresponding summer-day at either pole : but only at the poles. It took a good deal of readjustment in thinking habits to calcu-late Uller conditions with any degree of realistic accuracy.

The most obvious activity that day was the beginning of the construction of light aircraft for exploratory trips. Ken, of course, stayed on construction work, salvaging parts from the bowels of the big

ship to build the smaller ones.

Meantime, scouting parties were being briefed and trained for their work, absorbing new information about what they were likely to find just as fast as it came out of the labs, still operating in ship around the clock. And everyone not directly concerned with the big project, or working in the labs, was assigned to one of the local scouting groups or specimen-collecting squads. Em found herself safety-monitoring a batch of wide-eyed collectors under the direction of a botanist, Eric Karga.

There were seven of them in the party, the others loaded down with sample cases and preservatives, Emma with a battery of micro-instruments strapped about her waist, a radiphone sus-pended in front of her face; and a kit of testing tongs and chemical reactors flapping against her leg. Nothing was to be touched bare-handed, smelled, or sampled, until the monitor's instruments had analysed it, and a verbal report on procedure had been made to the ship. With these provisions, it became evident almost as soon as they entered the forest that there were too many collectors, and not enough instruments. Karga himself would have thrown all discretion to the winds ... if there had been any wind, that is.

That was the first thing Emma became aware of, when they were out of range of the bustling activity of the settlement: the literally unearthly silence. Emma had grown up in this kind of background-silence, under domes. Later, she'd lived in a TAP open-air city filled with `natural' noises: leaves rustling in a made-breeze; birds singing; small animals squeaking and creeping; an uninterrupted and infinitely inventive symphony of sound, behind and around the machines and voices and activities of men.

Here, in a *natural* open-air world, there was nothing to hear but the excited busy-ness of the small group of people: Karga rushing recklessly from horny-tipped plants to opalescent trees; the monitor-instruments clicking off their messages; the steady murmur of my own voice into the radiphone; and the awed exclamation of the collectors as novelty after unexpected novelty was uncovered in the fairyland fantasy of a forest.

The first two-hour period went by almost before they realized it. None of them wanted to go back, and the prearranged return for a complete checkup in medicentre seemed foolish even to Em, considering how careful on-the-spot precautions had been. But they really needed another monitor, or at least, another phone. And even more to the point: the rule had been established; therefore it must be obeyed. Regularity and conformity are the materials of which caution is formed, and caution was the order of the day.

Five hundred people seemed like a lot when they were all crowded into the tender that took them up to the *Newhope* orbit around Pluto; or when they were being processed through defrost, the first two days on Uller; or when shelter had to be provided, and fast, for all of them. Now, looking outward from a double row of thin metal-walled huts at an unknown planet, five hundred humans seemed very few indeed. One death would leave a hole that could not be filled.

They griped about unnecessary precautions all the way back but back they went, and through the careful psychophysical that Jose Cabrini and Basil Dooley had worked out together.

Over a quick cup of coffee, they picked up some fresh data on the morning's discoveries. Evidence so far showed no signs of a dominant civilized, or even intelligent, natural species. Some small carapaced insect-like creatures had been found, one or two varieties in abundance. And the river from which they had drawn and purified their water was teeming with microscopic life. But nothing larger than a healthy Earth-type cockroach had turned up yet, and nothing any more dangerous either.

The small fauna, like the plant life, appeared to be almost entirely constructed along the lines of the silicate exoskeleton, cat-bon metabolism variety. Some of the smallest amoebae lacked the skeleton, but everything larger had it, and it seemed doubt-ful, therefore, that any larger form of mobile life would exist. The beautiful brittle tree-trunks had rigidity against the weather, but little flexibility. The arrangement would hardly be suitable for a large-size animal of any kind. Jose still seemed to be deter-minedly hopeful of finding intelligent life—but in the total absence of any such indications emphasis was being placed tem-porarily on the investigation of plant life.

When they came back from the second shift, they found tables and benches set up in the street between the huts, with a defrost-ing selector at one end. Emma hurried through her checkup, and went out to look for Ken. He wasn't at any of the tables, or anywhere in sight. Finally she picked out a lunch,

and walked down the row of tables to where a group of medics were gathered. Most of them had been out on monitor duty that morning; all of them were engaged in eager debate; and Cabrini and Dooley seemed to be the opposing centres.

Jose was talking as she sat down. 'Lab says all the fauna so far are vulnerable to vibration. Those quartz shells are brittle,' he expounded earnestly. 'So suppose there was an intelligent species? Wouldn't it stay the hell away from a spot where a rocket came down?'

'And then all the building and tramping around,' someone else put in thoughtfully.

It fitted with the silence of the forest. 'It's hard to imagine a civilization without any noise,' she put in. 'I know it could happen, but it just doesn't fit *my* conditioning about what constitutes intelligence.' She grinned, and waved an arm pointedly around the table. 'What good is it if you can't have three people talking at once?'

'They're too small, anyhow,' Basil Dooley insisted. 'They'd shake themselves to pieces if they got big enough to do anything.'

'You can have intelligence without artifacts,' Jo said stub-bornly, 'and without noise, too. Even without vocal noise.' He gulped at some coffee, and went on before anyone else could get fairly started: 'Or suppose they're so small we just haven't noticed? Why do they have to be big? Maybe something we think is a plant is really a termite-tower, like the ones on Earth? Or a hill out there somewhere is full of things the size of ants that are just smart enough not to want to show their faces? On a planet this size, a small species could have a completely material civilization, if that's what you're looking for—they could even make noise, by their own standards—and we'd have a hell of a time finding out about it.'

'Well, they'd have some kind of effect on the ecology of the planet, wouldn't they?'

'We wouldn't know that yet, either,' Emma said slowly. She was excited now, turning over the possibilities Jo was suggesting, but she knew better than to display her excitement in the discussion. People always seemed to mistrust enthusiasm. 'TAP is honest ecology,' she pointed out. 'An alien coming to Pluto would have a rough time finding out that the open-air cities are all artificial.'

Intelligent life! Non-human, non-solar intelligent life! And it was possible! This world had every prerequisite for it.

'Well, if they're that small, you're going to have some trouble talking to them.'

'Might *never* find out,' someone else suggested, 'if they didn't find some way to communicate with humans. That's your real problem, Jo. Suppose you find these critters? How are you going to talk to them? And turn it around: if they live in what looks like natural circumstances to us, how will we know which ones to try and talk to?'

'Which sums up neatly,' Jo answered him, 'the problems to which I shall probably devote the rest of my life.'

There was an intensity in his tone that silenced the table for a moment.

'Then whatever they are, let's hope you don't find 'em. We can't afford to lose your services, Jo.' It was Ken. He slid his long legs over the bench next to Emma, and squeezed her hand. 'What goes on?'

Everybody began talking at once again; everyone except Emma, who was surprised at the irritation she felt. He had no business stepping on Jo that way, she thought; and she didn't want to talk about it any more. 'Aren't you eating?' she asked.

'Ate before; they said you were getting a checkup, so I had lunch and left my coffee to have with you.'

He smiled at her, and reached for her hand again, and the irritation vanished. Even when the argument resumed, and she found that the two of them were tending to opposite extremes of attitude, she wasn't annoyed any more. They didn't have to agree about everything, after all. They had disagreed before. But this was such an *important* thing—the way you'd feel about an alien creature.

Still, she could understand it better in Ken than in Basil. Ken was a constructions man. His work was in materials; in parts and pieces to fit together. He didn't think in terms of the living organism, or the subtle and marvellous interplay of functions between organs, organism, individuals, species. Basil was a medic, and a good one; he should have understood.

Karga was at her shoulder, politely restraining himself from urging her, but too anxious to keep

himself from a silent display of impatience. She stood up, and threw off the whole foolish mood. Ken would understand when they had more time to talk. And there would be plenty of time later...

IX

IT MIGHT HAVE been a segment of petrified log. But it had legs, and the tapered bulbous end was a head. It might have been a cross between a pig and a dachshund, painted in streaky silver, and speckled with sequins. But it had *six* legs, and the head was too shapeless; there was no visible mouth and there were no ears at all.

And when you looked more closely, it wasn't actually walking. It was skating; six-legged tandem skating, with the sharp-run-nered feet never lifting out of the ground, leaving an even double row of lines incised in the granular ground behind it. And the squat barrel body glided forward with unexpected grace.

It moved into the street of huts, its head set rigidly right in front of its body, while the bulging dull black eyes darted and danced in all directions.

The first man who saw it shouted, and it froze in mid-glide. Then the man's comrade silenced him, and the creature started forward again. A crowd began to gather and after the manner of a crowd, a murmuring noise grew from it. The creature froze once more, and veered off in another direction.

Someone in the crowd had a gun. He raised it, and took care-ful aim, but someone else reached out to lower the barrel before the fool could shoot.

'It hasn't hurt anything!'

'Why wait till it does?'

'How do you know...?'

'Here's Jose.'

'Hey, Jo, here's your native. Look smart to you?'

Laughter. Comments and wonder and more and more un-controllable laughter, while the creature skated directly away from the crowd and edged up against an alumalloy hut.

'Think we can catch it?'

'The projector ... are they getting it?'

Jose sent a whisper running back, and it only increased the volume of the sound. Better one noise than the hubbub, he thought, and spoke sharply above the crowd.

'Quiet!' Then in the momentary silence spoke more softly. 'I don't think it likes noise.'

After that, he left the group, and stepped forward steadily, slowly, towards the shadow of the hut where the creature stood.

He tried to curb his own eagerness, and make his advance without hurry and without menace. He tried, too, to ignore the slowly swelling hum of the crowd behind him. All his thoughts were on the animal, all his attention focused.

If it had intelligence, there had to be a way, *some* way, to make contact with it.

He was close enough now to touch it if he would, but he held back. It was looking at him, and from that moment on, he never once doubted that the animal was rational, impressionable, capable of communication. It was there in the eyes, in the way the eyes studied him, in something he *felt* in his own mind, hazily and without comprehension, examination-and-greeting was exchanged between them.

The creature turned to the hut, and there was a questioning feeling in Jose's mind. He did not want to speak aloud. Telepathy? Something of the sort. He thought the idea of a dwelling place, a shelter; all animals understood the concept. He thought it hard as he could, and knew he had failed, because the animal's next act was one of deliberate destruction.

Jose was the only one close enough to see exactly what was happening, but by that time they had cameras running from three different angles. Everybody saw the details, blown up, later: the people in the crowd, and those who, like Ken, were in ship, or like Em, out of the settlement.

It glided forward smoothly once again, edging towards the house, and gradually its body tilted sideways at an angle to the ground, without bending except at a concealed joint between the barrel-trunk and the right-hand set of legs.

The left-hand set described a perfect clean curve up the side of the building and down to the ground again. Then it reversed, and moving backwards, once more standing upright, edged the left-hand front runner slightly sideways and sheared a neat chord out of the wall.

The crowd saw the piece of metal fall away, and gasped, in unison, and then, for the first time, fell completely silent. What had just happened was virtually impossible. Alumalloy was *tough.* An oxy torch would cut it ... in a matter of hours. This creature had sliced it like a piece of meat.

The man with the gun took aim again, and nobody stopped him, but he couldn't fire. Jose was too close to the beast.

'Jo!' he called, and then a woman's voice said loudly, 'Shhh!' as the animal froze again. Jose looked around and smiled and waved another silencing motion at them.

He looked back just in time to see the tuskongs coming out. Two parallel needle-edged blades, curved like a set of paren-theses, they descended slowly from underneath the head, and went through the metal like tongues of fire through straw. The creature glided forward, and a long thin strip was sliced from the centre of the chord. The blades were hinged, somehow, and they seemed to be sticky inside. The needle edges met under the strip of metal, and the strip was carried up inside the tusks—or tones—as they retracted slowly into whatever opening (a mouth?) they came from.

'Jo, get outa there! I'm gonna shoot!'

There was no doubting that tone of voice. Jose held up a plead-ing hand, and stepping softly, walked backwards towards the crowd. Until he turned around, he knew, the man would hold fire. He waited till he was too close for his turned back to matter any more, then asked quietly, with all the command he could put into a low tone. 'Wait.'

'Why?' The man whispered in reply; then he would wait to shoot.

'We might as well see what it's going to do.'

'Ruined a wall already. Why wait for more?'

The words were passed back through the crowd, and the murmuring swelled again. The creature seemed to have adjusted to the noise. Calmly, it sliced another strip of the virtually impregnable alloy, and drew the metal into its interior.

Then, while they watched, it turned again to the wall, and, folding its front legs under it, slanted forward to edge its snub-ended snout inside.

The gun came up once more, and Jose knew he couldn't stop it: the beast had poked its head inside a sacrosanct human habitation. But: 'Higher!' he whispered piercingly, 'Over its head!' The barrel jerked upward imperceptibly just as the gun fired.

It couldn't have hit; Jose was sure of that. But a sunburst of cracks appeared on the surface of the animal's hide, for all the world like the impact of a projectile on bullet-proof glass. And at the same instant a jagged lightning-streak arced from the centre of the 'wound' to the side of the hut.

The gunner drew his breath in sharply. 'It's a goddam walkin' dynamo!'

And the crowd-talk started up once more.

'Quartz ... crystals ... piezo-electric … *generates!'*

It's scared, Jose thought—but now the animal had shown what power it had, so was the man. The gun came up again.

'Stop!' Jose shouted. 'Can't you see it's scared?'

It worked: not on the man, but as Jose had hoped, on the beast, and the man hesitated. The creature backed away from the wall, and started forward past the hut, away from the crowd and the street. It was leaning to one side, the good side, and lurching a little, going very slowly. Now its trail was a deep indentation on one side, and a barely marked line on the other, and in between a greyish ooze of something that didn't seem to be coming from the injured side. Perhaps from the 'mouth' or whatever those tusks went into? It was hard to tell.

The gunner still stood with his weapon half-raised.

'The field projector,' Jose whispered to him, and the man handed his gun to his neighbour, and ran for the rocket.

The Ullern animal had progressed perhaps fifty metres when he came out of the airlock again, a

dozen others tumbling after him, with bulky pieces of equipment that took rapid shape on the ground.

There was grim speed in the way they worked. Jose, watching them, understood their fear, and could not share it; felt the pain of the hurt animal and grieved for it; fervently hoped the creature's piezo-electric properties would not make it unduly vulnerable to the projector.

There was a crackling, blinding flash of electricity as the field hit it.

Ken Tarbell answered the alarm bell reflexively, absorbed the data, and fell into drilled pattern responses with the projector team, getting it out of the airlock, setting it up, aiming, firing.

It should have trapped the animal in an invisible miniature dome through which no physical object could pass. Instead there was a small-scale electric storm over the creature, and when the glare was gone, it was lurching along just as slowly as before, with an odd look of urgency, but apparently none the worse for wear.

There was total silence in the camp, and then a shot shattered the quiet. Ken saw it hit; he saw the bullet *bounce off* the creature's hide, and saw the ragged black cracks radiate from the point of impact on the glittering surface of the skin. And he saw the *thing* keep moving, a little slower maybe, but still making progress. It was heading out of the camp, in the direction Karga's team had taken. It was heading towards the forest where Emma was.

Had anyone warned them?

Em had a radiphone; Ken turned and raced back to the ship, fear moving his feet while completely separate thoughts went through his head. The thing could fight off an electromagnetic field, but it was vulnerable to shock; he knew how to stop it.

In ship, he clambered up the ladder to Supply, grabbed the two things he needed, and leaped down again ignoring the footholds. Outside, he realized the others were on the same track, but their weapon was not strong enough. The crowd had separated into three groups, surrounding the thing, and they were shouting at it, screaming, singing, yelling, stomping, first from one side, then the other.

Each time it responded more feebly than before, moving away from the new source of noise. Someone ran past Ken, headed for the ship, and he caught from somewhere else a few words of questioning conversation. They thought they could head it into a trap; but what kind of trap would *hold* it?

Ken had the phone ready at his mouth, and his weapon in his hand. His eyes were on the beast, and he saw that each time the direction of the noises changed, it seemed a little less frightened, a little less anxious to change its path. Any animal learns what to fear, and what is safe. The shouting wouldn't hold it long, he thought, and as he thought it, saw the creature head straight for the group that stood between it and the forest-edge, undeterred by stamping, screaming cacophony.

'Emma! Em!' He spoke urgently, low-voiced, into the phone. 'There's an animal here. Headed your way, *Watch out!'*

He didn't realize for the first instant what had happened. The Ullern wasn't limping out towards the forest any more. It was moving fast now, as if something had galvanized it into action, somehow summoned its last resources of strength and speed. It was gliding fast and smooth and with a purpose in its direction ... back into camp, back towards the rocket, *straight at Ken.*

It was coming too fast to stop or fight or escape. There was only one thing to do, and Ken did it. He threw the hand grenade he'd brought from the ship.

Let me through now, everybody out of the way, I'm a doctor,let me get through. There's a man hurt in there, I'm a doctor. Ken, oh Ken ...

Come on now, everybody out of the way, this door is in the way. Oh, Ken!

'I'm sorry, Emma. You know we can't let you in. We're doing everything we can.

'Oh, Basil, don't be silly. I have *a right* to help.'

'Em, I think we can manage better than you could. He's ... he's pretty badly cut up. You'd be bound to ...'

'What do you think I am, Dooley? Somebody's snivelling wife? I'm *a doctor!'*

And this is how they feel when we tell them they have to wait, now I'm not a doctor, he's right, I'm a snivelling wife, I'm even snivelling, I can hear it. But I'm a doctor, if I act like one they'll have to let me in ...

'What ... what do you ... What are his chances, Doctor?'
'They'll be better if we let Basil get back in there, Em.'

'Oh, it's you, is *it? The nice careful semantic psychologist, the happy little word-weigher, the fellow who wanted* to *see some native life!*

''Leave me alone, Jose. Please, go away! Basil ...'

Basil is gone, he went back to Ken, you can't go *to Ken, they won't let you, they're going to let him die, and they won't let you help, they've got the door locked too, you tried that before, and they're all in there and they'll let him die.*

'Em...'
'I said go away. Leave me *alone,* won't you?'
'Em ... it's me, Thad.'
And she collapsed gratefully, childishly, in familiar, friendly arms, abandoning the effort to be calm, to be convincing, to be reasonable and professional. They weren't going to let her into that room, whatever she did, so she sobbed in Thad's arms, until he said:
'Go on, Emmy, cry all you want to.' And then she stopped.
The door opened and closed again, and she looked up at Thad, and saw the news there, and all the confused emotion was gone. Now she was calm enough, and tired.
'He's …
'Dead,' Thad said the word out loud; one of them had to. 'They never let me say good-bye.'
'He wasn't conscious, Em.'
`He would have known!'
Thad didn't try to answer.

X

TWO DAYS LATER, the entire settlement was fenced in with a vibration-field. No other animals showed up in the time it took to get the fence operating; and the occasional creature that came in sight afterwards turned quickly away. We knew, from that first experience, that vibration was not necessarily fatal to the beasts, but that they could be frightened and/or hurt by anything along the line, in or out of the human sonic range.

I think now that most of us rather overestimated, at the time, the danger that vibration represented to them; it was natural enough, because we were all attributing the creature's obvious difficulty when it left the hut to the cracks the first shot had left on its surface. Actually, it took a shock as severe as the bomb that was finally exploded almost underneath it, to damage the brittle armour enough to stop it in its tracks.

It was interesting, too, that when they tested the bullets in the ballistics lab, it turned out the first hadn't touched the animal, and the second had hit squarely, been flattened by the impact of the super-hard hide, and *bounced off.* Yet the cracks from the second had been hardly more severe than from the first. It was difficult to visualize a living creature, a mobile animal, going about with a skin as brittle as glass, as easily shattered by shock-waves and vibration as by actual impact; yet that was obviously the case.

The bullet cracks, we decided during the autopsy, were just about as serious, and as painful, as whip-welts might be to a human. That is, there was no loss of `blood' and no real impair-ment of function; there was, instead, a state of potential damage, in which any ill-considered motion might result in a serious

tissue-break. However, if you cover a man's *entire* body with welts, no matter how carefully you place them so as not to break the skin, you can incapacitate him completely and possibly even kill him, by reducing skin-function. This was, apparently, the net effect of the bomb: simply to destroy the animal's exterior mechanism for reacting to stimulus.

There was some doubt, too, as to whether the bomb had actually killed the thing. Possibly it wasn't entirely dead at first, but just immobilized. We didn't get close enough the first few hours to know for sure whether it was still breathing. We did, with instruments, check on temperature and response to various stimuli, and all the results, *in human terms,* indicated an absence of life. But it appears that the creature may have continued to ooze out that curious gel for some time after it fell. At least, when it was moved, there was a largish puddle underneath it; this might, of course, have been ejected at the time of the fall.

It took several days of fine and fancy improvisation at dissec-tion (we had only the one sample, and we didn't want to spoil it) to find out just what that ooze was. Of course, we got a chemanalysis right away, but that only gave us an idea. The stuff was a mixture of alumalloy compounds and body fluids of a high Ph, containing shortchain silicones and some quartz. The analysis presented a variety of interesting possibilities, but it needed the completion of the dissection to be certain.

When we knew, it was funny, in a way. The visiting beastie had got itself a bellyache from eating our house. All we could figure was that it ordinarily subsisted on the native plant life, hard-shelled and soft-interiored, silicone outside the silicarb inside. It had identified, with whatever sense organs it used for the pur-pose, the discernible trace of silicate in the alumalloy, and the presence of carbon in the interior, and had mistaken the house for an extra-large new variety of plant life. The aluminium, in compound with more tidbits of this and that than I can now remember, had reacted to the additional jolt of silicones in the animal's stomach by turning into a mess of indigestible (even for *it)* gelatinous-metallic stuff. The oozing trail it left behind as it tried to leave the settlement was nothing more or less than the trickling regurgitation of an animal with an inflexible outer hide, and an extreme vulnerability to the shock of sudden motion.

This much we knew after we had traced the thing's alimentary canal, with an oxy-torch, a hacksaw, and (when we got inside) more ordinary surgical implements. The inner tissues were more familiar-looking than the outside, of about the same composition and consistency one would find in an earth-animal, differing only in the replacement of the carbon chain compounds by silicon chains. Perhaps the most curious and interesting phenomenon, from a medical viewpoint, was the way the soft inner tissues changed gradually to tough fibrous stuff, somewhat similar to silicon-rubber, and then, still gradually, so that it was almost impossible to determine at what point the actual `skin' began, to the pure amorphous quartz of the hide-armour. The vicious-looking tuskongs were a natural enough adaptation for a creature that had to chomp up horny-hard surfaces with a minimum of vibration.

All this, and a good deal more of no especial interest except to a medic, we learned in the dissecting room and in reports from the chem lab during the two days it took to get the fence operat-ing. Meantime, all exploration was stopped; a guard was main-tained around the camp at all times until the field was in force, and a smaller lookout-guard afterwards. Work on the light aircraft went on, and construction of freight transport planes began immediately. We had already determined that we would move the settlement, if any habitable part of the planet could be found where these creatures did not exist. And all further in-vestigation, as well as transport, would proceed by air.

The move was made exactly forty days after the Ullern came into the camp. If you've read the old Bible, there's a certain quaint symbolism in that figure. The date, of course, was 12/7—Firstown Day. And it is curious to note, in passing the odd senti-mentalities that were applied to this business of dates and calen-dars.

One of the most impressive similarities between Earth and Uller was in the matter of time. An Earth-hour is a few minutes shorter than an hour here; the Uller-day, according to the Earth-setting of the chronos when we arrived, was about 26 hours long. And the year on Earth—the actual period of revolution around the sun—is slightly more than 365 days, instead of our 400.

Logically, when we arrived, we should have established a new metrical calendar and time-scale. Ten months of forty days, or forty weeks of ten days each—either one—would have been simple and

efficient. A day divided into ten or twenty hours would have been sensible. But either one would have had the same effect: to make us stop and think when we spoke of time.

Humans—set apart from all other indigenous species of Earth by their ability to think—have a long-bred habit of avoiding mental strain. And the similarities to Earth-time were too notice-able and too tempting. We simply fixed our clocks and chronos to run slower and so saved ourselves from adjustment to the difference. The day here is still twenty-four hours, and the year has twelve months still. It didn't bother us to have 36 days each month; that part of the calendar had always been flexible. And the interim Fourday at year's end was an old Earth custom, too, I've since found out. Our only real departure was the six-day week.

(Parenthesis to Carla: iii)
2/10/52

I'M AFRAID I have been, in these last pages, rather drily concerned with facts as familiar to you as to anyone who has grown up side by side with the Ullerns. This was partly in an effort to get across to you some of the feeling we had then: how new all this information was to us and how difficult to assimilate. Also, the jump out of emotion into preoccupation with data was typical of my own reactions at the time.

I had one emotion that I was willing to identify, and that was hate. I worked in the dissection lab whenever I was awake, and took my meals there too, watching the work as it proceeded, and enjoying every slice and sliver that was carved out of that beast. That much *I felt;* for the rest I had ceased to be aware of any feelings at all. I had an overwhelming thirst for knowledge about the animal that had killed Ken; but Ken himself, and what his death meant to me ... this I refused to think about at all.

When I realized I was pregnant, I was still sleepwalking as the true love of a dead man. I was gloriously happy, and terribly depressed. Ken's baby would be Ken-continuing, and so not-quite-dead. But Ken was dead! I had no husband, and my child would have no father to grow up with.

Most of the time, the first few months, I just forgot I was pregnant. I meant that, literally. Someone would say something about it, and I'd have to collect my wits and remember, con-sciously, what they were talking about. Maybe I didn't want to have the baby, and was trying to lose it by behaving as if I weren't pregnant, working long hours at tough jobs ... but I don't think so. I think I was determined not to be happy about anything, and afraid of being depressed. I was, in short, determined not to *feel* anything.

You can't grow a child inside you without feeling it: feeling it physically, as your body changes, and feeling the subtle complex of emotions that accompanies the changes. But I tried, and for a short time I succeeded.

I remember that Jose fell into step with me one time, as I was going from my room to the lab, and tried to talk to me; it didn't occur to me that he was taking a professional interest. I thought I had myself completely under control, and was rather proud of the way I was behaving. I didn't even listen to what he said, but took for granted that he still considered me his ally in the stupid argument of the first day of exploration.

`How are you feeling, Emma?' I guess he said ... some such thing, because it gave me an opening to turn on him and demand:

`How do you feel? Now you've got your *intelligent* life, how do you like it?'

I can remember thinking I'd said something witty as I stalked away. The unforgivable thing that Jose had done to me, you see, was not that he had convinced me of an erroneous attitude, but that he had convinced me of something about which I argued with Ken the last time I saw him ... and that I had continued to question Ken, and to cling to Jo's attitude, right up to the moment Ken proved his point with his own death.

I do not now apologize for these reactions, or even comment on them, but simply state them here as honestly as possible. Perhaps it was healthy, after all, that I reacted as I did. Hate kept me going where grief would have, literally, prostrated me. And I did not mourn Ken, then; I just hated: everything and everyone that contributed in any way to his death.

It occurs to me only now that perhaps that curious business of our time-reckoning system, as well as many other apparently irrational things we did, were done in part to save our faculties of adaptation for necessities. I still don't know whether it was inherent weakness or instinctive wisdom. It doesn't matter, really, and I see I'm digressing again. I *am* getting older. But I can still remember being very scornful of the same sentimental clinging to a calendar, when I was a child on Pluto—and there they'd had more excuse. Pluto doesn't rotate at all; it has no natural day. And its year is hundreds of Earth-years long. So for a system of time-reckoning that applied to human values, the old one was as good as any other there, except in terms of arithmetical efficiency.

Here it was another matter altogether: we *forced* an old system to fit new circumstance; why? Because we were human, and each of us had grown up somewhere. Because we had been children back there, and some part of each of us was still a child *there,* and needed a safe familiar handle of some sort to cling to. In space, we were completely set apart from `home'. Time was our handle.

XI

THE NIGHTS WERE already long when the colony moved south. Firstown was located just below the 17th parallel, close enough to the pole so that few of the Ullern animals cared to brave the scorching summers, or freezing winters; still far enough so that humans could hope to survive them.

They had just about nine weeks of steadily shortening days in which to prepare for the winter-night; and at that latitude, it would be fourteen weeks after the last sunset before it would rise again for a few minutes of semi-daylight. The temperature, in Fourmouth, was already below freezing, and Meteorology pre-dicted cheerfully that the winter-night low would be somewhere about —50 deg.

To some of the others, the long stretch of cold and darkness was frightening. To the Plutonians and Marsmen the cold meant nothing, and for the former, artificial light was as natural as sun. Emma, had she stopped to think about it, would have been grate-ful for even the few months each year of Earth-normal temperate weather and sunlight.

She didn't think about it. She worked, with grim preoccupa-tion, all through those early months. When she no longer had the body of the beast to cut up, she threw herself into the conquest of the *planet* that had killed Ken ... which was, too, the fulfilment of their joint dream. She was alone now, but somehow if she worked twice as hard, she could still make the dream come true for *both* of them.

She was lucky, too, because throughout that fall and winter there was always more work to be done than there were hands to do it. When her own shift at Medicentre was done each day, she went out and found more work; filled in on the auxiliary power-plant construction when people were sick; helped build the nursery and furnish it; spent long hours in the library, as she had done in her youth. Now she was studying chemistry, silicon chemistry. *Organic* silicon chemistry, working it out where it didn't exist, from what little the films recorded of solar knowledge.

She worked alongside other people, but made little contact with any of them, and she was happiest in the hours she spent alone, studying. She did not join the others in the big social hall, when they met on I8/5 to spend the last full hour of sunlight under the U.V. glass dome; she barely noticed when the long night set in. Almost, she might have been Emma Malook again, living under the Pluto dome, moving through artificial light and air, such as she'd known since birth, between Joan Thurman's library and Joe Prell's home, living all the time, wherever she was, in a fantasy of being grown-up, and a doctor. Only now she was a doctor, and the fantasy was being Emma Malook. She was Emma Tarbell, and she was going to have a baby, by which she knew indisput-ably that she was full grown now.

The days went by, one like the last, and all of them almost painless. In her sleep, she would reach out across the bed to emptiness, and withdraw her hand before she woke to know her own loneliness. But once awake, she followed the pattern of work and study rigorously, tended her body and the new body growing inside it, and when she was tired enough not to lie awake, went back to bed again.

The single event that stirred her immediate interest that winter was the Ullern they caught. One of the regular weekly scouting parties brought it back, along with their charts and statistics on conditions outside. They'd thought it was dead at first, then they discovered it was living, but too weak to resist

capture. In the lab, they found out quickly enough that the animal was simply half starved. They fed it on specimens of local flora, and it flourished.

Then why, outside, surrounded by the same plants in abun-dance, had it almost died of starvation? That took a little longer to find out. Cabrini tried a specimen from outside on it when the next scouting squad returned and found it refused the frozen food. After that, they tried a range of temperatures, and dis-covered it would eat nothing below the freezing point of carbon dioxide. That made sense, too, when you thought about the prob-lem of eliminating solid CO_2.

Jo was tremendously excited. 'If they had fire, they could use the whole planet!' he pointed out, and met a circle of questioning eyes.

Planning to teach this one?' Basil asked, too quietly. Jose joined the general laughter, and let the matter slide. It was encouraging to know that at least half the year the colony was completely safe from the beasts ... and to have some kind of clue to a method of attack.

They kept the animal in a sort of one-man zoo, an island of Uller-earth and Uller-plants surrounded by a five-foot moat of gluey fluid through which its runners could not penetrate. And Jo, apparently through sheer stubborn conviction that it was possible to do so, actually managed to make 'friends' with the creature, at least, he was the only one who could approach it when it regained its strength, without some display of hostility.

The first sun rose again on 6/8, and by the beginning of Nine-month, the days were already nine hours long. By then, too, Emma was far enough along to have to slow her pace; she had just twelve more weeks—two months—to term.

It was a sad and lovely springtime: In the last weeks of waiting, Emma gave up everything except her regular work at Medi-centre. Studying no longer interested her; instead she would go out and sit for hours in the crisp fresh air and Tenmonth sunshine, intensely conscious of the life within her, impatient for its birth, and yet somehow fearful of letting it loose. It would be a boy, of course, it had to be a boy, and she would name it Kenneth.

Leah was born on 36/0, right in the middle of Medicentre's first and biggest baby-room. There were twenty-three new infants in the colony in two weeks' time.

Inevitably, Emma spent much of her time the next month with the other young mothers, all of them learning and sharing the care of their babies. After the first—not disappointment, but surprise—she didn't mind Lee's being a girl; and she was sur-prised, too, to discover how much pleasure she could find in the simple routine of feeding and cleaning a tiny infant. Her own infant.

She was busy and useful again, because the other mothers came to her for advice and opinions at every turn. She was a medic, after all, and had *some* kind of previous experience with babies.

Under the best of circumstances, it is likely to be eight or ten weeks after birth before the mother is once again quite convinced of her own existence as a separate and individual person. Emma had little desire to return to that conviction. She was stirred by occasional questioning curiosities about the details of the re-frigerating system, as the heat outside mounted through the summer-day. She began to pick up some of the chemistry films a little more often, and went, from time to time, to the zoo-in-a-lab where the Ullern was still kept, to find out what they had learned about it. But on the whole, she was more than content with the narrow slice of reality in which she found herself. Even her work at Medicentre, as she resumed it, somehow concerned itself primarily with babies: those already born, and those that were still expected.

The first New Year's Eve on Uller came in midsummer, just long enough after Lee's birth for Em to have gone to the celebra-tion comfortably if she wished. She preferred to stay in the nursery, and let the other mothers go, with their husbands. Two months later, when the early fall nights were beginning to be long enough to cool the air a little, she found her first real pleasure in contact with the new environment.

In the hour before dawn, it was possible to go outside without frig-suits; and every day, from that time, Em adjusted her sleep-ing so that she would be awake at that time of day. First, when the nights were still short, she would leave the sleeping baby in the nursery; later, when dawn began to coincide with the chrono-morning, she would take Lee with her.

Alone, or with the baby at her side in a basket on the ground, she would sit by the edge of the dry river-bed, and watch the world wake up. The first sun's rays, felt before they were seen, brought a swarm of near microscopic life out of the moist earth of the river bed, and started an almost imperceptible stirring in the trees. Emma would sit and watch while the budded branches snaked up and out of the sparkling columns of their trunks, turned their tender new greenery up to the sun for a brief time, and then melted back into the safety of the cool trunk shells.

Day after day, she tried to remember why the flexible tree-trunks were so fondly familiar. It was *silly,* somehow; and then at last the memory came. A little ball of stuff that bounced, and broke off clean when you stretched it ... that moulded to any shape, and dropped back slowly to a formless mass again when you left it alone ... a childhood toy, that someone had called *silly putty.* Some kind of silicon compound, she supposed, and told little Lee, who did not understand: 'See? See the silly-putty trees?'

On another level of interest, the phenomenon of twice-yearly budding fascinated her, as well as the marvellous apparatus offered by the flexible branches to protect the leaves against too much sun as well as against the winter cold. Each day, too, as the sun rose farther in the north, the branches turned their budded sides to catch its rays aslant: like the sunflower on Earth, but these trees turned to face the source of life throughout the year, instead of by the day.

When the tree-trunks began to crawl back in their shells, it was time to go inside. Minutes later, the sun would be too hot to take. But for the hour before that, it was a cool and peaceful world on the river bank.

By the time Lee was six months old, the weather outside had passed its brief month of perfection, and was once again too cold for pleasure. By that time, too, the first epidemic of parenthood was dying down. Emma was back at general medic work; the world was achieving a sort of normalcy. She had her baby. She had her work. And she was beginning to be aware of the fact that she was terribly lonely.

By that time, too, there were some unattached men. A good many of those early marriages broke up in the first year. In spite of the growing emphasis on typically frontier-puritan monogam-ous family patterns, divorce was, of necessity, kept easy: simply a matter of mutual decision, and registration. For that matter, the morality in the early years was more that of the huddled commune than of the pioneer farmland.

Emma saw a lot of men that winter. Lee was a convenient age ... old enough not to need hovering attention, young enough still to be asleep a large part of the time. Emma was a romantic figure, too, by virtue of her widowhood; her long grief for Ken estab-lished her as a better marriage risk than those who had made an error the first time, and had had to admit it. The dawning recog-nition of these facts provided her at first with amusement, and later with a certain degree of satisfaction. She had been an intel-lectual adolescent, after all. Now, for the first time, she found out what it was like to be a popular girl. She discovered a new kind of pleasure in human relationships: the casual contact.

She found out that friends could be loved without being *the* beloved; that men could be friends without intensity; that affec-tion came in varying degrees, and that she could have many different kinds of affection from many different people ... even though Ken was dead.

Yes, she found out too that Ken *was* dead. Perhaps it was fortunate that Lee was a girl; a boy named Kenneth might have helped her keep the truth from herself a while longer. And the inescapable violence of the seasonal changes made a difference. Life was determined to continue, and to do so it was constantly in a state of change. Even the silly-putty trees told her that much.

There was an impulse towards gaiety throughout the colony generally during the second winter-night. The first one had been too full of work and worry. Now, they felt established and moderately secure. They had survived a full year of what troubles the planet could offer, and Ken's death was still their only loss. A new science of chemistry and physics in the labs and a new technology was beginning to appear. Perhaps a new biology as well: Jo now had two Ullerns in his zoo, and there was some reason to believe that the creatures were capable of mating.

There was a warm sense of security in the colony, and when they had to take to the underground corridors again to keep their warmth, it added a womb-like complacency. It was a winter of parties and

celebrations and increasing complexities of human relations. It merged into a springtime of renewed activity and interest for everyone, and most of all for Emma.

Now, when she went to the river-bank at dusk, instead of dawn, she had to watch the toddling one-year-old baby, and keep her from the rushing waters of the river. Everything, all around, was full of motion and excitement, even the intellectual life that was hesitantly picking up once more.

There was so much to learn: she started going to the library again, after Lee was in bed for the night, and scanning the recorded knowledge there for clues to the new facts of life. She spent hours, sometimes, in the zoo-lab, watching the two Ullerns, and in spite of her open amusement at Jo's undiminished belief in their intelligence as a species, she listened eagerly while he talked about their habits. He had been watching them for months. She did not have to accept his interpretation on the data he'd acquired, but the observations themselves were fascinating.

The zoo became something of a centre of debate throughout the colony. It was now firmly established that one of the creatures was, in human terms, female. Medicentre wanted the male for dissection now that a new generation was assured. Jose wouldn't hear of it. There was a good deal of humour at his expense, and an increasing amount of discussion and argument too, on both sides. Emma couldn't take it too seriously; the birth of her child had given her a new attitude towards time. There were years ahead of them. If Joe wanted his pet alive, why kill it? They'd catch more ...

The days were constantly longer and fuller. Now sunset came too late to take Lee with her when she went down to the river bank, and the water was beginning to move more thinly and slowly, low between the sides. The half-hour out there before bed was the only part of the day now that was quiet and unoccupied. It was a time for feeling, instead of thinking or doing, for a renewal of the loneliness she refused, quite, to surrender.

Refused, that is, until the evening Bart Heimrich met her there, and in the cool of twilight, just as the sun went down, took her in his arms. It shouldn't have made that much difference; they were two grown people, and one kiss by the side of the slow moving water could hardly have mattered so much.

Emma was frightened. For two weeks after that, she stayed away from the river, and she wouldn't see Ban either. She'd been in love once, and once was enough. There were plenty of men around. This kind of thing was more than she wanted. As she had done a year ago, she threw herself into study and work.

There was still plenty to do. As unofficial specialist in obstetrics, she had been somehow selected to watch over the Ullern creature's pregnancy. She spent more time at the zoo, now, trying to weed out the facts and theories Jo threw at her. He was so sure of his conclusions about the Ullerns that it was almost impossible for him to separate observations from hypotheses, and Emma was alternately amused and infuriated by the problem of working with him. He was a first-rate psychologist, after all, and a careful semanticist ... where other people's attitudes were concerned. Even about himself, she decided on reflection—except in this one area of most intense belief.

Was that true for everyone? Was there, for each person, a space where one's own judgment *could not* be trusted? How about herself, and Bart?

Jo was a good psychologist, almost all the time. They were talking for the thousandth time, about the fate of the male Ullern. Jo had achieved a reprieve for the beast, till after the young ones were born, with the argument that they should at least wait and make sure they had another male to replace it. Emma approved the argument; it suited her tendency to temporize.

'Emmy,' Jo asked in a sudden silence: 'Has it occurred to you yet that you have a long time to live too?'

Her first impulse was to laugh. 'Never thought about it much,' she said lightly.

'Well, why don't you?'

'I don't know.' She was decidedly uncomfortable. 'What's that got to do with the price of baby Ullerns?'

'Nothing at all. I was just wondering, most intrusively, about you and Bart.'

'Me and ... what are you talking about?'

'I told you I was being intrusive. It's none of my business. Would you rather not talk about it?'

'I'd much rather..? She changed her sentence half-way through; 'much rather talk about it, I guess.'

'All right then. What's the matter, Emmy? Don't you like him?'

`*Like* him? I ...' Then she saw he was smiling, and grinned ruefully herself. 'All right, so I'm wild about him. But ...' There was no way to explain it.

'But what?'

'Well ... it's not the *same.* I can't feel the same way about him that I did about ... Ken. I don't think I'll ever feel that way about anybody again. It wouldn't be fair ...'

'Come off it, Emmy. What are you afraid of? If you're sure you'll never feel the same way, what's there to worry about?'

She looked up, startled, and waited a moment to answer, while she admitted to herself that it wasn't Bart she was afraid of hurt-ing at all.

'I don't know. Look, things are all right the way they are. I don't need him; he doesn't need me. Why should we get all tangled up so we do need each other? What for? Oh, Jo, don't you see I can't take a chance on anything like that again? I ... this is a crazy thing to say, but I think if he was married, I'd be more willing to ... that's not very nice, is it?'

'Nice?' He shrugged. 'It's pretty normal. Understandable, anyhow. And just what was I talking about. You've got a long time to live yet, Emmy. You going to stick it out alone?'

She nodded slowly. 'Yes,' she said. 'I am.' And with the words spoken aloud, the impossible loneliness of the future struck her for the first time fully. She hadn't cried since the day Ken died; now a slow tear came to one eye, and she didn't try to stop it. There was another, and another, and she was sobbing, great gasp-ing sobs, against Jo's comforting shoulder.

He was a good psychologist. He didn't tell her it was all right to cry; he didn't tell her anything, except to murmur an occa-sional word of sympathy and affection. He stroked her hair and patted her shoulder, and waited till she was done. Then he grinned and said: 'You look like hell. Better wash up here before you go see him.'

For a year and more, Bart and Emma spent most of what free time they had together. They had fun, and they had tender happy moments. They understood and enjoyed each other. They might have married, but marriage was a sacred cow still; no matter how much she loved Bart, or liked being with him, Emma steadfastly refused to sign the vows. It wasn't the same as it had been with Ken; she was both relieved and disappointed to dis-cover that. But if she married him, it might get to be the same—or it might not. Which prospect was the worse she hardly knew.

When, occasionally, she still felt frightened about caring as much as she did, there was always Jose to talk it over with, and talking to him always made her feel better. She might have resolved the ambivalence entirely through therapy. Jose hinted at the notion from time to time, but she didn't want to, and he knew better than to push it.

More and more, too, Emma and Jo were working so closely together in the zoo-lab that a therapy relationship between them would have been hard to establish. And Jo was the only really qualified therapist in the colony. The techniques were familiar to all the people in Medicentre, but psychotherapy is not a skill to be acquired in rapid training. Jo had a natural aptitude for it, that was all.

Jo was good to work with as Bart was to love. The important factor in each case was enthusiasm, the ability to participate completely. Emma's interest in the Ullerns differed from Jo's in all respects but one, and that was intensity. She listened to his theories both patiently and painstakingly, believing little and using much to further her own knowledge of the weird biology of the creatures. She was quite content to discard the largest part of what he said, and select the most workable of his ideas for follow-up. By the end of that year, she had begun to recognize, re-luctantly, that she was getting good results surprisingly often when she worked along the lines suggested by his thinking. But it took a major incident to make her look back and count the trials and errors, before she would admit how consistent the pattern of predictability had been.

The Ullern babies had been born in the fall of '92. There were three of them, but it wasn't until early spring that it was possible to determine with any degree of certainty that two of them were female and one a male. Perhaps it could have been determined a little sooner; Jose had managed to get a postponement of the father-Ullern's death sentence once again, until the sex of the young ones was known, and there was some feeling that he, at least, knew for quite a while before he told anyone.

Once the announcement was made, however, there was no further question of delaying the opportunity for an autopsy. The only question now was whether it might not be best to take the older female, and gain some additional information about the reproductive system.

Discussion and debate went round and about for some ten days. It was terminated by the incredible information that the adult male had escaped.

The talk stopped then, because nobody wanted to say out loud what everybody was thinking. You see, it was simply not possible for the creature to make his way unaided through that gluey moat.

If there was any doubt at all in the public mind about what had happened, there was none in Emma's. She was shocked and angry and she saw to it that she had no further talks with Jo in which he might be tempted to confide anything she didn't want to know.

XII

THE ANNOUNCEMENT, POSTED two days after the Ullern's escape, said simply:

LECTURE
In the Small Hall, 19/5/93, at 20.00 hours.
A report by Jose Cabrini on
the possibilities for direct communication
with the native inhabitants of Uller.

I read it, and couldn't help feeling relieved on Jo's behalf. I might have known he wouldn't risk anything so unpopular as letting that animal get away unless he had something else up his sleeve. What it was, I didn't know; Jose had never discussed with me any clues he had to the problem of direct communication.

He should have known the Small Hall wouldn't hold the crowd that turned out. Maybe he did know; if so, it was effective stag-ing, when the early arrivals had to move to the Main Hall, and latecomers found a sign directing them there.

Jose began his speech very informally, joking about the size of his audience, with some hoary gags about being unaccustomed to such *very* public speaking. Then his tone changed.

'I'm afraid the news I have for you tonight is more dramatic than it is useful ... so far. I think what has already been learned will eventually enable us to communicate directly with the natives of this planet, and perhaps—if my estimate of their capacities is accurate—to live on a co-operative basis with them. For the present time, however, my information does little more than answer a question that has baffled a good many of us.'

I had no idea what was coming.

'If you will all think back to our first contact with an Ullern,' he said slowly and distinctly, `You may recall that there was one particularly puzzling piece of behaviour on the part of the animal—one question that was never answered in the autopsy.'

Thinking back was still too vivid. I shuddered in the warm room, and missed the next few words.

'... attack Ken Tarbell? What gave it the renewed energy to make such a fierce charge, when it was already badly hurt, and was seeking nothing but escape? My own theory at the time was that the Ullern was reacting with what would be, in the human metabolism, an adrenal release, to the telepathically-received information that Tarbell had found a means of attacking it fatally.

`That theory was inadequate. If you think of telepathy as a mystic or metaphysical power, my analysis

was entirely incorrect. But if you will try to think of it, for the moment as an emanation similar in nature to radio or electromagnetic waves, I was close to the truth.

'You are all familiar with the piezo-electric properties of the Ullern physiology. You can see it for yourselves in the zoo, even the babies react electrically to certain irritations. Analogizing pretty broadly, one might say that the electrical reaction to stimulus in an Ullern is similar to the adrenal reaction in humans: that is, it is produced by just such irritations as might reasonably be expected to provoke the emotion of fear or anger.

'Now: in a human, the application of such a stimulus can have differing results. An unkind word, the semi-serious threat of a blow, anything on that order, will produce enough of an adrenal release so that the person affected may express his reaction rapidly in expletive, or door-slamming, or some similarly mild expenditure of energy. A slightly greater threat will produce a cocked fist; a little more will make a man strike out. But a really strong stimulus, ordinarily, will not produce a direct counter-action. If a man threatens your life by holding a gun at your head ... or if you are knocked over by a blow to the belly ... you will conserve the extra energy of the resulting adrenal release for an all-out effort against the attacker.

'This is, essentially, what the Ullern did. The many irritations to which it was subjected produced a variety of reactions, most of them in the fear-spectrum. The first shot, which failed to hit it, but shattered a part of its armour with shock-vibrations, angered it only within the fast-reaction range, and it responded, without conscious "planning", by an emission of "lightning". Apparently it was unable to place the source of the shot, and believed the shock to have come from the building; so the electrical "punch" was aimed at the wall.

'Subsequent irritations made it aware of some consciousness on the part of large lumps of carbon which it had previously ignored as being, in all past experience, most likely inorganic, or at least inedible, entities. The idea was devastatingly new and at least as frightening as the actual vibrations the carbon creatures then commenced to "hit" it with..?

There was a murmur of noise through the hall; some laughter, some coughing, much shuffling.

'All right,' Jo said smiling, 'I'll get to the point now. So far it's all been theorizing and analogy. Briefly, my information is this: the Ullerns contain, in their quartz-hide armour, crystals capable of sending and receiving radio waves ... by which I mean specifically that they can exchange information on the same frequency bands on which our radiphones operate.'

The sentence was delivered so quietly, it took a moment to penetrate. Then the hall was in an uproar. Jose couldn't go on with the speech until he had answered a hailstorm of questions from the audience.

'What's that got to do with Tarbell?' somebody wanted to know first.

'Emma,' Jo said from the stand, 'maybe you can explain that best?'

I was a little confused myself. I got to my feet, and said hesitantly, 'Ken tried to warn me ... he phoned me about the Ullern heading our way ... that's why we came back ...'

'I suppose the gooks understand English!' somebody roared from the back of the room, and someone else added:

'Suppose they did? Wouldn't even an Uller-beast give a man the right to warn his wife?'

Laughter, and foot-stamping, and gradual quiet as I continued to stand in my place. 'Maybe it's funny to the rest of you,' I said, 'but *I'd* like to know just what Jo meant. So far, what he's said has made sense. If anybody who isn't interested will leave, per-haps the rest of us can learn something.'

I was just angry enough, and just intense enough, I guess, to get an effect. There was prompt and total silence. Jo went on.

There is no point in reproducing the rest of the speech here. It was, like most important discoveries, only very briefly incredible. After even the smallest amount of reflection, we could all see how logical the explanation was. The wonder was that we hadn't thought of it before. The same explanation can be found, almost word for word, in the basic biology text on Ullerns. Cabrini said simply, that when Ken used the phone, on a frequency just a little off the personal-broadcast wave-length that particular Ullern was tuned to, the heterodyning effect was the equivalent to it, in pain, of the belly-punch he'd mentioned earlier. It was immobilized momentarily, and the next immediate reaction was to utilize the energy thus generated in a life-and-death charge at the source of the intolerable pain. This time it had no trouble

locating the source; a radio beam is easier to track than a bullet, if your senses happen to include a direction-finder.

I didn't listen to most of the discussion that followed the speech. I was busy readjusting, or admitting to readjustments. I had stopped hating the Ullerns a long time back, and now at last I had a rationale on which to hang what had seemed like a betrayal.

The attack on Ken was not irrational or unprovoked. In Ullern terms, Ken had attacked first. A silly difference, a piece of nonsense, really, but important to me at the time. It was no longer necessary to keep hating, even on a conscious verbal level.

As soon as I got that much clear in my mind, I wanted to leave.

'You stay if you want to,' I told Bart. 'I just want to get out of here and do some thinking.'

'Would you rather be alone?' He was a very sweet guy. I knew he meant just that; he'd let me go alone if I preferred it, or come along if I wanted him to.

I shook my head. 'No, I wouldn't. If you don't mind missing this, I'd like to have someone to talk to, a little bit.'

He took my arm, and saw to it that we got out without interference; stopped people who wanted to question me, and pushed through the knots of conversationalists who were too absorbed or excited to notice us.

Outside, it was hot. So close to summer-time it was always hot, but the sun was down when we left the hall, and it was possible to stay outdoors.

We walked down to the river bank in silence, and stood there and I looked around me and let myself know, for the first time, fully, how much I loved this place. It was mine; I had paid for it with the greatest loss I was ever likely to know. And now the loss was complete, because I understood it.

Bart saw the tears in my eyes.

'That son-of-a-bitch!' he said. `Didn't he even *warn you?'*

'Who?' I didn't know what he was talking about.

'Cabrini. He had no business ... look, darling, never mind about him. The big thing is, we've got the knowhow now. We've got a way to fight them! We can ...'

`What?' I was sure I still didn't understand. 'What are you talking about Bart?'

'Don't you see, dear? Naturally, Cabrini didn't put it that way, but this thing is a weapon ... a *real* weapon! We can live anyplace on the planet now. If radio waves hurt the things that much, they'll kill 'em too. We can ...'

'Bart,' I begged. 'Don't you understand? Can't you see what it means? They're intelligent! We can learn to talk to them. We can make *friends* with them.'

I searched his face for some signs of comprehension, and found only indulgence there. 'Emma, you are just too good to be true,' he said. 'And you need some sleep. Come on, I'll take you back now, and we can talk about it tomorrow.' He put his arm around me.

Proofed to Here

He meant well. I have no doubt at all that he meant well.

'Will you please get the hell out of here?' I said, as quietly as possible. I would have said much more but he went.

When he was gone, I lay down on the river bank and pressed my face against the dirt of my planet and cried. That was the third time I cried, and now it was for the loss of Bart as well as Ken.

(Parenthesis to Carla: iv)

Josetown, Uller, 1/1

Dear Child:

I am, frankly, annoyed. This story was supposed to be about the generations of women who came

before you, and about the early years on Uller. Looking back, I find it is almost entirely about one small portion of my own life.

I think I know what happened. Somewhat earlier in this narra-tive, I made a statement about the oddity of reversed pain and pleasure in Recall. I suspect that I enjoyed the reliving of those early months on Uller far more in the telling than I ever did in the experience. From the day Ken died till the day when I wept out my sorrows on the river bank, I was never entirely happy. There was much isolated pleasure during that period: delight in my baby, and fun with Bart, and satisfaction in my work ... and certainly much more pleasure in knowing Jose than I realized. But all through those two years, life had no meaning beyond the moment. I did not, would not, believe in any kind of future, without Ken.

In the years that followed, there were many hardships and moments of unhappiness and despair, but from that time on, I had a growing purpose in existence. Apparently, I have less need to re-experience the productive years than the others. And of course, there is really very little more that I can tell you. Thad Levine wrote the story of the bitter three years' quarrel in the colony, and wrote it far better than I could. You have heard from me, and probably from a dozen others too, the woe-filled history of the establishment of Josetown. Jo himself wrote a painstaking account of the tortuous methodology by which the Ullern code was worked out, and I know you have read that too.

(I am sternly repressing the inclination to excuse my many omissions by pointing to the date above, and referring to the page number. Time is short now, and the story too long. But neither of these is an honest reason for my failure to do what I planned ... no more than are my excuses in the paragraph immediately above.)

I had hoped, when I started this, to give you some clue to my own mistakes, so that you might avoid them. There are such striking similarities, Carla dear, between Joan Thurman and myself, between me and you! And on the other side, there is such a pattern of identity between Martha and Adne and Lee. It seems to me there should be some way of braking the pendulum swing ... of producing, sometime, a child who is neither rebelliously `idealistic' nor possessively demanding of security in its most obvious forms.

It was at least partly in the hope that the history of those who went before you might teach you how to achieve this goal of impossible perfection with your children, when you have them, that I undertook this journal. I hope I have managed to include more helpful information in it than it now seems to me I have done.

In any case, I see little purpose in carrying the story further. I have mulled over it for weeks now, and have written several chapters about what came after the day of Jo's lecture, and have decided, each time, to leave them out.

There are many things I wanted to say that I've left out ... little things, mostly, for which I could not find a proper spot in the narration. I could ramble on here, filling them in, but again there is no real purpose in it, except to satisfy myself.

But, reading what I have just written, I realize that there is still much unresolved conflict in my own attitudes. Yes (I tell myself), I should like to see you rear your children to be perfect little happy mediums—and yet I am so pleased, Carla, to see you play-ing out the role I know so well myself.

Perhaps the `others'—Leah and Ariadne and Martha—perhaps they knew some happiness I never understood; but I am certain that they never knew the kind of total purpose in living that has been my great joy. I had a dream ... I learned it from Joan Thurman. That dream is yours, too, and I'm quite irrationally pleased to think that you acquired it, in part, from me.

Tomorrow you will leave, Carla, and I will give you this film totake with you. When you leave, it will be as a part of the first great experiment with time ... and like the fuel for the *Newhope,* which has made over the whole life of man, the mastery of time has come as an adjunct to a commercial venture. Joe Prell, if he were here today, would laugh at the implications I see in your voyage ... but *not* at the possible profits. I ... I think it is more risk than merited to go to Nifleheim for new and more uranium. But to go in profitable comradeship with the Ullerns—this is the fulfilment of my own life's dream. And to go as the advance guard of a whole new science—this is the beginning of yours.

If it takes uranium to make the Prells pay for a time machine (did you know that's what you have?—at least the beginnings of one), why let us have enough of the stuff to blow us all sky-high!

(Epilogue)

I HAVE JUST come back from the ceremonies of the take-off, and I am more annoyed than ever. Now that I have handed over my imperfect gift, I have found out what it was lacking. There is no way of knowing, as I write, whether Carla has reached ... will reach ... her destination safely, or whether, if she does, she will arrive (has arrived?) there in a time-conjunction through which she can communicate with us. I can only wait, and hope there is some word.

But I shall assume, as I must, that she is safe, and that some time these words will reach her. The story is yet to be finished, and I found out today why I was unable to finish it before. (I suppose I thought I was too old and too objective to carry any more scars of hurt or hatred from Lee!)

Leah Tarbell was born on Uller, and grew up there. She was too young to understand the fury of the debate that preceded her mother's move from Firstown to Josetown; but she was not too young at all to resent the loss of her Uncle Bart's com-pany a scant few weeks after she had learned to pronounce his name.

Over the next three years, she understood well enough that her mother was somehow in disrepute with the parents of most of her playmates. And at five years of age, she was quite old enough to blame her mother for the almost complete loss of those play-mates. Only four other children accompanied the group of sixty-seven `Josites' when they betook themselves, their pet Ullerns, their special knowledge, and their apportioned share of the human colony's possessions to the new location on the loth parallel that became known as Josetown.

Only one of the other children was near her own age; that was Hannah Levine, and she was only four, really. The two little girls, of necessity, became friends. They played and ate and often slept together. At bedtime, they were lonely together too, while their parents went off to conferences and lab sessions. And late at night, sometimes, they would wake up and be frightened to-gether, remembering the stories they'd heard in the nursery at home about the Ullerns who lived at the foot of the hill.

She tried to cry about leaving her mother when she was sent back to Firstown a year and a half later, with Alice Cabrini and the two Cabrini children, to go to school. But she didn't really expect to miss Emma; Em was always working, anyhow. Back home, the grown-ups had more time to pay attention to kids.

From that time till she was fourteen, she lived with Alice in Firstown, and she was happy there. When Alice decided it was safe to rejoin Jose in the smaller settlement, Leah desperately did not want to go. She tried every device an adolescent mind could contrive to keep Alice at home. But when it came down to a choice of going with them, or being left behind, she couldn't quite face the desertion of the family she loved as her own.

She went along, and her adolescent imagination seized on a whisper here and a word there to find real cause to hate her mother. She was not blind, as the adults seemed to be, to the fact that Emma and Jo had worked together day after day through the years, while Alice endured long nights of loneliness for the sake of the three children who needed her care.

Lee watched the three grown-ups closely. She heard the in-flexion of every word they spoke to each other, and noticed each small gesture that passed between them. In the end, she satisfied herself that Emma and Jose were not lovers (as indeed we had not been since Alice's return). Then she felt something amount-ing almost to compassion for her mother. She had not failed to observe the flush of enthusiasm with which Emma listened to Jo's ideas, and poured out ideas of her own to command his attention. At the same time she saw how Alice, sitting quietly in the background, pretending interest in nothing but Jo himself, and his home and the children, succeeded in drawing his atten-tion.

She did not understand how her mother could be so stupid as to try to attract a man by being *bright.* She did not even begin to understand the further fact that she could not help observing: Emma seemed to be perfectly happy sharing Jo's work, and let-ting Alice share his home and his bed. As long as it was true, however, Lee was willing to let Emma go her own strange way.

She was less willing to accept any of the belated affection her mother tried to give her. And Emma's ludicrous attempts to convince her of the importance of the work they were doing in Josetown did not succeed even in antagonizing her. Lee had lived long enough in Firstown to know how little it mattered whether the code was ever completed. She knew the plans the other colony had already laid down for an equatorial settlement—a settlement which was to follow the extinction of the Ullerns. The agreement between the larger group and the small one had given Jose ten years to make a go of his project. Eight of those years had passed now, and he could hardly claim that making friends with a local group of Ullerns constituted proof of their intelli-gence. Any animal may be domesticated by one means or another.

All these things Lee knew, and she was not interested in learn-ing any part of the foolishness in which her mother was engaged. After a while, Emma stopped trying to interest her in the work at Josetown, and for a while they got along together.

Lee never thought of the Josetown period as anything more than an enforced hiatus in her life. If by some miracle the settlement continued after the ten years were up, she for one had no intention of remaining in it. When she was seventeen, she knew, she would have the right to live by herself if she chose and she had already chosen. She would live in Firstown, where her friends and loyalties were.

She stuck to her resolve, even after the message from Earth. Not even the dramatic opening of subspace communication be-tween Uller and the mother system disturbed her tight little plans. Nor did her private opinion of the foolishness of the Josetown project change when popular opinion shifted to favour it. Earth's problems were no concern of hers, and she saw no reason to give up her hopes or hatreds either one, just because Jose Cabrini had somehow turned out to be right.

Her strongest reaction to the news from Earth was irritation, because it meant that Josetown would continue beyond the ten-year period after all, and that she herself would have to spend a full year more there than she had expected.

She made use of the time. She started learning the code, and even studied a little Ullern biology. She helped Jo prepare his lab notes for printing in the form in which they are now available, and learned the history of the project while she did it. By the time she was old enough to go back to Firstown and take up residence in the single girls' dorm, she knew enough about the Josetown work to take a really intelligent part in discussions with the men back home.

As it turned out, Lee was our best ambassador. She had picked up, from Jo's notes, one item of information we had not intended to release just yet. Fortunately, as it turned out, she felt no ties of loyalty to us. That was how the news got out that Jose actually *had* taught Ullerns the use of fire, and it was that news that led to the Conference of 2108.

Fifteen of us went back to Firstown for the Conference, armed with notes and speeches and films to document our defence. We were somewhat taken aback to find that no defence was neces-sary; Firstown was way ahead of us in recognizing the implica-tions of the Ullerns' use of fire. I suppose we had grown so accustomed to defensiveness by then, we simply couldn't see beyond the necessity of protecting next year's work. The people at Firstown were used to thinking in terms of expansion and utilization of knowledge; they had the engineering minds to put our research to use.

Lee was only seventeen, but her greatest ability, even then, was the tactful manipulation of other people. It was her carefully developed friendship with Louis Dooley that made it possible for Basil and Jose to meet privately before the Conference started, and hash out their ideas. And it was in that private meeting that the mutual advantages of humans—Ullern co-operation in the Nifleheim venture were recognized.

When we went back to Josetown, it was with the long-range plan already worked out : the further development of the code to the point where we could communicate with Ullerns in the abstractions we were certain they were capable of understanding; they continued work on Ullern biochemistry to determine whether the quartz-to-teflon adaptation would actually take place, as we believed, in the atmosphere of Nifleheim; and the long, long process of persuading the Ullerns that other humans besides our own small group now wanted friendship with them.

That was our part of the job. Back in Firstown, they worked, in communication with Earth, on the

other end of the problem : the improvement of sub-space transport to eliminate the mishaps, and make it safe for live freight.

(P.S. to Carla)

IT IS TWO weeks now since I went to the take-off of the Nifleheim *Ark* and stood beside my daughter Lee, watching the whole show through her eyes, and gaining some of the understanding that made it possible for me to finish this story.

We were all together, Lee and Louis and the three youngsters. Carla, of course, was participating in the ceremonies.

Johnny, my youngest grandson, looked at the domed building in the centre of the field, and was disappointed.

`Just like any other building,' he grumbled.

Lee nodded automatically. `Yes, dear, it is,' she said, but some-thing made her shiver as she said it. It was ordinary-looking, far more like a house than a spaceship. Nothing frightening at all ... to look at. Yet it stood there, triumphant and menacing, the most impregnable enemy she had ever met. She hadn't even been able to stay away from the take-off as she'd planned. She had to come: she was Louis Dooley's wife and Carla's mother, and Emma Tarbell's daughter, and they wouldn't let her stay home. She had to bring her other children, too, and any minute now, she'd have to watch the plain domed structure *disappear.*

`Centuries gone, man looked to the stars and prayed,' the worn tape intoned. `He made them his gods, then his garden....'

Leah shuddered, and reached for her young son's hand, but he never felt her touch. The magic of the old, old words was wrapping itself around him.

`... of thought, and at last his goal. We have not....'

Inside the dome was all the equipment for separating and storing the uranium that could be had, for the simple extraction, from the atmosphere of Nifleheim. Inside, too, were quarters for humans and Ullerns to live side by side together. Inside was Carla's bridal home, and beyond the wall that held her bed was the dread machinery of sub-space itself.

'... reached that goal. This is not a beginning nor an end; neither the first step nor the last....'

Lee looked around at all the others, the mothers who were supposed to be proud and pleased today, and saw the tense fists clenching, the tired eyes squinting, the hands reaching for a younger child's touch. She felt better then, knowing they shared the mockery of the moment.

She stood patiently, listening to Jo's speech, hearing him explain once more how Ullerns could venture forth on the surface of Nifleheim, and actually benefit by the change ... how chang-ing shifts of Ullern workers could spend an adaptation period on the alien planet, expose themselves to the fluorine that would change their brittle skins to flexible teflon hides, while human hands inside worked the machinery that would process the des-perately-needed uranium for transport back to Earth. Lee stood and listened to it all, but it meant no more than it had meant last year, or forty years before, when they started work on it.

Then at last, Carla was standing before her, with all the speeches and display finished, and nothing left to do but say good-bye. She reached out a hand, but Louis was there first, holding the slender girl in a wide embrace, laughing proudly into her eyes... . Then Johnny, and Avis and Tim, they all had to have their turns. And finally Carla turned to her.

Lee leaned forward, kissed the smooth young cheek, and said, before she knew herself what words were coming:

`Carla ... Carlie, darling, aren't you *afraid?'*

Carla took both her mother's hands and held them tight. I'm terrified!' she said. And turned and left.

The Lonely

First Publication: October 1963.

TO: The Hon. Natarajan Roi Hennessy, Chairman, Committee on Intercultural Relations. Solar Council, Eros. FROM: Dr. Shlomo Mouna, Sr. Anthropologist, Project Ozma XII, Pluto 'Station.

DATE: 10/9/92, TC.

TRANSMISSION: VIA: Tight beam, scrambled. SENT: 1306 hrs, TST. RCDV: 1947 hrs, TST.

Dear Nat:

Herewith, a much condensed, heavily annotated, and top secret coded transcript of a program we just picked up. The official title is GU #79, and the content pretty well confirms some of our earlier assumptions about the whole series, as this one concerns us directly, and we have enough background information, including specific dates, to get a much more complete and stylistic translation than before.

I'd say the hypotheses that these messages represent a "Galactic University" lecture series broadcast from somewhere near Galactic Center, through some medium a damn sight faster than light, now seems very reasonable.

This one seemed to come from Altair, which would date transmission from there only a few years after some incidents described in script. Some of the material also indicates probable nature of original format, and I find it uncomfortable. Also reraises question of whether Altair, Arcturus, Castor, etc., relay stations are aimed at us? Although the content makes that doubtful.

Full transcript, film, etc., will go out through channels, as soon as you let me know which channels. This time I am not pleading for declassification. I think of some Spaserve reactions and—frankly I wonder if it shouldn't be limited to SC Intercult Chairmen and Ozma Sr. Anthropoids—and sometimes I wonder about thee.

Cheery reading.

Shlomo

TRANSCRIPT, GU #79, Condensed Version, edited SM, 10/9/92, TC. (NRH: All material in parens is in my words—summarizing, commenting, and/or describing visual material where indicated. Straight text is verbatim, though cut as indicated. Times, measurements, etc., have been translated from Standard Galactic or Aldebaran local to Terran Standard; and bear in mind that words like "perceive" are often very rough translations for SG concepts more inclusive than our language provided for. —SM)

(Open with distance shot of Spaserve crew visiting Woman of Earth statue on Aldebaran VI. Closeup of reverent faces. Shots of old L-1, still in orbit, and jump-ship trailing it. Repeat first shot, then to Lecturer. You may have seen this one before. Sort of electric eel type. Actually makes sparks when he's being funny.)

The image you have just perceived is symbolic, in several senses. First, the statue was created by the Arlemites, the native race of Aldebaran VI (!! Yes, Virginia, there are aborigines!!) in an effort to use emotional symbols to bridge the gap in communications between two highly dissimilar species. Second: due to the farcical failure of this original intent, the structure has now become a vitally significant symbol—you perceived the impact—to the other species involved, the Terrans, a newly emerged race from Sol III. (Note that "you perceived." We must accept the implication that the original broadcasting format provides means of projecting emotional content.) Finally, this twofold symbol relates in one sense (Shooting sparks like mad here. Professional humor pretty much the same all over, hey?) to the phenomenon of the paradox of absolute universality and infinite variety inherent in the symbolism.

(Next section is a sort of refresher-review of earlier lectures. Subject of the whole course appears to be, roughly, "Problems of disparate symbolism in interspecies communications." This lecture—don't laugh—is "Symbols of Sexuality." Excerpts from review:—)

The phenomenon of symbolism is an integral part of the development of communicating intelligence.

Distinctions of biological construction, ecological situation, atmospheric and other geophysical conditions, do of course profoundly influence the radically infantile phases of intellectual-emotional-social development in all cultures . . . (but) . . . from approximately that point in the linear development of a civilization at which it is likely to make contact with other cultures—that is, from the commencement of cultural maturity, following the typically adolescent outburst of energy in which first contact is generally accomplished . . . (He describes this level at some length in terms of a complex of: 1, astrophysical knowledge; 2, control of basic matter-energy conversions, "mechanical or psial;" 3, self-awareness of whole culture and of individuals in it; and 4, some sociological phenomena for which I have no referents.) . . . all cultures appear to progress through a known sequence of i-e-s patterns .. . (and) . . . despite differences in the rate of development, the composite i-e-s curve for mature cultural development of all known species is familiar enough to permit reliable predictions for any civilization, once located on the curve.

(Then progresses to symbolism. Specific symbols, he says, vary even more, between cultures, than language or other means of conscious communication, as to wit—)

It is self-evident that the specific symbols utilized by, for instance, a septasexual, mechanophilic, auriphased species of freely locomotive discrete individuals, will vary greatly from those of, let us say, a mitotic, unicellular, intensely psioid, communal culture. (Which makes it all the more striking, that) it is specifically in the use of symbols, the general consciousness of their significance, the degree of sophistication of the popularly recognized symbols, and the uses to which they are put by the society as a whole, that we have found our most useful constant, so far, for purposes of locating a given culture on the curve.

(Much more here about other aspects of cultural development, some of which are cyclical, some linear—all fascinating but not essential to understanding of what follows.)

Sexuality has until recently been such a rare phenomenon among civilized species that we had casually assumed it to be something of a drawback to the development of intelligence. Such sexual races as we did know seemed to have developed in spite of their biological peculiarity, but usually not until after the mechanical flair that often seemed to accompany the phenomenon had enabled them to escape their planet of origin for a more favorable environment.

I say more favorable because sexuality does seem to develop as an evolutionary compensation where (some terms untranslatable, some very broad, but generally describing circumstances, like extra-dense atmosphere, in which the normal rate of cosmic radiation was reduced to, a degree that inhibited mutation and thus, evolution) . . .

As I said, this seemed almost a freak occurrence, and so it was, and is, here in the heart of the Galaxy. But in the more thinly populated spiral arms, the normal rate of radiation is considerably lower. It is only in the last centuries that we have begun to make contact with any considerable numbers of species from these sectors—and the incidence of sexuality among these peoples is markedly higher than before.

Recently, then, there has been fresh cause to investigate the causes and effects of sexuality; and there has been a comparative wealth of new material to work with.

(Here he goes into a rexiew of the variety of sexual modes, ranging from two to seventeen sexes within a species, and more exotica-erotica of means, manners, and mores than a mere two-sexed biped can readily imagine. Restrain yourself. It's all in the full transcript.)

But let me for the moment confine myself to the simplest and most common situation, involving only two sexes. Recent investigations indicate that there is an apparently inevitable psychological effect of combining two, essentially distinct subspecies in one genetic unit. (Sparks like mad.) I perceive that many of you have just experienced the same delight-dismay the first researchers felt at recognizing this so-obvious and so-overlooked parallel with the familiar cases of symbiosis.

The Terrans, mentioned earlier, are in many ways prototypical of sexuality in an intelligent species, and the unusual and rather dramatic events on Aldebaran VI have added greatly to our insights into the psychology of sexuality in general.

In this culture, dualism is very deep-rooted, affecting every aspect of the i-e-s complex: not just philosophy and engineering, but mathematics, for instance, and mystique.

This cultural attitude starts with a duality, or two-sided symmetry, of body-structure. (Throughout this discussion he uses visual material—photos, diagrams, etc., of human bodies, anatomy, physiology, habitat, eating and mating habits, etc. Also goes off into some intriguing speculation of the chicken-or-egg type: is physical structure influenced by mental attitudes, or is it some inherent tendency of a chromosome pattern with *pairs* of genes from *pairs* of parents?)

In this respect, the Terrans are almost perfect prototypes, with two pairs of limbs, for locomotion and manipulation, extending from a central—single—abdominal cavity, which, although containing some single organs as well as some in pairs, is so symmetrically proportioned that the first assumption from an exterior view would be that everything inside was equally mirror-imaged. Actually, the main breathing apparatus is paired; the digestive system is single—although food intake is through an orifice with paired lips and two rows of teeth. In both "male" and "female" types, the organ of sexual contact is single, whereas the gamete-producers are pairs. There is a single, roundish head set on top of the abdomen, containing the primary sensory organs, all of which occur in pairs. Even the brain is paired!

I mentioned earlier that it is typical of the sexual races that the flair for physical -engineering is rather stronger than the instinct for communication. This was an observed but little-understood fact for many centuries; it was not till this phenomenon of dualism (and triadism for the three-sexed, etc.) was studied that the earlier observation was clarified. If you will consider briefly the various sources of power and transport, you will realize that—outside of the psi-based techniques—most of these are involved with principles of symmetry and/or equivalence; these concepts are obvious to the two-sexed. On the other hand, the principle of unity, underlying all successful communication—physical, verbal, psial, or other—and which is also the basis for the application of psi to engineering problems—is for these species, in early stages, an almost mystical quality.

As with most life-forms, the reproductive act is, among sexual beings, both physically pleasurable and biologically compulsive, so that it is early equated with religio-mystic sensations. Among sexual species, these attitudes are intensified by the communicative aspects of the act. (Cartoon-type diagrams here which frankly gave me to think a bit!) We have much to learn yet about the psychology of this phenomenon, but enough has been established to make clear that the concept of unity for these races is initially almost entirely related to the use of their sexuality, and is later extended to other areas—religion and the arts of communication at first—with a mystical—indeed often reverent attitude!

I hardly need to remind you that the tendencies I have been discussing are the primitive and underlying ones. Obviously, at the point of contact, any species must have acquired at least enough sophistication in the field of physics—quanta, unified field theory, and atomic transmutation for a start—to have begun to look away from_ the essentially blind alley of dualistic thinking. But the extent to which these Terrans were still limited by their early developmental pattern is indicated by the almost unbelievable fact that they developed ultra-dimensional transport before discovering any more effective channels of communication than the electromagnetic!

Thus their first contacts with older civilizations were physical; and, limited as they still are almost entirely to aural and visual communication, they were actually unable to perceive their very first contact on Aldebaran VI.

(Shot of Prof. Eel in absolute sparkling convulsions goes to distance shots of planet and antiquated Earth spaceship in orbit: L-1 again. Then suborb launch drops, spirals to surface. Twenty bulky spacesuited figures emerge —not the same as in opening shots. This looks like actual photographic record of landing, which seems unlikely. Beautiful damn reconstruction, if so. Narration commences with Aldebaran date. I substitute Terran Calendar date we know for same, and accept gift of one more Rosetta Stone.)

The time is the year 2053. For more than six decades, this primitive giant of space has ployed its way through the restrictive medium of slow space. Twice before in its travels, the great ship has paused.

First at Procyon, where they found the system both uninhabited and uninviting; and at the time they did not yet know what urgent cause they had to make a landing. (Our date for Procyon exploration, from L-1 log, is 2016, which fits.)

Then at Saiph, two decades later, where they hoped for just a bare minimum of hospitality—no more than safe footing for their launches, in which they could live while they tried to ensure their future survival. But this system's planets offered little hope. One Earth-size enveloped in horror-film type gases and nasty moistures. (One more with dense atmosphere of high acid content: probe from ship corroded in minutes.)

They limped on. A half decade rater they came to a time of decision, and determined not to try for the next nearest star system, but for the closest one from which their radio had received signs of intelligent life: Aldebaran.

What they had learned between Procyon and Saiph was that those of their crew who were born in space were not viable. The ship had been planned to continue, if necessary, long beyond the lifespan of its first crew. The Terran planners had ingeniously bypassed their most acute psychosocial problem, and staffed the ship with a starting crew of just one sex. Forty females started the journey, with a supply of sperm from one hundred genetically selected males carefully preserved on board.

Sex determination in this species is in the male chromosome, and most of the supply had been selected for production of females. The plan was to maintain the ship in transit with single-sexed population and restore the normal balance only at the end of the journey.

The Terrans have apparently reached a level of self-awareness that enables them to avoid the worst dangers of their own divisive quality, while utilizing the advantages of this special (pun intended—Prof. Eel was sparking again) ambivalence. Their biological peculiarities have, among other things, developed a far greater tolerance in the females for the type of physical constraints and social pressures that were to accompany the long, slow voyage. Males, on the other hand, being more aggressive, and more responsive to hostile challenges, would be needed for colonizing a strange planet. (Dissertation on mammals here which says nothing new, but restates from an outsider's—rather admiring—viewpoint with some distinction. Should be a textbook classic—if we can ever release this thing.)

That was the plan. But when the first females born on the trip came to maturity, and could not conceive, the plan was changed. Three male infants were born to females of the original complement—less than half of whom, even then, were still alive and of child-bearing age.

(Well, he tells it effectively, but adds nothing to what we know from the log. Conflicts among the women led to death of one boy, eventual suicide of another at adolescence. Remaining mature male fails to impregnate known fertile women. Hope of landing while enough fertiles remained to start again pretty well frustrated at Saiph. Decision to try, for nearest system eight light years off—with Aldebaran still farther. Faint fantastic hope still at landing, with just one child-bearer left—the Matriarch, if you recall?)

Remembering the reasons for their choice of Aldebaran, you can imagine the reaction when that landing party, first, lost all radio signals as they descended; then, could find no trace whatsoever—to their senses—of habitation. The other planets were scouted, to no avail. The signals on the Mother Ship's more powerful radio continued to come from VI. One wild hypothesis was followed up by a thorough and fruitless search of the upper atmosphere. The atmosphere was barely adequate to sustain life at the surface. Beam tracing repeatedly located the signal beacon in a moutain of VI, which showed—to the Terrans —no other sign of intelligent life.

The only logical conclusion was that they had followed a "lighthouse beacon" to an empty world. The actual explanation, of course, was in the nature of the Arlemites, the natives of Aldebaran VI.

Originating as a social-colonizing lichen, on a heavy planet, with—even at its prime—a barely adequate atmosphere, the Arlemites combined smallness of individual size with limited locomotive powers and superior air and water retentive ability. They developed, inevitably, as a highly psioid culture—as far to one end of the psichophysical as the Terrans are to the other. (My spelling up there. I think it represents true meaning better than "psycho.") The constantly thinning choice was between

physical relocation and a conscious evolutionary measure which this mature psioid race was far better equipped to undertake: the Arlemites now exist as a planet-wide diffusion of single-celled entities, comprising just one individual, and a whole species.

(Visual stuff here helps establish concept—as if you or I just extended the space between cells.)

It seems especially ironic that the Arlemites were not only one of the oldest and most psioid of peoples—so that they had virtually all the accumulated knowledge of the Galaxy at their disposal—but were also symbiote products. This background might have enabled them to comprehend the Terran mind and the problems confronting the visitors—except for the accidental combination of almost total psi-blindness in the Terrans, and the single-sexed complement of the ship.

The visitors could not perceive their hosts. The hosts could find no way to communicate with the visitors. The full complement of the ship,, eventually, came down in launches, and lived in them, hopelessly, while they learned that their viability had indeed been completely lost in space. There was no real effort to return to the ship and continue the voyage. The ranks thinned, discipline was lost, deaths proliferated. Finally, it was only a child's last act of rebelliousness that mitigated the futility of the tragedy.

The last child saw the last adult die, and saw this immobility as an opportunity to break the most inviolable of rules. She went out of the launch—into near-airlessness that killed her within minutes.

But minutes were more than enough, with the much longer time afterwards for examination of the dead brain. It was through the mind of this one child, young enough to be still partially free of the rigid mental framework that made adult Terrans so inaccessible to Arlemites, that the basis was gained for most of the knowledge we now have.

Sorrowingly, the Arlemites generated an organism to decompose the Terrans and their artifacts, removing all traces of tragedy from the planet's surface. Meanwhile, they studied what they had learned, against future needs.

The technological ingenuity of these young sexuals will be apparent when I tell you that only four decades after the departure of that ill-fated ship, they were experimenting with ultra-dimensional travel. Even at the time of the landing at Aldebaran, ultra-di scouts were already exploring the systems closest to Sol. Eventually—within a decade after the child's death—one of these came to Aldebaran, and sighted the still-orbiting Mother Ship.

A second landing was clearly imminent. The Arlemites had still devised no way to aid this species to live in safety on their planet, nor did they have any means to communicate adequately with psi-negatives whose primary perceptions were aural and visual. But they did have, from the child's mind, a working knowledge of the strongest emotional symbols the culture knew, and they had long since devised a warning sign they could erect for visual perception. The statue of the Woman of Earth was constructed in an incredibly brief time through the combined efforts of the whole Arlemite consciousness.

They had no way to know that the new ship, designed for exploration, not colonizing, and equipped with ultra-di drive, which obviated the long slow traveling, was crewed entirely by males. Even had they known, they did not yet comprehend the extreme duality of the two-sexed double-culture. So they built their warning to the shape of the strongest fear-and-hate symbols of—a female.

(Shot of statue, held for some time, angle moving slowly. No narration. Assuming that emotional-projection notion—and I think we must—the timing here is such that I believe they first project what they seem to think a human female would feel, looking at it. I tried women on staff here. They focused more on phallic than female component, but were just as positive in reactions as males.???? Anyhow, like I said, no narration. What follows, though out of parens, is my own reaction.)

It seems more a return than a venture.

The Woman waits, as she has waited . . . always? .. . to greet her sons, welcomes us . . . home? . . . She sits in beauty, in peacefulness, perfect, complete, clean and fresh-colored . . . new? . . . no, *forever* . . . open, welcoming, yet so impervious . . . warm and . . . untouchable? . . . rather, *untouched* . . .

almost, but never, forgotten Goddess . . . Allmother, Woman of Earth .. . enveloped, enveloping, in warmth and peace .. .

One stands back a bit: this is the peace of loving insight, of unquesting womanhood, of great age and undying youth . . . the peace of the past, of life that is passed, of that immortality that nothing mortal can ever achieve except through the frozen impression of living consciousness that we call *art*.

The young men are deeply moved and they make jokes. "Allmother," one hears them say, sarcastically, "Old White Goddess, whaddya know?"

Then they look up and are quiet under the smiling stone eyes. Even the ancient obscenely placed spaceship in her lap is not quite absurd, as it will seem in museum models—or tragic, as is the original overhead.

(Prof. Eel goes on to summarize the conclusions that seem obvious to him. Something is awfully wrong; that's obvious to me. How did they manage to build something so powerful out of total miscomprehension? What are we up against, anyhow? And, to get back to the matter of channels, what do you think this little story would do to Spaserve brass egos? Do you want to hold it top secret a while?)

End of Transcript

TO: Dr. Shlomo Mouna, Sr. Anthropologist, Ozma XII, Pluto
FROM: N. R. Hennessy, Solar Council Dome. Eros DATE: 10/10/92
TRANSMISSION: VIA tight beam, scrambled. SENT: 0312 hrs. RCVD: 1027 hrs.

Dear Shlomo:

Absolutely, let me see the full package before we release it elsewhere. I've got a few more questions, like: Do they know we're receiving it? How do we straighten them out? Or should we? Instinct says yes. Tactics says it is advantageous to be underestimated. Think best you come with package, and we'll braintrust it. Meantime, in reply to your bafflement—

"L" class ships, you should have known, are for "Lysistrata." Five of them launched during brief Matriarchy at beginning of World Government on Terra, following Final War. So sort out your symbols now.

And good grief, where did the other four land?

NRH

The Shrine of Temptation

First Publication: April 1962.

The name his own people called him was Lallayall. That was, of course, just his calling-name, and because it meant almost the same thing that he meant to us, we called him Lucky.

This was no transgression of courtesy, or culture-arrogance on our part. His true name, after the fashion of his people, was already long, and growing, a descriptive catalogue useful only for records and ritual occasions. A calling-name may be anything derived from the whole, so long as it suits, and the called one will answer it. Lucky was delighted to have a new nickname from us, in our language.

He was, when we came to the island, just eight years old as we reckon. His people count differently; to them, he was halfway through his Third Decade; in five more seasons, he would undergo the Apprenticeship Rites that would end his first age. Either way, he was just past the midpoint between babyhood and puberty. Like most of his race—and all others but us on the island—he was brown-skinned and dark-eyed, black-haired. Like most of his age, he was eager, questioning, rational, mystical, obedient, rebellious,-clumsy and courteous, graceful and quick. Like too few of them, he was generally happy and always healthy, serenely certain of parental love, highly intelligent and well-informed.

Certain of these things, and all of them to a degree, were the product of island culture. Lucky lived in a world he accepted as having been designed primarily for his own benefit and, largely, it had. Among his people, there were no fears, hungers, troubles, or questions that could not be voiced, and none—within the limits of the island's capacity—that would not be answered to the best extent of the child's understanding. All children were swift and bright; but among them, Lucky was especially blessed. Thus, his name.

He was the first in his age group to find his apprenticeship. When we came, he already knew what he wanted. A short time before that, he had spent his days, like the others, wandering from hunters to planners to makers to teachers to planters to singers, spreading' his wonders and askings impartially. The others still wandered, multiply curious, questioning the weavers and fishers and carpenters, healers and painters and crafters of food. It might be three or four seasons yet until, one by one, they singled out the preferred occupations to which they'd be bound in training at First Rites.

But Lucky already knew what he wanted. Before we came, he went, day after day, to the Shrine, or the House of Shrinemen, squatting patiently in the courtyard, waiting for the chance to carry sand (for stone scrubbing) or water or polishing cloths or firewood for a Shrineman, listening in silence to such talk as was carried on in his presence, storing up questions to ask them, *hallall*, when the time should be ripe. Part of each day he sat at the feet of the Figures, self-hypnotized by gleaming amber and blue, spinning out glorious fantasies of the Rebirth.

(His own fascination with the Shrine and Shrinemen, and the weight of mystery he gave to some words and phrases—which I have tried to translate with capitals and occasional sonorous phrases in this account—led us later to a misunderstanding of some proportion. But, *hallall* . . .)

His persistence was already recognized in the village.

The other children first, then his mothers and fathers, had noticed his absence from forest, fields, and shops. Then the Shrinemen began teasing him with familiar fondness at evening gatherings and rest-day games, so that everyone started to realize what he had chosen. And if it was something of a shock to parents and teachers, the boy did not know it.

Perhaps because we settled as close to the Shrine as we dared do—perhaps out of the same fascination with the unknown that had drawn him to the Shrine—Lucky was our first and most frequent visitor, and became, either in his own person or as interpreter, our chief source of information about both the Shrine and the islanders. He did not, at first, realize that our preoccupation with the Shrine was as great as his own; we did not share his confident artlessness in question-asking. I do not know just how he explained us to himself at first, or whether he even tried to. Perhaps he just waited to learn what he wanted to know—*hallall*.

It was not passive waiting. The first day, after his first attempt to speak with us, he sat in what must have been stunned bemusement for several hours, pondering the incredible fact of a second language. (We saw the squatting inward-turned boy as "a stolid impassive indigene." I blush to admit that the phrase is from my own notebook.) Then, having fully accepted that the phenomenon was not—obviously—impossible, but only previously unknown, it was he who approached us with the second overture.

We were just setting up the hand bellows for blowing foam into the camp wallforms. Lucky walked over, watched, walked away, and came back with a round stone, flattened, on one side, just right to prop up the foot that kept slipping.

He held it out. We all stopped and stared. George Lazslo was quickest. He reached out and took the stone, smiling. Lucky smiled back.

"Thank you," George said.

The boy touched the stone. "Sannacue?" His small brown face seemed to turn gold with joy of his smile. "Mertz," he said, tapping the stone. "Mertz–sannacue?"

Henry started to correct him, but Jenny and I both realized at the same time that it was better to let the error ride, and not confuse the issue. (Starting as a joke, we all got to where we found *sannacue* as natural a word as *stone*.)

The principle was established, and it was astonishing to us how rapidly he learned. Jenny was our

linguist, and predictably proved quicker than the rest of us in learning the island language, but when they sat exchanging names and phrases, it was she, far more often than he, who had to be told twice. Once he heard it, and was sure he understood, he simply did not know how to forget. (For her fascinating account of the process, see pp. 324-359, in "Language in the Isolated Culture," Dr. Jennifer R. Boxill, S&S, 1985).

As scion as the bare minimum of mutual language was effective, Lucky (again) initiated the next step in cultural exchange. He had been showing up at the camp just after breakfast each morning; this day he came an hour earlier, with a basket of woven reeds on his arm. It was my day for KP, and I was opening a can of bacon when he came up and touched my arm, showing me the basket. "Try my food?" he said.

The basket was filled with fresh steamed fish, still hot, each on its own new-baked half-loaf of native meal bread. At the bottom, five small pots of blue clay—the same stuff the Guardian Figure was molded in—held a savory vegetable sauce to be poured over fish and bread.

It was very good, but that seemed, at the time, irrelevant. The greatest significance of the gift was learning that our self-appointed guide and mascot was, it seemed, fully accredited in his friendship by the—so far—invisible parents and elders of the village.

I should say, "parents *or* elders," because we were uncertain. When we asked if he'd prepared the food himself, he laughed uproariously and then said, with ostentatious patience, "*Mothers* cook food." Whether he meant mothers as a class (and in this case his mother), or several women of the class, mother, we did not know.

Both assumptions were wrong, as it happened. He meant *his mothers*.

It took us most of six months to reach a level of communication at which mistakes of this sort could be cleared up. And from that time on, it seemed as though most of our discussions consisted of substituting closer approximations for old misconceptions. The more we learned, the more complex was what we had to learn. As for Lucky's wrong assumptions about us, they took even longer for him to recognize, and more time yet for us to realize he'd had them. We had been on the island the best part of a year before we gained any comprehension of the extent to which our presence had affected the boy himself. And through all that time, we so carefully leaned over backwards to avoid showing special interest in the Shrine, that we had never learned of Lucky's particular infatuation with it!

All through our second season on the island (by their time reckoning), we were pumping a steady flow of information out of the boy. We learned the basic economy and social structure of the island; how to reckon seasons, and count age and status.

He explained the system of education and apprenticeship, the courtship and marriage customs. When he did not know answers to what we asked, he would say, "*Hallall*; *hallall* you will know." And next day, or next week, or even next season, he would come back with the answer. Most answers, that is. Sometimes the second answer too was, *Hallall*. But then, he would add, "*Hallall*, I shall know, and then you too."

We worried, occasionally, about what was happening to Lucky, in his own village—whether his contact with us singled him out for better or worse. What we never imagined was the delight of his parents (He had nine at the time; Dr. Henry Cogswell's article in *Anthropological Review*, II, 1983, pp. 19-26, gives a brief comprehensive analysis of island family relationships) and teachers and the older people in general at the effect we had on him.

In the pursuit of the knowledge we asked, Lucky had gone back to learn himself all the things he had scorned to observe before we came; now he watched weavers and planters and netters of fish, masons and flutists and arrow-makers, with a concentrated attention that he had reserved before only for matters concerning the Shrine. The older people watched, and were pleased. They had always thought well of the boy. He was marked as lucky from birth. When it had seemed clear he would be a Shrineman, they had been not disappointed so much as surprised. It did not seem quite suitable for one so lavishly endowed. Now he was learning, as they had expected, all matters of concern to the people. If it were what he wished, he would of course be a Shrineman; but they began speaking of him now as a future Firstman.

The pinky strangers ("Pinkies" was what they called us.) whose advent was otherwise inexplicable

and perhaps a bit disturbing, had perhaps been sent to train a leader among the people, as the people themselves had not known how to do.

So they reasoned; at least, they decided, we were causing Lucky to learn what they had hoped he would, whether that was our purpose on coming or not. At the very least, it was indirectly due to us that they had made sure of his extraordinary capacities, which had been indicated as probable by various features of his birth and growth, but had never before been fully displayed. (The eidetic memory was as impressive to them as to us; and his intelligence was high, even in that high-average society. Chapter X of Dr. G. M. Lazslo's "*Environment and Intelligence*," S&S, 1987, deals with our findings on the island, for those who are interested.)

Two of his fathers came to thank us.

It was the first visit we had from anyone but Lucky. Out of simple courtesy, no adult would have come into our camp without some such cause. Out of simple caution, we might never have entered their village without that prior visit. It was our opening contact with the group as a whole.

The fathers were overjoyed to discover that Jennie spoke their language with some proficiency. That made it possible to dismiss Lucky and thank us without requiring him to translate praise of himself or of his friends. We told them in return how much we admired and relied on the boy—and how very pleased we were to learn that our influence had helped him adjust to his own world, and not put him out of tune with it.

This is what we meant to say, but Jennie did not know any word in their language for "adjust" or "maladjusted." She tried "out of season," and got only smiling puzzlement. She made a long speech full of metaphor and analogy, and finally one of them said, "*Oklall*?"

Oklall, Lucky had told us, was the opposite of *hallall*. They seemed to think we were concerned about Lucky yesterday, but not tomorrow. We let well enough alone at that point, and offered food instead of conversation. Lucky rejoined us, and took obvious pride in piloting his fathers' way through the strange meal. When they left, we had our invitation to visit the village—paradoxical when we thought of it, since what had occasioned the thanks-paying was our previous inability to go in person.

If the fathers had the same thought, it would not have worried them. If we understood, as we thought we did, what *hallall* meant, we would have known they'd see no cause to worry. They had seen Lallayall's potential, displayed clearly, and were naturally content to let his nature take its own course. *Hallall*, he would learn all he needed to know. *Hallall* he would grow to his proper adult place. If he needed help or encouragement, they would provide it. The expectations they had begun to have before his preoccupation with the Shrine, expectations based on his birth and early growth, now seemed once again probable. Perhaps, as time grew closer for a Rebirth, it was necessary for a future Firstman to know more of the Shrine than was usual. His unlikely interest in Shrinemen might then mean only that he would be Firstman at the time of a Rebirth. Lallayall—Lucky—indeed! He was well-called.

As for us, we were too busy and excited with our new observing privileges, and more than that, with the news of Lucky's special concern with the Shrine, to think of the oddity of that *tomorrow-yesterday* misunderstanding. We assumed, from his fathers' manner of mentioning it, that the Shrine was not in any way taboo. It began to seem more likely that we might eventually be allowed to examine it: if a child could spend his time there freely, when his parents disapproved, it was not unreasonable to hope that visitors might be invited.

One other assumption, based on our experience of Lucky's learning powers, proved unfounded: there was almost nothing he was able to tell us about the Shrine or Shrinemen, except just such visual descriptions as we now dared to hope might be redundant. He described the Figures, the blue Guardian on the Window of Light, and the amber Lifegiver on the scroll pedestal. He painted a vivid word picture of the reptiloid grace of the Lifegiver, the menacing power of the Guardian. About the Shrinemen and their lives he knew many minute details—but none of significance. They ate thus, slept so, conversed in the courtyard; they were celibate, wore brown robes with a design patterned on the Window of Light; they had daily rituals to say; they performed certain calculations. *Hallall*, they would officiate at the

Recurrence, the Rebirth.

From the Oldest Men in the village, of whom there were three, in their Seventh Age, we learned more—if what we learned was fact. They could all recall, in young childhood, seeing the Life of the Shrine then extant. There had been no Recurrence since then, nor had it occurred in their lives, but before they were born.

In twenty-five decades, they said, the Life would Recur. It was soon, soon ...

And saying so, they glanced significantly at Lucky. *Hallall*, a Rebirth ...

That word again—*hallall*. In the village and fields, we heard it incessantly. It was the only no-answer a child evey got. No question was forbidden for young ones to ask—but some were not answered in First Age, and some not in Second. *Hallall*, they were told, *hallall*, ye shall know.

"When do we plant firstseed?" a child might ask.

"In the day following the third full moon of Seedfall," he would be told.

"Which seed is firstseed?"

And he would be shown.

"What comes of it?" "When do we harvest it?" "How is it stored?" "Who plants it?" "Who knows the full moon?"

All these would be answered and fully, readily. The people would lay down their work, if need be, to go with a questioning child and show him the answer.

But—"Why does it grow?" "How does the Firstman know which round moon is the *full* moon?" or "Why do people seed themselves all year round, but fawns and fish only in Greengrowth Season?"

Then the answer was always, "*Hallall*," given with a glad smile for the child who was thinking ahead of his years. First Age children were to learn only what could be seen, touched, smelled, or heard. *Why* and *Wherefore* were for Second Agers, the adolescent apprentices. So-

"*Hallall*, little one . . ."

It was listening to the teaching of the children that we finally came round to understand what the word meant. We had thought it was "tomorrow"—or "later," vaguely. Then for a while we thought it just an evasion, a sort of "I don't know either; perhaps some day we'll both find out." But what it meant, precisely, was, "In the fullness of time . . ."

The distinction is not nearly as much in the words as in the kind of thinking that must lie behind them. Shrine Islanders, for instance, fear death less than any society known—and' this with no trace of belief in discrete immortality. In the fullness of time one is born, grows and learns, loves, weds, and begets, rears children, teaches the younger ones, acquires status, grows feeble and dies. If death comes, then one's time is full.

From the answers that were and were not given youngsters in Lucky's Age Group we also came to understand how we must have troubled him with our determined questioning about the Shrinemen. Here, too, we had progressed through a series of dead-wrong assumptions. Because Lucky told us of books and calculations, of ideographs on the Shrine (which he could reproduce flawlessly, but with no comprehension); because he had never seen books in the village, or never spoke of them; because he, the brightest of his Age Group, went daily to the House of Shrinemen, we first took for granted that the Shrinemen were priestly scholars, perhaps the guardians of an ancient culture, their role symbolized by the red-mated blue Guardian Figure protecting the "Lifegiver"—a goddess, clearly, but perhaps of wisdom rather than fertility. The reptilian appearance suggested this strongly. Henry got very enthusiastic about the correlation of snakes and divinely protected knowledge. "Rebirth" could imply a predictable renaissance—and that suggested the ugly thought that the secrecy of the Shrinemen's rites and formulae was that of an unplanned bureaucracy perpetuating itself by withholding the knowledge it had been set up to protect and disseminate .. .

When we understood what *hallall* meant, we had to revise this unhappy picture, for much of what Lucky did not know was not secret at all—just *hallall* at his age. By that time, also, we had heard from the three Oldest Men such mutually confirming details of the appearance and function of the Life of the

Shrine, that the whole notion of a usurping bureaucracy became absurd. "Rebirth" was not symbol, but a literal incarnation of new wisdom, presented at intervals of roughly—by our time—eighty years. The incarnation took the form of a froglike creature at least roughly resembling the statue and relief Figures at the Shrine. (The old men recalled an identical appearance, except for color, which was gray—but they were old and remembering a strongly suggestible childhood.)

So the Shrinemen became shamans, half-ignorant half-wise witchdoctors applying without understanding some ancient formulae designed to release increments of knowledge slowly to a population reverted—for what strange intriguing reasons?—to barbarism. The near-idyllic society we saw was the planned result of this program; and the quiet patience of the *hallall* philosophy made sense now; *hallall*, all would be known. We need only wait; *hallall* . . .

But for witchdoctors , the Shrinemen were poor showmen. Neither did they do healing (any more than they governed; both of these were functions of all *other* people who lived into the Second Decade of the Sixth Age). The shaman theory began to fall apart the night George found out the man next to him at a haybringing dance was a "shaman," off duty for the party; the putative witchdoctor invited us all, very casually, to visit him at the Shrine. There had never been any taboo; no one suspected we might be interested.

We found the Shrinemen, as we had first assumed they would be, educated and cultured, in the bookish sense, far above the level of the other islanders. They were intelligent men devoted to a faith, or more, to a duty. When Rebirth occurred, it was necessary that they he on hand, trained in the formulae of sacrifice. Without their precise weights and measures and chants, the Life of the Shrine would be .monstrous and harmful.

The Oldest Men, we suggested, were saying it was near Italian for Recurrence . . . ?

The Shrinemen nodded. They brought out a register, a long papyrus-like scroll. One fourth of its length was filled with ideographs—like those on the Shrine itself, tantalizingly like, but unlike, three different ancient languages Jenny did know . . .

On this scroll, they said, was the listing of dates and persons connected with Shrine Life. The first entry, in barely legible, long-faded ink, went back—they said—almost 350 decades, nearly 1200 years, as we reckon. One of them spread the scroll on a lectern, and began intoning with such singsong regularity it was evident he was reciting by rote, and not actually reading.

Yet there was an air of authenticity about their list; whether it was in the scroll or not, whether they could read the symbols or not, we somehow believed that the time intervals—ranging from nineteen to thirty decades between Recurrences—were legitimate history.

The question was—history of what?

The answer, of course, was—*hallall*.

If our supplies lasted until the Recurrence, we'd know what it was. Not *why*, or *wherefore*, but *how* and *what*, *when* and *who*. To the Life of the Shrine, it seemed, we were all as First Agers .. .

Thus we arrived at our last misconception regarding the Shrinemen. They were—obviously—an especially non-virulent academic breed of priest, serving their temple with civilized pleasant lives devoted to learning, discussion, and ritual. *Hallall*, what they re-memorized every day would be of not just use, but great need ...

Happily, by that time we understood Lucky at least better than we did the Shrine; as a result, we did not plague him with our latest errors—and plaguing they would have been, to say the least. Religion, as we know it, had no words in the Shrine Island language. *Sin, priest, faith, morals*, were not only, in complexity, subjects suitable only for adults—they were concepts unknown to the people. We did not intend to introduce them.

Since it would have been. Lucky to whom we expressed these thoughts first, it is doubly fortunate we did not do so, for Lucky was lucky. From the time of his birth on, it was the outstanding trait of his young life.

In the calendar of the Shrine Islanders, there are three seasons to mark the year's circuit: first is

Greengrowth, when the soil is renewed, when the creatures of forest and river renew life, a time of thriving for all young things. Then comes Ripening, when fawns, fish, and fruit come to full size and ripeness. Last, there is Seedfall, when pods and clouds burst to shower the land with the next season's new life, when bucks rage in combat throughout the forest, and such spawning fish as survived the nets of the Season of Ripening spawn by the thousands far up the river.

The calendar of events, of people's lives, is composed of these seasons, in sets of ten. Each Decade of Seasons has separate significance in the course of lifetime. Three Decades make up an Age of Life.

It is auspicious among the people to have Greengrowth for the ruling season of one's First Age. Lucky, born lucky in Greengrowth, would come to his First Rites, dividing childhood from apprenticeship, innocence from approaching courtship, just as the seasons changed from Greengrowth to the appropriate Ripening. Three decades later, his Full Manhood Rites would coincide with the change of the natural world from Ripening to Seedfall.

Such children were known to be fortunate in their growing, somehow in tune with the world more than others. In Lucky's case, each sign at every stage of development had confirmed the extraordinary augury of his birth on the first morning of a Greengrowth season.

And it was for the same reason that his early interest in the Shrine had so startled his elders: a child of his sort was seldom attracted by abstraction or mental mystery; certainly, the children of Greengrowth were too much in tune with the soil to make likely celibates.

There is a certain innocence, when you think of it, implicit in the idea of luck. A truly lucky person has, always, a certain natural and glorious naivete—a sort of superior unconsciousness, which can do for some people, in their acts and impulses, precisely what the well-trained, reflex reactions of a star athlete do for his body. The special ability to seize the right moment with the right hand is as vulnerable to conscious thought as the act of high-jumping would be to a man who tried to think each muscle separately into action.

So it is well that we did not force on Lucky an exercise of the metaphysical part of his mind that his keen intelligence could never have refused, once offered.

We had been almost five full seasons on the island when the second ship came. Lucky, of course, with his rare instinct, was walking in the woods when it landed, not half a mile from where it came down.

Three people emerged—three more Pinkies! Rejoicing, the boy ran to greet them, one thought predominant in his young mind: here at last was the making of a Pinkie family! (Seven is the minimum number of adults in an island household. We had never attempted to explain our marriage customs to him; frankly, living on the island, we had come to feel a little ashamed of confessing our one-to-one possessiveness. We had simply allowed them to keep their first misimpression that we did not have children because we were too few in number for a proper household.)

With these thoughts in mind, he ran forward and greeted the strangers in clear pure English, offering to guide them immediately to our camp.

They seem to have managed a rapid recovery, when one considers the shock this must have provided. Politely, they excused themselves, and announced they had come, not to join us (whom they had never heard of, of course) but to pay their respects to the famous Shrine.

Lucky led them there. On the way, they talked pleasantly with him, pleasantly but wrongly. They did not sound like Pinkies—not like the Pinkies he knew. Vaguely, he sensed something *oklall*—unripe, green, out of place and time. Gradually, his answers to the oversweet probings of the female among them became less clear, so that by the time she asked the two crucial questions, he was almost incoherent.

They did not find out how many Pinkies were on the island, nor how many others spoke English. If they had known there were only four of us, unarmed academics, and only Lucky besides ourselves who would ever know how to tell the world outside what happened, they would surely have been less precipitate. As it was, they were on edge.

He took them directly to the Shrine Window. This in itself was odd; it was bad etiquette; he should have presented them first to the Shrinemen. But he was already acting under the impulse of that strange quality of luckiness that ruled his life.

Then he found himself staring at Lifegiver, terribly torn and uncertain, not knowing why he had done such a thing, or why he had spoken to them softly, in false friendship. The amber figure glowed in double light: sunlight cascading from the unroofed courtyard, and the golden glow from inside the Window.

He—I believe it was he—said later that he did what he did just because she was beautiful: a simple act of adoration. I suppose he was confused, aware of a responsibility too large for his young shoulders, and seeking guidance of some sort. That at least is more rational than the notion that he acted then out of the pure unconsciousness of his special—lucky—nature. I know, because I watched it happen, that he moved forward in an almost trancelike manner.

(Everything from the moment of the meeting in the forest up to this point I know only from having been told. What occurred in the courtyard I saw for myself. It was almost time for the Shrinemen's evening ritual, and Henry and I were on the hilltop, with binoculars, watching.)

This is what happened:

Lallayall stepped forward and fell to his knees before the statue of the Lifegiver. He reached up, and his lanky arms were just long enough to wrap around her smooth stone legs. He gazed up at her, and then bent his head, resting it against the carvings at the top of the scroll pedestal.

At the instant of contact, the mace fell from the hands of the Blue Guardian.

The two men were fast. One jumped for the mace, one for Lucky. While the second one held the boy still, the first studied the rod and the Figure, and then reached out with the red mace and seemed to be twisting it against something on the Window. (After much discussion and examination, we came to the conclusion that it was the Guardian's eye he was twisting. The open end of the rod is exactly the shape and size of the opal eye of the Guardian.)

We did not see the Window open. It opened inwards, and our angle of vision was wrong. But we knew what was happening from the oddly expressive way the three intruders stood and stared, at the Window and at each other—questioning, triumphant, frightened, uncertain. We also saw the Shrinemen coming, a split second before the woman did. We saw her point and heard her cry faintly from down below.

The others turned to look, and all three lost their irresolution. They moved as one, taking Lucky with them. All four vanished (from our angle of view) inside the Shrine.

The Shrinemen came to a full stop in front of the Window. Had it closed again? I looked at Henry for the first tithe, and found him turning to look at me; it occurred to us for the first time that we ought to be doing something to help.

"You stay," he said. "I'll get the others. Keep watching."

It was the sensible way to do it.

I nodded, and put the glasses back to my eyes. Incredibly, the Shrinemen were arranging themselves in their evening ritual position, as calmly as though it were any sundown; they formed their semicircle in front of the Window, and brought forth the shining silver-tipped quills that were their badge of office, held them up like dart-throwers, as they always did, and began their sundown chant!

Perhaps the Window had not closed before. If it had, it had opened again. My first thought was that the Guardian Figure had fallen. But it was not a Figure. It was alive.

It was blue and glistening, and it sprang down to the ground, crouched, alert, so clearly menacing in its intentions it was not necessary to see the face to understand the inherent malice. It had barely touched ground when a quill—a *dart*, rather—from the first Shrineman in the semicircle caught it in the face. (The eye, I have always assumed—the same left eye that must be the key to the Shrine?)

By that time, another had leaped out—and the next dart brought it down. It went so almost-casually, so rhythmically, so soundlessly, and with such economy of motion on both sides, that it seemed unreal. There were ten of the blue things altogether; at the sixth, I took my eyes from the glasses, blinked, shook my head, and looked back, unbelieving. I saw the same thing.

But remember—I did have that moment of doubt.

Without any break in the rhythm, the eleventh figure came out of the Shrine. It was not blue, or crouching or perilous; it was brown-gold of skin, and leaped like a dancer, and as it landed the Shrinemen who still held their darts poised, dropped them, and the whole semicircle burst into a chant of

overwhelming joy and welcoming.

They faltered just once—when, still in the same timing, the twelfth creature came forth: then it rang out again, louder and more joyous.

But those who had dropped unused darts retrieved them.

They finished the song, the two Lives of the Shrine standing inside their circle, apart from the heap of lifeless blue bodies. Then—the Window must have closed meantime; they clearly knew the Rebirth was completed—four of them walked to the two shining creatures, bowed to them (in the islanders' bow of courtesy—not one of reverence), and led them into the House. The others approached the dead entities, picked them up, and carried them off, around the House, out of sight.

My stage was empty. I waited till dark, but saw no more. Not till I started down to the camp did I even wonder what had become of Henry and the others, who should have had time to arrive at the scene before the chant began. I found out when they joined me a few minutes after I. got back to camp: the gates of the Shrine courtyard had been closed and barred; they had knocked and called out and waited—also till dark—without answer. They had heard the chant of rejoicing; they had seen nothing.

I told them what I had seen. I told it hesitantly; I did not completely believe my own memory. When, next day, and days after that, all our questions and probings produced only mildly startled or baffled replies from villagers and Shrinemen alike, we decided I had been the victim of some extraordinarily powerful hypnotic illusion.

We felt fairly sure of what part of it Henry and I had seen together; and this was further supported by the presence of a strange ship in the forest, with no passengers —and by Lucky's disappearance.

We left the island a few weeks later. Our supplies might have lasted another month, but we all felt restless, and we missed Lucky, both personally and in our work. We knew there were answers we could not get from anyone, about what had happened. But we saw no likelihood of getting them by staying longer. And we had to report the strange ship.

We agreed that as far as we knew—as far as four so-called scientists could claim to know anything—four people had entered the Shrine; a watcher on the hilltop (Henry's article so describes me) experienced an extraordinarily vivid hallucination of hypnotic illusion afterwards, during the ritual chant.

For the others, that agreement was sufficient. They hadn't had the "hallucination."

I went back. And of course, we had left too soon.

Our questions had been, naturally, *oklall*. The life of the Shrine is never revealed until the next Rites ...

This time it was a tremendous revelation; never before had twin Lives occurred.

I stayed two full seasons on the island, that second trip. This time, I lived, in a special visitor's capacity, with Lallayall's family. I learned to speak their language much better, and I spent many hours in talk with the Shrinemen and with the Lives.

The Lives told me about Lucky's meeting with the strange Pinkies; they told me how he felt when he fell on his knees before the Lifegiver; they told me they were reborn of him in the Shrine.

They told me how it felt, but could not tell me how or why it happened. They did not know. We all speculated —the Lives, the Shrinemen, and I—on what the Shrine itself might be, and what sort of force could produce ten glistening blue demons from three evil humans, and two golden angels from one lucky boy.

With all the speculation, and all I was told, I came back with not one shred of scientific evidence that anything of the sort happened. For all I know, the Lives may still be a hypnotic illusion produced by the Shrinemen; they may be some sort of periodic mutation. They may be Lucky Reborn.

They do not know, any more than I, how the Shrine came to be there, or what happened inside a chamber which they describe only as "filled with great light."

I tried approaching the Lifegiver, as Lucky had. The Shrinemen gave full permission, clearly amused. Nothing happened, though I tried it often, with minute variations of head and hand positions.

I may have missed the exact pressure points; I may have had the wrong attitude. I believe, myself, that I simply do not have the kind of unconsciousness Lucky had.

My own tendency, also, is to believe that the Shrine is a sort of outpost of some other planet—but why this should feel any more "scientific" to me than the Shrinemen's belief in an ancient lost magic, I don't know.

The Shrinemen, by the way, are still worried over some things. The weight of the entering bodies was never ascertained, they point out. If there was unused mass left inside the Shrine, they cannot say what may come forth the next time a pure innocent embraces goodness for her own sake.

These things must be done by the formulae, they say. (They feel this Rebirth was most unscientific, you see.) The embracer is not supposed to enter the Shrine. A fawn of so-and-so much weight, precisely, is the only proper sacrifice.

But these minor worries are unimportant, beside the double miracle of two Lives of the Shrine at one Rebirth. The islanders generally feel they are alive at a time of great good luck. They are creating dozens of songs and stories and paintings and dances about Lallayall, the lucky one who brought luck to his people.

I present this account of what I saw, what I heard, what I know, of the Shrine and its Rebirth Recurrence. I have no evidence to prove its validity.

WHOEVER YOU ARE

First Publication: December 1952.

THIS IS A love story. That is to say, it is a story of the greatest need and greatest fear men know. It is also a story of conquest and defeat, of courage and cowardice, and the heroism that is a product of both of them. It begins in security and isolation; it ends in victory and desecration. Whoever you are, this story has happened to you already, and will again. Whoever you are, however you live, you are writing the ending to the story with every breath you take, with every move you make.

In the cabin of the Service rocket, Scanliter Six, Sergeant Bolster and his new crewman, Pfc. Joe Fromm, were playing checkers. It was the bored third day of a routine one-week tour of duty on the Web, checking the activities of the scanner-satellites that held the tight-woven mesh of e-m-g in a hollow sphere of protective power cast around the System.

Fromm studied the board soberly, sighed, and moved a man into unavoidable trouble. Bolster smiled, and both of them looked up momentarily as they heard the click of the keys cutting tape on the receiver.

The sergeant returned his attention to the checker board, and jumped two men before he bothered to look up at the viewer. He saw a streak of light move upward and across the screen in a wide expected curve, from right to left; reached over to inspect the fresh-cut tape, and grunted approval.

"BB-3, coming in at 26°, 13', 37", all correct," he said. "Check 'em off, Joe. "That's nine, thirty-eight, and oneoh-seven at the point of entry. All in correlation. Transmission clear. It's your move."

Fromm picked up the clipboard with the scanlite-station checkoff chart, and marked three tiny squares with his initials, almost without looking. He was still staring at the view-screen, empty now of everything but the distant specks of light that were the stars.

"Hey," Bolster said again. "It's your move."

Joe Fromm didn't even hear him. The scanner outside completed its revolution around the small ship, and .. there it was again! The flaring trail of rockets traveled across the screen, independent of the up-and-down motion of the revolving scanner.

The sergeant grunted again. "What's the matter? Didn't you ever see one home before?"

"That's the first," Fromm said without turning. "Shouldn't we be recording the tape?"

"Not yet." Bolster surveyed the checker board sadly; he'd have a king on the next move . . . if

Fromm ever made another move. "All we got now is radar-recog. Then . . . there you are . . ." He nodded at the renewed clacking of the keys. "That'll be the code-dope coming in. Then we wait till after it hits detection, and we get the last OK, before we send the tape to the Post."

He explained it all dutifully just the same. It used to be when they sent a new man out, they at least took him on a practice tour first. "Look, make a move will you? You got a whole year here to sit and look at 'em come in."

With difficulty, the Pfc. took his eyes off the viewer, touch a piece on the board at random, and pushed it forward, leaving Bolster with the choice of a three-man jump to nowhere, or the one-man jump that would net him his king. The private leaned forward to finger the tape as it emerged from the receiver, reading off the replies to code-dope demands, and signal responses, with a certain reverent intensity. "Did you ever see an illegal entry?" he asked. "I mean an attempt? Somebody told me there was one on this sect . . ."

At that instant the BB-3 hit the detector field awaiting it at the point of entry on the Web, and generated mechanical panic in an entire sequence of scanlite instruments. Synchronized pulses from the three scanlite stations circling the point of entry transmitted their frustration in the face of the unprecedented and unpredicted; and the tape in the cabin of Scanliter Six vibrated out of the recorder under the furious impact of the chattering keys.

Alarm bells began to shrill: first in the small cabin, directly over the sergeant's head; then in similar cabins on four other Scanliter rockets within range; finally, about two minutes later, in the Exec Office at Phobos Post, which was the nearest Solar Defense base to the point of entry at the time.

Pfc. Joe Fromm stopped his hesitant query in mid-word, feeling vaguely guilty for having brought the subject up. Sergeant Bolster knocked over the checker board reaching for the tape. He read it, paled visibly, passed it across to the private, and started transmitting to the Post almost at the same instant.

On Phobos, a Signal Tech. depressed three levers on his switchboard before he stopped to wonder what was wrong. Green alarm meant emergency calls to the O.D., Psychofficer, and P.R. Chief. The Tech. sent out the summons, then stopped to read the tape.

DYTEKTR FYLD RYPORT: BB-3 EM RADASHNZ INDKAT ALYN LIF—RYPYT ALYN LIF UBORD. RYPT: DYTEKTR FYLD RYPORT VIA SKANLITS 9-38-107 TU SKANLITR 6 SHOZ NO UMN LIF UBORD BB-3.
BOLSTER, SGT/SKNR 6

By the time the Phobos Post Commander got up from his dinner table, the Psychofficer put down the kitten he was playing with, and the Public Relations Deputy pushed back the stool at her dressing table, the crews of all five

Scanliters within range of the point of entry, as well as the Signals Tech. on Phobos, knew all the pertinent details of what had occurred.

The Baby Byrd III, a five-man starscout, under command of Captain James Malcolm, due back after almost a full year out of System, had approached a point of entry just outside the orbit of Saturn on the electromagneto-gravitic Web of force that surrounded the Solar System. It had signalled the correct radar recognition pattern, and replied to the challenge of the scanlite stations circling the point of entry with the anticipated code responses. Accordingly, the point had been softened to permit entry of the ship, and a standard detector set up around the soft spot.

Thus far, it was routine homecoming for a starscout. It was only when the BB-3 entered the detector field that the automatics on the scanner-satellite stations began to shrill the alarms for human help. The field registered no human electro-magnetic emanations on board the BB-3. The e-m pattern it got was undoubtedly alive ... and just as undeniably alien.

For the third time in the history of the Web, an attempt at entry had been made by unauthorized aliens; and those aliens were apparently in sole possession of a Solar starscout. The third attempt . . . and the third failure: the BB-3 was already secured in a slightly intensified smaller sphere of the same e-m-g mesh that made up the Web, suspended at midpoint between the three circling scanlite stations.

Eternal vigilance is most assuredly the price of the peace of the womb. The membrane of force that guarded the System from intrusion had, in turn, to be guarded and maintained by the men who lived within it. The scanner-satellites were as nearly infallible as a machine can be; they might have run effectively for centuries on their own very slowly diminishing feedback-power systems. But man's security was too precious a thing to trust entirely to the products of man's ingenuity. Each year a new group of the System's youth was called to Service, and at the end of the year, a few were chosen from among the volunteers to man the Scanliters that serviced the satellite stations which comprised the Web.

For even the most adventurous of youths, one further year of Scanliting was usually enough; they came back from their fifty tours Outside prepared to keep their feet on solid ground, and to forget the brief experience of facing the unknown. But each year, too, there were a few of them who learned to crave the intoxication of danger, who could no longer be content to settle back into the warm security of the System. It was these warped veterans of the Web who became Byrdmen.

Secure within the womb-enclosure of the Web, five billion Solar citizens could wreak their wills upon their little worlds, and carry on the ever more complex design for nourishment of all the intra-System castes and categories.

Outside, the emissaries of mankind streaked through the heavens on their chariots of fire, spreading the Solar culture through galactic space, spawning the seeds of men between the stars. First went the Baby Byrds, to scout new lands beyond the farthest outposts; then the Byrds, with their full complements of scientists, and giant laboratories, to test the promise of the newly-charted planets; and after them, the giant one-way starships went.

Somehow there were always just enough bold desperate souls, yearning for danger and ready to die for a dream, to fill the human cargo-couches of the colony ships: the Mayflowers and Livingstons and Columbos that left the safety of the Web forever to fix new germ-cells of humanity on far-flung planets in the speckled skies.

Inside the Web, on four inhabited planets and half a thousand habitable asteroids, men lived in the light of the sun by day, and drew their warmth and power from it. By night, they turned to rest at peace; each one under his own sector of the high-domed sky, the hollow sphere of force through which no alien source of light could penetrate and still retain identity.

The Web glowed always with the mingled and diffracted energy of all the universe Outside; no photon passed its portals, no smallest particle of energy came through without the necessary pause for hail-and-password that maintained the calm security of the Web's inner light.

Scanliter Six was already proceeding at full speed toward the trapped BB, acting on normal emergency procedures, when the keys taped out the order from Commander Harston on Phobos post to do just that. No stars showed on the viewer; they had stopped the rotation of the scanner and the screen held a steady picture of the three Scanlite stations with a fuzzy hump in the center that was too bright to look at comfortably. Scanner rays could not possibly penetrate the thick field that held the BB-3 suspended in the Web.

"Well," Bolster said sourly. "Here's your chance to be a hero, kid."

Joe Fromm knew it was childish of him to be excited. He tried not to look interested. "Yeah?" he said.

"Yeah. What happens now is, we get there and code in that the situation is as reported. Then the brass has a conference and they decide somebody has got to investigate, so they ask for volunteers. We're the laddies on the spot. The other boys are all on Stand-by according to this. . . ."

He waved the orders tape at Fromm, who caught it and read it through carefully.

"And if we were on Stand-by instead of Proceed, you know what we'd be doing right now?" the sergeant went on, enjoying his own discomfort as loudly as possible. "I'll tell you what. We'd be standing all right, right smack where we were when the tape came in. Not one second closer."

"Stand-by is supposed to mean that you get into the best position for observation," the Pfc. recited.

"Sure. The best position for observation, kid, is in-scan and out of blowup range. So you take your choice: you stay where you are when the tape comes in, or you back out as far as you can and stay

in-scan. Anyhow, we're the boys on the spot, see? They're going to want a volunteer to board the Beebee, and I got a hunch," he finished with a faint note of hope, "that I might come out of this in one piece just on account of you are probably going to want to be a hero."

"Could be," Fromm said nonchalantly. "You're senior; after all, it's your privilege."

He was delighted that he managed to keep a poker face throughout the statement

Joe Fromm stepped out of the airlock into space, and let himself float free, orienting, for a slow count of five. He had done it a hundred times and more in drill, but it felt different now. As in the drill, he made a routine extra check of his equipment: tank, jetter, axe, welder, magnograpple mechitape recorder, (no radio in an insul-suit), knife, gun, signal mirror, medikit. All OK.

He set the jet at gentle and squirted off toward the glowing ball of force that held the starscout. Two more squirts, and he was as close as he could get. He flashed the mirror twice at Bolster in the Scanliter, to start the passageway in the sphere opening. This was the last contact till he came out again. If he ...

If I come out again . . . he thought the whole phrase through deliberately, and was surprised at the way his mind accepted the possibility, and dismissed it. He felt tremendously alive, almost as if each separate cell was tingling with some special vigor and awareness. And in the center of it all, in some hidden part of himself, he was dead calm, almost amused. Was this what they called courage?

He flashed the mirror again. Bolster was certainly taking his time. All he had to do was throw a switch. Fromm began flashing angry code with the mirror and kept it up, knowing Bolster couldn't answer and rejoicing in the knowledge, until he saw the opening appear in the ball of force, and begin to expand.

Then he realized it wasn't simply throwing a switch. Once the passageway-mechanism was put into operation, it had to keep going on its own, opening and closing at intervals so as to permit him egress, and still not let enough e-m-g through in either direction to disturb the power-stasis inside. It took only a little bit of computer work . . . but quite a bit more intricate checking of the relays, to make certain the automatics would not fail.

He had to hold himself back to keep from diving through as soon as the hole was as big as his suit . . . but he waited, as he had been trained to do, until it stopped enlarging. The computer knew better than he did how much space he needed.

Then he squirted forward and through. The BB looked strange, hanging there in the middle of nothing, with an air of polite impatience, waiting to finish its passage into the System.

Joe grinned, and duly spoke his thought out loud for the record. "Every single thing that passes through your head," they'd said over and over again in school. "When you're on any kind of solo operation, you want to be sure the guy who takes over knows everything you did, no matter how crazy it seems. An idea that doesn't connect for you could make sense to him."

So Joe Fromm told the mechitape attachment on' his suit that the starscout looked impatient. He kept talking, describing his actions and thoughts and emotions, as he approached the ship cautiously, and opened the outer lock door. More waiting, and he informed the tape that the air lock was in operating condition.

Then he was in the ship, and omitted to mention in his running commentary that he was scared silly. Down the corridor ... open the cabin doors one at a time ... empty, empty . . . not empty. Go on in, Joe; he's out cold; couldn't hurt a fly.

"One of the aliens is in this cabin. This is the third door I have opened, second cabin to the right going down the corridor from the lock to Control . . . he's either dead or unconscious . . . hope they're all like that . he's big . . . hope they're not all like that. Maybe ten feet tall, sort of curled up on the bunk, might have been asleep." Might still be, might wake up.

He gulped and decided he'd better put it on record. "Might still . . ." No, that was foolish. These characters had registered e.m. radiations on the instruments in the stations. They couldn't stay conscious inside the e.m.g. field without insul-suits. Anything strong enough to stop a BB in its tracks would stop a man too.

But it's not a man; it's . . . "It's definitely humanoid . . . hard to believe any alien creatures could evolve so much like humans. No tenacles, nothing like that. Arms and hands look like ours . . . fingers

too. He's wearing some kind of robe . . . hard to get it loose with these gloves on, can't see the legs for sure, but the arms are human all right. Face is different, something funny about the mouth, sort of pursed-up-looking. Closed, can't see the inside ... guess I can try and open it ... no, later, maybe. I better take a look around. Anyhow, this guy is a lot like you and me only almost twice as big. Not very hairy, dark skin, big black eyes . . . how can anything that's not human have eyes that look at you like that, even when he's out cold? I don't know ... going out now, next cabin, second door on the left .. .

"Here's another one . . . on the floor this time, kind of crumpled up . . . must have been standing when the field hit, and fell down. Nothing new here . . . wait a minute, this fella must have cut his hand on something when he fell . . . yeah, there's an open locker door, with an edge. Blood is dried, looks like it's a lot darker than ours, but it's crazy how human it looks anyhow . . . Going out again now ... in the corridor, no more doors here . . ."

There were two more of them in the control room: one strapped in the pilot's seat, squeezed in really; he just about could make it. The other was slumped over the solar analog computer.

"Looks like he was checking the landing data," Fromm reported. "These guys sure were confident. Two of 'em off shift when they were coming in, and everything set for a normal landing. Didn't they figure on any trouble at all? They should have realized they couldn't just sit down on one of our planets. Hell, they knew about the Web; they gave the code-dope straight, and they decelerated to approach, and had the correct angle . . . I don't get it ... Here goes once around the room now. I will check all instruments.

"Starting from the door, and turning right: Star-chart microviewer intact and operating, films filed properly, I think. Won't take time to check them all now, but they look right. . . . Radio desk appears in normal condition for use, can't test. .. . Space suit locker is full of strange stuff, will come back to examine. . . . analog comps come next; this guy is sprawled all over them. . ."

He followed his nose around the cylindrical room, till he came back to the door again. Everything was, or seemed to be, in good working order. A few adjustments had been made in levers and handholds, to fit the aliens' larger hands; otherwise, virtually nothing had been touched except for normal use.

"Okay, I guess I better start on the locker now. . . ." But he didn't want to; he felt suddenly tired. Not scared any more . . . maybe that was it. Now he knew he was safe, and there weren't any booby traps or anything seriously wrong, he was feeling the strain. Let Bolster do some work too, he thought angrily, and almost said it out loud for the tape. Then he realized that his sudden pique was really just weariness, and at the same time he became acutely aware of hunger and an even more pressing biological urge. Time to go home, Joe. Always leave the party early, that's how to stay popular.

He ought at least to get the robe off one of the creatures first, and make sure about their anatomy, but he had an odd reluctance to do it. They were too human . . . it seemed as if it wasn't fair somehow to go poking around under their clothes.

Hell! Let Bolster do it! He left the ship.

Alone in the Scanliter, Joe Fromm played his mechitape into the permanent recorder, and turned up the volume so he could hear it himself, and get everything clear for his report to Phobos. Some of the stuff sounded crazy, but he could tell what part was fact and what was just his own imagination. He chewed on a pencil end, and occasionally noted down something he should be sure to remember.

Altogether, composing the report was more painful than visiting the ship had been. He had just started putting it onto the transmitter when he saw the indicater for the outer lock light up. Bolster sure hadn't stayed on that ship long! He felt better now about coming back himself.

The sergeant came inside shedding his insul-suit, and bursting with excitement.

"You should of looked in that locker, kid!" He was triumphant. "Anyway, it's a good thing for me you didn't. This is the kind of good luck bonuses are made of." He removed an envelope carefully from the storage pocket on the outside of the suit. "Got your stuff in yet? I want to shoot this to them fast!"

"I just started . . ." Fromm said.

"Well, we'll flash this, and you can finish up afterwards."

He handed the envelope to the younger man, and started climbing out of the leg pieces of the suit. "Go on! Read it, man!"

Fromm opened the flap and unfolded a piece of official Service stationary. To whom it may concern; it said on top, and then right underneath: To the Staff Officers of Solar Defense:

"The other men have asked me to write this message, and I guess I can do it all right, but I'm afraid I'll have to be pretty informal. I've tried to write it up in military report style, only it's just not the kind of thing that Service language fits.

"For one thing, the very first line of the report form stopped me, because we don't know where we are. Only the Captain knew our orders and he's dead now, and we couldn't find his log, or any of his papers, anywhere in the ship.

"We've set a course for the big fellas by backtracking on the analog comps. That means it will take them almost as long to get back as it took us to get there, but that's just as well, because it will bring them in about the time our tour is due up, and maybe that'll make it easier for them to get in.

"We've done our best to explain to them all the dangers involved—not being sure of the course, even, and being pretty sure you folks won't let them through. But we can't talk to them as easy as they talk to us. We can get over general ideas all right, and any kind of thought that has a solid object nearby to attach to, but the idea of people, of humans that is, not wanting to let them into the System—well, even if we talked the same language ... that is, if they talked a language at all that we could learn ... I don't think they could understand that idea.

"I'm not going to try to tell you anything about them because if they get far enough to show you this, they can explain everything themselves. This message is just to let you know that the four of us are here, safe and sound, and staying behind of our own free will. Since Captain Malcolm's suicide, there's nobody to order us home, and we like it here. Besides, there isn't room enough in the BB for more than five people—humans, I mean—or four of them (they need more food). And they want to send four along on the trip; I think they picked out their leading scientists in different fields, so they can get as much information as possible, and be able to answer your questions.

"I don't know. Probably a Psychofficer or some of our scientists will be able to communicate better with them on this kind of thing. We get along fine for everyday purposes, but you see, I'm not even sure what kind of scientists they're sending.

"The only thing the others and I are sure of, and that's what this message is for, is that you can trust these big fellas up to the limit. They've treated us fine, and they ... well, it's a funny way to put it, but "like" isn't strong enough . . . they just seem to love everybody, humans as well as their own kind.

"We will wait here for further orders. You can probably figure out where we are from the analog comp records.

"Respectfully yours,
"George Gentile, Byrdman 1st Class,

and on behalf of
"Johann Grauber By/2
Tsin Lao-Li, By/2
Arne Carlsen, By/ 3."

"I did a tour of duty with Jim Malcolm once," the Commander said slowly. "He was a pretty good guy. I ... liked him. It's hard to think of him committing suicide. I wish this Gentile had been a little more specific."

Lucille Ardin, Public Relations Deputy at Phobos Post, skimmed the message tape rapidly, and passed it along to the Psychofficer. She cocked one feathery eyebrow cynically. "These boys just don't make sense," she said. "They've been sold something all right . . . but what?"

The Commander shook his head, waiting for Dr. Schwartz to finish reading. "Well, Bob?" he said, as soon as the Psychofficer looked up. "What do you think?"

"I'd like to see that log," Schwartz said thoughtfully. "So would I!" Commander William Hartson had earned his position as Assistant Chief of Staff for Solar Defense. He was that rare thing: an officer

admired equally by the general public and by the men who worked under him. At sixty-eight years of age, he was still in the prime of health and vitality—but old enough to have seen his fill of violence, danger, and death. He was decisive in action; but a decision involving the lives of others would be made with care.

Bob Schwartz had worked with Hartson long enough to understand these things. "This Captain . . . ?" he asked, "Malcolm? Would you say he was ... well, a fairly typical line officer?"

The Commander permitted himself a faint smile. "'Trying to figure the 'military mind' again, Bob? As a matter of fact, I think Jim Malcolm is—was one of the few officers who'd fit your picture pretty well. Courage, devotion, precision—a stubborn s.o.b., who went by the rule book himself and figured everybody else could do at least as much . . . but the kind who'd lay down his life for his Service without thinking twice. It's just suicide that doesn't make sense...."

Harston's voice broke off, and for a moment the only sound in the room was the shuffling of paper. Schwartz still held the message tape, running it through his fingers as if the feel of it would somehow help him to understand its meaning better. Lucy Ardin pushed away the pad on which she'd been scribbling Hartson's explanation of the forcesphere that was holding the BB-3 captive and its alien crew unconscious.

"God, what a story!" she whispered reverently into the silence. She ground out a half-smoked cigarette in the Commander's big ash-tray, and stood up; the silver-sequinned dinner gown in which she'd answered the alarm glittered painfully under the overhead light. It was entirely typical of Lucy that when the call-bell rang in her bedroom, she had pushed back the stool from her dressing table without taking even the extra instant's time to complete the slash of crimson on her lips. Then picking up the portfolio that was always ready for use, she had arrived at the Exec Office, with the lipsticking finished en route, within seconds after the two men who lived on the Post.

"All right," she said briskly. "What happens now? We stitch up some six-tentacled strait-jackets and make our visitors nice and safe, then we take the field off and haul 'em down? Where to? What do we do with them afterwards? Who gets to interview them?"

The Psychofficer looked up sharply, and Hartson chuckled. "Relax, Bob. I'm afraid it's our baby all the way down the line. I wish I was looking forward to it like you two are. I have a hunch it may turn out to be something of a mess. . . . The aliens, by the way, are humanoid, Miss Ardin. Perhaps you'd like to see the tape again? I believe there's a detailed description . . . hey Bob? You're done with it, aren't you?"

"Sorry." Schwartz handed it to the girl, and snapped out of his abstracted mood. "Is it safe to leave them in the stasis a little longer, Bill?" he asked.

"Can't say for sure. With humans, twelve hours doesn't do any harm. These fellas may be dead already for all we know. Best we can do is assume they react like us."

"It seems to me that log must be somewhere on the ship," the Psychofficer said. "If there's time, I think it might be a good idea to try and find it—before we decide anything. A man like Malcolm would have made sure the papers were safe, if he had any way to do it at all."

"You're right." Hartson, too, came up from his reflections and sprang into action. "You're damned right! If it's there we can find it. And if we can't—well, that's an answer too!"

Joe Fromm went back to the BB-3 with two other men from the stand-in Scanliters that had now been ordered up to assist. Between them, they searched the Byrd from nose to nozzles, and behind a panel in the electrical repair cabinet, they found the ship's papers: charts, orders, and the missing log.

Fromm took time to open the log and look at the last page: he hardly had to struggle with his conscience at all over it. Under the dateline, in neat typing, it said:

"Carlsen should have been back an hour ago. Under the circumstances, that means they've got him too. My error was in not leaving after I talked to Tsin last week. Three of us could have brought the ship back. Alone, I don't believe I can do it.

"I have considered taking off anyhow, simply in order to make certain the natives do not gain any further knowledge of the ship. My only choices now are betrayal or self-destruction, and between these two, I am afraid I have no real choice. I must therefore pick the most effective means of suicide, and after

giving the matter careful thought, have determined that a systematic destruction of the control room is a wiser procedure than the complete removal of the ship from the planet.

"By following this course of action, I can at least hope that a future expedition, or perhaps even a rescue-ship, will find this log and understand the danger here.

"This evening, I shall have my last supper in style. Tomorrow, I shall finish the dismantling of the controls, and hide this book, together with the more important of the ship's papers . . . and may God have mercy on my soul!"

Below that, in almost equally neat and legible a script, were two paragraphs.

"Once more I have delayed too long. Gentile, my firstclassman, is at the outer lock now, and he has three of the natives with him. Apparently they now have him sufficiently under control so that he will do for them what they have not dared to do for themselves. They are coming into the ship.

"I expect they are coming for me, and I cannot risk exposing myself to their control. I know too much that they can use. The work of dismantling the controls is barely started; I'm afraid the enlisted men can still repair it readily, but none of them, after all, even know where we are; the star-charts and orders will be hidden with this log. I can only hope the papers remain hidden until the right people come to find them."

Underneath, there was a careful signature: "James Malcolm, Captain, Solar Byrd Service, in command Baby Byrd III," and in parenthesis below that, one word of macabre humor, "(deceased)."

They ordered Scanliter Six down to Phobos Post, to bring in the papers of the BB-3. There was too much material to transmit by radio.

Bolster grinned and slapped his Pfc. on the back. "We're both a couple of bloomin' heroes," he said. "Just the kind of a hero I like to be. Some other guys'll be around when they decide to blast that Baby, and you and me can watch it all from the Post."

"Blast it?" Joe looked up from the log, holding his finger in the page. "You're kidding. Why would they ..."

"Brother, you got the reason wrapped around your finger. One look at that, and they'll blow those babies clear back to where they come from! You can take a chance on a guy who fights fair, but these fellas—"

"How do you know they're fighting us?" Fromm demanded. "You saw the Byrdman's note, the one you brought in . . . This guy Malcolm was off his rocker!"

"Well, I'll buy that one, too. You can't tell with the brass when they get an idea in their heads. But look, kid, you gotta grow up some. That note I brought in—it's pretty easy to get a guy to write something like that if you got him hypnotized to start with, and you're twice his size anyhow—not to mention there being a whole planetful of your kind and only four of his. I can tell you any how, that's how the brass'll see it. Solar Defense doesn't take chances."

"Did you read what it says here?" Fromm insisted. "The part where Malcolm tells us about talking to Tsin? It just doesn't make sense to take it the way he did. He was space-happy, that's all. The Commander isn't going to swallow this stuff."

"You wait and see," the sergeant said again. "And when you do, you're gonna be awful glad you're down there instead of here."

"I . . . look, I know this sounds crazy . . ." Fromm put the log down finally, and blurted out the rest of it. "I'd like to stick around. If anybody goes back out there, I want a chance to take another look at those guys. You think you could take somebody from one of the other ships down with you, and leave me here?"

"It not only sounds crazy," Bolster said. "It is crazy. But it's your body, son. You want to stick around, you can bet nobody else does." He shook his head uncomprehendingly, and began punching out a message to Scanliter Twelve, where Chan Lal would jump at the chance to change spots with his weakwitted Pfc.

"I ordered him to return to ship immediately. He refused. His exact words, insofar as I recall them, were, 'Captain, I wish I could do as you desire me to—or even better that I could convince you to come with me and visit our friends. They are our friends. If you would give them a chance to talk with you, I

think you might understand better. It is hard to explain with just words. But I simply cannot go back now. (Emphasis is mine . . . JM) You are a married man, sir. Perhaps I might feel differently if there were some love waiting for me at home too. But I am young and not yet married, and . . ."

"I broke in here, thinking that I might be able to use persuasion, where authority had failed. I pointed out that there was very little likelihood he would ever be married, if I decided to take up the ship, abandoning him and Gentile on the planet—as of course, I have every right to do in view of their outright insubordination. The natives here, for all their startingly humanoid appearance, are twice our size, and are almost certainly not suitable for breeding, from a purely biologic viewpoint.

"He replied quite earnestly that he hoped I would not take that drastic step . . . that he did not wish to remain permanently among the natives, but that he felt he 'had to' stay long enough to become fully acquainted with them and with their way of life, and to 'be healed of all the hurts and scars of a lifetime in the System.'

"The conversation went on for some time, but the parts I have already recorded contain the gist of it. There was one thing Tsin said, however, that I feel should be included here, along with the train of thought that followed it. If anything should happen to me or to my ship, I suspect it will in some way be connected with my low susceptibility to the emotional point he seemed to be trying to make.

"Tsin reminded me, during the conversation, of a story I have always considered rather bathetic: that of the little orphan girl, in the days before the creches, who threw a note over the high wall of the 'orphanage' saying: 'Whoever you are, I love you.'

"This anecdote, I gathered, was supposed to define for me the nature of the emotional 'healing' he was receiving at the hands—or I suppose I should say the minds—of the natives.

"This particular bit of bathos has been annoying me for years. I have had the story related to me at least three times previously, always to illustrate some similarly obscure emotional point. And I have always wondered afterwards what the end of the story might have been.

"Now it seems very important to be able to forsee the results of the child's action. What happened when the note was picked up and read? And why did the child write it?

"It is this last question, I think, that bothers me the most. A sentimentalist might answer that she meant it, but I find this unlikely. At best, I believe, she meant that she hoped whoever found it would love her; and that is the very best interpretation I can put on it. It seems even more likely that her motive was even more specific: if she threw such billet doux over the wall regularly, I should think eventually one of the sentimentalists would have found it, made some response, and provided the means for her to get over the orphanage wall into the world outside.

"The natives here have a fairly highly-developed technology, and quite obviously a very highly-developed psychology or mental science of some sort. They are telepaths, after all. And they have taken no pains to conceal from us their interest in acquiring a means of space travel.

"There is nothing to pin down, no way to make certain of their real attitudes towards us. They have greeted us warmly, and have done nothing to indicate any hostility or to harm us in any way—nothing but walk off with two of my crew in an apparently friendly fashion.

"Perhaps the wisest course of action would be to leave now, while I still have two men on board. But it is a hard decision to make—to maroon two of my men on an alien planet.

"If I believed for a moment that Gentile and Tsin are responsible for their own actions, I should not hesitate to make that decision. But their behavior is so entirely 'out of character' that I can see no explanation except that they are acting under some form of hypnotic control. As I see it, my duty is to make every effort, including main force, to return them to the ship before I leave."

Hartson read it for the fourth time, and slapped the typescript down on the desk. "I . . . hell, Jim Malcolm was a friend of mine! How can I tell? It sounds like him . . . sure! It sounds like every report he ever wrote, except where it sounds like him being pie-eyed in a bull-session."

He sat down, and let the blank bewilderment he felt show in his eyes as he faced the Psychofficer. "Well, what do you say? I can't decide this one by myself."

Courtesy turned him, halfway through the question to face the PR Chief on the other side of the desk. Courtesy, and common sense, both. Officially, Lucy's job was just to get out the news—or to keep it in,

as seemed wisest. The catch was in that last phrase. In practice, she was both public censor and interpreter-at-large for the Post; and her Civil Service appointment made her the only authority on Phobos who was independent of the Service.

The Commander had been dealing with the P.R. Bureau long enough so that in six months at the Post, Lucy had never yet had any cause to remove her velvet glove. It was easy to forget sometimes about the iron beneath it; one might almost think that she forgot herself.

"I'll check to Doctor Schwartz," she demurred now.

Schwartz managed a smile. "Will you please stop being polite?" he asked. "You've got an opinion. Let's hear it." She hesitated, and he added: "I don't even like what I'm thinking. I better think it a little more before I say it."

"All right." Her voice was controlled, but her eyes gleamed with excitement. She was talking at Schwartz, almost ignoring the Commander. "I think these fellas have the biggest thing since e-m-g. It's the one thing we haven't been able to crack at all; you know it as well as I do. They've got the unbeatable weapon—the psychological weapon. You can't fight 'em, because you don't want to. People call modern P.R. mass hypnotism, but the techniques we've got are child's play compared to what these guys can do. They've got the real thing. The question is, can we get it away from them? Has Psych Section got any way of handling something this hot?"

"I take it," Hartson put in drily, "that you are convinced of the accuracy of Captain Malcolm's interpretation of the events?"

She looked puzzled. "Why . . . yes. How else can you explain it? Has there ever been a case of desertion like that before?"

"Never," he said crisply, and turned to the Psychofficer again. "All right, Bob. You've had some time now. Say your piece."

"Let me start this way" Schwartz said hesitantly. "I think Lucy is right on one respect anyway ... what they've got is an irresistible weapon. If it is a weapon. But to accept that idea, we'd have to presuppose the existence of a war, or at least hostility between them and us. There's a verse that's been running through my head for the last hour. I'm sorry, Bill, to be so roundabout. Just try to put up with me a few minutes, will you? I can't quite remember the whole thing, but it's about an 'enemy' who 'drew a circle to keep me out.' Then there's a line I remember clearly: 'But love and I knew better. We drew a circle to bring him in.' You see what I'm driving at? Certainly our basic attitude toward any alien is potientially hostile. They are guilty until proven innocent."

"We've been all over that ground, Bob," Hartson broke in. "I know your opinion, and you ought to know mine by now. I don't like it either, but it's the reason why we have been consistently successful in such contacts."

"Consistently victorious, I'd say. All right, let's just put it that I am emotionally more inclined to accept Gentile's attitude than Malcolm's. I see no evidence to support the view that these people are using a hypnotic weapon; it is at least as likely that the feeling they projected at our men was honest and uncalculated. Why not assume for a moment that the occupants of that ship really are four of their leading scientists, sent here to exchange knowledge with us?"

"You've got a point there," Lucy Ardin said unexpectedly. "An act of aggression against these four could make trouble if they were on the level to start with. I think it gets down to a good old-fashioned problem in shielding. Has Psych Section got any way of handling these boys if we bring them in, Doc?"

He considered for a moment.

"That depends. We've got anti-hypnotics, and we've got personnel specially trained against susceptibility to hypnosis. But the Beebee had the same drugs, and should have had some trained personnel too. There's a point, Bill. I'd like to see the basic psych ratings on all five of those men, if you can get 'em. Especially Malcolm's. I could get the papers myself," he added, smiling weakly, "Through channels, it wouldn't take more than three or four weeks. Can you get 'em fast?"

"I can try." Hartson jumped at the chance for concrete action. He rang for an aide, and scribbled an order to Records in his own handwriting. "Put this on the facscan," he said briskly, "and give it a top-rush priority. I think I see what you're getting at, Bob," he said, as the door closed behind the uniformed girl.

"I remember I was kind of surprised myself when I heard Jim had gone into the Byrd Service. Couldn't imagine him going Outside voluntarily. He was an Earthman all the way through. Why he didn't even believe Marsmen were really human. Is that what you wanted to know?"

"Part of it. That much was pretty clear in his report. I want to know the comparative resistance of the crew members to hypnosis and what the other men's attitudes were toward alien life—things like that."

"I thought all Byrdmen had to pass standardized tests for that," the PR Chief said, just a little sharply.

"They do. At least, the enlisted men do. But there's still a range of individual variation. And officers . . . well, they have a tough time getting enough men to command the Beebees. I think just about any regular line officer who volunteered would pass the test. . . ."

He looked to Hartson for confirmation, and got a reluctant nod; then he went on. "Even with the men, it depends where they took their tests. That'll show on the papers. Psych Section isn't too—efficient—in some spots."

"I'll bear that in mind," Lucy said tautly. "But I'd still like to know just how much Psych Section right here is equipped to do. You say you've got the drugs and the personnel, Doctor. All right, then, if the Commander brings these fellows in alive, can you handle them? If you can't . . ." She shrugged.

"That depends." The Psychofficer declined the challenge of her tone and went on deliberately: "We can handle it all right ... if it's as simple a thing as hypnosis. It happens that I don't believe Captain Malcolm was right about that. I can tell better after I see his psych ratings. . . ."

"All right! Then I take it we're going to sit around here for the next few hours waiting to see what the tests say? That gives you a little more time to make up your mind. Well, if I'm going to spend the night here, I'd like to be a little more comfortable. Do you mind if I run home for a change of clothes while we're waiting, Commander?"

Hartson eyed the shimmering stiffness of her dinner gown unhappily. "I'm sorry, Miss Ardin. I hope you'll understand. This qualifies as a Major Policy decision, and I'm afraid I'll have to ask you not to leave until we are finished with whatever we decide."

She shrugged again, and sat down. "Could I have a typer then? I could be getting some of my story into shape."

Schwartz laughed. From the vantage point of the smoking jacket and carpet slippers in which he'd answered the emergency call, he said easily, "Bill, couldn't you order something from Supply for the lady? S.I. coveralls, or something like that? It might make a difference in our decision if she could be more comfortable."

"I can do that," Hartson said shortly. "And of course you may have any equipment you wish, Miss Ardin."

"Thank you, Commander," she said, too sweetly. "I'm sure it will help. I wonder if perhaps we could facilitate matters by sending for the doctor's uniform too? If I'm to be made more flexible, I suspect a change of clothes might make him more decisive."

Hartson grinned. "She's got a point there, Bob," he said mildly.

"All right!" The Psychofficer stood up abruptly, paced the length of the small room, and wheeled to face them. "All right, I'll tell you what I think. I think the human race is too damn scared and too damn hungry to be able to face this thing. Hungry for security, for reassurance, for comfort—for love. And scared! Scared of anything different, anything Outside, anything one degree more intense than the rules allow.

"Also—pardon my bluntness, Bill—I think Captain Malcolm's reaction was typical of all that's sickest in our System. The very fact that we are seriously sitting here considering how much of a menace these four individuals represent—four humanoid beings, who come armed with nothing but a message of love! That very fact—that we sit and stew over it, I mean—makes them dangerous.

"You want to know what I think? I think what they've got—whether it's a weapon or a natural way of life, whether it's hypnotism or open-hearted honesty, or anything else, is—not unbeatable, not ultimate, not any of the other adjectives that've been thrown around here tonight but, specifically, irresistible.

"I think all of us—you, Bill, wanting to do the 'blameless' thing—and you, suffering through hours of torment in those ridiculous clothes because they're supposed to make you 'attractive'—and maybe me

most of all, hating to say what I know because it's brutal—all of us and the rest of the System too, have one crying need that the lousy culture we've made for ourselves can't possibly fulfill.

"We want love. We need love. Every poor blessed damned soul among us. And we need it so much, it can be used as a weapon against us!

"Understand, please, just because it's important to me to have it on the record, that I don't for a moment believe it's hypnotism they're using. I think they mean it. But ..."

"Well, at last!" Lucy Ardin sighed and moved a tense finger for the first time since he'd started talking. "Then you think you can handle it?"

Schwartz stared at her in amazement. "Didn't you hear anything I said? No. No, I don't think I can handle it, or that anybody else can. I don't believe it's hypnosis, but I can't see that that matters. Or rather, I might feel more at ease about it if I could believe that.

"Damn it, Bill, I hate this! I want you to understand clearly that the advice I am giving you is against my own inclinations and instincts. Now look: if it is to be regarded as a weapon—and I see no other way we may regard it from the point of view of Solar Defense—then it is irresistible. There is no way to tie or bind the minds of these—people—except by keeping them unconscious, which would automatically defeat any purpose of investigation."

He picked up his copy of the summary and excerpts from the log, riffled through the pages, and threw it down again, sadly. "Bill, I'd give all my ratings, and ten years off my life for the chance to talk to those guys myself, and find out . . . but my advice as an officer of Solar Defense is that we have no choice but to destroy the aliens before they regain consciousness."

Both the others were on their feet as he finished. "God damn it, Bob!" Hartson shouted. "You can't just . . ."

"Don't you see?" Lucy Ardin's crisp voice cut in. "All he's saying is he doesn't know; none of us know, and I want to find out! I'm not scared of it. Maybe you need love that bad, Psychofficer, but I don't!" She sat down again, triumphant and breathless.

The Commander ignored her. "Is that your last word, Bob? Shall I take that as your decision?"

"I'm afraid so, Bill. You heard Lucy just now. Remember what Malcolm was wondering, about the end of the story of the little orphan girl? That's one answer. In terms of the little girl, it would mean that whoever found the note took it back inside and told the authorities that one of their children was writing dirty notes—so the kid could be investigated. That's just one ending. There are lots of others, but don't forget the one he was afraid of. Don't forget all the sentimentalists—like me for instance. If I were to forget my duty as an officer of the Service, I would want nothing more than to get the little girl out of the orphanage, just so she could love them.

"And don't forget, either, that there would be any number of different answers besides. And that everyone would feel strongly about his own solution. You have your choice, Commander. You can destroy them in the name of Security and Safety—or you can risk a System-wide civil war, and total 'conquest' by an alien race. What'll you have?"

Commander Hartson smiled wryly. "I'll take vanilla," he said distinctly, and rang for an aide. The uniformed girl appeared in the doorway. "Jenny," he said, "I want orders typed up for countersigning to arrange all details for the moving of the Baby Byrd III to Deimos Isolation Post immediately. The ship will be piloted by Pfc. Joseph Fromm, now aboard the Scanliter Twelve. We will want a continuous radio report from the pilot starting with his entry into the ship.

"Separate orders are to go to Scanliters Seventeen and Twenty-two, to follow the BB-3 in with all artillery on the ready. They are to maintain radio silence, with vocal reception open. Private Fromm is to know nothing of the ready-fire orders. The word "apple" will be the signal to fire, if I decide it is necessary to destroy the ship. Is that all clear?"

"Yes, sir."

The door closed quietly behind her, and Bob Schwartz stood up and walked around the desk to shake the Commander's hand.

"They say you're a great man, Bill," he said quietly. "I'm beginning to think you are. Now, I'd like to ask a favor I'm not entitled to. I did my duty as I saw it, and gave you my advice as an officer of the S.D.

Now I'm asking for a privilege as an old friend. If you're going to try bringing that ship in, I'd like to be aboard her on the way. I want to be there when they come to. I'm a qualified observer and it shouldn't take more than an hour to get me up there. It won't be much of a delay."

The Commander's voice was icy. "I think you know that's impossible, Bob. Certainly you're qualified—too qualified. We have to have a man on that ship, but we only need one man, and he has to be expendable. The only qualifications he needs are to know how to pilot the ship, and to be able to talk continuously. We already have a volunteer for the job, and he's acceptable. If you want to give him any instructions about what to look for or what to talk about, you have five minutes to prepare them. After that, the action will start. You understand, I am taking your advice. But I feel I must first prove to myself that your premises are correct. I want to see just how irresistible they are."

He turned to the P.R. Chief, and went on as coldly: "You are free to leave now, Miss Ardin. You'll want to hear the reports as they come in, I imagine. It should be about twenty minutes before the ship is actually under way."

Pfc. Joe Fromm walked through the inner airlock into the BB-3, climbed out of his space suit, and made a quick examination of the cabins. Three of the aliens, still unconscious, were bound ankle to ankle and wrist to wrist on the floor of one cabin. That door was to be locked. The other cabin was empty, as it was supposed to be.

"Cabins okay as planned," he muttered into the mouthpiece, strapped to his chest. "Corridor and cabinets clear." He entered the control room, and tested the manacles restraining the outside limbs of the alien who had formerly occupied the pilot's seat, and was now secured in a specially built chair. "Alien in control room unconscious and I'd say pretty safe, the way he's tied down. Instrument check: electronic controls, okay; radar, okay; rocket controls . . ."

He went down the list, cheerful with the familiar routine, talking easily, untroubled by the need for extra breaths between words that had plagued his inspection of the aliens.

"I am now strapping myself into the pilot-seat, and preparing for takeoff. Ready to leave as soon as I am signaled free . . . signal received, blasting off now ... utilizing minimum acceleration, coming in at Deimos on direct approach . . . the fella in the control room here seems to be wiggling his toes . . .you wouldn't think they'd have toes just like us, would you? . . . he's coming to, all right . . . I am on direct course to Deimos at min-axe still . . . I think maybe everything'11 work out okay . . . .

He had to watch the instruments with one eye and the alien with the other. The—whatever he was—didn't seem to be trying to bust loose at all.

"He's moving his head now, and looking around ... looking at his handcuffs, and the chair, trying to turn his head around to see where his legs are cuffed underneath, but he isn't struggling at all . . . looking me over now . . . I caught his eye for a minute just then, or he caught mine. I think he wants me to look at him again, but I'll try not to. He has to be able to fasten my attention on something to hypnotize me, doesn't he? I am moving my eyes around, checking instruments, and thinking as many different thoughts as I can. . . .

"We are now approaching an orbit around Mars, decelerating. My radar screen shows two Scanliters following us . . . should they be so close inside range in case it is necessary to fire on us? . . . Please don't . . . that's not my thought!

"It . . . he's thinking at me . . . they are telepaths, all right. He doesn't seem to, I don't know, the first thought I was sure wasn't mine was, please don't fire on us, we are friends. It seemed so natural I started to say it. His thoughts aren't in clear words now ... I heard once that to 'receive' stuff like this you have to not concentrate . . . something like that. Maybe I'm trying too hard . . . No. I'm too tense ... that was his thought, not mine, he was telling me not to be so tense and I'd understand. . . .

"He says—you can call it `says'; it's enough like talking —he says they're friends, they like us. They want to be friends. He keeps saying it different ways but it's the same feeling all the time, with different—pictures, I guess to go with it. . . ."

Pictures! Hey, stay out of there!

"He wants me to . . . to love him. That's what he says. He . . . men don't feel that way about each other . . . no! . . . loves me, he loves all—not men, some kind of thought for his own people, and

all—living creatures —those are on his home planet. He loves all men, this time he means men."

That was silly of me . . . he wasn't being nasty . . . he just meant love . . . that picture was mine ...

"He says the pictures I get for meanings are all my own, so I might get his meaning wrong sometimes. He makes a picture in his mind, the way he'd visualize a thought on his world, but I see it the way it would be on mine. . . .

"Listen, Captain Malcolm just didn't understand. This is important . . . they don't mean the kind of thing we do when they say 'love.' They mean liking and sharing and . . . we haven't got the right words for it, but it's all right. It's not a grabby feeling, or taking anything, or hurting anybody. There's nothing to be afraid of. The only thing that Captain got right was that story about the kid. . . ."

On Phobos Base, Lucy Ardin's typer clacked eagerly, while Bill Hartson and Bob Schwartz turned from the viewer together. Hartson was a soldier; his face was stern and set, as he reached for the mike. The only emotion he showed was the single flash from his eyes to his friend's when he looked at Schwartz and saw the tears of frustration rolling unashamed down the psychofficer's face.

"... the one who threw the note over the wall. That is the way they feel. He's telling me now, to tell all of you, he's agreeing, he says I understand now, it's the way human beings love when they're kids, like the note the girl wrote: Whoever you are . . ."

The Commander spoke one word. "Apple."

"I love you."

PEEPING TOM

First Publication: Spring 1954.

YOU TAKE a boy like Tommy Bender—a nice American boy, well brought-up in a nice, average, middle-class family; chock-full of vitamins, manners and baseball statistics; clean-shaven, soft-spoken, and respectful to women and his elders. You take a boy like that, fit him out with a uniform, teach him to operate the most modern means of manslaughter, reward him with a bright gold bar, and send him out to an exotic eastern land to prove his manhood and his patriotism.

You take a kid like that. Send him into combat in a steaming jungle inferno; teach him to sweat and swear with conviction; then wait till he makes just one wrong move, pick him out of the pool of drying blood, beat off the flies, and settle him safely on a hospital cot in an ill-equipped base behind the lines, cut off from everyone and everywhere, except the little native village nearby. Let him rest and rot there for a while. Then bring him home, and pin a medal on him, and give him his civvies and a pension to go with his limp. You take a boy like Tommy Bender, and do all that to him, you won't expect him to be quite the same nice, apple-cheeked youngster afterwards.

He wasn't.

When Tommy Bender came home, he was firmly disillusioned and grimly determined. He knew what he wanted out of life, had practically no hope of getting it, and didn't much care how he went about getting the next best things. And in a remarkably short time, he made it clear to his erstwhile friends and neighbors that he was almost certain to get anything he went after. He made money; he made love; he made enemies. Eventually, he made enough of a success so that the enemies could be as thoroughly ignored as yesterday's woman. The money, and the things it bought for him, he took good care of.

For almost five years after he came home, Tommy Bender continued to build a career and ruin reputations. People tried to understand what had happened to him; but they didn't really.

Then, abruptly, something happened to change Tommy. His business associates noticed it first; his family afterwards. The girls he was seeing at the time were the last to know, because he'd always been undependable with them, and not hearing from him for two or three weeks wasn't unusual.

What happened was a girl. Her name was Candace, and when she was married to Tommy, seven weeks after her arrival, the papers carried the whole romantic story. It was she who had nursed him back to health in that remote village on the edge of the jungle years ago. He'd been in love with her then, but she'd turned him down.

That last part wasn't in the news story of course, but it got around town just as fast as the paper did. Tommy's bitterness, it seemed, was due to his long-frustrated love. And anyone could see how he'd changed since Candace came back to him. His employees, his debtors, his old friends and discarded women, his nervous mother and his angry brother all sighed with relief and decided everything was going to be all right now. At last they really understood.

But they didn't. They didn't, for instance, understand what happened to Tommy Bender in that God-forsaken little town where he'd spent two months on crutches, waiting for his leg to heal enough to travel home.

It was hot and sticky in the shack. The mattress was lumpy. His leg itched to the very fringes of madness, and the man on his right had an erratically syncopated snore that took him past the raveled edge straight to insanity. All he needed to make the torture complete was the guy on his left—and the nurse.

The nurse was young and round and lithe, and she wore battle fatigues: slacks, and a khaki shirt that was always draped against her high, full breasts in the damp heat. Her hair, dark blonde or light brown, was just long enough to be pinned back in a tiny bun, and just short enough so wisps of it were always escaping to curl around her ears or over her forehead.

When she bent over him to do any of the small humiliating services he needed done for him, he could see tiny beads of sweat on her upper lip, and that somehow was always the one little touch too much.

So that after she moved on to the next bed, and beyond it, it would be torture to have Dake, the guy on the left, turn toward him and start describing, graphically, what he would do if he could just get his remaining arm out of the cast for fifteen minutes some day.

You see Tommy Bender was still a nice young man then—after the combat, and the wound, and the flies, and the rough hospitalization.

Dake was nothing of the sort. He'd been around, and he knew exactly what value he placed on a woman. And he enjoyed talking about it.

Tommy listened because there was no way not to, and he wriggled and sweated and suffered, and the itch in his leg got worse, and the stench from the garbage pile outside became unbearable. It went on that way, hour after hour and day after day, punctuated only by the morning visit from the medic, who would stop and look him over, and shake a weary, discouraged head, and then go on to the next man.

The leg was a long time healing. It was better after Dake left, and was replaced with a quietly dying man who'd got it in the belly. After him, there was a nice young Negro soldier, somewhat embarrassed about being in sick bay with nothing more dramatic than appendicitis. But at least, now, Tommy could keep his thoughts and dreams about Candace to himself, untarnished.

Then one day, when it had begun to seem as if nothing would ever change again in his life, except the occupants of the beds on either side of him, something happened to break the monotony of discomfort and despair. The medic stopped a little longer than usual in front of Tommy's cot, studied the neat chart Candy was always filling in, and furrowed his brow with concern. Then he muttered something to Candace, and she looked worried too. After that, they both turned and looked at Tommy as if they were seeing him for the first time, and Candy smiled, and the doctor frowned a little deeper.

"Well, young man," he said, "We're going to let you get up."

"Thanks, doc," Tommy said, talking like a GI was supposed to. "What should I do with the leg? Leave it in bed?"

"Ha, ha," the doctor laughed. Just like that. "Good to see you haven't lost your spirit." Then he moved on to the next bed, and Tommy lay there wondering. What would he do with the leg?

That afternoon, they came for him with a stretcher, and took him to the surgery shack, and cut off the cast. They all stood around, five or six of them, looking at it and shaking their heads and agreeing it was pretty bad. Then they put a new cast on, a little less bulky than the first one, and handed him a pair of crutches, and said: "Okay, boy, you're on your own."

An orderly showed him how to use them, and helped him get back to his own bed. The next day he practiced up a little, and by the day after that, he could really get around.

It made a difference.

Tommy Bender was a nice normal American boy, with all the usual impulses. He had been weeks on end in the jungle, and further weeks on his back in the cot. It was not strange that he should show a distinct tendency to follow Candy about from place to place, now he was on his feet again.

The pursuit was not so much hopeful as it was instinctive. He never, quite, made any direct advance to her. He ran little errands, and helped in every way he could, as soon as he was sufficiently adept in the handling of his crutches. She was certainly not ill-pleased by his devotion, but neither, he knew, was she inclined to any sort of romantic attachment to him.

Once or twice, acting on private advice from the more experienced ambulant patients, he made tentative approaches to some of the other nurses, but met always the same kindly advice that they felt chasing nurses would not be good for his leg. He accepted his rebuffs in good part, as a nice boy will, and continued to trail around after Candy.

It was she, quite inadvertently, who led him to a piece of good fortune. He saw her leave the base one early evening, laden with packages, and traveling on foot. Alone. For a GI, these phenomena might not have been unusual. For a nurse to depart in this manner was extraordinary, and Candace slipped out so quietly that Tommy felt certain no one but himself was aware of it.

He hesitated about following at first; then he started worrying about her, threw social caution to the winds, and went swinging down the narrow road behind her, till she heard him coming and turned to look, then to wait.

She was irritated at first; then, abruptly, she seemed to change her mind.

"All right, come along," she said. "It's just a visit I'm going to pay. You can't come in with me, but you can wait if you want to, and walk me back again."

He couldn't have been more pleased. Or curious.

Their walk took them directly into the native village, where Candace seemed to become confused. She led Tommy and his crutches up and down a number of dirty streets and evil-looking alleys before she located the small earthen hut she was looking for, with a wide stripe of blue clay over its door.

While they searched for the place, she explained nervously to Tommy that she was fulfilling a mission for a dead soldier, who had, in a period of false recovery just before the end, made friends with an old man of this village. The dying GI had entrusted her with messages and gifts for his friend—most notably a sealed envelope and his last month's cigarette ration. That had been three weeks ago, and she'd spent the time since working up her courage to make the trip. Now, she confessed, she was more than glad Tommy had come along.

When they found the hut at last, they found a comparatively clean old man sitting cross-legged by the doorway, completely enveloped in a long gray robe with a hood thrown back off his shaven head. There was a begging bowl at his side, and Tommy suggested that Candace might do best just to leave her offerings in the bowl. But when she bent down to do so, the old man raised his head and smiled at her.

"You are a friend of my friend, Karl?" he asked in astonishingly good English.

"Why . . . yes," she fumbled. "Yes. Karl Larsen. He said to bring you these. . . ."

"I thank you. You were most kind to come so soon." He stood up, and added, just to her, ignoring Tommy. "Will you come inside and drink tea with me, and speak with me of his death?"

"Why, I—" Suddenly she too smiled, apparently quite at ease once more. "Yes, I'd be glad to. Thank you. Tommy," she added, "would you mind waiting for me? I . . . I'd appreciate having someone to walk back with. It won't be long. Maybe—" she looked at the old man who was smiling, waiting—"maybe half an hour," she finished.

"A little more or less perhaps," he said, in his startlingly clear American diction. "Perhaps your friend would enjoy looking about our small village meanwhile, and you two can meet again here in front of my door?"

"Why, sure," Tommy said, but he wasn't sure at all. Because as he started to say it, he had no intention of moving away from that door at all while Candy was inside. He'd stay right there, within earshot. But by the time the second word was forming in his mouth, he had a sudden clear image of what he'd be doing during that time.

And he was right.

No sooner had Candy passed under the blue-topped doorway than a small boy appeared at Tommy's other elbow. The youngster's English was in no way comparable to that of the old man. He knew just two words, but they were sufficient. The first was: "Youguhcigarreh?" The second: "Iguhsisseh."

Tommy dug in his pockets, came out with a half-full pack, registered the boy's look of approval, and swung his crutches into action. He followed his young friend up and down several of the twisty village alleys, and out along a footpath into the forest. just about the time he was beginning to get worried, they came out into a small clearing, and a moment later "Sisseh" emerged from behind a tree at the far edge.

She was disconcertingly young, but also unexpectedly attractive: smooth-skinned, graceful, and roundly shaped. . . .

Somewhat later when he found his way back to the blue-topped door in the village, Candy was already waiting for him, looking thoughtful and a little sad. She seemed to be no more in the mood for conversation than was Tommy himself, and they walked back to the base in almost complete silence. Though he noted once or twice that her quiet mood was dictated by less happy considerations than his own, Tommy's ease of mind and body was too great at that moment to encourage much concern for even so desirable a symbol of American womanhood as the beautiful nurse, Candace.

Not that his devotion to her lessened. He dreamed of her still, but the dreams were more pleasantly romantic, and less distressingly carnal. And on those occasions when he found his thoughts of her verging once more toward the improper, he would wander off to the little village and regain what he felt was a more natural and suitable attitude toward life and love in general.

Then, inevitably, there came one such day when his young procurer was nowhere to be found. Tommy went out to the clearing where Sisseh usually met them, but it was quiet, empty and deserted. Back in the village again, he wandered aimlessly up and down narrow twisting streets, till he found himself passing the blue-topped doorway of the old man whose friendship with a dead GI had started the whole chain of events in motion.

"Good morning, sir," the old man said, and Tommy stopped politely to return the greeting.

"You are looking for your young friend?"

Tommy nodded, and hoped the warmth he could feel on his face didn't show. Small-town gossip, apparently, was much the same in one part of the world as in another.

"I think he will be busy for some time yet," the old man volunteered. "Perhaps another hour . . . his mother required his services for an errand to another village."

"Well, thanks," Tommy said. "Guess I'll come back this afternoon or something. Thanks a lot."

"You may wait here with me if you like. You are most welcome," the old man said hastily. "Perhaps you would care to come into my home and drink tea with me?"

Tommy's manners were good. He had been taught to be respectful to his elders, even to the old colored man who came to clip the hedges. And he knew that an invitation to tea can never be refused without excellent good reason. He had no such reason, and he did have a warm interest in seeing his dusky beauty just as soon as possible. He therefore overcame a natural reluctance to become a visitor in one of the (doubtless) vermin-infested native huts, thanked the old man politely, and accepted the invitation.

Those few steps, passing under the blue-topped doorway for the first time, into the earthen shack, were beyond doubt the most momentous of his young life. When he came out again, a full two hours later, there was nothing on the surface to show what had happened to him . . . except perhaps a more-than-usually thoughtful look on his face. But when Sisseh's little brother pursued him down the village street, Tommy only shook his head. And when the boy persisted, the soldier said briefly: "No got cigarettes."

The statement did not in any way express the empty-handed regret one might have expected. It was rather an impatient dismissal by a man too deeply immersed in weighty affairs to regard either the cigarettes or their value in trade as having much importance.

Not that Tommy had lost any of his vigorous interest in the pleasures of the flesh. He had simply

acquired a more far-sighted point of view. He had plans for the future now, and they did not concern a native girl whose affection was exchangeable for half a pack of Camels.

Swinging along the jungle path on his crutches, Tommy was approaching a dazzling new vista of hope and ambition. The goals he had once considered quite out of reach now seemed to be just barely beyond his grasp, and he had already embarked on a course of action calculated to remedy that situation. Tommy was apprenticed to telepath.

The way it happened, the whole incredible notion seemed like a perfectly natural idea. Inside the one-room hut, the old man had introduced himself as Armod Something-or-other. (The last name was a confusion of clashing consonants and strangely inflected vowels that Tommy never quite got straight.) He then invited his young guest to make himself comfortable, and began the preparation of the tea by pouring water from a swan-necked glass bottle into a burnished copper kettle suspended by graceful chains from a wrought-iron tripod over a standard-brand hardware-store Sterno stove.

The arrangement was typical of everything in the room. East met West at every point with a surprising minimum of friction, once the first impact was absorbed and the psychological dislocation adjusted.

Tommy settled down at first on a low couch, really no more than a native mat covering some woven webbing, stretched across a frame that stood a few inches off the floor on carved ivory claws. But he discovered quickly enough that it did not provide much in the way of comfort for a long-legged young man equipped with a bulky cast. An awful lot of him seemed to be stretched out over the red-and-white tile pattern linoleum that covered the center of the dirt floor . . . and he noticed, too, that his crutches had left a trail of round dust-prints on the otherwise spotless surface.

He wiped off the padded bottoms of the crutches with his clean handkerchief, and struggled rather painfully back to his feet.

The whole place was astonishingly clean. Tommy wandered around, considerably relieved at the absence of any very noticeable insect life, examining the curious contents of the room, and politely refraining from asking the many questions that came to mind.

The furnishing consisted primarily of low stools and tables, with a few shelves somehow set into the clay wall. There was one large, magnificently carved mahogany chest, which might have contained Ali Baba's fortune; and on a teakwood table in the corner, with a pad on the floor for a seat, stood a large and shiny late-model American standard typewriter.

A bookshelf near the table caught Tommy's eye, and the old man, without turning around, invited his guest to inspect it. Here again was the curious mixture of East and West: new books on philosophy, psychology, semantics, cybernetics published in England and America. Several others, though fewer, on spiritualism, psychic phenomena, and radio-esthesia. And mixed in with them, apparently at random, short squat volumes and long thin ones, lettered in unfamiliar scripts and ideographs.

On the wall over the bookshelf hung two strips of parchment, such as may be seen in many eastern homes, covered with ideograph characters brilliantly illuminated. Between them was a glass-faced black frame containing the certification of Armod's license to practice medicine in the state of Idaho, U.S.A.

It did not seem in any way unnatural that Armod should come over and answer explicitly the obvious questions that this collection of anomalies brought to mind. In fact, it took half an hour or more of conversation before Tommy began to realize that his host was consistently replying to his thoughts rather than to his words. It took even longer for him to agree to the simple experiment that started him on his course of study.

But not much longer. An hour after he first entered the hut, Tommy Bender sat staring at eight slips of white paper on which were written, one word to each, the names of eight different objects in the room. The handwriting was careful, precise and clear. Not so the thoughts in Tommy's mind. He had "guessed," accurately, five of the eight objects, holding the faded piece of paper in his hand. He tried to tell himself it was coincidence; that some form of trickery might be involved. The hand is quicker than the eye. . . . But it was his own hand that held the paper; he himself unfolded it after making his guess. And Armod's calm certainty was no help in the direction of skepticism.

"Well," Tommy asked uncertainly, "what made you think I could do it?"

"Anyone can do it," Armod said quietly. "For some it is easier than for others. To bring it under control, to learn to do it accurately, every time, is another matter altogether. But the sense is there, in all of us."

Tommy was a bit crestfallen; whether he believed in it or not, he preferred to think there was something a bit special about it.

Armod smiled, and answered his disappointment. "For you, it is easier I think than for many others. You are—ah, I despise your psychiatric jargon, but there is no other way to say it so you will understand—you are at ease with yourself. Relaxed. You have few basic conflicts in your personality, so you can reach more easily into the —no it is not the 'subconscious.' It is a part of your mind you have simply not used before. You can use it. You can train it. You need only the awareness of it, and—practice."

Tommy thought that over, slowly, and one by one the implications of it dawned on him.

"You mean I can be a mind reader? Like the acts they do on the stage? I could do it professionally?"

"If you wished to. Few of those who pretend to read minds for the entertainment of others can really do so. Few who have the ability and training would use it in that way. You—ah, you are beginning to grasp some of the possibilities," the old man said, smiling.

"Go on," Tommy grinned. "Tell me what I'm thinking now."

"It would be most . . . indelicate. And . . . I will tell you; I do not believe you will have much chance of success, with her. She is an unusual young woman. Others . . . you will be startled, I think, to find how often a forbidding young lady is more hopeful even than willing."

"You're on," Tommy told him. "When do the lessons start, and how much?"

The price was easy; the practice was harder. Tommy gave up smoking entirely, suffered a bit, got over it, and turned his full attention to the procedures involved in gaining "awareness." He lay for hours on his cot, or sat by himself on a lonely hillside in the afternoon sun, learning to sense the presence of every part of himself as fully as that of the world around him.

He learned a dozen different ways of breathing, and discovered how each of them changed, to some slight degree, the way the rest of his body "felt" about things. He found out how to be completely receptive to impressions and sensations from outside himself; and after that, how to exclude them and be aware only of his own functioning organism. He discovered he could feel his heart beating and his food digesting, and later imagined he could feel the wound in his leg healing, and thought he was actually helping it along.

This last piece of news he took excitedly to Armodalong with his full ration of cigarettes—and was disappointed to have his mentor receive his excited outpourings with indifference.

"If you waste your substance on such side issues," Armod finally answered his insistence with downright disapproval, "you will be much longer in coming to the true understanding."

Tommy thought that over, swinging back along the jungle path on his crutches, and came to the conclusion that he could do without telepathy a little longer, if tic could just walk on his own two feet again. Not that

really believed the progress was anything but illusory—until he heard the medics' exclamations of surprise the next time they changed the cast.

After that, he was convinced. The whole rigamorole was producing some kind of result; maybe it would even, incredibly, do what Armod said it would.

Two weeks later, Tommy got his first flash of certainty. He was, by then, readily proficient in picking thoughts out of Armod's mind; but he knew, too, that the old man was "helping" him . . . maintaining no barriers at all against invasion. Other people had habitual defenses that they didn't even know how to let down. Getting through the walls of verbalization, habitual reaction, hurt, fear and anger, to find out what was really happening inside the mind of a telepathically "inert" person took skill and determination.

That first flash could not in any way be described as "mind reading." Tommy did not hear or read or see any words or images. All he got was a wave of feeling; he was sure it was not his own feeling only because he was just then on his way back from a solitary hillside session in which he had, with considerable thoroughness, identified all the sensations his body then contained.

He was crossing what was laughably referred to as the "lawn"—an area of barren ground decorated with unrootable clumps of tropical weeds, extending from the mess hall to the surgery shack and surrounded by the barracks buildings—when the overwhelming wave of emotion hit him.

It contained elements of affection, interest, and—he checked again to be certain—desire. Desire for a man. He was quite sure now that the feeling was not his, but somebody else's.

He looked about, with sudden dismay, aware for the first time of a difficulty he had not anticipated. That he was "receiving" someone else's emotions he was certain; whose, he did not know.

In front of the surgery shack, a group of nurses stood together, talking. No one else was in sight. Tommy realized, unhappily, that the lady who was currently feeling amorous did not necessarily have to be in his line of vision. He had learned enough about the nature of telepathy by then to understand that it could penetrate physical barriers with relative ease. But he had a hunch. . . .

He had learned enough, too, to understand some part of the meaning of that word, "hunch." He deliberately stopped thinking, insofar as he could, and followed his hunch across the lawn to the group of nurses. As he approached them, he let instinct take over entirely. Instead of speaking to them, he made as if to walk by, into the shack.

"Hey there, Lieutenant," one of them called out, and Tommy strained his muscles not to smile with delight. He turned around, innocently, inquiring.

"Surgery's closed now," the little red-headed one said sharply. That wasn't the one who'd called to him. It was the big blonde; he was almost sure.

"Oh?" he said. "I was out back of the base, on the hill there, and some damn bug bit me. Thought I ought to get some junk put on it. You never know what's hit you with the kind of skeeters they grow out here." He addressed the remark to the group in general, and threw in a grin that he had been told made him look most appealing like a little boy, meanwhile pulling up the trouser on his good leg to show a fortuitously placed two-day-old swelling. "One leg out of commission is enough for me," he added. "Thought maybe I ought to kind of keep a special eye on the one that still works." He looked up, and smiled straight at the big blonde.

She regarded the area of exposed skin with apparent lack of interest, hesitated, jangled a key in her pocket, and said abruptly, "All right, big boy."

Inside the shack, she locked the door behind them, without appearing to do anything the least bit unusual. Then she got a tube of something out of a cabinet on the wall, and told him to put his leg up on the table.

Right then, Tommy began to understand the real value of what he'd learned, and how to use it. There was nothing in her words or her brisk movements to show him how she felt. While she was smoothing the gooey disinfectant paste on his bite, and covering it with a bandage, she kept up a stream of light talk and banter that gave no clue at all to the way she was appraising him covertly. Tommy had nothing to do but make the proper responses—two sets of them.

Out loud, he described with appropriate humor the monstrous size and appearance of the bug that they both knew hadn't bitten him. But all the time he kept talking and kidding just as if he was still a nice American boy, he could feel her wanting him, until he began to get confused between what she wanted and what he did; and his eyes kept meeting hers, unrelated to the words either of them were saying, to let her know he knew.

Each time her hand touched his leg, it was a little more difficult to banter. When it got too difficult, he didn't.

Later, stretched out on his cot in the barracks, he reviewed the entire incident with approval, and made a mental note of one important item. The only overt act the girl made—locking the door—had been accompanied by a strong isolated thought surge of "Don't touch me!" Conversely, the more eager she felt, the more professional she acted. Without the aid of his special one-way window into her mind, he knew he would have made his play at precisely the wrong moment—assuming he'd had the courage to make it at all. As it was, he'd waited till there was no longer any reason for her to believe that he'd even noticed the locking of the door.

That was Lessen Number One about women: Wait! Wait till you're sure she's sure. Tommy repeated

it happily to himself as he fell asleep that night; and only one small regret marred his contentment. It wasn't Candace. . . .

Lesson Number Two came more slowly, but Tommy was an apt pupil, and he learned it equally well: Don't wait too long! The same simple forthright maneuver, he found, that would sweep a normally co-operative young lady literally off her feet if the timing was right would, ten minutes later, earn him nothing more than an indignant slap in the face. By that time, the girl had already decided either that he wasn't interested (insulted); or that he wasn't experienced enough to do anything about it (contemptuous); or that he was entirely lacking in sensitivity, and couldn't possibly understand her at all (both).

These two lessons Tommy studied assiduously. Between them, they defined the limits of that most remarkable point in time, the Precise Moment. And the greatest practical value of his new skill, so far as Tommy could see, was in being able to locate that point with increasing accuracy. The most noticeable property of the human mind is its constant activity; it is a rare man—and notoriously an even rarer woman—who has only one point of view on a given subject, and can stick to it. Tommy discovered soon enough that whatever he was after, whether it was five bucks to get into a poker game, or a date with one of the nurses, the best way to get it was to wait for that particular moment when the other person really wanted to give it to him.

It should be noted that Tommy Bender retained some ethics during this period. After the first two games, he stopped playing poker. Possibly, he was affected by the fact that suspicious rumors about his "luck" were circulating too freely; but it is more likely that the game had lost its punch. He didn't really need the money out there anyhow. And the process of his embitterment was really just beginning.

Three weeks after the incident in the surgery shack, Tommy got his orders for transfer to a stateside hospital. During that short time, though still impeded by cast and crutches, he acquired a quantity and quality of experience with women that more than equaled the total of his previous successes. And along with it, he suffered a few shocks.

That Tommy had both manners and ethics has already been established. He also had morals. He thought he ought to go to church more often than he did; he took it for granted that all unmarried women were virgins till proved otherwise; he never (or hardly ever) used foul language in mixed company. That kind of thing.

It was, actually, one of the smaller shocks, discovering the kind of language some of those girls knew. Most of them were nurses, after all, he reminded himself; they heard a lot of guys talking when they were delirious or in pain, but—but that didn't explain how clearly they seemed to understand the words. Or that the ones who talked the most refined were almost always the worst offenders in their minds.

The men's faults he could take in stride; it was the women who dismayed him. Not that he didn't find some "pure" girls; he did, to his horror. But the kind of feminine innocence he'd grown up believing in just didn't seem to exist. The few remaining virgins fell into two categories: those who were so convinced of their own unattractiveness that they didn't even know it when a pass was being made at them; and those who were completely preoccupied with a sick kind of fear-and-loathing that Tommy couldn't even stand to peep at for very long.

Generally speaking, the girls who weren't actually looking for men (which they did with a gratifying but immoral enthusiasm), were either filled with terror and disgust, or were calculating wenches who made their choice for or against the primrose path entirely in terms of the possible profit involved, be it in fast cash or future wedded bliss.

Tommy did find one exception to this generally unpleasant picture. To his determined dismay, and secret pleasure, he discovered that Candace really lived up to his ideal of the American girl. Her mind was a lovely, orderly place, full of softness and a sort of generalized liking for almost everybody. Her thoughts on the subject of most interest to him were also in order: She was apparently well-informed in an impersonal sort of way; ignorant of any personal experience and rather hazily, pleasurably, anticipating the acquisition of that experience in some dim future when she pictured herself as happily in love and married.

As soon as he was quite sure of this state of affairs, Tommy proposed. Candace as promptly declined, and that, for the time being, terminated their relationship. The nurse went about her duties, and

whatever personal matters occupied her in her free time. The soldier returned to his pursuit of parapsychology, women and disillusion.

Tommy had no intention of taking these troubles to his teacher. But neither did Armod have to wait for the young man to speak before he knew. This time he was neither stern nor impatient. He spoke once again of the necessity for continuing study till one arrived at the "true understanding," but now he was alternately pleading and encouraging. At one point he was even apologetic.

"I did not know that you would learn so quickly," he said. "If I had foreseen this—doubtless I would have done precisely what I did. One cannot withhold knowledge, and . . ."

He paused, smiling gently and with great sadness. "And the truth of the matter is, you did not ask for knowledge. I offered it. I sold it! Because I could not deny myself the petty pleasure of your cigarettes!"

"Well," Tommy put in uncomfortably, "You made good on it, didn't you? Seems to me you did what you said you would."

"Yes—no," he corrected himself. "I did nothing but show the way. What has been done you did for yourself, as all men must. I cannot see or smell or taste for you; no more could I open the way into men's hearts for you. I gave you a key, let us say, and with it you unlocked the door. Now you look on the other side, but you do not, you can not, understand what you see. It is as though one were to show an infant, just learning to use his eyes, a vision of violent death and bloody birth. He sees, but he does not know. . . ."

Tommy stirred on the low couch, where he could now sit, as the old man did, cross-legged and at ease. But he was uneasy now. He picked up the cane that had replaced the crutches, toying with it, thinking hopefully of departure. Armod understood, and said quickly, "Listen now: I am an old man, and weak in my way. But I have shown you that I have knowledge of a sort. There is much you have yet to learn. If you are to perceive so clearly the depths of the human soul, then it is essential that you learn also to understand. . . ."

The old man spoke on; the young one barely listened. He knew he was going home in another week. There was no sense talking about continuing his studies with Armod. And there was no need to continue; certainly no wish to. What he had already learned, Tommy felt, was very likely more than enough. He sat as quietly as he could, being patient till the old man was done talking. Then he stood up, and muttered something about getting back in time for lunch.

Armod shook his head and smiled, still sadly. "You will not hear me. Perhaps you are right. How can I speak to you of the true understanding, when I am still the willing victim of my own body's cravings? I am not fit. I am not fit. . . ."

Tommy Bender was a very disturbed young man. He was getting what he'd wanted, and he didn't like it. He was grateful to Armod, and also angry at him. His whole life seemed to be a string of contradictions.

He drifted along in this unsettled state for the remaining week of his foreign service. Then, in a sudden flurry of affection and making amends, the day he got his orders, he decided to see the old man just once more. Most of the morning he spent racing around the base rounding up all the cigarettes he could get with what cash he had on hand, plus a liberal use of the new skills Armod had taught him. Then he got his gear together quickly. He was due at the air strip at 1400 hours, and at 1130 he left the base for a last walk to the village, the cane in one hand, two full cartons of butts in the other.

He found Armod waiting for him in a state of some agitation, apparently expecting him. There ensued a brief formal presentation of Tommy's gift, and acceptance of it; then for the last time, the old man invited him to drink tea, and ceremoniously set the water to simmer in the copper pot.

They both made an effort, and managed to get through the tea-drinking with no more than light polite talk. But when Tommy stood up to leave, Armod broke down.

"Come back," he begged. "When you are free of your service, and have funds to travel, come back to study again."

"Why, sure, Armod," Tommy said. "Just as soon as I can manage it."

"Yes, I see. This is what they call a social lie. It is meant not to convince me, but to terminate the discussion. But listen, I beg you, one moment more. You can see and hear in the mind now; but you

cannot talk, nor can you keep silence. Your own mind is open to all who come and know how to look—"

"Armod, please, I—"

"You can learn to project thought as I do. To build a barrier against intrusion. You can—"

"Listen, Armod," Tommy broke in determinedly again. "I don't have to know any of that stuff. In my home town, there isn't anybody else who can do this stuff. And there's no reason for me to ever come back here. Look, I'll tell you what I can do. When I get back home, I can send you all the cigarettes you want—"

"No!"

The old man jumped up from his mat on the floor, and took two rapid strides to the shelf where Tommy's present lay. He picked up the two cartons, and tossed them contemptuously across the room, to land on the couch next to the soldier.

"No!" he said again, just a little less shrilly. "I do not want your cigarettes! I want nothing, do you understand? Nothing for myself! Only to regain the peace of mind I have lost through my weakness! Go to another teacher, then," he was struggling for calm. "There are many others. In India. In China. Perhaps even in your own country. Go to one who is better fitted than I. But do not stop now! You can learn more, much more!"

He was trembling with emotion as he spoke, his skinny frame shaking, his black eyes popping as though they would burst out of his head. "As for your cigarettes," he concluded, "I want none of them. I vow now, until the day I die, I shall never again give way to this weakness!"

He was a silly, excitable old man, who was going to regret these words. Tommy stood up feeling the foolish apologetic grin on his face and unable to erase it. He did not pick up the cigarettes.

"Good-bye Armod," he said, and walked out for the last time through the blue-topped door.

But whatever either of them expected, and regardless of Tommy's own wishes, his education did not stop there. It had already gone too far to stop. The perception-awareness process seemed to be self-perpetuating, and though he practiced his exercises no more, his senses continued to become more acute—both the physical the psychological.

At the stateside hospital, where his leg rapidly improved, Tommy had some opportunity to get out and investigate the situation with the nice old-fashioned girls who'd stayed at home and didn't go to war. By that time, he could "see" and "hear" pretty clearly.

He didn't like what he found.

That did it, really. All along, out at the base hospital, he'd clung to the notion that the women at home would be different—that girls so far from civilization, were exposed to all sorts of indecencies a nice girl never had to face, and shouldn't have to. Small wonder they turned cynical and evil-minded.

The girls at home, he discovered, were less of the first, and far more of the second.

When Tommy Bender got home again, he was grimly determined and firmly disillusioned. He knew what he wanted out of life, saw no hope at all of ever getting it, and had very few scruples about the methods he used to get the next-best things.

In a remarkably short time, he made it clear to his erstwhile friends and neighbors that he was almost certain to get anything he went after. He made money; he made love; and of course he made enemies. All the while, his friends and neighbors tried to understand. Indeed, they thought they did. A lot of things can happen to a man when he's been through hell in combat, and then had to spend months rotting and recuperating in a lonely Far Eastern field hospital.

But of course they couldn't even begin to understand what had happened to Tommy. They didn't know what it was like to live on a steadily plunging spiral of anger and disillusionment, all the time liking people less, and always aware of how little they liked you.

To sign a contract with a man, knowing he would defraud you if he could; he couldn't, of course, because you got there first. But when you met him afterward, you rocked with the blast of hate and envy he threw at you.

To make love to a woman, and know she was the wrong woman for you or you the wrong man for her. And then to meet her afterward ...

Tommy had in the worst possible sense, got out of bed on the wrong side. When he first awoke to the knowledge of other people's minds, he had seen ugliness and fear wherever he looked, and that first impress of bitterness on his own mind had colored everything he had seen since.

For almost five years after he came home, Tommy Bender continued to build a career, and ruin reputations. People tried to understand what had happened to him . . . but how could they?

Then something happened. It started with an envelope in his morning mail. The envelope was marked "Personal," so it was unopened by his secretary, and left on the side of his desk along with three or four other thin, squarish, obviously non-business, envelopes. As a result, Tommy didn't read it till late that afternoon, when he was trying to decide which girl to see that night.

The return address said "C. Harper, Hotel Albemarle, Topeka, Kansas." He didn't know anyone in Topeka, but the name Harper was vaguely reminiscent. He was intrigued enough to open that one first, and the others never were opened at all.

"Dear Tommy," it read. "First of all, I hope you still remember me. It's been quite a long time, hasn't it? I just heard, from Lee Potter (the little, dark girl who came just before you left . . . remember her?)"—Tommy did, with some pleasure—"that you were living in Hartsdale, and had some real-estate connections there. Now I'd like to ask a favor. . . .

"I've just had word that I've been accepted as Assistant Superintendent of the Public Health Service therein Hartsdale—and I'm supposed to start work on the 22nd. The only thing is, I can't leave my job here till just the day before. So I wondered if you could help me find a place to stay beforehand? Sort of mail-order real estate service?

"I feel I'm being a little presumptuous, asking this, when perhaps you don't even remember me—but I do hope you won't mind. And please don't go to any special trouble. From what Lee said, I got the idea this might be right in your line of business. If it's not, don't worry. I'm sure I can find something when I get there.

"And thanks, ahead of time, for anything you can do.

"Cordially," it concluded, "Candace Harper."

Tommy answered the letter the same day, including a varied list of places and prices hurriedly worked up by his real-estate agent. That he owned real estate was true; that he dealt in it, not at all. His letter to Candy did not go into these details, just told her how vividly he remembered her, and how good it would be to see her again, with some questions about the kind of furnishings and decor she'd prefer. "If you're going to get in early enough on the 21st," he wound up, "how about having dinner with me? Let me know when you're coming, anyhow. I'd like to meet you, and help you get settled."

For the next eleven days, Tommy lived in an almost happy whirl of preparation, memory and anticipation. In all the years since he had proposed to Candace, he had never met another girl who filled so perfectly the mental image of the ideal woman with which he had first left home. He kept telling himself she wouldn't, couldn't, still be the same person. Even a non-telepath would get bitter and disillusioned in five years of the Wonderful Post-War World. She couldn't be the same. . . .

And she wasn't. She was older, more understanding, more tolerant, and if possible warmer and pleasanter than before. Tommy met her at the station, bought her some dinner, took her to the perfect small apartment where she was, unknown to herself, paying only half the rent. He stayed an hour, went down to run some errands for her, stayed another half-hour, and knew by then that in the most important respects she hadn't changed at all.

There wasn't going to be any "Precise Moment" with Candy; not that side of a wedding ceremony.

Tommy couldn't have been more pleased. Still, he was cautious. He didn't propose again till three weeks later, when he'd missed seeing her two days in a row due to business-social affairs. If they were married, he could have taken her along.

When he did propose, she lived up to all his qualifications again. She said she wanted to think it over. What she thought was: Oh, yes! Oh, yes, he's the one I want! But it's too quick! How do I know for sure? He never even thought of me all this time . . . all the time I was waiting and hoping to hear from him . . . how can he be sure so soon? He might be sorry. ...

"Let me think about it a few days, will you, Tommy?" she said, and he was afraid to take her in his

arms for fear he'd crush her with his hunger.

Four weeks later they were married. And when Candy told him her answer, she also confessed what he already knew: that she'd regretted turning him down ever since he left the field hospital; that she'd been thinking of him, loving him, all the long years in between.

Candy was a perfect wife, just as she had been a perfect nurse, and an all-too-perfect dream girl. The Benders' wedding was talked about for years afterwards; it was one of those rare occasions when everything turned out just right. And the bride was so beautiful . . .

The honeymoon was the same way. They took six weeks to complete a tour of the Caribbean, by plane, ship and car. They stayed where they liked as long as they liked, and did what they liked, all the time. And not once in those six weeks was there any serious difference in what they liked. Candy's greatest wish at every point was to please Tommy, and that made things very easy for both of them.

And all the while, Tommy was gently, ardently, instructing his lovely bride in the arts of matrimony. He was tender, patient and understanding, as he had known beforehand he would have to be. A girl who gets to the age of twenty-six with her innocence intact is bound to require a little time for readjustment.

Still, by the time they came back, Tommy was beginning to feel a sense of failure. He knew that Candace had yet to experience the fulfillment she had hoped for, and that he had planned to give her.

Watching her across the breakfast table on the dining terrace of their new home, he was enthralled as ever. She was lovely in negligee, her soft hair falling around her face, her eyes shining with true love as they met his.

It was a warm day, and he saw, as he watched her, the tiny beads of sweat form on her upper lip. It took him back . . . way back . . . and from the vividness of the hospital scene, he skipped to an equally clear memory of that last visit to Armod, the teacher.

He smiled, and reached for his wife's hand, wondering if ever he would be able to tell her what had come of that walk they took to the village together. And he pressed her hand tighter, smiling again, as he realized that now, for the first time, he had a use for the further talents the old man had promised him.

That would be one way to show Candace the true pleasure she did not yet know. If he could project his own thoughts and emotions ...

He let go of her hand, and sat back, sipping his coffee, happy and content, with just the one small problem to think about. Maybe I should have gone back for a while, after all, he thought idly.

"Perhaps you should have, dear," said innocent Candace. "I did."

In the Land of Unblind

First Publication: October 1974.

You know how it is
indown you close your eye(s) and let take
your self between a stumblecrawl and lazyfloat
I mean when
you get past the rubbage really *indown* there's
no seefeeltouch not
the skinside *upout* way
blindbalance cannot tell if a touching is over
or under or on the feeling is inside your skin
I mean
indown you know in the land of unblind the one
eyed woman is terribilified
no light
but the infires' flickerdimglow and
they all keep their eyes closed so

scrabbleswoop and stumblesoar fly
creep in fearableautiful nolightno
dark of eacheveryother's infires
(No need to cover or to show
they canwilinot looksee
except the one-eyed me
I wonder what would happen if
a person took a light *indown*)

Before
I opened up one apple-eye I too
flewstumbled graspgropegleaned
in holystonemaskhunger then
one time
indown in that hell-eden innocence I touched
a man and he touched me you know the way
it happens some times later or before or inbe
tween we touched upout
I mean
where skins can touch and some
place or other we remembered as
in the other we felt fate upon us
blindunblind future past which
one is when
upout his openwide eyes full of hunger and
some kind of hate I tasting somehow hate
fulhunger over all the skins inside my mouth

I love you! he said
Witchcraft! I had to come!
You must come! Magic!
I love you!
so
I came we loved our skins touched inside some
times almost remembering *indown*
not quite then
oneanother soundless indown timestill blindun
blind I touched a man and touching me he spoke
words I c/wouldnot hear just scramblescared
a way you know
it happens some
time in betweenafterbefore when meeting *upout*
all our eyes and ears and mouths were open

I love you! he said
We had to come together!
Remember! he said beforewords-

I c/wouldnot
I love you
I said Witchcraft! all the skins inside my mouth tasting

sweet sour terror as I ran he spoke
(again?)
Open your eyes! he said
One time (soon?)
indown still fearful
(fearful still for still I do
not open more than one)
I opened up my first indowneye seeing stir a
livesome ghost of memory pastfutureinbetween
that time I touched no man but
(then?)
one time
upout you know before or after
my first man was there (again?)
skinsight airvoice was all we
unshared how it waswouldbe to touch indown I
did not know he did not know there was indown
not to remember full of fear he went away but
(then?)
one time
indown one eye just-slit open in dimglowing
flickerdrift infires a man touched me and I
could see indown the face I touchedspoketo of
course he c/wouldnot hear
so
but
when
you know
we met upouteyes open all the hungerskinside
my mouth turned sweet remembering beforewords
I love you! he said
Witchcraft! I had to come!
You made me come! Magic!
I love you! he said with words
but
he did not know echopremonitions stirring
from under upoutskintouch he couldwouldnot
premember how indown we touched his hunger
fear soured all the skins inside my mouth I had to go
away
(again?)
one time indown I met a man with one eye
open like my own in flickerdim
infireglow seeing each how horribleautiful
eachotherself fruit flower and fester touching
so we spoke beforewords so
you know
the waysometime(s) you meet upout all
eyes and ears and mouths wide open great
new hungers pungentsweet
on all the skins inside remembering indown

bebackwords neverquite to know which place
time was wherewhen or waswouldbe
we first felt fate upon us so
We love (we do not say) We had to come
Witchcraft! (we laugh) we love skins touch
upoutside premembering sometimesalmost
like indowntouchtalk still
and yet
I wonder
what it's like
indown for the two-eyed?

HOMECALLING

First Publication: November 1956.

I

THERE WAS NO warning. Deborah heard her mother shout, `*Dee! Grab the baby!'*

Petey's limbs hung loose; his pink young mouth fell open as he bounced off the foam-padded floor of the play-space, hit more foam on the sidewall, at a neat ninety-degree angle, and bounced once more. The small ship finished upending itself, lost the last of its spin, and hurled itself surfaceward under constant acceleration. Wall turned to ceiling, ceiling to floor and Petey landed smack on his fat bottom against the foam-protected toy-bin. Unhurt but horrified, he added a lusty wail to the ever shriller screaming of the alien atmosphere, and the mighty reverbera-tions of the rocket's thunder.

'... the bay-beeee ... *Dee!'*

'I got him.' Deborah hooked a finger finally through her brother's overall strap, and demanded: 'What do I do now?'

'I don't know; hold on to him. Wait a minute.' Sarah Levin turned her head with difficulty towards her husband. `John,' she whispered, 'what's going to happen?'

He gnawed at his lower lip, tried to quirk a smile out of the side of his mouth nearest her. 'Not good,' he said, very low. 'The children?'

'Dunno.' He struggled with levers, frantically trying to fire the tail rockets—now, after their sudden space-somersault became the forward jets. 'Don't know what's wrong,' he muttered fiercely. 'Mommy, it hurts..?

Petey was really crying now, low and steady sobbing, and Dee whimpered again, 'It hurts. I can't get up.'

'Daddy's trying to fix it,' Sarah said. 'Dee ... listen..? It was hard to talk. 'If you can, try to ... kind of ... wrap yourself around Petey ...'

`I *can't... "* Deborah too broke into sobs.

Seconds of waiting, slow eternal seconds; then incredibly, gout of flame burst out ahead of them.

The braking force of the forward rocket eased the pressure inside, and Dee ricocheted off a foamed surface—wall, floor ceiling? She didn't know—her finger still stuck tight through Petey's strap. The ground, strange orange-red terrain with towering bluish trees, was close. Too close. There was barely time before the crash for Sarah to shout a last reminder.

'...right around him!' she yelled. Dee understood; she pulled her baby brother close to her chest and wound her arms and legs around his body. Then there was crashing splintering jagged noise through all the world.

It was too warm. Dee didn't want to look, but she opened an eye.

Nothing to see but foam-padded sides of the play-space, with the toys scattered all over.

A bell jangled, and a mechanical voice began: 'Fire ... Fire ... Fire ... Fire ... Fire . . .' Dee knew what to do. She wondered about letting go of Petey, but she'd have to, she couldn't ask her mother, because the safety door was closed. Her mother and father were both on the other side in front—that was where the fire would be. She wondered if they'd get burned up, but let go of Petey, and worked the escape lock the way she'd been taught. While it was opening, she put on Petey's oxy mask and her own. She didn't know for sure whether they would be needed on this planet, but one place they'd been called Carteld, you had to wear a mask all the time because there wasn't enough oxygen in the air.

She couldn't remember the name of this planet. They'd never been here before, she knew that much; but this must be the one they were coming to, or Daddy wouldn't have started to go down, and everything wouldn't have happened.

That meant probably, at least the air wasn't poisonous. They had space-suits and helmets on the ship, and Dee had space-suit drill every week; but she was pretty sure she didn't need anything more than the mask here. And there wasn't time for space-suits anyhow.

The lock was all the way open. Deborah went to the door and recoiled before the blast of heat; it was burning *outside.* Now she had to get away, quick.

She picked up Petey, looked around at all the toys, and at the closet where her clothes were; at the blackboard, the projector, and the tumbled pile of fruit and crackers on the floor. She bent down and stuffed the pockets of her jumper with the crumbly crackers and smashed sticky fruit. Then she looked around again, and felt the heat coming through the door, and had to leave everything else behind.

She climbed out, and there were flames in the back. She ran, with Petey in her arms, though she'd been told never to do that. She ran straight away from the flames, and kept going as long as she could; it was hard work, because her feet sank into the spongy soil at every step. And it was still hot, even when she got away from the rocket. She kept running until she was too tired, and began to stumble, then she slowed down and walked—until Petey began to be too heavy, and she couldn't carry him any more. She stopped, and put him down on the ground and looked him over. He was all right, only he was wet—very wet—and the whole front of her jumper was wet too, from him.

Deborah scowled, and the baby began to cry. She couldn't stand that, so she smiled and tried playing games with him. Petey wasn't very good at games yet, but he always laughed and stayed happy if she played with him. Sometimes she thought he liked her better than anybody else, even Mommy. He acted that way. Maybe it was because she was closer to his size—a medium size giant in a world full of giant-giants; that's how people would look to Petey.

When he was happy again, she gave him half a cracker from her pocket, and a piece of fruit for his other hand. He tumbled over backwards, and lay down, right on the muddy ground, smearing the food all over his face and looking sleepy.

Sooner or later, Dee knew, she was going to have to turn around and look back, meanwhile, she sat on the ground, crosslegged, watching Peter fall asleep. She thought about her ancestors, who were pioneers on Pluto, and her father and how brave *he* was. She thought once, very quickly, about her mother, who was maybe all burned up now.

She had to be brave now—as brave and strong as she knew, in her own private self, she really was. Not silly-brave the way grown-ups expected you to be, about things like cuts and antiseptics, but deep-down *important brave.* She was an intrepid explorer on an alien planet, exposed to unknown dangers and trials, with a helpless infant under her wing to protect. She turned around and looked back.

Her own footsteps faced her, curving away out of sight between two tall distant trees. She looked harder in the direction they pointed to, if the fire was still burning, she ought to be able to see it. The trees were far enough apart, and the ground was clear between them—clearer than any ground she'd ever seen before. There were no bushes or branches near the ground, higher than a rocket-launch—tall yellow orange poles with whis-pering foliage at the top.

The overhead canopy was thick and dark, a changeable ceiling with grey and green and blue fronds stirring in the air. She couldn't see the sky through it all, or see beyond it to find out whether there was

any smoke. But that made it dark here, underneath the trees, so Dee was sure she would be able to see the fire, if it was still going.

She got up and followed her own footsteps back, as far as she could go without losing sight of Petey, that was the spot where the trail curved away in a different direction. It curved again, she saw further on; that was strange, because she was sure she'd been going in a straight line when she ran away. The trees all looked so much alike, it would have been hard to tell. She'd heard a story once about a man who went around and around in circles in a forest till he starved to death. It was a good thing that the ground was so soft here, and she could see the footprints so clearly.

Petey was sound asleep. She decided she could leave him alone for a minute. She hadn't seen any wild beasts or animals, or heard anything that sounded dangerous. Deborah started back along her own trail, and at the next bend she saw it, framed between two far trees: the front part of the rocket, still glowing hot, bright orange red like the persimmons Daddy had sent out from Earth one time. That was why she hadn't been able to see it before, the colour was hardly different from the ground on which it stood: just barely redder.

Nothing was burning any more.

'Mommy I' Deborah screamed, and screamed it again at the top of her lungs.

Nothing happened.

She started to run towards the rocket, still calling; then she heard Petey yelling, too. He was awake again and she had to turn around and run back and pick him up. Then she started the trip all over again, much slower. Petey was dripping wet now, and still hollering. And heavy. Dee tried letting him crawl, but it was too slow. Every move he made, he sank into the soft ground an inch or so; then he'd get curious and try to eat the orange dirt off his fingers, so she had to pick him up again.

By the time they got back to the rocket, Dee was wet all over, plastered with the dirt that Petey had picked up, and too tired even to cry when nobody answered her call.

II

THE LADY OF the house sat fat with contentment on her couch, and watched the progress of the work. Four of her sons—precision masons all—performed deft manoeuvres with economy and dis-patch; a new arch took place before her eyes, enlarged and re-designed to suit her needs.

They started at the floor, sealing the jagged edges a full foot farther back on either side than where the frame had been before. They worked in teams of two, one to stand by and tamp each chip in place with sensitive mandibles, smoothing and firming it into position as it set; the other stepping off to choose a matching piece from the diminishing pile of hard-wood chips, coating it evenly with liquid plastic from his snout and bringing it, ready for placement in the arch, just at the instant that his brother completed the setting of the preceding piece.

Then the exchange in roles : the static partner moving off to make his choice; the second brother setting his new chip in perfect pattern with the rest: Two teams, building the two sides of the arch in rhythmic concert with each other. It was a ritual dance of function and form, chips and plastic, workers and work, each in its way an apparently effortless inevitable detail of the whole. Daydanda gloried in it.

The arch grew taller than ever before, and the Lady's satisfac-tion grew enormous, while her consort's fluttering excitement mounted. 'But why?' he asked again, still querulous.

'It is pleasant to watch.'

'You will not use it?' He was absurdly hopeful.

'Of course I will!'

'But, Lady ... Daydanda, my dearest, Mother of our children, this whole thing is unheard of. What sort of example ...?'

'Have you ever,' she demanded coldly, 'had cause to regret the example I set to my children?'

'No, no my dear, but..?

She withdrew her attention entirely, and gave herself over to the pure aesthetic delight of watching her sons—the two teams of masons—working overhead now on the final span of the arch, approaching each

other with perfect timing and matched instan-taneous motions, preparing to meet and place the ceremonial centre-piece together.

Soon she would, rise, take her husband's arm and experience—for the first time since her initial Family came to growth—the infinite pleasure of walking erect through her own door into the next chamber.

Even the report, shortly afterwards, of a fire spreading on the eastern boundary, failed to diminish her pleasure. She assigned three fliers to investigate the trouble, and dismissed it from her mind.

III

FOR A LONG, long time Deborah sat still on the ground, hugging Petey on her lap, not caring how wet he was, nor even trying to stop his crying—except that she rocked gently back and forth in a tradition as ancient as it was instinctive. After a while, the baby was asleep; but the girl still sat crosslegged on the ground, her shoulders moving rhythmically, slower and slower, until the swaying was almost imperceptible.

The rocket—the shiny rocket that had been new and expensive a little while ago—lay helpless on its side. The nozzles in the tail, now quiet and cool, had spouted flame across a streak of surface that stretched farther back than Dee could see, leaving a Hal-lowe'en trail of scorched black across the orange ground. Up forward, where the fire in the ship had been, there was nothing to see but the still-red glow of the hull.

Deborah tried to figure out what flames she had seen when she left the ship with Petey; but it didn't make sense, and she hadn't looked long enough to be sure. She'd been taught what to do in case of fire: *get out!* She'd done it; and now ... The lock was still open where she'd climbed out before. Very very carefully, not to wake him she laid her baby brother on the soft ground, and step by reluctant step she approached the ship. Near the lock, she could feel heat; but it was all coming from one direction—from the nose, and not from inside. She touched a yellow clay stained finger to the lock itself, and felt the wall inside, and found it cool. She took a deep breath, ignored the one tear that forced its way out of her right eye, and climbed up into the rocket.

It was quiet in there. Dee didn't know what kind of noise she'd expected, until she remembered the last voice she'd heard when she left, saying calmly, `Fire ... fire ... fire ...'

She thought that out and knew the fire had stopped; then it was all right to open the safety door to the front part. Maybe ... maybe they weren't hurt or anything; maybe they just couldn't hear her call. If there was just *a little* fire in there, it might have damaged the controls so they couldn't open the door for instance.

She knew where the controls on her side were, and how to work them. Her hand was on the knob when she had the thought, and then she was afraid. She knew from T.Z.'s how a burning body smelled; and she remembered how hot the outside of the hull was.

Her hand withdrew from the knob, returned, and then withdrew again, without consulting her at all.

That wasn't any *little* fire.

If they were all right, they'd find some way to open the door themselves; Daddy could always figure out something like that.

If people ask, she told herself, *I'll tell then: I didn't know how.*

`Mommy,' she said out loud. 'Mommy, *please ...'*

Then she remembered the tube. She ran to it and took the speaker off the hook, fumbling with impatience so that it fell from her hand and dangled on its cord, it buzzed the way it should; it was working!

She grabbed at it, and shouted into it. `Mommy! Daddy! Where are you?' That was a silly thing to say. `Please answer me. Please. *Please!' I'll* be good all the rest of my life, she promised silently and faithfully, all the rest of my life, if you answer me.

But no one answered.

She didn't think about the door controls again. After a while she found she could look around without

really *seeing* the locked safety door. She had only to try a little, and she could make-be-lieve it was a wall just like the sidewalls, that belonged there.

Eight and a half years is a short span of time to an adult; no one seriously expects very much of a child that age. But almost *nine* years is a long time when you're growing up, and more than time enough to learn a great many things.

Besides the sealed-off control room, and the bedroom-play-space, the family rocket had a third compartment, in the rear. Back there were the galley, bathroom facilities, and the repair equipment, with a tiny metals workshop. Only this last section held any mysteries for Deborah. She knew how to find and prepare the stored food supplies for herself and the baby; how to keep the water-reuser and air-fresher operating; where the oxy tanks were, and how to use them if she needed them.

She knew, too, how to let the bunks out of the wall in the play-space, and how to fasten Petey in so he wouldn't smother or strangle himself, or fall out, or even get uncovered in the night. And she knew where all the clean clothes were kept, and how to change the baby's diapers.

These things she knew as naturally and inevitably as a child back on Earth would have known how to select a meal on the push-panel, how to use the slide-walks, how to dial his lessons.

For five days, she played house with the baby in the rocket.

The first day it was fun; she made up bottles from the roll of plastic containers, and mixed milk in the blender from the dried supply. She ate her favourite foods, wore all her best clothes, dressed the baby and undressed him, and took him out for sun and air in the clearing blasted by the rocket jets. She discovered the uses of the spongy soil, and built fabulous mud castles while Petey played. Inside, when he was sleeping, she read films, and coloured pictures, and left the T.Z. running all the time.

The second day, and the third, she did all the same things, but it wasn't so much fun. Petey was always crying for something just when she got interested in what she was doing. And you couldn't say, `Soon as I finish this chapter,' because he wouldn't understand.

Deborah got bored; then she began to get worried, too.

At first she had known that help would come; the people who lived on this planet would come looking for them. They'd rescue her and Petey; she'd be a heroine, and perhaps they'd never even ask if she knew how to open that door.

The third day, she began to think that perhaps there weren't any people on the planet at all—at least not on this part of it. There always had been a few people at least, whenever they went any place. The Government didn't send out survey engineers or geologists, like John and Sarah Levin, until after the first wildcat claims began to come in from a new territory. But this time maybe nobody knew they were coming. Or perhaps nobody had seen the crash. Or maybe this wasn't even the right planet.

She worried about that for a while, and then she remembered that her father always sent back a message-rocket when they arrived anyplace. He'd told her it was so the people on the last planet would know they were safe; if it didn't come at the right time, somebody would come out looking, to see what had hap-pened to them.

Dee wondered how long it would take for the folks back on Starhope to get worried and come and rescue them. She couldn't even figure out how long they'd been in space on the way here. It was a long trip, but she wasn't sure if it had been a week, or a month, or more. Trips in space were always long.

The fourth day, she got tired of just waiting, and decided to explore.

She wasn't bothering with the masks any more. The dials still said full after the first three times they went out, and that meant air had enough oxygen in it so that the masks weren't working. So *that* was no problem.

And she could take along plenty of food. The only thing she wasn't sure about was Petey. She was afraid to leave him by himself, even in the play space, and he was too heavy to carry for very long. She took his stroller out and tried it, but the ground was too soft to push it when he was inside.

The next morning, early, Deborah packed a giant lunch, and took the stroller out again. She found out

that, though it wouldn't push, it could be *pulled, so* she tied a rope to the front, and loaded it up with bottles and diapers and her lunch and Petey. Then she set off up the broad black avenue of the rocket jets; that way she could always see the ship, and they wouldn't get lost.

IV

DAYDANDA WAS TIRED. Truthfully, all this walking back and forth between chambers was a strain. Now she submitted gratefully to Kackot's fussing anxiety as he plumped the top mat here and pulled it there, adjusting the big new dais-couch to conform to her swollen body.

'I told you it was too much,' he fumed. 'I don't see why you want to do it anyhow. Now you rest for a while. You ...' 'I have work to do,' she reminded him.

'It can wait; let them think for themselves for once!'

She giggled mentally at the notion. Kackot refused to share her amusement.

'There's nothing that can't wait half an hour anyhow.' He was almost firm with her; she loved to have him act that way sometimes. Contentedly, she stretched out and let her weight sink into the soft layers of cellulose mat. Her body rested, but her mind and eye were as active as ever. She studied the new shelves and drawers and files, the big new desk at the head of the bed. Everything was at hand; everything in place; it was wonderful. The old room had been unbearably cluttered. Now she had only the active records near her. Everything connected with the departed was in the old room: easy to get at on the rare occasions when she needed it; but not underhand every time she turned around.

Daydanda examined the perfect arch her sons had built, and exulted in the sight of it. When she wanted anything on the other side, all she had to do was *walk right through.*

She was aware of Kackot's distress. Poor thing, he did hate to have her do anything unconventional. But no one had to know, no one who wasn't really *close* to them ...

'Lady! Mother Daydanda!'

Kackot's image blanked out. This was a closed beam, an urgent call from an older daughter, serving her turn in training as relay-receptionist for messages from the many less articulate children of the Household.

'What's wrong?'

'Mother! The Stranger Lady has left her wings at last! She came out from *inside* them! And with a babe in arms! She ... oh Mother, I do not know how to tell it; I have never known the like, She is *not* of our people. The wings are not proper wings. She has no consort. A Family of *one!* I do not understand...'

'Be comforted, child. There is no need for you to understand. With her own mind seething, Daydanda could still send a message of ease and understanding to her daughter. 'You have done well. She is *not* of our people, and we must expect many strange things. Now I want the scout.'

The daughter's mind promptly cleared away; in its place, Day-danda felt the nervous tingling excitement of the winged son who had been sent out to report on the fire in the east, and then to keep watch over the Strange Wings he had found there.

'Mother! I am frightened!'

The message was weak; the daughter through whom it came would be struggling with her curiosity. She was of the eighth family, almost mature, soon to depart from the Household and already showing signs of individualism and rebelliousness. She would be a good Mother, Daydanda thought with satisfaction, even as she closed the contact with the scout and shut the daugh-ter out with a sharp reprimand for inefficiency.

'There is nothing to fear,' she told her son sharply; 'tell me what you have seen.'

'The Strange Lady has left her Wings. She has not enough limbs, and she uses a Strange litter to carry her babe. She ...'

'She is a Stranger, son! And you have already quite adequately described her appearance. If you fear Strangeness for its own sake, you will never pierce the tree-tops, nor win yourself a Wife. You will remain in the Household till your wings drop off, and you are put to tending the corral..?

As she had expected, the familiar threat reassured him as noth-ing else would have done. She listened closely to his detailed report of how the Stranger had left her Wings, and set off down the blackened fire-strip, pulling behind her a litter containing the Strange babe and some Strange, entirely unidentifiable, goods.

'She has not seen you?' the Mother asked at last.

'No.'

'Good; you have done well. Keep her in sight, and do not fear. I shall assign an elder brother to remain near the Wings, and to join you when the Stranger chooses her new site. Do not fear; your Mother watches over all.' But when the contact was broken, she turned at once in perturbation to her consort: 'Kackot, do you suppose ... please, now, try to use a *little* imagination ... do you suppose ... ?' She caught his apprehensive agreement, even before the thought was fully articulated; clearly that was the case: 'The little one is no babe, but her consort!'

That put a different complexion on the whole matter. The flames of landing clearly could not be considered an act of deliberate hostility, if the Strange Lady's consort were so small and weak that he could not walk for himself, let alone assist in the clearing of a House-site. The fire thus assumed a ritual-functional aspect that made good sense.

If the explanation were correct, there need be no further fear of fire. And since the Strangers' march now was in a direction that would carry them towards the outer boundary of Day-danda's Houseland—or perhaps over it, into neighbouring terri-tory—there was no need either for immediate conflict of any kind.

Daydanda wondered that she did not feel pleased. As long as one assumed the smaller creature to be a babe, it would have meant that a fully-developed Mother was capable of leaving her home, and walking abroad...

Kackot, pacing restlessly across the big room, sputtered with derision. 'A Mother,' he reminded her irritably, 'of a *very* Strange race!'

'Yes,' Daydanda agreed. In any case, they had been wrong in assuming the smaller one to be a babe, simply because of size. Still, as she lay back to rest and think, the Lady was bemused by a pervading and inexplicable sense of disappointment.

V

IT WAS VERY hot. After half an hour of sweat and glare, Deb-orah compromised with her first plan of staying out in the open, and began following a path just inside the forest edge. She kept one tree at a time—and only one—between herself and the 'road'. That way she had shade and orientation both.

Lunch time seemed to come quickly, judging from her own hunger. She stepped out from under the trees, and tried to lookup at the sun to see how high it was. It was too bright; she couldn't look at it right. Then she realized she was fooling herself. You didn't need a clock if you had Petey. He would be wanting his bottle before it was time for her to eat. She trudged on, drag-ging the ever-heavier stroller behind her. Petey just sat there, quiet and content, gurgling his approval of the expedition, and refusing to show any interest in food at all.

Dee might have been less concerned with her insides if the exterior were any less monotonous. It didn't seem to matter where she was, or how far she walked: the forest went on endlessly, with no change in appearance except the random situation of the great trees.

After a while, she stepped out again and sighted back to the rocket; then off the other way. The end of the blasted road was in sight, now; but as far as Dee could see, there was nothing beyond it but more trees—exactly the same as the ones that stretched to left and right: tall straight dirty-yellow trunks, and a thin dense layer of grey-blue fronds high up on top.

At last Petey cried.

Dee was delighted. She tilted him back in his seat, and adjusted the plastic bottle in the holder, then fell ravenously on her own lunch.

When she was finished, she looked around again, more hope-fully; at least they'd come this far in safety. Tomorrow, maybe she'd try another direction, through the woods, away from the road. While Petey napped, she raised a magnificent edifice of orange towers and turrets in the soft dirt; when he woke, she pulled him home again, content.

Maybe nobody lived here at all; maybe the planet had no aborigines. Then there was nothing to be afraid of, and she could wait safely with Petey till somebody came to rescue them. She was thinking that way right up to the time she stepped around the tail-jets of the rocket, and saw tracks.

There were two parallel sets of neat V-prints, perhaps two feet apart; they came from behind a tree near the ship, went almost to the open lock, and curved away to disappear behind another tree.

Two not-quite-parallel sets of tracts; nothing else.

Dee had courage. She looked to see what was behind the tree before she ran. But there was nothing.

That night was bad. Dee couldn't fall asleep, even in the foam bunk, even after the long walk and exercise. She twisted and turned, got up again and walked around and almost woke Petey, and got back in bed and tried to read. But when she got tired enough to sleep, and turned the light out, she'd be wide awake again, staring at the shadows, and she'd have to turn the light on and read some more.

After a while she just lay in her bunk, with the night light on, staring at the closed safety door to the control room, where her mother and father were. Then she cried; she buried her face in the pillow and cried wetly, fluently, hopelessly, until she fell asleep, still sobbing.

She dreamed, a nightmare dream with flaming V-shaped feet and a smell of burning flesh; and woke up screaming, and woke Petey too. Then she had to stay up to change and comfort him; by the time she got him back to sleep again, she was so tired and annoyed that she'd forgotten to be scared.

Next morning, she opened the lock cautiously, expecting to see ... almost anything. But there were only giant trees and muddy orange ground: no mysterious tracks, no strange and horrifying beasts. And no glad crew of rescuers.

Maybe the V-tracks never existed, except in that nightmare. She spent most of the morning trying to decide about that, then looked out again, and noticed one more thing. Her own footsteps were also gone; the moist ground had filled in overnight to erase all tracks. There was no way to know for sure whether she had dreamed those tracks or seen them.

The next two days, Dee stayed in the rocket. She was keeping track of the days now. She'd looked at the chrono right after they crashed, so she knew it was seven Starhope days since they came to the planet. She knew, too, that the days here were different, shorter, because the clock was getting ahead. The seventh day on the chrono was the eighth Sunday here; and at high noon the dial said only nine o'clock. She could still tell noon by Petey's hunger, and she wondered about that: his hunger-clock seemed to have set itself by the new sun already. Certainly, he still got sleepy every night at dusk, though the clock told three hours earlier each time.

Deborah spent most of one day working out the difference. She couldn't figure out any kind of arithmetic she'd been taught to do it with, so she ended up by making little marks for every hour and counting them. By evening, she was sure she had it right. The day here was seventeen hours instead of twenty. And then she real-ized she didn't know how to set days on the chrono anyhow; all that work was useless.

The next morning she went out again. Two days of confinement had made Petey cranky and Dee brave.

Nothing happened; after that, they went out daily for airings, as they had done at first. Dee made a calendar, and marked the days on that; then she started checking the food supplies.

They had enough of almost everything, too much to figure out how long it would last. But she spent one afternoon counting the plastic bottles on Petey's roll, and figured out that they'd be gone in just three weeks, if he kept on using four a day.

Someone would come for them before that; she was sure of it. Just the same, she decided that baby

was old enough to learn to drink from a glass, and started teaching him.

Eight days became nine and ten, eleven and twelve; still nothing happened. There was no sign of danger nor of help. Dee was sure now that she had dreamed those tracks, but somewhere on this planet she knew there were people. There *always* were; always had been, whenever they came to someplace new. And if the people didn't come to her, she'd have to find them. Deborah began to plan her second exploratory expedition.

There was no sense in covering the same ground again. She wanted to go the other way, into the woods. That meant she'd need to blaze a trail as she went; and it meant she couldn't use the stroller.

She added up the facts with careful logic, and realized that Petey would simply have to stay behind.

VI

THE BABY CRAWLED well now, and he could hold things; he could pick up a piece of cracker and get it to his mouth. He couldn't hold the bottle for himself, of course, but ...

She tried it, closing her ears to the screams that issued steadily for an hour before he found his milk. But he did find it; her system worked. If she hung the bottle in the holder while his belly was still full, he ignored it; but when he was really hungry, he found it, and wriggled underneath to get at the down-tilted nipple. That gave her, really, a whole day to make her trip.

The night before, she packed her lunch, and for the first time, studied the contents of her father's workshop. There was a small blowtorch she had seen him use; and even in her present restless state Deborah was not so excessively brave that the thought of a weapon, as well as tree-marker, didn't tempt her. But when she found the torch, she was afraid to try it out indoors, and had to wait till morning.

At breakfast time, she stuffed Petey with food till he would eat no more. Then she clasped a bottle in the holder she'd rigged up, set the baby underneath to give him the idea once again, and went outside to try her skill with the torch. She came back, satisfied, to finish her preparations. When she left, a second bottle hung full and tempting in the play-space; Petey's toys were spread around the floor; and a pile of the crackers in the corner would keep him happy, she decided, if all else failed. There was no way to solve the diaper-changing problem; he'd just have to wait for her return.

At first she tried to go in a straight line, marking every second tree along the way. After just a little while, she realized that it didn't matter which direction she took; she didn't know where she was going, anyway.

She walked on steadily, a very small girl under the distant canopy spread by the tall trees; very small, and *insignificant,* but erect and self-transporting on two overalled legs; a small girl with a large hump on her back.

The hump disappeared at noon, or somewhat earlier. She stuffed the remaining sandwich and a few pieces of dried fruit into her pockets, and tied the emptied makeshift knapsack more comfortably around her waist where it flopped rhythmically against her backside at every step.

Never did she forget to mark the trees, every second one along the way.

Nowhere did she see anything but more trees ahead, and bare ground underfoot.

She had no way of knowing how far she'd gone, or even what the hour was, when the silence ceased. Ever since she'd landed, the only noise she'd heard had been her own and Petey's. It was startling; it seemed impossible, by now, to hear anything else.

She stopped, with one foot set ahead of the other in midstep, and listened to the regular loud ticking of a giant clock.

It was impossible. She brought her feet into alignment and listened some more, while her heart thumped sympathetically in time to the forest's sound.

It was certainly impossible, but it came from the right, and it called to her; it promised warmth and haven. It was just an enormous alarm-clock, mechanically noisy, but it was somehow full of the same comfort-and-command she remembered in her mother's voice.

Deborah turned to the right and followed the call; but she didn't forget to mark the trees as she

passed, every other one of them.

If it weren't for the trail-blazing, she might have missed the garden entirely. It was off to one side, not directly on her path to the ticking summons. She saw it only when she turned to play the torch on one more tree: a riot of colours and fantasy shapes in the near distance, between the upright trunks.

Not till then did the ticking frighten her: not till she found how hard it was to move crosswise, or any way except right towards it. She wanted to see it. Most likely it was just wild, but there was always a chance ...

And when she tried to walk that way, her legs didn't want to go. Panic clutched at her, and failed to take hold. She was an intrepid explorer on an alien planet, exposed to unknown dangers. Also, she was a Space Girl.

`I pledge my honour to do everything in my power to uphold the high standards of the human race,' she intoned, not quite out loud, and immediately felt better. `A Space Girl is brave. A Space Girl is honest. A Space Girl is truthful. A Space Girl ...'

She went clear down the list of virtues she had learned in Gamma Troop on Starhope, and while she mumbled them, her legs came under control. The ticking went on, but it was just a noise—and not as loud as it had been, either. She dodged scout-wise from behind one tree-trunk to another, approaching the garden. If, indeed, it *was* a garden. Two trees away, she stopped and stared.

Every planet had strange new shapes and sights and smells; the plants in each new place were always excitingly different. But Dee was old enough to know that everywhere chlorophyll was green, as blood was red. Oh, blood could seem almost black, or blue, or pale pink, or even almost white; and chlorophyll could shade to dark grey, and down to faint cream-yellow. But growing gardens had green-variant leaves or stems. And everywhere she'd been, the plants, however strange, were unified. The trees here grew blue-green-grey on top. The flowers should not grow, as they seemed to do, in every random shade of colour.

There was no way to tell the leaves from seeds from stems from buds. It was just ... growth. A sort of arched form sprouted bright magenta filaments from its ivory mass. A bulbous some-thing that tapered to the ground showed baby blue beneath the many-coloured moss that covered it. Between them on the ground, a series of concentric circles shaded from slate grey on the outside to oyster white in the centre, only it was so thin that a tinge of orange showed through from the soil below. Dee would not have thought it lived at all, until she noticed a slow rippling motion outward towards the edges.

Farther in, one form joined shapeless edges with another; one colour merged haphazard with the next. Deborah blinked, confused, and walked away, following the call of the great ticking clock, then mumbled to herself, 'I pledge my honour to do everything ...' She turned back to the puzzling growths again, aware now that the calling power of the sound diminished when she said the words aloud.

The colours were too confusing. She had to concentrate, and couldn't think about the garden while she talked to herself. Maybe the Pledge wasn't the only thing that would do it. She said under her breath: `That one is purple, and the other's like a pear...'

It worked. All she had to do was make her thoughts into words. It didn't matter what she said, or whether she whispered or shouted. As long as she kept talking, the summoning call would turn to a giant clock again, with no power over the movements of her legs. She went up closer to the baffling coloured shapes, and made out a fairy-delicate translucent spiral thing and then a large mauve mushroom in the centre.

Mushroom! At last she understood. They were so big, she hadn't thought of it at first: it was all fungus growth, and that made sense in the dim damp beneath the trees.

Strange it isn't every place, all over, she thought, and realized she was moving away from the garden again, and remembered this was one time it was all right to talk to herself out loud. `There must be some people here. Some kind of people or natives. That noise is strange, too. It couldn't just *happen* that way; somebody lives here ...'

She didn't want to touch the fungus, but she went up close to it. `Things *don't* just happen this way. That stuff would grow all over if it was wild; somebody planted it.' She peered through the arch-shape to the inside, and jumped back violently.

The thing was lying on its side, sucking a lower follicle of the arch, its livid belly working as convulsively as its segmented mouth, its many limbs sprawled out in all directions.

Dee jumped away in horror, and crept back in fascination. 'It doesn't know I'm here,' she remembered to whisper. From around the other side of the bulbous growth she watched, and slowly understood.

'It's like some kind of insect.' It couldn't really be an insect, of course, because it was two feet long—much too large for an insect. An insect this size, on a planet as much like Earth as this was, wouldn't be able to breathe. They'd explained about why insects couldn't be any larger than the ones you found on Earth in Space Girl class. But men had found creatures on other planets that did look a lot like insects, and acted a lot like them, too. And even though people knew they weren't really insects, they still called such creatures 'bugs'...

Well, this thing was as close to an insect as a thing this size could be, Deborah decided. It was two feet long, and that made sense when you stopped to think about it, what with the tall trees and the giant mushrooms. She counted six legs, and then realized that the other two in front, resting quietly now, were feelers. The two front legs clutched at a clump of hairy shoots on the arched moss, almost like Petey holding his bottle. The back leg that was on top was longer than the front ones; it was braced against the arch for steadiness. The lower leg was tucked under-neath the body; its lower middle leg also lay still on the ground, stretched straight out. The upper middle leg was busily scratch-ing at a small red spot on the belly, acting absurdly independent of the rest of the feeding creature.

There was really, Dee decided, nothing frightening except the mouth. She looked for eyes, and couldn't see them, then remem-bered that some bugs on other planets had them on the backs of their heads. But that mouth ...

It worked like Petey's on a nipple; but not like Petey's, because this one had *six* lips, all thick and round-looking instead of like people's lips, and all closing in towards each other at the same time. It was horrible to watch.

Dee backed off silently, and found herself walking the wrong way again. She tried the multiplication table while she made a circuit of the 'garden', examining it for size and shape, and look-ing for a clear part that would let her see into the centre.

She found, at last, a whole row of the jelly-like translucent things, lying flat and low, so she could look inside. The ground beneath them was scattered with flashing jewel-like stones ...

No, black stones, with the bright part in the middle, she thought in words. *No, not the middle. At one end ...* each stone was lying partly on an edge of the jelly-stuff ... *about as big as my foot,* she thought, and saw the tiny feet around the edge of every stone.

Eyes on the backs of their heads, she thought, *and they have car ... carpets? ... carapaces!* These bugs were smaller than the first one, and not frightening at all. Bugs only looked bad from the bottom, she realized, and instantly corrected that impression.

Something walked into the garden, and picked up four of the little ones. Something as tall as Dee herself when it went in, and half again as high when it left. It entered on four legs, and walking upside-down, head carried towards the ground, and looking backwards ... no, *facing* backwards, *looking* forward. It entered calmly, moving at a steady even pace; approached the edge of the garden where Deborah watched the infants feeding ... and froze.

An instant's immobility, then the big bug erupted into a frenzy of activity: scooped up the four closest little ones—two of them with the long hairy jointed arms (or legs? back legs?), and two more hurriedly with two front legs (or arms?)—and almost *ran* out, now on just two legs, the centre ones, its body neatly balanced fore and aft, almost perfectly horizontal, the heavy hooded head in front, the spiny rounded abdomen at the back.

It scuttled off with its four tiny wriggling bundles, and as it left, Dee registered in full the terror of what

she had seen.

She fled ... and by some miracle, fled past a tree she'd marked, so paused in flight to find the next one, and the next, and followed her blazed trail safely back. The ticking of the forest followed for a while, then stopped abruptly. But while it lasted, it *pushed* away as hard as it had pulled before.

VII

DAYDANDA MADE THE last entry in her calendar of the day, and filed it with yesterday's and all the others. Things were going well. The youngest Family was thriving; the next-to-youngest—the Eleventh—was almost ready to start schooling; ready, in any case, for weaning from the Garden. Soon there would be room in the nurseries for a new brood.

Kackot was restless. She hadn't meant the thought for him at all, but he was sensitive to such things now, and he moved slightly, eagerly, towards her from his place across the room—perhaps honestly mistaking his own desire for the summons.

She sent a thought of love and promise, and temporary firm refusal. The new Family would have to wait. Within the House-hold, things were going well; but there were other matters to consider.

There was the still-unsolved puzzle of the Strangers, for instance. For a few hours, that mystery had seemed quite satis-factorily solved. When the Strange Lady left her Wings with baby--or-consort—now it seemed less certain which it was—to travel the path the flames had cleared for her, the whole thing had assumed a ritual aspect that made it easier to understand. Whatever Strange reasons, motives, or traditions were involved, it all seemed to fit into a pattern of some kind … until the next report informed Daydanda that the two Strangers had returned to their Wings—an act no less, and no more, unprecedented than their manner of arrival, or their strange appearance.

They had not since departed from the—*The house?* she wondered suddenly. Could a House be somehow made to travel through the air?

She felt Kackot's impatient irritation with such fantasizing, and had to agree. Surely the image of—it—relayed by the flier-scout who had approached most closely, resembled in no way any structure Daydanda had ever seen or heard of.

But neither was it similar in any way, she thought—and this time guarded the thought from her consort's limited imagination —to ordinary, Wings, except by virtue of the certain knowledge that it had descended from the sky above the trees.

Today there had been no report. The fliers were all busy on the northern boundary, where a more ordinary sort of nesting had been observed. When the trouble there was cleared up, she could afford to keep a closer watch on the apparently not-hostile Strangers.

Meantime, certainly, it was best to let a new Family wait. Lay-ing was hard on her; always had been. And with possible action developing on two fronts now...

Kackot stirred again, but not with any real hope, and the Lady barely bothered to reply. It was time to bring the young ones in. Daydanda began the evening Homecalling, the message to return, loud and strong and clear for all to hear: a warning to unfriendly neighbours; a promise and renewal to all her children in the Household, young and old.

`Lady! oh, Mother!' Daydanda sustained the Homecalling at full strength, through a brief surge of stubborn irritation; then, suddenly worried—the daughter on relay knew enough not to interrupt at this time for anything less than urgent—she allowed enough of her concentration to be distracted so as to permit a clear reception.

`*Lady!* ... nurse from east garden ... very frightened, confused ... message unclear ... she wishes.'

`Send her in!' Daydanda cut off the semi-hysterical outburst, and terminated the Homecalling abruptly, with extra emphasis on the last few measures.

The nurse dashed through the archway, too distraught to make a ritual approach, almost forgetting to prostrate herself in the presence of the Lady, her Mother. She opened communication while still in

motion, as soon as she was within range of her limited powers. Daydanda recognized her with the first contact: a daugh-ter of the fifth family—not very bright, even for a wingless one, but not given to emotional disturbance either, and a fine nurse, recently put in charge of the east garden.

`The Stranger, Mother Daydanda! The Strange Lady! ... she came to the *nursery* ... she would have stolen ... killed ... she would have ...'

To the nursery!

The Mother had to quell an instant's panic of her own before she could commence the careful questioning and reiterated reassurance that were needed to obtain a coherent picture from the nurse. When at last she had stripped away the fearful imag-inative projections that stemmed from the daughter's well-conditioned protectiveness, it appeared that the Strange Lady had visited the Garden, had spied on the feeding babies, and then had departed with haste when the Nurse came to fetch them home for the night.

'The babies are all safe?' the Mother asked sternly.

'Yes, Lady. I brought them to the House quick as I could before I came to you. I would not have presumed to come, my Lady, but I could not make the winged one understand. Will my Mother forgive ...'

'There is nothing to forgive; you have done well,' Daydanda dismissed her. 'You were right to come to me, even during the Homecalling.'

Breathing easy again, and once more in full possession of her faculties, the nurse offered thanks and farewell, and wriggled backwards out of sight under the arch, quite properly apologetic. The Lady barely noticed; she was already in contact with the flier-scout who had been reassigned from the North border by the daughter on relay, as soon as the nurse's first wild message was connected with the Strange Wings.

It was a son of the eighth Family, the same scout who had approached the Wings before, a well-trained, conscientious, and devoted son, almost ready to undertake the duties of a consortship. Daydanda could not have wished for a better representa-tive through whose sense to perceive the Strangers.

Yet, there was little she could learn through him. The Strange Lady had returned to the Wings ... *the House?* More and more it seemed so ... where the small Stranger presumably awaited her. Now they were both inside, and the remarkable barrier that could be raised or lowered in a matter of seconds was blocking the entranceway.

Perception of any kind was difficult through the dense stuff of which the ... whatever-it-was: Wings? House? ... was made. The scout was useless now. Daydanda instructed him to stay on watch, and abandoned the contact. Then she concentrated her whole mind in an effort to catch some impression—anything at all—from beyond the thick fabric of ... whatever-it-was.

Eventually, there was a flash of something; then another. Not much, but the Lady waited patiently, and used each fleeting image to build a pattern she could grasp. One thought, and another thought, and...

To Kackot's astonishment, the Lady relaxed suddenly with an outpouring of amusement. She did not communicate to him what she knew, but abruptly confirmed all his worst fears of the past weeks with a single command: 'I will go to the Strange Wings, oh Consort. Prepare a litter for me.'

When she addressed him thus formally, he had no recourse but to obey. If she noticed his sputtering dismay at all, she gave no sign, but lay back on her couch, thoroughly fatigued, to rest through the night while her sons and daughters prepared a litter, and enlarged the outer arches sufficiently to accommodate its great size.

VIII

DEE WAS SCARED, and she didn't know what to do. She wanted her mother; it was no fun taking care of Petey now. She made him a bottle to keep him from screaming, but she didn't bother with his diaper or fixing up his bunk or anything like that. It didn't matter any more.

There were no people on this planet.

Nobody was going to rescue them; nobody at all.

It wasn't the right planet, at all. If anybody on Starhope got worried and went to look for them, it was some other planet they'd look on. It had to be, because there were no people here. Just *bugs!*

Petey fell asleep with the bottle still in his mouth, sprawled on the floor, all wet and dirty. Deborah didn't care; she sat on the floor herself and fell asleep and didn't even know she slept till she woke up, with nothing changed, except that the clock said it was morning.

And she was hungry after all.

She started back to the galley, but first she had to open the outer lock. She actually had her hand on the lever before she realized she didn't *want* to open it. She was hungry; the last thing in the world she wanted to do was look outside again. She went back and got a piece of cake and some milk.

Milk for Petey, too. If she got it fixed before he woke up, she wouldn't have to listen to him yelling his head off again. She started to fix a bottle, but first she had to open the lock.

This time, she stopped herself half-way there.

It was silly to think she had to look out; she didn't want to. Petey was awake, but he wasn't hollering for once. She went back and got the bottle, and brought it into the play-space. 'Open it,' Petey said. 'Come out. Mother.'

'All right,' Dee told him. She gave him the bottle, went over to the lock, and then turned around and looked at him, terrified.

He was sucking on the bottle. 'Come on,' he said. 'Mother wait-ing.'

She was watching him while he said it. He didn't say it; he drank his milk.

She didn't think she was crazy, so she was still asleep, and this was a dream. It wasn't really happening at all, and it didn't matter.

She opened the lock.

IX

Once she had flown above the tree-tops, silver strong wings beating a rhythm of pride and joy in the high dry air above the canopy of fronds. Her eyes had gleamed under the white rays of the sun itself, and she had looked, with wild unspeakable elation, into the endless glaring brilliance of the heavens.

Now she was tired, and the blessed relief from sensation when they set her down on the soft ground—after the lurching motion of the forest march—was enough to make her momentarily regret her decision. A foolish notion this whole trip ...

Kackot agreed enthusiastically.

The Lady closed her thoughts from his, and commanded the curtain at her side to be lifted. Supine in her litter, safely removed from the Strangers under a tree at the fringe of the clearing, her vast body embedded on layers of cellulose mat, Daydanda looked out across the ravaged black strip. And the sun, in all its strength, collected on the shining outer skin of the Strange Wings, gathered its light into a thousand fiery needles to sear the surface of her eye, and pierce her very soul with agony.

Once she had flown above the trees themselves ...

Now her sons and daughters rushed to her side, in response to her uncontained anguish. They pulled close the curtain, and formed a tight protective wall of flesh and carapace around the litter. And from the distance, came a clamouring bloodlust eager-ness: the Bigheads waking in answer to her silent shriek of pained surprise. She sent them prompt soothing, and firm com-mand to be still; not till she was certain they understood, and would obey, did she dare turn any part of her mind to a considera-tion of her own difficulties. Even then she was troubled with the knowledge that her stern suppression of their rage to fight would leave the entire Bighead brood confused, and useless for the next emergency. It might be many days before their dull minds could be trained again to the fine edge of danger-awareness they had just displayed. If any trouble should arise in the meanwhile ...

She sent instructions to an elder daughter in the House to start the tedious process of reconditioning at once, then felt herself free at last to devote all her attention to the scene at hand. Tomorrow's troubles would have to take care of themselves till tomorrow. For now, there was disturbance, anxiety, and mortification enough.

That she, who had flown above the trees, higher and further than any sibling of her brood, that *she* should suffer from the sunlight now ...

'It was many years and many Families ago, my dear, my Lady.'

Daydanda felt her consort's comforting concern and thought a smile. 'Many years indeed...' And it was true; she had not been outside her chamber till this day—since the first Family they raised was old enough to tend the fungus gardens, and to carry the new babes back and forth. That was many years behind her now, and she had grown through many chambers since that time: each larger than the last, and now, most recently, the dar-ing double chamber with the great arch to walk through.

The Household had prospered in those years, and the bound-aries of its land were wide. The gardens grew in many places now, and the thirteenth Family would soon outgrow the nursery. The winged sons and daughters of Seven Families had already grown to full maturity, and departed to establish new Houses of their own ... or to die in failure. And through the years, the numbers of the wingless ones who never left the Household grew great; masons and builders, growers and weavers, nurses and teachers—there were always more of them, working for the greater welfare of the House, and their Mother, its Lady.

Through all those building, growing, widening years, Day-danda had *forgotten ...* forgotten the graceful wings and the soaring flight; the dazzling sunlight, and the fresh moist air just where the fronds stirred high above her now; the bright colours and half-remembered shapes of trees and nursery plants. Not once, in all that time, had she savoured the full sensory sharpness of *outside...*

She thought longingly of the nursery garden, the first one, that she and Kackot had planted together when they waited for the first Family to come. She thought of it, determined to see it again one day, then put aside all thoughts, hopes, and regrets of past or future.

Daydanda directed that her litter be moved so that the open-ing of the curtain would give her a view of the forest interior. Then, while her eye grew once again accustomed to their former functioning, she began to seek—with a more practised organ of perception—the mind-patterns of the Strangers inside that frighteningly bright structure in the clearing.

It was hard work. Whether there was something in the nature of the dense fabric of the Wings, or whether the difficulty lay only in the Strangeness of the beings inside, she could not tell, but at the beginning, the Lady found that proximity made small dif-ference in her ability to perceive what was inside.

Strangers! One could hardly expect them, after all, to provide familiar friend-or-enemy patterns for perception. Yet that very knowledge made the brief flashes of contact that she got all the more confusing, for they contained a teasing familiarity that made the Strange elements even less comprehensible by contrast.

For just the instant's duration of a swift brush of minds, the Mother felt as though it were a daughter of her own inside the Strange structure; then the feeling was lost, and she had to strain every effort again simply to locate the image.

A series of slow moves, meantime, brought her litter gradually back round to where it had been at first; and though she found it was still painful to look for any length of time directly at the blazing light reflected from the Wings, the Lady discovered that by focusing on the trees diagonally across the clearing, she could include the too-bright object within her peripheral vision.

That much assured, she ceased to focus visually at all. Time enough for that when—if—the Strangers should come forth. Once more she managed to grasp, briefly, the mental image of the Strangers, or of one of them; and once again she felt the unexpected response within herself, as if she were in contact with a daughter of the Household ...

She lost it then; but it fitted with her sudden surmise of the night before.

Now, in the hopeful certainty that she had guessed correctly, she abandoned the effort at perception

entirely; she gathered all her energies instead into one tight-beamed communication aimed at penetrating the thick skin of the Wings, and very little different in any way from the standard evening Homecalling.

It took some time. She was beginning to think she had failed: that the Strangers were not receptive to her call, or would respond only with fear and hostility. Then, without warning, the barrier at the entranceway was gone.

No ... not actually *gone.* It was still there, and still somehow attached to the main body of the Wings, but turned round so it no longer barred the way. And the opening this uncovered turned out to be, truly, the double-arch she had seen—but not quite credited—through her son's eyes.

Two arches, resting on each other base-to-base, but open in the centre : the shape of a hollowed-eve. Such a shape might grow, but it could not be *built.* Half-convinced as she had been that the Wings or House, or whatever-it-was, was an artificial structure rather than a natural form, Daydanda had put the relayed image of the doorway down to distortion of communica-tion the night before. Now she saw it for herself: that, and the device that moved like a living thing to barricade the entrance.

Like a living thing...

It could fly; it was therefore, by all precedent of knowledge, alive. Reluctantly, the Lady discarded the notion that the Wings had been built by Strange knowledge. But even then, she thought soberly, there was much to be learned from the Strangers.

And in the next moment, she ceased to think at all. The Stran-ger emerged—the bigger of the two Strangers—and at the first impact of full visual *and* mental perception, Daydanda's impos-sible theory was confirmed.

X

DEBORAH STOOD OUTSIDE, on the charred ground in front of the rocket, earnestly repeating the multiplication table: 'Two two's are four. Three two's are six. Four two's ...'

She was just as big as any of these bugs. The only one that was bigger was the one inside the box that she could only see part of —but that one had something wrong with it. It just lay there stretched out flat all the time, as if it couldn't get up. The box had handles for carrying, too, so Dee didn't have to worry about how big that one was.

All the rest of them were just about her own size, or even smaller but there were too *many* of them. And when she thought about actually touching one, with its hairy, sticky legs, she remembered the sick crackling sound a beetle makes when you step on it.

She didn't want to fight them, or anything like that; and she didn't think they wanted to hurt her specially, either. She didn't have the knotted-up, tight kind of feeling you get when somebody wants to hurt you. They didn't *feel* like enemies, or act that way, either. They were just too...

'Four four's are sixteen. Five four's are twenty. Six four's are twenty-four. Seven ...'

... too *interested!* And that was a silly thing to think, because how could *she* tell if they were interested? She couldn't even see their faces, because all the ones in front were bending backwards-upside-down, like the one she'd seen in the garden...

'... four's are twenty-eight. Eight four's are thirty-two. Nine four's are ...'

... just standing there, the whole row of them, with their back legs or arms or whatever-they-were sticking up in the air, and their heads dipped down in front so they could stare at her out of the big glittery eye in the middle of each black head. . .

'... thirty-six. Ten four's are forty. Eleven ...'

What did they want, anyhow? Why didn't they do something? '... four's are forty-four. Twelve four's ...'

The Space Girl oath was hard to remember if you were trying to think about other things at the same time; but Deborah knew the multiplication tables by heart, and she could keep talking while she was thinking.

Daydanda was fascinated. She had guessed at it, in her cham-ber the night before ... more than guessed, really. She would have been *certain,* if the notion were not so flatly impossible in terms of all knowledge and experience. It was precisely that con-flict between perception and precedent that had determined her to make the trip out here.

And she was right! These two were neither Lady and consort, nor Mother and baby, but only two children: a half-grown daughter and a babe in arms. Two young wingless ones, alone, afraid, and ... *Motherless?*

Eagerly, Daydanda poured out her questionings:

Where did they come from?

What sort of beings were they?

Where was their Mother?

'Twelve four's are forty-eight. One five is five. Two five's are ten, Three ...'

The important thing was just to keep talking—Dee knew that from when she had so much trouble at the garden. As long as she was saying something, anything at all, she could keep the crazy stuff out of her head.

'... five's are fifteen. Four five's are twenty. Five five's ...'

It was harder this time, though. At the garden, with the drum-beat-heartbeat sound that felt like Mommy's voice, all she had to do was *think* words. But now, it was stuff like thinking Petey was saying things to her—or feeling like somebody else was asking her a lot of silly questions. And every time she stopped for breath at all, she'd start wanting to answer a lot of things inside her head that there wasn't even anybody around to have asked.

'... are twenty-five. Six five's are thirty.'

The aching soreness in her body from the jolting journey through the forest ... the instant's agony when the sunlight seared her eye ... the nagging worry over the disturbed Bigheads ... all these were forgotten, or submerged, as the Lady exper-ienced for the first time in her life the frustration of her curiosity.

Every answer she could get from the Strange child came in opposites. Each question brought a pair of contradictory replies ... if it brought any reply at all. Half the time, at least, the Stranger was refusing reception entirely, and for some obscure reason, broadcasting great quantities of arithmetic—most of it quite accurate, but all of it irrelevant to the present situation.

Would they remain here? the Lady asked. Or would they return to their own House? Had they come to build a House here? Or was the Wing-like structure on the blackened ground truly a House instead?

The answers were many and also various.

They would not stay, the Stranger seemed to say, nor would they leave. The structure from which she had emerged was a House, but it was also Wings: Unfamiliar concept in a single symbol—Wings-House? *Both!*

Their Mother was nearby—inside—but—dead? No! Not *dead!*

How could the child possibly answer a sensible question sensibly if she started broadcasting sets of numbers every time anyone tried to communicate with her? *Very rude,* Daydanda thought, and very *stupid.* Kackot eagerly confirmed her opinion, and moved a step closer to the litter, as if preparing to commence the long march home.

The Lady had no time to reprimand him. At just that moment, the Strange child also broke into motion—perhaps also feeling that the interview was over,

'... Thirty. Seven five's are thirty-fi ...'

One of them moved!

Just a couple of steps, but Dee, panicked, forgot to keep talking and started a dash for the rocket; her head was full of questions again, and part of her mind was trying to answer them, without *her* wanting to at all, while another part decided *not* to go back inside, with a mixed-up kind of feeling, as if Petey didn't want her to.

And *that* was silly, because she could hear Petey crying now. He wanted her to come in, all right, or

at least to come and get him. She couldn't tell for sure, the way he was yelling, whether he was scared and mad at being left alone—or just mad and *wanting* to get picked up. It sounded almost more like he thought he was being left out or something, and wanted to get in on the fun.

If he thinks this is fun...!

'We're lost, that's what we are,' she said out loud, as if she were answering real questions someone had asked, instead of crazy ones inside her own head. 'I don't *know* where we are. We came from Starhope. That's a different planet. A different *world.* I don't know where ... One five is five,' she remembered. 'Two sixes are seven. I mean two seven's are twenty-one ... I can't think *anything* right!'

It *really* didn't matter what she said; as long as she kept talking. If she answered the silly questions right out loud that was all right too, because they couldn't understand her anyhow. How would *they* know Earthish?

It was possible that the Stranger's sudden move to return to the Wings-House was simply a response to Kackot's gesture of readiness to depart. The Lady promised herself an opportunity to express her irritation with her consort—soon. For the moment, however, every bit of energy she could muster went into a plea-command-call-invitation to the Strange child to remain outside the shelter and continue to communicate.

The Stranger hesitated, paused—but even before that, she had begun, perversely, now that no questions were being asked, to release a whole new flood of semi-information.

More contradictions, of course!

These two, the Stranger children, were—something hard to comprehend—not-aware-of-where-they-were.

They were in need of help, but not helpless.

The elder of the two—the daughter who now stood wavering in her intentions, just beside the open barrier of the Wings-House —was obviously acting in the capacity of nurse. Yet her self-pattern of identity claimed reproductive status!

Certainly the girl's attitude towards her young sibling was an odd mixture of what one might expect to find in nurse or Mother. Possibly the relationship could be made clearer by contact with the babe himself. There was little enough in the way of general information to be expected from such a source, but here he might be helpful. Tentatively, with just a small part of her mind, Daydanda reached out to find the babe, still concen-trating on her effort to keep the older one from departing ...

'Food ... mama ... suck ... oh, look!'

The Lady promptly turned her full attention to the babe.

After the obstructionist tactics, and confused content of the Strange girl's mind, the little one's response to a brushing con-tact was doubly startling. Now that she was fully receptive to them, *thoughts* came crowding into the Mother's mind, *thoughts* unformed and infantile, but buoyantly eager and hope-ful.

'Love ... food ... good ... mama .. . suck ... see ... see ...'

'Three seven's are twenty one!' Dee remembered triumphantly, and began feeling a lot better. They were all standing still again, for one thing; and her head felt clearer, too.

She moved a cautious step backwards, watching them as she went, and not having any trouble now remembering her multiplication.

'Four seven's are twenty-eight ...'

Just a few more steps. If she could just get back inside, and get the door closed, she wouldn't open it again for anything. She'd stay right there with Petey till some *people* came..?

'... MAMA ... SUCK ... see ... see ... good ... love ...'

It might have been one of her own latest brood, so easy and familiar was the contact. Just about the same age-level and emo-tional development, too. Daydanda was suddenly imperatively anxious to see the babe directly, to hold it in her own arms, to feel what sort of strange shape and texture could accommodate such warmly customary longings and perceptions.

'The babe!' she commanded. 'I wish to have the babe brought to me!' But the nurse to whom she had

addressed the order hung back miserably.

'The babe, I said!' The Lady released all her pent-up irritation at the Stranger child, in one peremptory blast of anger at her own daughter. `Now!'

'Lady, I cannot ... the light ... forgive me, my Lady ...'

With her own eye still burning in its socket, Daydanda hastily blessed the nursing daughter, and excused her. Even standing on the fringes of the bright-lit area must be frightening to the wingless ones. But whom else could she send? The fliers were unaccustomed to handling babes...

Kackot…

He was good with babes, really. She felt better about sending him than she would have had she trusted the handling of the Stranger to a nurse. Kackot himself felt otherwise; but at the moment, the Lady's recognition of his discomfiture was no deterrent to her purpose; she had not forgotten his ill-advised move a little earlier.

The consort could not directly disobey. He went forward, doubtfully enough, and stood at the open entranceway, peering in.

'Oh, *look* I ... love ... look!'

The babe's welcoming thoughts were unmistakable; Kackot must have felt them as Daydanda did. Stranger or no, the near presence of a friendly and protective entity made it beg to be picked up, petted, fondled, loved—and hopefully, though not, the Mother thought, truly hungrily—perhaps also to be fed.

Meantime, however, there was the older child to reckon with. The babe was eager to come; the girl, Daydanda sensed, was determined not to allow it. Once more, the Mother tried to reach the Strange daughter with empathy and affection and reassur-rance. Once again, she met with only blankness and refusal. Then she sent a surge of loving invitation to the babe, and got back snuggling eagerness and warmth—and suddenly, from the elder one, a lessening of fear and anger.

Daydanda smiled inside herself; she thought she knew now how to penetrate the strange defences of the child.

XI

DEE STOOD STILL and watched it happen. She saw the nervous fussy-bug—the one that had scared her when he moved before—go right over to the rocket and look inside. He passed right by her, close enough to touch; she was going to do something about it, until Petey started talking again.

He said, `Baby come to mama.'

At least, she *thought* he said it. Then she *almost* thought she heard a Mother say, `It's all right; don't worry. Baby wants to come to mama.'

'Mother's *dead!'* Deborah screamed at them all, at Petey and the bugs, without ever even opening her mouth. 'Five seven's are thirty-five,' she said hurriedly. She'd been forgetting to keep talking, that's what the trouble was. 'Six seven's are forty-two. Seven..?

And still, she couldn't get the notion out of her head that it was her own mother's voice she'd heard. 'Seven seven's..? she said desperately, and couldn't keep from turning around to look at the part of the rocket where Mommy was—would be—had been when—

The smooth gleaming metal nose looked just the same as ever, now it was cool again. There was no way of knowing anything had ever happened in there. *If anything had happened* ...

Deborah stared and stared, as if looking long enough and hard enough would let her see right through the triple hull into the burned-out inside: the wrecked control room, and the two char-red bodies that had been Father and Mother.

'... seven seven's is forty—forty seven? ... eight ... ?'

She floundered, forgetting, she was too small, and she didn't know what to do about anything, and she wanted her mother.

`It's all right. Stand still. Don't worry. Baby *wants* to come to mama.'

It wasn't her own mother's voice, though; that wasn't the way Mommy talked. If it was these bugs that

were making her hear crazy things and putting silly questions in her head ... seven seven's ... seven seven's is ... just stand still ... don't worry ... everything will be all right ... seven seven's ... *I don't know* ... don't worry, all right, stand still, seven's is...

`*Forty-nine!'* she shrieked. The fussy-bug was all the way inside, and she'd been standing there like any dumb kid, hearing thoughts and voices that weren't real, and not knowing what to do.

`Forty-nine, fifty, fifty-one, fifty-two,' she shouted. She could have been just counting like that all along, instead of trying to remember something like seven times seven. *Get out of there, you awful hairy horrible old thing!* `Fifty-three, fifty-four. You leave my brother alone!'

The fussy-bug came crawling out of the airlock, with Petey —soft little pink-and-wet Petey—clutched in its sticky arms.

'Fifty-five,' she tried to shout, but it came out like a creak instead. *You leave him alone!* her whole body screamed; but her throat was too dry and felt as if somebody had glued it together, and she couldn't make any words come out at all. She started forward to grab the baby.

'Come to Mama,' Petey said. 'Nice Mama. Like. Good.'

She was looking right at him all the time, and she *knew* he wasn't *really* talking. Just drooling the way he always did, and making happy-baby gurgling noises. He certainly didn't act scared—he was cuddling up to the hairy-bug just as if it was a *person.*

'Come to Mama,' the baby crooned inside her head; she should have made a grab for him right then, but somehow she wasn't *sure...*

The fussy-bug walked straight across the Bearing to the tree where the big box was, and handed Petey inside.

'Oo-oo-ooh, *Mama!'* Petey cried out with delight.

'Mommy's *dead!'* Deborah heard herself shouting, so she knew her voice was working again. 'Dead, she's dead, can't you understand that? Any dope could understand that much. She's *dead!'*

Nobody paid any attention to her. Petey was laughing out loud; and the sound got mixed up with some other kind of laughter in her head that was hard to not-listen to, because it felt *good.*

XII

HOLDING THE BABE tenderly, Daydanda petted and patted and stroked it, and made pleased laughter from them both. Cautiously, she experimented with balancing the intensities of the two con-tacts, trying to gauge the older child's reactions to each variation. Reluctantly, as she observed the results, she came to the conclu-sion that the Strange daughter had indeed been consciously attempting to block communication.

It was unheard-of; therefore impossible—but impossibilities were commonplace today. The Mother's own presence at this scene was a flat violation of tradition and natural law.

Nevertheless:

The child had emerged from the Wings-House, in response to a Homecalling pattern.

Therefore, she was not an enemy.

Therefore she could not possibly feel either fear or hostility towards Daydanda's Household.

These things being true, what reason could she have for desiring to prevent communication?

Answer: Obviously, despite the logic of the foregoing, the Strange child was *afraid.*

Why? There was no danger to her in this contact.

'Stupid,' Kackot grumbled; 'just plain stupid. As much brains as a Bighead. Lady, it is getting late; we have a long journey home ...'

Daydanda let him rumble on. A child was likely to behave stupidly when frightened. She remembered, and sharply reminded her consort, of the time a young winged one of her own, a very bright boy normally—was it the fifth Family he was in? No, the sixth—had wandered into the Bigheads' corral, and been too petrified with fear to save himself, or even to call for help.

The boy had been afraid, she remembered now, that he would call the Bigheads' attention to himself, if

he tried to communicate with anyone, so he closed off against the world. Of course, he knew in advance that the Bigheads were dangerous. If the Stranger here had somehow decided to be fearful *in advance,* perhaps her effort to block contact was motivated the same way ...

'The Homecalling,' Kackot reminded her; 'she answered a Homecalling.'

'She is a Stranger,' Daydanda pointed out. 'Perhaps she re-sponded to friendship without identifying it ... I don't know ...'

But she would find out. Once again she centred her attention on the babe, keeping only a loose contact with the older child.

Dee kept watching the box on the ground that had the big bug inside it. She couldn't see much of the bug, and she couldn't see Petey at all, after the other bug handed him in. But it wasn't just Petey she was watching for.

It was that big bug that was—talking to her. Well, anyhow, that was making it sound as if Petey talked to her and putting questions in her head and...

She didn't know how *it* did it, but she couldn't pretend any more that it wasn't really happening. Somebody was picking and poking at her inside her head, and she didn't know how they did it or why, or what to do about it. But she was sure by now that the big bug in the box was the one.

'Let's see now—seven seven's is forty-nine.' Just counting didn't seem to work so well. 'Seven eight's is ... I mean, *eight seven's is ...* I don't *know I* can't *remember ...* We came for Daddy and Mommy to make reports. That's what they always do. Daddy's a Survey Engineer and Mommy's a Geologist. They work for the Planetary Survey Commiss ... I mean they *did ...'*

It was none of their business. And they did know Earthish!

If they didn't, how could *they* talk to *her?*

'Seven seven's is forty-nine. Seven seven's is forty-nine. Seven seven's ...'

At the first exchange, the Lady had put it down to incompet-ence, but she could no longer entertain that excuse. The Strangers had no visible antennae, yet the ease of communication with the babe made it clear that they could receive as well as broadcast readily—if they wished.

The perception appeared to be associated with an organ Day-danda had at first mistaken for a mouth: small and flat, centred towards the bottom of the face, and enclosed by just two soft-look-ing mandibles.

In the babe, the mandibles were almost constantly in motion, and there was a steady flow of undirected, haphazard communi-cation, such as was normal for the little one's apparent level of development. With the older child, it was apparent that the mes-sages that came when the mandibles were moving were stron-ger, clearer, and more purposeful in meaning than the others. Unfortunately, the content of these messages was mostly nothing but arithmetic.

Yet even when the 'mouth' was at rest, Daydanda noticed that there was a continuous trickle of communication from the Strange daughter—a sort of reluctant release of thought, rather like the babe's in that it was undirected and largely involuntarily, but with two striking differences: the eagerness of the babe to be heard, and the fact that the content of the older one's thoughts were not at all infantile, but sometimes startlingly mature.

Daydanda repeated her questions, this time watching the man-dibles as the answers came, and realized that the thin stream of involuntary communication went on even while mandible mes-sages were being sent—and that the 'opposite' answers she'd been receiving were the result of the differences between the purposeful broadcasts and the backeround flow.

The Strangers' Mother and her consort, it appeared, (gradually, the Lady learned to put the two answers together so that they made sense) had come here to survey the land (to look for a House-site, one would assume), and they had techniques as well for determining before excavation what lay far underground. However, they were now dead ... perhaps ... and ...

More arithmetic!

'What is it that you fear, child?' the Mother asked once more.

'I'm not afraid of those (unfamiliar symbol—something small and scuttling and unpleasant),' the

daughter addressed her sibling, mandibling. 'Scared, scared, *scared...'* came the running edge of thought behind and around it.

'Don't be scared,' Petey told her.

'I'm not afraid of those old bugs!' she told him.

But it wasn't Petey, really; it was that big Mother-bug in the box. *Mother-bug?* What made her think that? That was what *Petey* thought....

Deborah was all mixed up. And she *was* scared; she was scared for Petey, and scared because she didn't know how they put things in her mind, and scared...

Scared all the time except when that good-feeling laughing was in her head; and then, even though she knew the—the *Mother-bug* must be doing that too, she *couldn't* be scared.

Deborah stood still, trembling with the realization of the awful-ness of destruction she would somehow have to visit upon this bunch of bugs, if anything bad happened to Petey. She didn't understand how she had come to let them get him out of the ship at all; and now that they had him, she didn't know what to do about it. The first large tear slid out of the corner of her eye and rolled down her cheek.

'Make food for sibling?' the Mother inquired, as she watched the clear liquid ooze out of the openings she had at first thought to be twin eyes.

The Strange daughter was apparently receiving all communica-tion as if from the babe, for her answer was addressed to him: a reassurance, a promise, 'I will prepare (unfamiliar symbol) inside the ...' Another unfamiliar symbol there—ship—but with it came an image of an interior room of Strange appearance; and Day-danda safely guessed the symbol .to refer to the Wings-House. The first symbol—*bottle,* she found now, in the babe's mind—was a great white cylinder, warm and moist, and connected with the sucking concept ... but no time to classify it further, because the older child was mandibling another message, this time directly to the Mother.

'Return the babe to me, the babe is hungry. I must prepare his food.'

'You have food for the sibling now,' Daydanda pointed out patently. 'Come here to the litter and feed him.'

'Sure there's milk,' Dee said. 'There's lots of milk, Petey. I'll give you a bottle soon as we get back inside,' she promised, and warned the big bug hopefully: 'That baby's hungry; he's awful hungry—you wait and see. He'll start yelling in a minute, and then you'll see. You better give him back to me right now, before he starts yelling.'

'There is much food inside the ship,' the child told the babe, but all the while a background-message trickled out: 'There isn't; there really isn't. It won't last much longer.' And even as the two conflicting thoughts came clear in her own mind, Daydanda saw a large drop of the precious fluid roll off the girl's face and be lost forever in the ground.

'Come quickly!' she commanded. *'Now!* Come to the Mother, and give food to the babe. Quick!'

But the doltish child simply stood there rooted in her fears.

Maybe if she just walked right over and lifted him out of the big box, they wouldn't even try to stop her ... but there were too many of them, and she didn't dare get much further away from the rocket.

'You better give him back to me,' she cried out hopelessly.

It took a while to sort out the sense from the nonsense. Of course, the child believed the babe to be hungry because the message about feeding came to her through him. Actually, the little one was warm and happy and content, with no more than normal infantile fantasies of nourishment in his mind. His belly was still half-full from earlier feeding.

But half-full meant also half-empty. If the older child was now producing food, and could not continue to do so much longer—as seemed clear from the contradictory content of her messages—the babe

should have it now, while it was available. The daughter's reluctance to provide him with it seemed somehow connected with the *bottle* symbol. It was necessary to go into the Wings-House to get the *bottle...*

Daydanda searched the babe's mind once again. *Bottle* was food ... ? No ... *a mechanism* of some sort for feeding. Perhaps the flat mandibles were even weaker than they looked; perhaps some artificial aid in nourishment was needed ...

And that thought brought with an equally startling notion in explanation of the Wings-House ... a Strange race of people might possibly need artificial Wings to carry out the nuptial flight ...

That was beside the point from now. Think about it later. Meantime ... she had to reject the idea of artificial aid in feeding; the babe's repeated sucking image was too clear and too familiar. He nursed as her own babes did; she was certain of it.

Then she recalled the Strange daughter's earlier crafty hope of finding some way to return to the Wings-House with the babe, and emerge no more. Add to that the child's threat that the babe, if not immediately returned to her, would start *yelling*—would attempt to block communication as the girl herself did. It all seemed to mean that *bottle* was not a necessity of feeding at all, but some pleasurable artifact inside the *ship,* somehow associated with the feeding process, with which the daughter was trying to entice the babe.

'You wish to feed?' Daydanda asked the little one, and made a picture in his mind's eye of the girl's face with liquid droplets of nourishment falling unused to the ground.

'Not food,' came the clear response. 'Not food. *Sad.'* Then there was an image once again of the tubular white container, but this time she realized the colour of it came from a cloudy fluid inside ... *milk.* 'Milk-food, Tears-crying-sad.'

Tears-crying was for the face-liquid. It was useless, or rather useful only as emotional expression. It was a waste product ... (and she had been right in the first guess about twin eyes!) ... and then the further realization that the great size she had at first attributed to the *bottle* was relative only to the babe. The thing was a reasonably-sized, sensibly-shaped storage container for the nutrient fluid the babe and child called *milk;* and it was further-more provided with a mechanism at one end designed to be sucked upon.

Out of the welter of freshly-evaluated information, one fact emerged to give the Lady an unanticipated hope.

There was food—*stored, portable* food inside the winged struc-ture. The Strangers were *not biologically tied* to the Wings; there was no need to return the babe in order to satisfy its hunger. Babe and Strange daughter bath could, if they would, return to Daydanda's House, there to communicate at leisure.

It remained only to convince the daughter ... and Daydanda had not forgotten that the child was susceptible to the Homecall-ing and to laughter both.

XIII

DEBORAH WALKED BEHIND the litter where Petey rode in state with ... with *the Mother ...* and all around her walked a retinue of bugs; dozens of them. They walked on four front legs, heads carried down and facing backwards, eyes looking forward. The tallest of them was just about her own height when it stood up straight. Walking this way, none of them came above her waist; they weren't so awful if you didn't have to look at their faces.

Certainly they were smart—so smart it scared her some ... but not as much as it would have scared her to keep on staying in the rocket. She was just beginning to realize that.

Dee still didn't know how they made her think things inside her head; or how they made Petey seem to talk to her; or how they knew what she was thinking half the time, even if she didn't say a word. She wasn't sure, either, what had made her decide to do what the *Mother* wanted, and packed up food to take along back to their house. She didn't even know what kind of a house it was, or where it was. But

she was pretty sure she'd rather go along with them than just keep waiting in the rocket alone with Petey.

Wherever they were going, it was a long walk. Dee was tired, and the knapsack on her back was heavy. They'd started out right after lunch time, and now the dimness in the forest was turning darker, so it must be evening. It was hot, too. She hoped the milk she'd mixed would keep overnight; but she had crackers and fruit, too, in case it didn't. It wasn't the food that made the knapsack so heavy, though; it was the oxy torch she'd slipped into the bottom, underneath the clean diapers.

These bugs were smart, but they didn't know *everything,* she thought with satisfaction. They never tried to stop her from tak-ing along the torch.

It was hot and damp, and the torch in the knapsack made a knobby hard spot bouncing against her back. But the bugs never stopped to rest; and Dee walked on in their midst, remembering that she was a Space Girl, so she had to be brave and strong.

Then suddenly, right ahead, instead of more trees, there was a bare round hill of orange clay. Only when you looked closer, it wasn't just a hill, because it had an opening in it, like the mouth of a cave, because the edges of the arch were smooth. It was even on both sides, and perfectly round on top; it had little bits of rock or wood set in cement around the edges to make it keep its shape…

She couldn't tell what was inside. It was dark in there `Too *dark.* Deborah paused inside the entranceway, oppressed by shad-ows, aghast at far dim corridors. One of the bugs tried to take her hand to lead her forward. The touch was sticky. She shuddered back, and stood stock-still in the middle of the arch.

`I hate you!' she yelled at all of them.

'Not hate,' said Petey, laughing. 'Fear.'

'I'm not scared of anything,' she told him; 'you're the one who's scared, not me. Petey's afraid of the dark,' she said to the big bug. 'You give that baby back to me right now. That's not your baby. He's *my* brother, and I want him back.'

The rocket, lying helpless on its side in the bare black clearing, seemed very safe and very far away. Dee didn't understand how she could have thought—even for a little while—that this place would be better. Everything back there was safety: even the burned-out memory of the control room was sealed off behind a *safety* door. Everything here was strange and dark, and no doors to close on the shadows—just open arches leading to darker stretches beyond ...

''Fraid of a *door!'* said Petey.

'I'm not afraid of any old door.' Deborah's voice was hoarse from pushing past the choke spot in her throat that was holding back the tears. 'You give me back my brother, that's all; we're not going into your house. He is, too, afraid of the dark; and he hates you too!' *A Space Girl is brave,* she thought, and then she said it out loud, and walked right over to the shadowy outline of the big bug's box, and reached in and grabbed for Petey.

Only he didn't want to come. He yelled and wriggled away; held on tight to the Mother-bug, and kicked at Dee.

She didn't know what to do about it, till she heard that good laughing in her head again. Petey stopped yelling, and Dee stopped pulling at him. She realized that she was very tired, and the laughing felt like home, like her own mother, like food and a warm room, and a bed with clean sheets—and maybe even a fuzzy doll tucked in next to her as if she were practically a baby again herself.

She was tired, and she didn't feel brave any more. She didn't want to go inside, but she didn't want to fight any more, either—especially if Petey was going to be against her, too. She sat down on the ground under the arch to figure out what to do.

'Light?' a voice like Mother's asked gently inside her head. 'You want a light inside?'

'I've got a light,' Dee said, before she stopped to think. 'I've got a light right here.'

She dragged the knapsack around in front of her and dug down into it. She was going to have to go in after all; there wasn't anything else to do. She got the torch out, and turned it on low, so it wouldn't get used up too fast. Then she started laughing, because this time it was the bugs who were scared. They all started run-ning around like crazy, every which way, and half of them ran clear away, inside.

The child was certainly resourceful, Daydanda thought ruefully, as she issued rapid commands and reassurances, restoring order out of the sudden panic that the light had caused among the sensitive unpigmented wingless ones.

No daughter of mine, she thought angrily, with admiration, *no daughter of mine would even dare to act this way!*

'So you begin to see, my dear Lady ...' Kackot was obviously irritated and *not* impressed ... 'They have no place in the House-hold. Useless parasites ... Why not admit ...?'

'Quiet!'

Useless parasites? No! *Dangerous* they might well be; *useless* only if you counted the acquisition of new knowledge as of no use. The child would certainly have to be watched closely. This last trick with the light was really quite insupportable be-haviour: rudeness beyond belief or toleration. Yet the bravado of the Stranger's attitude was not too hard to understand. Still unequipped for Motherhood, she had already acquired the in-stincts for it; she was doing, in each case, her inadequate best to protect both sibling and self from any possible dangers. And each new display of unexpected—even uncomfortable—ingenuity left Daydanda more determined than before to make both Stran-gers a part of her Household.

There was much to be learned. And...

Daydanda was many things :

As a Mother, she felt a simple warm solitude for two un-mothered creatures.

As the administrative Lady of her Household, it was her duty first to make certain that the Strangers were so established that they could do no harm; and then to learn as much as could be learned from their Strange origins and ways of life.

As a person—a person who had flown, long ago, above the treetops—a person who had only a short time ago walked through the enlarged archway in defiance of all precedent and tradition—a person who had just this day dared the impossible, and ventured forth from her own House to make this trip—Daydanda chuck-led to herself, and wished she knew some way to make the Stranger understand the quite inexplicable affection that she felt.

The child said the babe feared darkness; this was manifestly untrue. The Mother still held the soft infant in her arms, and she *knew* there was no fear inside that body. As for the older one —it was not lack of light that *she* feared, either. Yet if the presence of accustomed light could comfort her—why, she should have her light!

`Come, child,' Daydanda coaxed the girl gently through the mind of the babe. `Inside, there is a place to rest. You have done much, Strange daughter, and you have clone well; but you are tired now. Inside, there is safety and sleep for the babe and for you. Come with us, and carry your light if you will. But it is time now to sleep; tomorrow we will plan.'

At the Lady's command, the litter-bearers picked up her stret-cher once more, and the lurching forward motion recommenced. The child on the ground stood up slowly, holding her light high, and followed after them. All down the dim corridors, Daydanda's warning went ahead, to spare those whom the little light might hurt from the shock of exposure.

XIV

DEBORAH LAY ON her back on a thick mat on the floor. It had looked uncomfortable, but now that she was stretched out on it, it felt fine. She had no blanket, and no sheets, and she'd forgotten to bring along pyjamas. At first she tried sleeping in all her clothes, but then she decided they were only bugs after all, and they didn't wear anything; so she took off her overalls and shirt. The room was warm, anyhow—almost too warm.

She got up and went across the room to the other mat, where Petey was, and changed his diaper and took off the rest of his clothes, too. She didn't know what to do with the dirty things; there was no

soil-remover here. Finally, she folded them up neatly—all except the dirty diaper, which she wadded up and threw in a far corner. The rest of the things they'd have to wear again tomorrow, dirty or not.

Then she propped up Petey's almost empty bottle, and went back to her own mat, lay down again, and turned the oxy torch as low as she could, without letting it go out altogether. She could barely see Petey across the room, still sucking on the nipple, though he was just about asleep.

They hadn't really been captured, she told herself. Nobody tried to hurt them at all. It was more like being *rescued.* She didn't know what would happen tomorrow, except one thing—and that was that she would have to go back to the rocket to get some clothes at least. It was a long walk, though. Right now, she felt warm and safe and sleepy.

These bugs were smart, but there were plenty of things they didn't know at all ...

She was pretty sure they wouldn't understand anything about the safety door, for instance. Unless...

Maybe they could find out about it in her mind. But even if they did, they wouldn't *understand* ...

And they couldn't even find out anything, if she just didn't *think* about it any more....

That was the best way. *I'll just forget all about it,* she decided.

She felt very brave. The Space Girl Troup Leader on Starhope would be proud of her now, she thought, as she reached out and turned the light all the way off before she fell asleep.

Petey was crying again. `Shut up,' Dee said crossly; 'why don't you shut up a minute?'

Her eyes felt glued together. She didn't want to wake up. She was warm and comfortable and still very sleepy; and now that it was all over, why didn't Mommy come, and... ?

She opened one eye slowly, and couldn't see anything. It was pitch dark in the room; no lights or windows...

She reached out for the oxy torch, her hand scraping across the smooth clay floor, and it wasn't there. The bugs had taken it away. They had come in while she was sleeping and taken it ...

Her hand found the torch, fumbled for the switch, and she had to close her eyes against the sudden bright flare of light. Petey, startled, stopped crying for a minute, then started in again just twice as loud.

The knapsack was in the corner, back of the light, and there was a bottle all ready for him inside it, but Dee still didn't want to get up. If she got up, it would be admitting once and for all that this was real, and the other part had been a dream—the part where she'd been waking up in a real bed, with Mommy in the next room ready to come and take care of them and give them breakfast.

It still felt that way a little bit, as long as she lay still with her eyes closed. *Mother in the next room ...* Dee didn't want the feeling to stop, but she couldn't help it if the food was in this room. *Mother can't feed me ...* That was a silly thing to think. She was a big girl; nobody had to *feed* her...

Dee got up and got the bottle for Petey, and some fruit and crackers for herself. She was wide awake now and she knew she wasn't dreaming; but when she was all done eating, she didn't know what to do. There was still some food left, but she wasn't really hungry. She knew she might need it later on, so she just sat around listening to Petey making sucking noises on his bottle, and wondering what was going to happen next.

XV

THE MORNING PATTERN of the Household was a familiar and punctilious ritual: a litany of order and affirmation. Each mem-ber of each Family knew his role and played it with conditioned ease; the sum of the parts, produced a choreography of timing and motion, such as had delighted the Mother on that day when she watched her mason sons construct the new arch in her double chamber.

Daydanda's great body rested now, as then, on the couch of mats from which she had once thought she would never rise again; but her perceptions spread out of the boundaries of her Household, and her commands and reprimands were heard wher-ever her children prepared for the day's labour.

Some of the pattern was set and unvarying: the nurses to care for the babes, and the babes to the gardens to feed; the grow-ing sons and daughters to their classrooms, workrooms, and the training gardens; those whose wings are sprouting to instruction in the mysteries of flight and reproduction.

The winged ones whose nuptial flight time has not come as yet wait in their quarters for assignments to scouting positions for the day; the builders breakfast largely to prepare cement, and gather up clay and chips for work in some new structure of the House; the growers, gardeners, and harvesters spread out across the forest, clearing the fallen leaves and branches, sporing the fungi, damming or redirecting a flow of water to some more useful purpose, bringing back new stores of leaf and wood and brush to fill the storage vaults beneath the House.

It was never precisely the same. There was always some minor variation in the combination of elements: a boundary dispute today on this border, instead of the other; a new room to add to the nursery quarters, or an arch to repair in the vaults; a garden to replant into more fertile soil. And on this particular morning, two matters of special import claimed the Lady's attention.

The most urgent of these was the reconditioning of the dis-turbed Bigheads. Two of the eldest winged daughters—both almost ready for nuptial departures from the Household—had been assigned to work with the nurses who ordinarily tended to the needs of the corral. Under different circumstances, Daydanda would have considered the process worthy of her own direct supervision. Now, however, she contented herself with listening in semi-continuously on the work being done. The programme was proceeding slowly—too slowly—but as long as some progress was being made, she refrained from interfering, and concentrated her own efforts on a matter of far greater personal interest: the Strangers in the House.

Or, rather, the Strange daughter. The babe was no great puzzle; his wants were familiar, and easy to understand. Food and love he needed. The latter was easy; the former they would simply have to find some way to provide ...

She pushed aside the train of thought that led to making these new arrivals permanent members of the Household. No telling how much longer their supply of their own foods would last; nor whether it would be desirable to keep them in the House. For the time being, Daydanda could indulge her curiosity, and concen-trate on the unique components of the Strange daughter's per-sonality.

The child was a conglomeration of contradictions such as the Mother would not previously have believed possible in a sane individual—in one who was capable of performing even the most routine of conditioned tasks, let alone initiating such original and independent actions as those of the Stranger.

And yet, the confusions that existed in the child's thought patterns were so many, and so vital, it was a wonder she could even operate her own body without having to debate each breath or motion in her neurones first.

Fear! The child was full of fear. And something else for which there was no proper name at all: *I should-I shouldn't.*

Impossible confusion, resulting even more impossibly in better--than-adequate responses!

Hunger ... Mother ... hunger ... Mother?...

The drifting thoughts merged with the Lady's reflections, and for a moment she was not certain of the source. Too clearly-formed in pattern to be the babe ... and then she realized it was the older one, just waking from sleep, and still stripped of defences.

'I cannot feed you, child,' she answered the Strange daughter's unthinking plea. 'Not yet. You brought food with you from your ... *ship.* Eat now, and feed the babe; then we will make plans for tomorrow.'

But in her own mind, Daydanda knew, there was no question of what plans to make. If there were any way to do so, she meant to have the Strangers stay within her House. She meant to have the secrets of the Strange Wings-House explored and uncovered and to learn the Strange customs and knowledge. It remained only to determine whether it was possible to feed them and care for them adequately within the Household ... and to convince the strange daughter to stay.

The Mother opened her mind once more to her sons and daughters, at their tasks, and found that all was well throughout the Families. Then she waited patiently till the Strangers were done feeding.

Petey was sleeping. All he ever did was drink milk and go to sleep and yell and act silly. Dee got up

and walked around the room, but there was nothing to see and nothing to do.

She didn't even remember which way they had come to get to this room last night, and she didn't know whether they'd let her go out if she wanted to. There was no door closing the room off from the corridor—just another open archway. But outside there was only dimness and darkness.

Abruptly, she picked up the torch and walked to the doorway, flared brilliance out into the hall, and peered up and down. After that she felt better, at least they weren't being *guarded.* She had seen half a dozen other open arches along the corridor, but not even a single bug anywhere.

When Petey woke up, she decided they'd just start walking around until they found some way to get out. She'd have to wait for him to get up, though, because she couldn't carry the lighted torch and the baby both; and even if she didn't need it to see with, she had to have the torch turned up real bright, because that's what they were afraid of. They wouldn't bother her ...

They're not all scared of the light, she thought. *Just the white-coloured ones are.* She wondered how she knew that, and then forgot about it, because she was thinking: *If we did get out of here, I don't know how we could get back to the rocket.*

It was a long way, and she'd have to carry Petey most of the time; and she didn't know *which way* it was, and...

I'm going to go find the Mother-bug! she decided. For just an instant after that she hesitated, wondering about leaving Petey, but somehow she felt it was all right. He was asleep, and she figured if he woke up and started yelling, she could hear him; any place in here she'd be able to hear him because there weren't any doors to close in between.

She picked up the torch again, and turned it down low, so there was just enough light to see her way. *Don't scare them,* she thought. *They're friends.* But it was comforting to know, anyhow, that she *could* scare them just by turning it up. The white ones were the only ones who couldn't *stand* it, but none of them were used to bright light.

She wondered again how she knew that, and tried to remember something from last night that would have let her know it, but that time she was too busy trying to figure out which corridors and archways would take her to the Mother-bug's room.

XVI

A TREMENDOUS EXCITEMENT was building up inside Daydanda's vast and feeble bulk, while she guided the Strange child through the labyrinth of the House from the visitor's chamber near the outer walls to her own central domain.

Yesterday, for the first time in many years of Motherhood, she had experienced once more—with increasing ease and pleas-ure through the day—the thousand subtly different sensations and perceptions of direct vision. Through all the years between, she had known the *look* of things outside her chamber—and of beings outside her own Families—only through the distortions and dilutions of the minds of her sons and daughters, travelling abroad on missions of her choosing, and reporting as faithfully as they could, all that they saw and touched and felt for her appraisal.

But no image filtered through another's brain emerges quite the same as when it entered ... and no two beings, not even those as close as Mother and daughter, can ever see quite the same image of an object. Certainly, Daydanda had perceived both more and less of the winged object in the clearing when she viewed it with her own eye, than when she had watched it through the mind of her own scouting son.

And now she was to have the Strange child here before her eyes again, to watch and study! The thought was so far removed from precedent and past experience, it would not have occurred to her at all to have the girl come to her chamber. But when she tried to make the child aware of her desire to converse, to exchange information, the prompt and positive response had come clearly: *I want to see the Mother. I want to try and talk to her.*

And behind the response was a pattern Daydanda dimly per-ceived, in which two-way communication was *commonly* associated with visual sensation. The girl seemed to *assume* that an exchange of information would occur only where an exchange of visimages was also possible!

DAYDANDA

And now the child was standing in the entrance to the new chamber, and the background patter of her mind was a complaint about the difficulty of seeing clearly.

`You may have more light, child, if you wish to see me more clearly,' the Mother assured her. 'I told you before, it is only the ones unpigmented who are harmed by the bright- ness, and only the wingless who fear it at all.'

An instant later, she realized she had been boasting. The flaring-up of the light caused her no agony, such as she had experienced the day before; but it was quite sufficient to cause her to turn her face abruptly towards the stranger, so as to shield her eye.

And then there was a far worse pain than anything her eye could feel. The Mother's vanity was almost as carefully fed, and quite as much enlarged, as her great abdomen; certainly it was far more vulnerable to attack.

Nobody had ever thought her anything but beautiful before. The Stranger child, at the first clear look, thought she was...

Ugly and awful and frightening and fat!

It was the clearest, sharpest message she had had at any time from the Strange daughter ... that she was hideous!

Shame and disappointment both receded before a sudden access of fury.

Reflexively, Daydanda shot out a spanking thought; and in the very next instant, regretted it.

'I am sorry, child. I should not have punished you for what you could not help thinking, but ... I am not used to such thoughts.'

`You did that?' the child demanded, and angrily : `You meant to do it?'

`I did not plan to do it; but it was done with volition, yes.'

The Stranger, Daydanda felt, had no clear concept in her mind to understand that distinction. A thing was done she'd either—on purpose was the child's symbol, or else involuntarily. Nothing in between.

Well, it was a common enough childish confusion, but not one the Mother would have expected in this uncommon child.

'It was a punishment,' she tried to explain, `which I had no right to administer. You are my guest, and not my daughter. I offer apology.'

`I am laughing,' came a mandible message; but the background was a quick shiver of fear. Daydanda tried to soothe the fright away, and the laughing stopped, to be replaced by a sturdy mandibled denial of the fear that was, truthfully, already considerably lessened. And then an apology! `I am sorry,' the child said. `It was most improper of me to laugh.'

And the background message was no different, but only more specific: `It was very rude of me to be frightened at the idea of being your daughter.'

This time Daydanda repressed her reflexive irritation. `Laugh when you like, child,' she said; `perhaps it is a good way to release your fear.'

Promptly, she was rewarded by a clear, unmandibled, but strong reply: 'You're good; I like you. I don't care what you look like.'

The woman's vanity quivered, but her curiosity triumphed. The child, at long last, was receptive to communication. Daydanda withdrew from contact entirely, to calm her wounded feelings, and to formulate carefully the question now uppermost in her mind: how to gain more knowledge of the Wings-House in which the Strangers had arrived.

DEBORAH

Deborah stood in the open archway between the two big rooms, and peered intently at the great bulk of the Mother—bug on the couch of mats against the far wall. Then she decided it was all right now to turn the torch up high, so she could see something more than her own feet ahead of her.

The shadows jumped back, and the gently heaving mass on the cot sprang suddenly into full view. Deborah stood still, and gawped at ugliness beyond belief.

The big bug's enormous belly was a mound of grey-white creases and folds and bulges under the sharp light, reflecting pin-points of brightness from oily drops of moisture that stood out all over the dead-looking mass.

And up above the incredible belly, a cone-shaped bulbous lump of the same whitish grey that must have been a face despite its eyeless lack of any expression, tapered into six full thick lips just like the ones of the baby bugs in the fungus garden.

It was a good thing, Dee thought, that she hadn't seen the Mother-bug this close the day before. She never could have made herself believe that anything that looked ... that looked like that ... could possibly be friendly.

She tried now to believe it was true, tried to remember that good-feeling laughter that she was certain had come from the big bug; but the inside of her head had begun to prickle, just as if somebody was sandpapering in back of her eyes. She shook her head, rubbed at her stinging eyes, sniffled, and the feeling went away as suddenly as it had come.

Then she got mad. `You did that on purpose!' she gasped. And then a moment later, she had a crazy thought come through her head that the Mother-bug wanted her to feel better, like sometimes Mom ... the way a mother, maybe, would feel bad after spanked a child. The idea of being a big fat bug's little girl was too silly, and she couldn't help laughing. Then she felt the same kind of panting inbside her head that she remem-bered from last night, and she knew what Mother-bug thought.

I am not scared,' she said emphatically. `What do you think I do? Laugh when I get scared?' Then she thought it over and decided it wasn't very nice of her to laugh at an idea like that—about being the Mother-bug's child—if the big bug really could read her mind, so she apologized.

'I'm sorry,' she said. 'I guess it wasn't very nice of me to laugh at you.' And she had a feeling as if the Mother-bug knew she had apologized, and was telling her it was all right.

The big old bug was ugly, all right, Dee thought, but so were a lot of people she'd seen ... and the bug was really pretty nice. Good, sort of, the way a mother ought to be ...

Just the same, Dee realized, she didn't want to stay here.

She didn't want to stay in the rocket either, though. I don't know which is worse, she thought mournfully; then she decided this was worse—even though in a lot of ways it was better—just because she didn't know whether she could get out if she wanted to.

She had to find that out first.

She had to get back to the rocket. Once she was safe inside again, with Petey, she could make up her mind.

XVII

'I HAVE TO go back to the rocket,' Dee said out loud. 'I have to go and get us some clothes, anyhow, if we're going to stay here.'

Then she thought she felt cold, but there was a question-y feel-ing in her mind; she decided the Mother-bug must be *asking* her if she was cold, and finally realized that that was because she had said they needed clothes.

'No, I'm not cold,' she said. 'We have to have some clothes, that's all. The ones we wore yesterday are dirty. Unless..? Unless they had a soil-remover. Then she'd have to think of some other reason to go back to the rocket. 'Unless you have some old clothes around,' she finished up craftily. But it sounded

silly, and her voice sounded too loud anyhow, every time she said anything, as if she were talking to herself ... and how did she know she wasn't, anyhow? How did she know she wasn't making it all up?

The feeling she got was so exactly like the sound of her own mother's little impatient sigh when Dee was being stubborn, that it was suddenly impossible to go on doubting at all.

When the Mother-bug laughed, it tickled in her mind; when the Mother was angry it prickled. When the Mother called to her, it was a feeling that came creeping; when she didn't want to hear, it came seeping anyhow.

Trickle-prickle; creep-seep. I spy. I speard you. It was like seeing and hearing both, if you let it be, or just like knowing what you didn't know a minute before. It could be without the seeing part, as when she thought she heard Petey's voice; or it could be without hearing, just a picture full of meaning, without any words. You didn't *really* see or hear; you really just *found out.*

And if you let yourself know the difference, you could tell what was coming from the Mother-bug ... such as thinking she was cold for a minute a little while ago. You could tell, all right, if you wanted to...

It was a lot smarter to make sure you knew the differences to watch for when the Mother-bug was putting something in your head, so you wouldn't get mixed up and start thinking you wanted something yourself, when it was really what *she* wanted. Or like thinking *Petey* wanted her to open the door in the rocket, where it was really the Mother-bug...

No it wasn't either ... Petey *did* want her too, because he heard the Mother-bug calling them from outside, before Dee heard it ... or he understood better what it was, or ... *she's telling me all this; I'm not thinking it for myself!* Up to that part about Petey being the one who wanted her to open the door, she *had* been thinking for herself; after that, it was the bug. It was getting easier, now, to tell the difference.

'How do you know Earthish?' she asked out loud, but there wasn't any kind of answer except the question-y feeling again. 'I mean the language we use. I mean how do you know the words to put in my head...?' She stopped talking because her head was hurting; then she realized the Mother-bug was trying to explain, only it was too complicated for her to understand.

Part of it was that the bugs *didn't* know Earthish, though. She understood that much well enough, and lost the hope she'd had for just an instant that other *people* were here already. She didn't try to understand the rest. 'How do you make Petey put things in my head?' she asked instead.

It felt as if the Mother was smiling. She didn't *make Petey say things* at all. He was always saying things, only mostly Dee didn't know how to listen—except, somehow, when the Mother-bug was around, it was easier...

Her head was starting to hurt again, so she stopped asking questions about that. 'Listen,' she said, 'I still have to go back to the rocket.'

She didn't know whether she wanted to come hack here or stay there. No—that was true, all right, that she didn't know; but right now it was the Mother-bug *asking* her what she wanted to do.

'I don't know,' she said, not trying to pretend anything, because the Mother-bug would have spy-heard that part already. 'Only I have to get back there anyhow; so I'll wait till I get there to decide.'

She'd leave Petey behind, and return at least for a visit?

'No!' she said. That was one thing at least she was sure about. Even if she was sure she was coming back, she couldn't leave Petey all alone here with these bugs. Mommy would ... *anybody* would get mad at a kid for doing a thing like that!

'No!' she said again. 'I've got to go, and Petey has to go with me; that's all there is to it.' She thought she sounded very firm and grown-up, until she felt the Mother smiling again in the way that made her remember her ... somebody she used to know.

XVIII

THE MORE SHE learned, the less she seemed to know. The Strange child, though still inexplicably

frightened, was at last being com-municative and co-operative. Yet each new piece of information acquired during the morning's interview had only served to make the puzzle of the Strangers more complex or more abstruse.

How and why they had come here ... even *whence* they had come ... their habits, customs, biology, psychology ... the nature of the *ship* in which they lived, and flew ... the very fact of the existence of the older child's continuing fear and doubt ... and Strangest of all, perhaps, the by-now irrefutable fact that *neither of the children knew whether their Mother was alive, inside the Ship, or had departed ...*

None of these matters were any easier to comprehend now than they had been the day before; and most of them were more confusing.

However, there was now at least some hope of solving some parts of the puzzle ... two parts, in any case. The Strange daughter had agreed, after only slight hesitation, to allow a flying son to come inside the *ship* with her, and to explain to the Mother, watching through her son's eyes, as much of what was to be found there as she could. The child apparently had felt that by permitting the exploratory visit, she was securing the right of the babe to accompany her on the trip ... a right she would in any case have had for the asking. And there was some further thought in the girl's mind of perhaps not returning ... but Daydanda was not seriously concerned about it. She had re-frained carefully from proferring any insistent hospitality, since the daughter's fear of remaining alone with her sibling seemed even greater than that of remaining with the Household, pro-vided only she did not feel herself to be *a captive* in the House.

It still remained to be seen, of course, whether it would be possible to provide for the two Strangers within the biological economy of the Families. That, however, was the other part of the puzzle that was already on the road to a solution. The daugh-ter had most fortuitously, before leaving the Lady's chamber, ex-pressed an urgent need to perform some biological functions for which, apparently, a waste receptacle of some sort was required. Daydanda had issued rapid orders to one of the more ingenious of the mason sons, to manufacture as best he could a receptacle conforming to the image she found in the child's mind. Then she had seized the opportunity to ask if she might have a nursing daughter take some samples of the *milk* and other food that had come with them from the *ship,* and of such other bodily by-products as she had already observed the Strangers to produce; the *tears* that came from the eyes in the release of grief, and the general bodily exudation for which the child's symbol was *sweat,* but whose purpose or function she seemed not to understand herself.

Once again, as she had had occasion to do many times before, the Lady regretted the maternal compulsiveness of her own nature that had stood in the way of producing a Scientist within the Household. As matters now stood, the samplings she had secured from the Strange children would have to be flown two full days' journey away, to the Encyclopaedic Seat, for analysis. If she had been willing—just once in all these years—to inhibit the breeding of a full Family in order to devote the necessary nutrient and emotional concentration to the creation of a pair of Scientists, she would be able to have the answer to the present problem in hours instead of days, and without having to forgo the services of two of her best fliers for the duration of the trip there and back. Then, if it appeared necessary to utilize the more varied facilities of the Seat, she could submit her samples with the security of knowing that her own representative there would keep watch over her interests; and that everything learned about the Strange samples would be transmitted instantly and fully from the brother at the Seat to the twin in the Household. Daydanda knew only too well how often in the past the Seat had seen fit to retain information for its own use, when the products for analysis came from an unrepresented House ...

No use in worrying now, either about what might be, or about what had not been done. *One* matter, at least, would be resolved before the day was done ... the baffling question of what lay inside that double-arched opening in the wall of the Wings-House ... and along with it, the answer, perhaps, to the puzzle of the Strange children's Mother.

XIX

THIS TIME THEY rode in the litter; and the trip that had taken a long afternoon the day before was accomplished in a short hour of trotting, bouncing progress. Yesterday, the pace had been slowed as much by the litter-bearers' efforts to spare their Lady any unnecessary jostling, as by the shortness of Dee's leg; today Daydanda's labouring sons were inhibited by no such considera-tions.

At the edge of the clearing they paused, their eyes averted from the shiny hull.

Dee laughed out loud, and ran out into the sunlight. It felt good. She knew she was showing off, but it made her feel better just to stand there and look straight *up,* because she knew there wasn't one of them that would dare to do it.

'Sissies!' she yelled out, there was no answer ... not even a scolding-feeling from the Mother-bug.

She went back to the litter, got Petey out, and parked him on the muddy ground near the airlock, wondering if it was safe to leave him out there while she went inside. They wouldn't do anything like grabbing him and running off, she decided. The Mother-bug wanted to know about the rocket too much; and the Mother-bug wanted *her* to come back, too—not just Petey.

Still, she didn't make any move to go inside. It was good standing there in the sun, even without the show-off part of it. She watched Petey grab big chunks of yellow mud and plaster himself with them, and felt the sun soak into her shoulders and warm the top of her head.

This place wouldn't be so bad, she thought, if it wasn't for the trees everyplace, cutting out the sun. Inside the forest, it was always a little bit drippy and damp, and the light was always dimmed. But when you got out into it, the sun here was a good one—better than on Starhope. It felt like the sun used to feel, she thought she remembered, when she was almost as little as Petey, before they went away from Earth.

She wished she could remember more about Earth. Mommy always told her stories about it, but. Morn ...

Don't think about that!

She wished she could remember more about Earth. It was green there, Green like in the forests here, where the treetops lent their colour to everything? That wasn't what Morn ... what the stories meant, she was sure. For just an instant, there was a picture in her mind; and because it came so suddenly, she suspected at first that the Mother-bug put it there, but it didn't *feel* that way. Then she wasn't sure whether it was somehing she remembered, from when she was very little, or whether it was truly a *picture*—one she'd seen at school, or on the T-Z. But she was sure that that was how Earth was supposed to look, wherever she was remembering it from.

The trees there were called Appletrees, for a kind of fruit they had, and they grew separated from each other on a hillside, with low branches where the children could climb right up to the tops of them like walking up steps. Then you'd sit in the top, and the breeze would come by, smelling sweet and fresh like Mom ... the way lavender looked. And you would eat sweet fruit from the swaying branch, and...

She jumped as a hairy arm brushed her hand. It was the one with wings who was supposed to go with her into the rocket. It .. *he,* the Mother said it was her son, pointed to the airlock, and Dee got the question-y feeling again. Then there were words to go with it.

`Go inside now?'

It was surprising at first that his `voice''sounded' just like the Mother-bug's. Then she realized it *was* the Mother-bug, talking through his mind. Dee understood by now that the words she `heard' were supplied by herself to fit the picture or emotions the other *person—that was silly, calling a bug a* person!—`sent' to her; but she was pretty sure that the words or the sort-of-a-voice- sound she'd make up for one person—bug—would be different from the way she'd `hear' another one.

Anyway, the Mother wanted her to go inside. She decided against leaving Petey outdoors by himself, and picked him up and lifted him in before she climbed through the airlock. The bug with wings came right behind her.

The playroom was a mess. Living in there all the time, Dee hadn't realized how everything was thrown around; but now, when she had a visitor with her—even if he was just a bug—she felt kind of ashamed about the way it all looked. Maybe he wouldn't know the difference ... but he would. She remembered how the inside of their big House was neat and clean all over; and not just the inside ... even the woods

were kept tidy all the time. She'd seen a bunch of bugs out picking up dead branches and gathering leaves off the ground on the way over here.

This bug didn't seem to care though. He looked around at everything, with his head bent down backwards so he could see, and Dee got the idea he wanted to know if it was all right to touch things. She picked up a toy and some clothes, and put them into the hands on his front legs. After that, he went around looking and touching and handling things all over the playroom, while Dee hunted up some clothes to take back with them.

She couldn't find very much that was clean, so she took a whole pile of stuff from the floor, and went to the back to put them into the soil remover. The bug followed her. It—he—watched her put the clothes into the square box; he jumped a little when she turned the switch on and it started shaking, as it always did, a little. Dee laughed. Then she went around turning on all the machines that she knew how to work, just to show the bug. She wished she knew how to use the power tool, because that made a whole lot of noise, and did all kinds of different things; but Daddy never let ... but she didn't know how to, that's all.

The bug just stood still in the middle of the room, looking and listening. He didn't even *want* to touch anything in here, Dee figured; so she asked him out loud, didn't he want to feel what the machines were like? And then she found out she *could* tell the difference in one bug's voice and another's, because the Mother said a kind of eager, `Thank you—are you sure,' the son-bug said at the same time, kind of nervous-sounding, 'No, thank you! these devices are very Strange ...' and then he must have realized what his Mother wanted, because he said, 'I am afraid I might damage them.'

Dee felt the Mother's smiling then, and with the smile, a ques-tion: 'Where do they breath? With what do they eat?'

'Who?' Dee said out loud.

'Those others ... the *machines,* is your symbol for them.' And at the same time, she saw inside her head a sort of twisty picture of the room all around her. She saw it with her own eyes, the way it really was; and at the same time, she was seeing it the way the Mother-bug must be seeing it—which was the way her son was seeing it, and 'sending' the picture to her. It wasn't *much* different, mostly just the colours weren't as bright. And somehow, all the machines, the way the Mother-bug saw them, were *dive.*

Dee laughed. Those bugs were pretty smart, but there were lots of things she knew that they didn't.

'They *don't* breathe,' she said scornfully; 'they're just machines, that's all.'

'?????'

'They're machines; they do things for people. You turn 'em on and make them work, and then when you're done, you turn them off again. They run on electricity.'

'?????'

She couldn't explain electricity very well. 'It's like ... lightning.' But the Mother didn't know what she meant by that either. 'Don't talk,' the big bug told her; 'make a picture in your head.

Stand near the machine-that-cleans, and make pictures, not words, in your own head, to show how it works for you.'

Deborah tried, but she'd never seen what the machinery looked like inside the soil remover. There wasn't very much of it anyway. Da ... somebody had explained it to her once. There was just a horn—or something like a horn—that kept blowing, without making any noise; at least not any noise that you could hear. The blowing shook all the dirt out of the clothes, and there was a u-v light inside to sterilize them at the same time. That was all she knew, and she didn't know what it really *looked* like, except for the u-v bulb; and she didn't even know what made *that* work, really.

'I'm sorry,' she said. 'I'd make a picture for you if I could.'

'Is there one of these creatures ... machines ... you have *seen* inside?'

She'd seen inside of the freeze unit when it was being fixed once. She tried to remember just how that looked; but it was complicated, and the Mother still didn't seem to understand.

'The little pipes?' she asked, and Dee wasn't sure whether she meant the freezing coils or the wires; but then she was sure it was the wires. 'They bring food to the creature so it can work?'

'No I *told you.* It's not a "creature". It doesn't even *ever* eat. The wires just have electricity in them, that's all. Don't you even know what an electric wire is?'

'Where do the pipes ... wires ... bring the *electric* from?'

Dee looked around. The generator was ... it was in ... 'There's a generator someplace,' she said carelessly. 'It makes electricity; that's what it's for. I can show you how the T-Z works, because somebody I know showed me once.' She went out to the play-room, and started talking, describing her favourite toy, and making pictures in her mind to show the Mother-bug how it worked, and what some of the stories looked like. She talked fast, and kept on talking till she had to stop for breath; but then she realized she didn't have to talk out loud to the Mother, so she went on thinking about stories she'd seen on T-Z, and she decided she'd take it back with some of the film strips, so the Mother could see for herself how it worked.

Machine! An entity capable of absorbing energy in one form, transmitting it to some other form, and expending it in the performance of work ... work requiring judgment, skill, training ... and yet the Strange child said these things were not alive! Daydanda rested on her great couch, but felt no ease, and wished again that she had had the fortitude to go out with the small group. To *see for herself ...*

But she could never even have got through the narrow double-arch entrance to the *ship.* The ship ... that too, then, was a machine! It was a structure; a builded thing; *not-alive;* yet it could fly...

These two Strangers were very different creatures from a very different race; she began to understand that now. The striking similarities were purely superficial. The differences...

The thought of the babe tugged at her mind, asking warmth, asking food, and she could not think of him as Strange at all. There were differences; there were samenesses. No need now to make a counting of how many of which kind. Only to learn as much as could be learned, while she determined whether it was possible or desirable to keep the two Strange ones within the Household.

Very well then: these *machines* are not alive ... not all the time. They live only when the Strange daughter permits it, in most cases by moving a small organ projecting from the outside. Not so different, if you stopped to think of it, from the Bigheads, who might be counted not-alive most of the time. It was hard to adjust to the notion of working members of a Household existing on that low level, but ... these were Strangers.

And still the child maintained the *machines* were not alive at all, not members of her Household, merely structures, animated by...

By what? The things absorbed energy from somewhere. Through the little pipes ... apparently almost pure energy, the stuff the child called *electric.* What was the source of the *electric?*

The Strange daughter had a symbol and not-clear picture in her mind: a thing with rotating brushes, and a hard core of some kind. A thing kept under a round shelter, made of the same fabric as the ship ... *metal.* From under this *metal* housing came *wires* through which *electric* flowed to the *machines ...* much as cement flowed from the snout of a mason, or honey from the orifice of a nurse.

Into this machine, food was ... no, the child's symbol was a different one, though the content of the symbol was the same; food designed for a *machine* was *fuel.* Very well: *fuel* was fed only to the ... the *Mother-machine!*

Now the whole thing was beginning to make sense. The *machines* were comparable—in relationship to the Stranger's Household—to the winged or crawling creatures that sometimes co-existed with the Household of Daydanda's own people, sharing a House in symbiotic economy, but having, of course, a distinct biology and therefore, a separate Mother and separate reproductive system.

The *generator,* said the child, supplied warmth and nourish-ment and vital power to the other *machines;* the *generator* was fed by the *humans* (the child's symbol for her own people); the *machines* worked for the *humans.*

'Is the generator of machines alive?' the Lady asked.

'No. I told you before..?

'Am I alive?'

`Yes. Of course.'

The wonder was not that the Strange daughter failed to include the symbiotes in her semantic concept of 'life', but rather that she *did* include Daydanda, and Daydanda's Household. The Lady abandoned the effort to communicate such an abstraction, and ask if she might be shown the Mother-machine.

Wavering impression of willingness, but ...

The thing was on the other side of a door. The daughter went through one doorway into the room she had first entered, ap-proached the far wall, and turned sideways, to demonstrate in great detail a mechanism of some sort (not one of the *machines;* no wires connected it to the Mother-machine) whose function apparently was educational. It created visual, auditory, and olfac-tory hallucinations, utilizing information previously registered on strips of somehow-sensitized fabric inside it ... roughly anala-gous to the work of a teaching-nurse, who could register and retain for instructive purposes information supplied by the Mother, and never fully available to the nurse in her own func-tioning, nor in any way necessary for her to 'know'. Thus an unwinged nurse could give instruction in the art of flying, and the biology of reproduction. But, once again, the Stranger's mecha-nism was—or so the child said—simply an artifact, a *made* thing, without life of its own, and this time it was even more puzzling than before, because the object in question was self-contained—had its own internal source of *electric,* and needed no connecting *wires* with the Mother-machine.

Mother-machine ... *Mother!*

Daydanda reacted so sharply to the sudden connection of data that Kackot, asleep in the next chamber, woke and came rushing to her side. Smiling, she shared her thoughts with him. Machine-Mother and Stranger-Mother both ... behind a door!

The *same* door?

'The source of *electric* is behind the other door?' The Mother-bug's question formed clearly in her mind this time. Dee looked up from the T-Z. There *wasn't* any other door. She looked all around but she couldn't see one. There was just the airlock, and the door to the workroom and kitchen in the back, but the Mother didn't mean either of those.

'I don't know what you're talking about,' she said, and went back to get the clothes out of the soil-remover, and thawed out a piece of cake from the freeze.

Daydanda looked at one and the same time through the eyes of her son in the Strange ship, and through those of the Stranger. Both focused on the same part of the same wall. Through the son's eyes, the Lady saw a rectangular outline in the surface of the wall, and a closure device set in one side. Through the child's eyes, she could see only a smooth unbroken stretch of wall.

'There is no door,' the child informed her clearly ... then turned around and left the room, once more broadcasting mean-ingless symbols, and accurate, but inappropriate, arithmetic.

Dee made sure she had enough clothes for a while. She didn't want to come back here right away. Maybe later on. She'd have to come back later on, of course. She couldn't really *stay* with the bugs. But...

She took a long strip off the roll of bottles, and a lot of milk, and all the powdered stuff she could find that looked any good. They probably had water there, anyhow. Things out of the freeze would spoil if she took them, so she left them for later, when she came back to the rocket.

She had to make a couple of trips to get everything out to the litter: the clothes and food and the T-Z and Petey and some toys for Petey; and the Mother-bug or the son-bug, one of them, kept trying to say things at her, but she wouldn't listen. She just started saying the Space Girl oath again; and when she couldn't remember it, even some of the silly multiplication, because she didn't feel like talking right now.

XX

DAYDANDA WAS SHORT of time, and entirely out of patience. The Strange child's antics had gone from the puzzling to the incomp-rehensible, and the Lady of the House had other concerns ... many of them now aggravated by inattention over the preceding days. She simply could not continue to devote nearly all her thought, nor nearly so much of her time, to any one matter.

The children had brought back with them provisions sufficient for a few days at least, and the Mother was satisfied that their presence in the Household for that period represented no menace to the members of her own Families.

There was no purpose to thinking about their continued stay until the Encyclopaedic Seat completed a biological analysis. Nor could she determine how much responsibility she was willing to take for possible damage to the Wings-House in further ex-ploration and examination, until she knew for certain that she could offer the Strange children a permanent home in her own Household.

The flying son who had accompanied the two of them on their trip to the *rocket,* had informed her that the barrier on which the daughter's fear seemed centred was, like the rest of the Strange structure, composed of *metal,* and that this *metal* was the hardest wood he had ever seen. It could be cut through, he thought, but not without damage to the fabric that might not be repairable. As for discovering the secret of the mechanism that was designed to hold the *door* closed or allow it to open, he was pessimistic.

There was nothing to do, then, but put the matter from her mind until she had more information.

Accordingly, the Mother gave instructions—when all her chil-dren were in communion, after the evening Homecalling—that every member of the Household was to treat the Strange guests with kindliness and respect; to guard them from dangers they might fail to recognize; to co-operate with their needs or wishes, insofar as they could express them; and to offer just such friend-ship—no more and no less—as the young Strangers themselves seemed to desire. She then assigned a well-trained elder daughter (a nurse might have done better in some ways, but she wanted a written record of any information acquired, and that meant it had to be a winged one) to maintain full-time contact with the Strange daughter, so as to answer the visitors' questions and to keep the Household informed of their activities.

With that, she turned her mind to more familiar problems of her Household.

Dee was glad she'd decided to come back. Of course, they couldn't really *stay* here, but just for a little while, it was interest-ing.

The bugs were really pretty nice people she thought, and giggled at the silly way that sounded ... calling bugs *people.* But it was hard not to, because they thought about themselves that way, and *acted* that way: and once you got used to how they looked, (And how they looked at you, too: it still felt funny having them turn their backs to you when you talked to them, so they could see you) it was just natural to think of them that way.

Anyhow, they were all nice to her, and especially nice to Petey. She could 'talk' to them pretty easily now, too; but she had an idea she wasn't really doing it herself. There was a ... *big-sister?* ... bug who was sort of keeping an eye on her, she thought. Not a real eye, of course; she giggled again. Just the kind of an eye that could see pictures in somebody else's head. But any time she wanted to know something, such as whether it was all right to go out, and where could she find some water to mix the food with, and—as now—how to get to one of those gardens—the big -sister-bug would start telling her almost before she asked.

And Dee thought that probably most of the other bugs she talked to were at least partway using the big-sister's mind—the way the Mother-bug had helped her 'hear' what Petey 'said'—because now they all seemed to have pretty much the same kind of 'voice'. But it was different from the Mother's, or from the one who went to the rocket with her.

That gave her a strange feeling sometimes ... thinking that maybe the big-sister one was *listening in* on her all the time, but at least it wasn't like with the Mother-bug, who'd make that prickly hurting if you thought something she didn't like. The big--sister-bug didn't try to tell her what to do or what not to do,

or put ideas in her head, or anything like that. So if she wanted to just listen all the time, Deborah supposed it didn't matter much. And it certainly was useful.

Petey was stuck in the mud again; Dee helped him get loose. She couldn't carry him around all the time, so she'd finally settled for not putting any clothes on him except a diaper, and just letting him go as gucky as he wanted to. He'd learned to crawl pretty well on the soft surface; it was just once in a while that he'd put an arm in too deep, or something like that. But he didn't mind, so she didn't either.

She still couldn't see any garden; just the trees and the mud. 'How far is it?' she asked or wondered.

'Not much more,' Big-sister told her. 'Walk around the next tree, and go to ... to your *right.'*

Just a little farther on, after she turned, Dee saw the sudden splurge of colour. It was a different garden from the one she'd seen the first time; at least the big-sister-bug said it was. The other one was for the tiny babies—the ones who were really about the same age as Petey, but about half his size. This one was for the next oldest hunch, but they were all just about Petey's size, so maybe he could play with them.

It looked just the same, though; the same kind of crazy com-binations of colours and shapes. Everything was just as she re-membered, except for not being scared now; and when she got right up to it, she saw these bugs weren't nursing on the plants the way the others had been doing. Once in a while, one of there would stop and suck a little while on a tendril; mostly, though they were chasing each other around, and kind of playing games—just like kindergarten kids any place.

There were two big bugs—the kind that had dark-coloured skins, and had eyes, but didn't have any wings. These ones were nurses, Dee figured. There were others just like these, with different kinds of noses—and some with different kinds of hands—who did other things; but these ones had to be nurses, because they were watching the kids. They were sitting outside the gar-den, not doing anything, and Dee felt funny about going inside, partly because it was supposed to be for *little* kids, partly because she was afraid she'd step on one of the plants or something like that. So she let Petey crawl, and she sat down next to the nurses, and just watched.

It was warm in the forest. It was always warm there, but she was getting to like it. She wasn't wearing anything except shorts now, and the only thing she minded was always feeling a little bit *damp,* because the air was so wet. But altogether, she had to admit it was better at least than being in the rocket all by themselves; shut up in there as they had been, Petey was always cranky and fussing about something. Now he was having a good time, so he didn't keep bothering her. And she had the T-Z set back in their room, now, and you didn't even need a light on to work that. Of course, she didn't have very many film-strips for it; she'd have to go back to the rocket pretty soon and get some more.

They'd need some more food, too, and she'd have to get Petey's diapers dean again. She wished there was some way to take along frozen food; then she wouldn't have to fuss around with mixing things with water, and all that, but...

The big-sister-bug was asking her what she meant by 'frozen food', but she'd tried to explain that before.

Anyhow, she had to go back there pretty soon, if she and Petey decided to stay here for a while, because she had to leave a message, so that when somebody came to rescue them, they'd know where to look.

'You wish to visit the Wings-House now?' Big-sister asked.

'It's kind of late today,' Dee said; `tomorrow, I guess.' Sometimes she talked out loud like that, even though she knew it didn't make any difference. All she had to do was *think* what she meant, but sometimes she just talked out loud from habit.

'The litter goes swiftly,' said Big-sister. 'If you wish to make the visit now ...'

Tomorrow! This time she didn't say it ... just thought it extra hard. Big-sister stopped bothering her about it, and she sat still and watched Petey crawling around and grabbing at the pretty colours.

XXI

DAYDANDA RECEIVED THE report personally, and trusted not even her own memory to retain it

all, but relayed to three elder daughters, so that whatever errors any one might make in trans-cription, the records of the others could correct. There was so much technical symbology throughout the message—even though the clerk at the Seat tried to keep it intelligible—that she could not try to comprehend it entirely as it came. She would have to study and examine the meaning of each datum, before she could fully determine what it meant in terms of the questions she had to answer for her Household and the Strangers.

If she had only had a pair of Scientists! Communicating with each other, they would have known the purpose of the analysis; communicating with her, Mother and sons, there would have been no problem of translation of symbols. But it was hardly possible to give full information to the Scientists at the Seat, when many of them were from neighbouring or nearby Households, whose best interests were by no means identical with her own. Of course, they vowed impartiality when they took up Encydopaedic work, but...

The next breeding, *definitely ... !* (Rackot, daily more sensitive, came to the archway and peered in. He had taken to working and napping in the other room these few days. She sent a gentle negative.) The *very next* breeding would have to be limited to a pair of Scientists! Though now that she had put it off so long, and the youngest babes were already growing too big for fondling ...

Scientists it would be! The Household needed them. All very well to follow easily along the drive to procreate, but it was necessary, also, to safeguard those already born. And right now, the problem was not one of breeding, or breeding inhibition, but of making enough sense out of the message so that she could come to some decision about the Strangers.

She had the three daughters bring her their copies, and lay for a long while on her couch, studying and comparing and making rapid notes. Finally, she called to Kackot, and thought as she did so that it would perhaps do something to soothe his wounded feelings, if he felt she was unable to make this decision without his help.

He listened, soberly, and did what she knew she could count on him to do: reformulated, repeated, and advised according to what she wished. Since the report clearly established that the Strangers represented no biologic danger to the Household—their exudations were entirely non-toxic, and some of the solid matter was even useable, containing large quantities of semi-digested cellulose—it was clearly her duty to keep them in the Household, and learn as much as possible from them. Since the report further indicated that normal food would be non-toxic to the Strangers (and Mother and consort both tended to avoid the question, unanswered in the report, of whether normal feeding would supply *all* the nourishment the two Strange children needed), it was possible to extend indefinite hospitality to them.

(After all, if there were elements of nourishment they required beyond what the fungus-foods and wood-honey offered, they could continue to make use of their own supplies ... which would last longer if supplemented by native food. So Daydanda eased her conscience.)

The question of how far to go in examining the *rocket* was more complicated. The ethic involved...

'There is no ethic,' Kackot reminded her stiffly, 'above the duty of a Mother to her Household. The obligations to a Stranger in the House are sacred, but ...' He dronned his formality. andended, smiling and once more at ease '... *non-biologic!' So,* again, Daydanda soothed her conscience.

Still, it would be better at least to try to get the child's agree-ment, even though it was a foregone conclusion that they could not expect her co-operation. The Lady summoned the Strange daughter once more to her chamber.

'I could write the message here, I guess,' Dee said thought-fully. 'If you're going to send somebody to the rocket anyhow, there's no reason for me to go.' It wasn't as if she couldn't trust them; they wouldn't hurt anything. And anyhow, the Mother said she wanted to keep showing Dee what the son was doing, so they could ask questions whenever they didn't understand something.

Right now, the Mother-bug was feeling a question. 'Write a message?' Dee stopped thinking herself, and then she understood. The bugs only used writing for keeping *records* of things. When they wanted to tell somebody something, it didn't matter how far away the person was; so they didn't write things down

for other people. Just for themselves, and to make a kind of history for other bugs later on. The Mother wanted to know: wouldn't she 'be aware' of the rescue party when it came.

She shook her head, and didn't try to explain anything, be-cause it was just too *different.* 'I've got some crayons in my room,' she told the Mother-bug, 'but I used up all the paper already.'

'We have paper.' The funny jumpy Father-bug jumped up in his funny way, and went over to a kind of big table full of cubby holes, even before the Mother was done 'talking', and got a piece of their kind of paper, and gave it to Dee. The Mother was asking about crayons, what they were and how they worked, but Dee was asking *her* at the same time for something to write with, and what kind of paper was this?

The paper was made out of tree bark, and covered with a kind of waxy stuff that they made in their bodies. They seemed to make everything right inside themselves—as if each bug was a kind of chemicals factory, and you could put in such and such, and turn some switches inside, and get out so-and-so. It was certainly useful, Dee thought, with vague distaste, and then realized nobody had given her a pencil or anything yet.

But you wouldn't use a pencil' on this kind of paper. You'd use a stylus, or something sharp.

'Very soon,' the Mother-bug said. 'My daughter brings you a sharp thing to write with.' Then she raised her arm to show Dee where a little sharp horny tip was, on the back of her elbow, that she used herself.

'But how can you see what...?' Dee started to ask, and then she felt the Mother-bug laughing, and then she laughed herself. It was so hard to get used to people with eyes in the backs of their heads.

One of the nurse-type bugs came in, bowing and crawling the way they always did if they got near the Mother-bug, handed Dee a pointed stick, and crawled out again.

'I am staying with some bugs in a big house,' Dee scratched as clearly as she could through the wax. The bark underneath was orangy-coloured, and the wax was white, so it showed through pretty well. 'My baby brother Petey is with me. Please come and get us.' Then she signed it, 'Deborah (DEE) Levin.' And then realized she hadn't put anything in about *how* to find them. She tried to ask the Mother, but so far they hadn't been able to get together on that kind of thing at all. The bugs didn't use measurements or distances or directions the same way; they just seemed to *know* where to go, and how far they were.

'We will know if Strangers come,' the Mother promised her; 'we will go to them.'

Dee thought that over, and added to her message : 'P.S. If some big bugs come around, don't shoot. They're friends; they're taking care of Petey and me.' And put her initials at the end, the way you're supposed to do with a P.S.

'When is he going?' she asked. 'I mean, should I stay here, so you can ask me questions, or do you want me to come back later?' Petey was getting kind of restless, and he wanted something, but she wasn't sure what.

'The brother wishes to return to the garden,' the Mother explained. 'He understands what I told you about the food. He wanted to suck on the sweet plants before, but was afraid. Now he desires to return to the garden and to the other children, and suck as they do.' Then she said her son was going to the ship right away; but if Dee wanted to go to the garden with Petey, that was all right; the Mother-bug could talk to her just as well that way.

'I'd rather ... I'd kind of rather *look* at you when we talk,' Dee said. She knew it seemed silly to them, because they weren't used to it, but she couldn't help it. Anyhow, she got a kind of good feeling being in the Mother-bug's room. The first time she came in here it was *awful,* but right now she felt nervous or something. She didn't know why, but she *did* know she'd feel better if she stayed here with the big old bug.

'Stay then, my child.'

One of the ones with wings came in; this kind just bowed, they didn't crawl. He took the message from Dee, and went back to the garden; then they just waited for a while.

The mother was busy, thinking some place else, and the Father-bug gave her a funny feeling when she

tried to talk to him, because he wasn't like a Daddy at all. Not the way the big fat bug was like a real Mother. The skinny, jumpy one was nervous and fussy and worried; and Dee thought he probably didn't like her very much. So she just sat still, squatting on the floor with her back against the wall, and thought maybe she'd go get her T-Z set and look at something till the Mother-bug was ready. But it was warm and comfortable and she didn't want to go away, out of this room, where the Mother was just like a Mother was a Mother—so she sort of rolled over a little bit, and curled up right on the floor and closed her eyes. If she didn't *look* at the piled-up mats and the ugly old belly on top, it felt more like a Mother than ever before for a long time since it was so warm, hot, glowing red, and the voice said, *fire ... fire ... fire...*

That was on Hallowe'en, all black and orange, witches and ghosts, and the witch said, 'Fire ! Fire! Run ! Run!' but the ghost looked like a big fat bug, only white, except the white ones don't have eyes; and this one had two great big hollow eyeholes; and it was crying because it couldn't find the little girl who should have opened ... opened her eyes, so she could see, why didn't she open her eyeholes, so she could see the little girl? Because the little girl had no eyes, only it didn't matter as long as the door was closed, the ghost couldn't get through a safety safety safe; the little girl is safe, on Hallowe'en when the ground is black and behind the door is black, black, black you can't see, and black it's all burned up, and the ghost is white; so there's no ghost there in the black, only a great big ugly bugley belly all swell up with white dead long time ... No! ... all black for Hallowe'en, black, black....

XXII

THE LADY HEARD; and by her lights, she understood. It was a sick and ugly thing to hear, and a terrible sad thing to comprehend.

A Mother of fourteen Families is, perforce, accustomed to grief and fear and failing; she has suffered time and again the agonies of flesh and spirit with which her children met the tests of growth: the fears of battle, terror of departure, pains of hunger, the awful shrinking from death. The time they almost lost their House to swarming hostile Families; the time the boy died in the ravenous claws of their own Bigheads; the time the rotten-fungus- sickness spread among them ... time after time; but never, in all the crowded years of life-giving and life-losing had Daydanda known a sickness such as now shouted at her from the Strange girl's dream.

Even her curiosity would have faltered before this outpouring, but she *could* not turn away. One listens to a troubled child's dream to diagnose, to find a remedy ... but *this!* If it were possible to invade the barriers of a full-grown Mother of crime, one might find sorrow and fear and torment such as this.

As the sunlight had seared her eyeball, so the hellfires of the childish dreaming burned her soul.

The girl desired that they should find her Mother dead! There was no other way to make sense of it. Daydanda tried. Everything in her fought against even the formulation of such a statement. It was not only evil, but impossible ... *unnatural.* Non-biologic.

The child wanted to know that her Mother had been burned to death.

Within the shining rocket, Daydanda's son moved curiously, feeling and touching each Strange object cautiously, examining with his eager eye each Strange and inexplicable shape. He waited there, unable to be still in the presence of so much to explore; too fearful of doing damage to explore further till his Mother's mind met his. But the Lady could not be disturbed, the sibling at relay duty said; the Lady was refusing all calls, accept-ing no contact.

Wait!

He waited.

Non-biologic ... But what did she know of the biology of a Stranger? Even as much as the clerk at the Seat had told her, from the analysis of scrapings and samplings-even that much she did not fully understand, and that could not be more than a fractional knowledge in any case.

She could not, would not, believe that the Strange daughter's Strange complex of feelings and fears

and desires was as subjec-tively *sick* as it seemed, by her own standards and experience, to be. A different biologic economy—which most assuredly they had—or a completely different reproductive social organiza-tion .. .

It *was* possible. The child's independence and resourcefulness her untrained awareness of self and others ... her lack of certainty even as to whether her Mother still lived ... the very existence of two siblings of such widely divergent age and size, without even a suggestion of others who had departed, or been left behind...

Till now, the Mother had been trying to fit these two Strange children somehow into the patterns of her own world. But she remembered what she had considered at the time to be childish over-statement, or just a part of the confusion of the girl's mind as to place, time, and direction.

From another world ...

From above the treetops, but that had not been startling. A nesting couple always descended from above the trees, after the nuptial flight. From above the treetops, *but not from below them. From another world...!*

Kackot was hovering nervously above her. The daughter on relay was asking on behalf of the son at the Strange ship. The daughters in the corral wished to report...

To Kackot and the son both, imperative postponements. She clamped control on her seething mind long enough to determine that it was no emergency in the corral, then closed them all out again, and tried to think more clearly.

The dream was still too fresh in her mind. And now there was more data to be had. Don't think, then ... just to regain one's sanity, detachment, ability to weigh and to consider. One cannot open contact with the child while looking upon her as a monster.

(A monster! That's how I seemed to her!)

Perspective returned slowly. She groped for Kackot's soothing thoughts, refusing to inform him yet, but gratefully accepting his concern. Then the son, waiting restively inside the Strange Wings-House. And last, the child ... Strange child of a Strange world.

'Very well,' she told them all calmly, or so she hoped. 'Let us commence.'

Dee was getting tired of it. For a while, it was sort of fun, looking at things the way the son-bug saw them, and watching how clumsy he was every time he tried to do anything the way she told him. Even if these bugs didn't have any machines themselves, you had to be pretty dumb not to be able to just turn a knob when somebody explained it to you.

She realized she was being rude again. It was hard to remem-ber, sometimes, that you shouldn't even *think* anything impolite around here. It would be pretty good for some kids she knew, to come here for a while...

'Other children ... others like yourself?' the Mother felt all excited. 'Of your own Family?'

Dee shook her head. 'No; just some of the kids who were in the Scout Troop on Starhope.'

'Others ... brothers and sisters ... from your Household then?'

She had to think about that, to figure out the right answer. A town or a dome or a city was kind of like the Household here ... but of course, the other kids weren't brothers and sisters, just because you played with them and went to school together. 'Petey's the only brother I have,' she said.

She didn't think she'd made it very clear, but she had a feeling that the Mother was kind of glad about the answer. She didn't know why; and anyhow, it had nothing to do with the rocket. The son-bug was waiting for his Mother to pay attention to him again.

For a minute, everybody seemed to go away. *Telling secrets!* Dee thought irritably. She was beginning to get very bored now, just sitting here answering a lot of silly questions. They'd already put the message on the waxbark up where anybody who came in could see it, and the son-bug had a batch of diapers cleaned for Petey, and a lot of food picked out of the dry storage cabinet. She hoped it was stuff she liked. She couldn't read the labels when she was looking through his eye; anyhow they didn't need her around any more.

'Don't be silly,' she said out loud. 'There isn't any door to open; they're both open.' *Now what did I*

say that for? 'Listen, I better go see how Petey's getting along. I don't like him trying out that fungus food all by himself. I better ...'

She started to stand up, but the Mother said quietly, 'Soon. Soon, child. Just a little more. You did not understand; we wish to know how to *close* the door ... just how to operate the mechanism. My son is eager to try his skill at turning knobs to make machines work.'

'You mean the airlock? You can't close that from outside. But if he just wants to try it out while he's inside, I guess that's all right. It's kind of complicated, though; he might get stuck in there or something, and..?

'No child. The airlock is the double-arch opening in the outer wall, is it not?'

'... yes, and I don't think he better ...'

'He does not wish to experiment with that one. My son is brave, but not foolish. Only the other, the inner door. If you will...'

'Okay, but then I want to go see Petey, all right?'

'As you please.'

'Okay. Well, you have to turn the lever on the right hand side ...'

'No, please ... make a picture in your mind. Move your own hand. Pretend to stand before it, and to do as you would do yourself. Think a picture.'

No! It won't open again! That was a silly thing to think. *But all the food's in there!*

'He will not dose it then, child. Only show him how it works, how he *would* close it if he did. He will not; I promise he will not.'

She showed him. She pretended to be doing it herself, but she felt strange; and when she was done showing him, she took a good look through the Mother and through him to make sure he hadn't really done it. The door was still open though.

'Thank you, my child. You wish to go to the garden now?'

Dee nodded, and felt the Mother go away, and almost ran out, She felt very strange.

Wearily, the Lady commended her son for his intelligent perception, and queried him about his ability to operate the mechanism. He was a little doubtful. She reassured him: such work was not in his training; he had done well. She ordered two of her mason-builder sons to join their winged sibling in the ship and left instructions to be notified when they were ready to begin

She tried to rest, meanwhile, but there was too much confusion in her mind: too much new information not yet integrated. And more to come. Better perhaps to wait a bit before they tried that door? *No!* She caught herself with a start, realized that she had absorbed so much of the Strange daughter's terror of ... of what lay beyond ...

What lay beyond? Because the child feared it, there was no cause for *her* to fear as well. It was all inside the girl's subjective world, the thing that was not to be known, the thing that made the door unopenable. It was all part and parcel of the child's failure to be aware of her own Mother's life or death, of ...

Of the *sickness* in the dream. She, Daydanda, had brought that sickness into her Household. It was up to her now, to diagnose and cure it—or to cast it out. Such facts were communicable; she had seen it happen, or heard of it at least.

When a mother dies, there is no way to tell what will happen to her sons and daughters. Even among one's own people, strange things may occur. One Household she had heard of, after the sudden death of the Mother, simply continued to go about the ordinary tasks of every day, as though no change were noticed. It could not last, of course, and did not. Each small decision left unmade, each little necessary change in individual performance, created a piling-up confusion that led at last to the inevitable re-sult: when undirected workers no longer cared for the food supplies; when the reckless unprepared winged ones flew off to early deaths in premature efforts to skim the tree-tops; when nurses ceased to care for hungry Bigheads, or for crying babes, the starving soldiers stormed the corral fences, swarmed into the gardens and the House, and feasted first on succulent infants; then on lean neighbours, and at last—to the

vast relief of neigh-bouring Households—on each other.

For a time, Daydanda had thought the Strange child's curious mixture of maternal and sibling attitudes to be the product of some similar situation—that the girl was simply trying not to *believe* her Mother's death, and somehow to succeed in being daughter and Mother both in her own person. But the dream made that hopeful theory impossible to entertain any longer.

Nor was it possible now to believe that the two children were the remnants of any usual Household. The girl had been too definite about the lack of any other siblings, now or *in the past.*

What then? Try to discard all preconceptions. These are Strange creatures from *another world.* Imagine a biology in which there is no increase in the race—only replacement. The Lady recalled, or thought she did, some parasitic life in the Household of her childhood wherein the parent-organism had to die to make new life...

The parent had to die!

Immediately, her mind began to clear. Not sickness then ... not foul untouchable confusion, but a *natural* Strangeness. Daydanda remembered thinking of the fires of the landing as a ritual ... and now more fire ... the Mother must be burned before the young one can mature? Some biologic quality of the ash, per-haps? Something ... if that were so, it would explain, too, the child's persistent self-reminder that she *must* return to the *rocket,* even while she yearned to stay here where safety and protection lay.

It was fantastic, but fantastic only by the standards of the familiar world. Mother and consort bring the young pair, male and female, to a new home; and in the fires of landing, the parent-creatures die ... *must* die before the young pair can develop.

She thought a while soberly, trying this fact and that to fit the theory, and each Strange-shaped piece of the puzzle fitted the next with startling ease.

Perhaps if a world became too crowded, after many Households had grown up, some life-form of this kind might evolve, and ... *yes, of course! ...* that would explain as well the efforts at migration over vast distances across the glaring sky.

The Lady was prepared now to discover what lay behind the door; her sons were waiting on her wishes.

XXIII

PETEY WAS CHASING a young bug just a little bit bigger than he was round and round a mushroom shape that stood as high as Dee herself. Out of the foot-wide base of the great plant, a lacy network of lavender and light green tendrils sprouted. Deborah watched them play, the bug-child scampering on all sixes, Petey on all fours; and she didn't worry even when they both got tired and stopped and lay down half-sprawled across each other, to stick on adjoining juicy tendrils.

One of the nurses had already told her that Petey had tried some of the fungus juice when he first came out to the garden. That must have been a couple of hours ago, at least. Dee wasn't sure how long she'd been asleep, there in the Mother-bug's room, but she thought it was getting on towards evening now. And she knew that a baby's digestion works much more quickly than a grown-up's; if the stuff was going to hurt him, he'd be acting sick by now.

Probably she shouldn't have let him try it at all, until she tested some first herself. She still didn't really want to, though; and when the Mother said it was all right for him, she hadn't thought to worry about it.

She couldn't keep on fussing over him every minute, anyhow. Besides, that wasn't good for babies either. You have to let them take chances or they'll never grow up ... *where did I hear that? ...* somebody had said that...

She shook her head, then smiled, watching the two kids, Petey and the bug, playing again. Petey was chortling and laughing and drooling. She decided it was probably pretty safe to trust what-ever the Mother-bug said.

The Strange Mother and her consort were indeed inside the ship, behind the door the child wouldn't

see; and they were most certainly dead.

'It is ... they look ...' Her son had not liked it, looking at them. 'I think the fire's heat did as the teaching-nurse had told us might happen when we go above the tree-tops, if we fly too long or too high in the dry sun's heat.' He had had trouble giving a clear visimage to her, because he did not like to look at what he saw. But the skin, he said, judging by that of the children was darkened, and the bodies dehydrated. They were strapped in-to twisted couches, as though to prevent their escape. That and the locked door ... the *taboo* door?

Each item fitted into the only theory that made sense. Ft)] some biologic reason, or some reason of tradition on an over crowded home-world, it was necessary that the parents die as soon as a nesting place for the young couple was found. And the curious conflict in the Strange daughter's mind—the wish that her Mother was burned, with refusal to accept her Mother's death...

After all, many a winged one about to depart forever from the childhood home—not knowing whether happiness and fer-tility will come, or sudden death, or lonely lingering starvation ... many a one has left with just such a complex of opposite-wishes.

But Daydanda could not tell, from what her son had said, or what he showed, whether the parents were *burned,* within the child's meaning of the word. The son was not too certain, even that the heat had been responsible for death, directly. The room, when he first opened up the door, was filled with a thick grey cloud which dispersed too quickly to make sure if his guess was right; but he took it to be smoke ... cold smoke. No one could breathe and live through a dozen heartbeats in that cloud, he said.

Whether the cloud formed first, or the heat did its work beforehand, the two were surely dead when their children came back from the first swift trip into the forest, that much was sure.

Whether they had themselves locked the door, and placed a taboo on opening it, or whether the daughter had obeyed the custom of her people in sealing it off, was also impossible to determine—now.

This much, however, was clear: that the children had had ample opportunity to learn the truth for themselves if they wished, or if it were proper for them to do so. There had been no difficulty opening the door, not even for her sons who were unused to such mechanisms. The daughter knew how to do it; the daughter would not do it. Finally: the daughter had been *purposefully* set free to develop without the protection of her Mother.

If Daydanda had been certain that the protection of a foster-Mother would also inhibit the growth of the Strange children, she might have hesitated longer. As it was, she asked her consort what he thought, and he of course replied: `It might be, my Lady, my dear, that these Strange people live only as parasitesin the Houses of such as ourselves. See how their Wings are a semi-House, not settled in one location, but designed for transport. See how they chose a landing place almost equidistant from ourselves and our neighbours, as if to give the young ones a little better chance to find a Household that would accept them. It would seem to me, my dear, my Lady, that our course is clear.'

Daydanda was pleased with his advice. And it was time for the Homecalling. The Lady sent out her summons, loud and clear and strong for all to hear: a warning to unfriendly neigh-bours; a promise and renewal to all her children, young and old.

Dee lay on her mat in the chamber she still shared with Petey, and watched the T-Z, but she did not watch it well. Her mind was too full of other things.

The Mother wanted them to stay and ... `join the Household.' She wasn't sure just what that would mean. Doing chores, prob-ably, and things like that. She didn't mind that part; it would be kind of nice to *belong* someplace ... until the rescue party came.

That was the only thing. She hoped the Mother understood that part, but she wasn't sure. They couldn't just *stay* here, of course.

But it might be quite a while before anybody came after them, and meanwhile ... she looked at Petey, sleeping with a smile on his small fat face, and on his round fat bottom a new kind of diaper, made by the bug-people the same way they made the sleeping mats, only smaller and thinner. That was so she wouldn't have to bother with cleaning the cloth ones any more.

Petey was certainly happier here, but she'd have to watch out, she thought. If the rescue party took too long to come, he'd be more like a bug than a human!

She went back to watching the T-Z set. She had to learn a lot of things, in case she was the only person who could teach Petey anything. Tomorrow, the very next day, she was going to start really teaching him to talk. He could say words all right, if he tried. And with the bugs just in and out of your head, the way they were, he'd never try if she didn't get him started right away.

She turned back the reel, and started the film from the begin-ning again, because she'd missed so much.

The Lady of the House was pleased.

THE FUTURE OF HAPPINESS

First publication: January 1979.

TOMORROW WILL BE better? Better than what? Which way?

Depends on what you're looking for. Health? "Freedom"? (What's that?) Material comfort? Convenience? "Beauty"? (What's *that?)* Knowledge? "Relationships"? (Eh?) Just plain happiness?

Whether you use crystal balls, clairvoyants, or computer simulations to predict the future, there are only two clear answers.

First, tomorrow will be *different.* Our society, like our biosphere, is unstable. It can only stabilize through change.

Second, the future will bring dizzying heights of happiness - and dismal depths of despair. And everything in-between. Even as now. Even as ever. Delight and discontent are relative and related. One is a measure of the other, and the stimuli that produce them vary for every society, and for each individual.

(Did you *really* experience more sheer joy with your first orgasm than with your first true-love teenage kiss? Or: *after* the orgasm, can the kiss still bring the same burst of heaven?)

Happiness comes in every color of the rainbow. Like the rainbow, it can be experienced, perceived, pursued - but never possessed, prepared for, or reliably predicted. Like the rainbow, it is an event dependent on the percipient's position in a particular environment. Like the rainbow, it is more likely to manifest itself after a storm.

For the last 100 years or so, it has been fashionable to predict the Kingdom of Heaven on Earth. Utopian socialists, technocrats, people's revolutionaries, transcendental meditators have come up with formulas for glowing happiness for all—all the time. The briefly more credible of these happy prophecies were based on the reasonable assumption that when everyone had enough of the necessities, and at least some of the luxuries, joy would reign.

Not so. The happiness of affluence is always over the next hill because our definitions change. "Necessity" means new soles for shoes one decade, color televisions the next.

And how about the year after tomorrow? Where to find happiness in 50 years, or 100? In the unexpected moment, as always.

The year is 2029. A half century ago, everybody talked about energy and population and pollution, but nobody did anything constructive. Every year the shortages of food, fuel, water, shelter, space grew worse. When the bottom finally dropped out of the world economy in the 1990s, the industrialized world, with its complex production and delivery systems, completely collapsed. There were riots and bloodbaths in New York and Tokyo, Amsterdam and Moscow, Berlin and Buenos Aires.

The great cities died. But handfuls of refugees survived in scattered settlements, and on the rebuilt foundations of abandoned family farms.

Martha draws her ragged blanket around her, shivering, as she opens the peepholes of the dugout, one by one. All quiet. No sign of feral dog packs, no scent of feral human marauders. No sign of Will and the boys either. If the wild dogs have moved on, game must be even scarcer than before.

She cannot endure another day inside. The sun is bright and brilliant through the peepholes; it

will be warm and beautiful outside. At the back of the dugout, the baby wakes, wailing. The cry is too thin. So is Martha's milk. She picks up the baby and, defiantly, recklessly, steps out into the sunlit clearing, undefended.

She sits on a cushion of skins on the ground nursing her child in spring sunshine. And then she sees. Six feet from where she sits, the plot of land she turned over so painfully with the broken spade last week is covered with green.

Green!

For eight years (the births of seven children, the deaths of four), she has dug and planted some of the stock of hoarded seeds, and watched as the poisoned land refused to bring forth.

And now - green - tiny seedlings sprouting promise across 15 square feet of sun-warmed soil!

The baby squalls, but Martha lifts her with a smile, and points. She is trying to remember which seeds she planted. Beans? Carrots? Squash?

She can almost taste the sweet fibrous starchiness of the squash. Let there be squash! *she prays, and sings happily to her baby, sitting warm in the sun, on sweet lifegiving soil. In the distance there is an animal's cry.*

No. It is six-year-old Bart's high voice, carrying across the valley. They are on their way home. There will be meat. And milk for the babe. And greens. And summer, soon, at last.

Right. That same year marked the beginning of another careful harvest. Not all of the planet had suffered as severely as Noramerica. Some of the medium-size, medium-growth, modest population countries (particularly in the Caribbean and central Africa) had been able to retain enough technology and leadership to begin a cautious reconstruction based on the use of recycled materials and energy from wind, water and the sun.

But the fossil fuels were gone, and memories of enemy attacks on nuclear power plants made uranium technology virtually taboo. In 2029, the first meeting was held, somewhere in Senegal, to begin planning the construction of a solar-power satellite - the only hope of an energy source adequate for major re-industrialization.

Then, in 2079 -

Estrella *wriggles out of the duty-seat, turns over the monitoring board to Sergiu, and edges out of the cramped cabin, feeling an unquenchable yearning for a long soapy shower-as unnecessary in the dustless, smokeless, moisture-and-temperature controlled canned air as it is unavailable. On the Station, water is for drinking.*

She shoves off along the companionway toward the only slightly less-cramped and equally predictable leisure quarters at the opposite side of the space satellite. The glamour of space! *Fifteen years of studying, sweating, bitterly competing to win a job on the Station! She can still remember that old film, the startling image of an astronaut named Edward H. White tumbling free in space, that started it all for her.*

She stops at an open terminal, checks out her request with the computer, gets clearance, and walks down a different passage.

Twenty minutes later, she is standing in the airlock, performing the ritualized rundown on suit and helmet.

Then the outer lock-cycles open; she steps forward; hooks her lifeline to the ring next to the lock, and - tumbles. Tumbles, soars, swirls, careens - exults!

All the work, all the training, all the boredom and discomfort - this is what it was all about - weightless, free, in love with the universe in the glory of space!

Two steps forward, one step sideways. A different 2079. The collapse never quite happened. Instead, the practical application of nuclear fusion power led to a global economy based on unlimited energy. After a period of wildly unpredictable social, political and economic upheavals, the world settled down to the experience of total automated affluence. Computerized planning of servo-mechanism production and distribution systems and the development of recyclable biodegradable synthetics now make it possible for 95 per cent of the planet's population to live out their lives *as* luxury consumers. In fact, the declining death rate (the result of computerized diagnostics and universal preventive medical care

delivery) has people packed so tightly over the earth's surface, there is literally no work space available, except for an elite corps of computer attendants and programmers.

The good news is that the birth rate is finally falling as fast as the death rate, due to the increasing tendency of the consumers to automate their leisure time as well.

Zelda reclines in her contoured massagecouch. She has just experienced a hard-fought victory in the world chess championships. Triumphantly, she flicks channels, rejects folksingers and helicopter-racing options, is tempted by a new experimental religious ecstasy program. Then she opts for Lady Of The Lagoon. *(She has always thought of herself as basically an outdoor type.)*

Green leaves rustle in the gentle breeze of her sylvan bower, touching her sun-warmed skin with the gentlest of air pressures. A spicy scent - she frowns, and makes a small adjustment, and lemon whiffs up over cinnamon. She focuses outward, and the gleaming shape on the horizon shows itself to be a gilded catamaran, crimson-sailed. On the ship's deck a bronzed figure is now visible. The sail tightens against the wind.

Shivering deliciously, Zelda makes another small adjustment. Diaphanous clouds of gauzy silk enfold her limbs. Music? No. Realism, she decides, is *better: the breeze* in *the leaves and the lapping of waves are all the sound she needs. She pushes the button for Play-through .. .*

. . . and as the moon rises over the lagoon, Zelda savors the taste of roast pork and pineapples still on her tongue, and revels in the marvelous torpor suffusing her body. Night dew patters on the bower of palm fronds arched over her couch of balsam and pine. The gentle night wind blows softly through.

The tube to the intravenous needle falls limp, the sleep-tapes murmur satisfaction, the couch kneads her flaccid muscles in restorative massage, and Zelda sleeps in total joy.

Or perhaps 2001?

In the garden, Jan contentedly ties up dahlias. The warming sun, the glowing colors, the faint scent of baking bread wafting from the open kitchen door to mix with the fragrance of roses and petunias, the baby's babbling nonsense syllables - Jan stops a moment and feels - *this is purest pleasure in a classical pattern feels simple gratitude to a bountiful universe.*

A tug at jeans leg: the baby is silent now, lips com pressed, face intent, she clutches parental cloth, pulls herself clownishly erect, chortles with glee, lets go, and stands alone!

Jan sits back on haunches, breathless, fearful even to stir the air, hand held cautiously to be grabbed when -

When needed - now! *Baby overbalances, grabs, holds, and* steps *into Jan's exultant embrace!*

He tosses her up in the air, hoists her to his shoulder, and bounces her into the house.

Checks the time.

Noriko's big meeting should be over by now. He dials, beaming.

"Noriko, she took her first step!"

*

All the colors of the rainbow. How do you measure red against blue? Baby's first step or a twirl in space? Is the joy of the triumphant chess master greater or less than that of the long distance swimmer? Is religious ecstasy more or deeper than the delight of the three-year-old with a shiny new red ball?

Will tomorrow's happiness be bigger or better or brighter than yesterday's? No. Just different - the way it always has been.

That Only A Mother

First Published: October 1948.

Margaret reached over to the other side of the bed where Hank should have been. Her hand patted the empty pillow, and then she came altogether awake, wondering that the old habit should remain after so many months. She tried to curl up, cat-style, to hoard her own warmth, found she couldn't do it any more, and climbed out of bed with a pleased awareness of her increasingly clumsy

bulkiness.

Morning motions were automatic. On the way through the kitchenette, she pressed the button that would start breakfast cooking—the doctor had said to eat as much breakfast as she could—and tore the paper out of the facsimile machine. She folded the long sheet carefully to the "National News" section, and propped it on the bathroom shelf to scan while she brushed her teeth.

No accidents. No direct hits. At least none that had been officially released for publication. *Now, Maggie, don't get started on that. No accidents. No hits. Take the nice newspaper's word for it.*

The three clear chimes from the kitchen announced that breakfast was ready. She set a bright napkin and cheerful colored dishes on the table in a futile attempt to appeal to a faulty morning appetite. Then, when there was nothing more to prepare, she went for the mail, allowing herself the full pleasure of prolonged anticipation, because today there would *surely* be a letter.

There was. There were. Two bills and a worried note from her mother:

"Darling, why didn't you write and tell me sooner? I'm thrilled, of course, but, well one hates to mention these things, but are you *certain* the doctor was right? Hank's been around all that uranium or thorium or whatever it is all these years, and I know you say he's a designer, not a technician, and he doesn't get near anything that might be dangerous, but you know he used to, back at Oak Ridge. Don't you think, of course, I'm just being a foolish old woman, and I don't want you to get upset. You know much more about it than I do, and I'm sure your doctor was right. He *should* know…"

Margaret made a face over the excellent coffee, and caught herself refolding the paper to the medical news.

Stop it, Maggie, stop it! The radiologist said Hank's job couldn't have exposed him. And the bombed area we drove past…No, no. Stop it, now! Read the social notes or the recipes, Maggie girl.

A well-known geneticist, in the medical news, said that it was possible to tell with absolute certainty, at five months, whether the child would be normal, or at least whether the mutation was likely to produce anything freakish. The worst cases, at any rate, could be prevented. Minor mutations, of course, displacements in facial features, or changes in brain structure could not be detected. And there had been some cases recently, of normal embryos with atrophied limbs that did not develop beyond the seventh or eighth month. But, the doctor concluded cheerfully, the *worst* cases could now be predicted and prevented.

"Predicted and prevented." We predicted it, didn't we? Hank and the others, they predicted it. But we didn't prevent it. We could have stopped if in '46 and '47. Now…

Margaret decided against the breakfast. Coffee had been enough for her in the morning for ten years; it would have to do for today. She buttoned herself into interminable folds of material that, the salesgirl had assured her, was the *only* comfortable thing to wear during the last few months. With a surge of pure pleasure, the letter and newspaper forgotten, she realized she was on the next to the last button. It wouldn't be long now.

The city in the early morning had always been a special kind of excitement for her. Last night it had rained, and the sidewalks were still damp-gray instead of dusty. The air smelled the fresher, to a city-bred woman, for the occasional pungency of acrid factory smoke. She walked the six blocks to work, watching the lights go out in the all-night hamburger joints, where the plate-glass walls were already catching the sun, and the lights go on in the dim interiors of cigar stores and dry-cleaning establishments.

The office was in a new Government building. In the rolovator, on the way up, she felt, as always, like a frankfurter roll in the ascending half of an old-style rotary toasting machine. She abandoned the air-foam cushioning gratefully at the fourteenth floor, and settled down behind her desk, at the rear of a long row of identical desks.

Each morning the pile of papers that greeted her was a little higher. These were, as everyone knew, the decisive months. The war might be won or lost on these calculations as well as any others. The manpower office had switched her here when her old expeditor's job got to be too strenuous. The

computer was easy to operate, and the work was absorbing, if not as exciting as the old job. But you didn't just stop working these days. Everyone who' could do anything at all was needed.

And—she remembered the interview with the psychologist—*I'm probably the unstable type. Wonder what sort of neurosis I'd get sitting home reading that sensational paper…*

She plunged into the work without pursuing the thought.

February 18

Hank darling,

Just a note—from the hospital, no less. I had a dizzy spell at work, and the doctor took it to heart. Blessed if I know what I'll do with myself lying in bed for weeks, just waiting—but Dr. Boyer seems to think it may not be so long.

There are too many newspapers around here. More infanticides all the time, and they can't seem to get a jury to convict any of them. It's the fathers who do it. Lucky thing you're not around, in case—

Oh, darling, that wasn't a very *funny* joke, was it? Write as often as you can, will you? I have too much time to think. But there really isn't anything wrong, and nothing to worry about.

Write often, and remember I love you.

Maggie.

SPECIAL SERVICE TELEGRAM

February 21, 1953

22:04 LK37G

From: Tech. Lieut. H. Marvell X47-016 GCNY

To: Mrs. H. Marvell Women's Hospital, New York City

HAD DOCTOR'S GRAM STOP WILL ARRIVE FOUR OH TEN STOP SHORT LEAVE STOP YOU DID [IT] MAGGIE STOP LOVE HANK

February 25

Hank dear,

So you didn't see the baby either? You'd think a place this size would at least have visiplates on the incubators, so the fathers could get a look, even if the poor benighted mommas can't. They tell me I won't see her for another week, or maybe more—but of course, mother always warned me if I didn't slow my pace, I'd probably even have my babies too fast. Why must she *always* be right?

Did you meet that battle-ax of a nurse they put on her? I imagine they save her for people who've already had theirs, and don't let her get too near the prospectives—but a woman like that simply shouldn't be allowed in a maternity ward. She's obsessed with mutations, can't seem to talk about anything else. Oh, well, *ours* is all right, even if it was in an unholy hurry.

I'm tired. They warned me not to sit up too soon, but I *had* to write you. All my love, darling,

Maggie.

February 29

Darling,

I finally got to see her? It's all true, what they say about new babies and the face that only a mother could love—but it's all there darling, eyes, ears, and noses— no, only one—all in the right places. We're so *lucky*, Hank…

I'm afraid I've been a rambunctious patient. I kept telling that hatchet-faced female with the mutation mania that I wanted to *see* the baby. Finally the doctor came in to "explain" everything to me, and talked a lot of nonsense, most of which I'm sure no one could have understood, any more than I did. The only thing I got out of it was that she didn't actually *have* to stay in the incubator; they just thought it was "wiser."

I think I got a little hysterical at that point. Guess I was more worried than I was willing to admit, but I threw a small fit about it. The whole business wound up with one of those hushed medical conferences outside the door, and finally the Woman in White said: "Well, we might as well. Maybe it'll

work out better that way."

I'd heard about the way doctors and nurses in these places develop a God complex, and believe me, it is as true figuratively as it is literally that a mother hasn't a leg to stand on around here.

I *am* awfully weak, still. I'll write again soon. Love,

Maggie.

March 8

Dearest Hank,

Well the nurse was wrong if she told you that. She's an idiot anyhow. It's a girl. It's easier to tell with babies than with cats, and I *know*. How about Henrietta?

I'm home again, and busier than a betatron. They got *everything* mixed up at the hospital, and I had to teach myself how to bathe her and do just about everything else. She's getting prettier, too. When can you get a leave, a *real* leave?

Love,

Maggie.

May 26

Hank dear,

You should see her now—and you shall. I'm sending along a reel of color movie. My mother sent her those nighties with drawstrings all over. I put one on, and right now she looks like a snow-white potato sack with that beautiful, beautiful flower-face blooming on top. Is that *me* talking? Am I a doting mother? But wait till you see her!

July 10

Believe it or not, as you like, but your daughter can talk, and I don't mean baby talk. Alice discovered it— she's a dental assistant in the WACs, you know—and when she heard the baby giving out what I thought was a string of gibberish, she said the kid knew words and sentences, but couldn't say them clearly because she has no teeth yet. I'm taking her to a speech specialist.

September 13

We have a prodigy for real! Now that all her front teeth are in, her speech is perfectly clear and—a new talent now—she can sing! I mean really carry a tune! At seven months! Darling, my world would be perfect if you could only get home.

November 19

At last. The little goon was so busy being clever, it took her all this time to learn to crawl. The doctor says development in these cases is always erratic…

SPECIAL SERVICE TELEGRAM

December 1, 1953

08:47 LKS9F

From: Tech. Lieut. H. Marvell X47-016 GCNY

To: Mrs. H. Marvell

Apt. K-l7

504 E. 19 St., N;Y. N.Y.

LEAVE STARTS TOMORROW WEEK'S STOP WILL ARRIVE AIRPORT TEN OH FIVE STOP DON'T MEET ME STOP LOVE LOVE LOVE HANK

Margaret let the water run out of the bathinette until only a few inches were left, and then loosed

her hold on the wriggling baby.

"I think it was better when you were retarded, young woman," she informed her daughter happily. "You *can't* crawl in a bathinette, you know."

"Then why can't I go in the bathtub?" Margaret was used to her child's volubility by now, but every now and then it caught her unawares. She swooped the resistant mass of pink flesh into a towel, and began to rub.

"Because you're too little, and your head is very soft, and bathtubs are very hard."

"Oh. Then when can I go in the bathtub?"

"When the outside of your head is as hard as the inside, brainchild." She reached toward a pile of fresh clothing. "I cannot understand," she added, pinning a square of cloth through the nightgown, "why a child of your intelligence can't learn to keep a diaper on the way other babies do. They've been used for centuries, you know, with perfectly satisfactory results."

The child disdained to reply; she had heard it too often.

She waited patiently until she had been tucked, clean and sweet-smelling, into a white-painted crib. Then she favored her mother with a smile that inevitably made Margaret think of the first golden edge of the sun bursting into a rosy pre-dawn. She remembered Hank's reaction to the color pictures of his beautiful daughter, and with the thought, realized how late it was.

"Go to sleep puss. When you wake up, you know, your *Daddy* will be here."

"Why?" asked the four-year-old mind, waging a losing battle to keep the ten-month-old body awake.

Margaret went into the kitchenette and set the timer for the roast. She examined the table, and got her clothes from the closet, new dress, new shoes, new slip, new everything, bought weeks before and saved for the day Hank's telegram came. She stopped to pull a paper from the facsimile, and, with clothes and news, went into the bathroom, and lowered herself gingerly into the steaming luxury of a scented tub.

She glanced through the paper with indifferent interest. Today at least there was no need to read the national news. There was an article by a geneticist. The same geneticist. Mutations, he said, were increasing disproportionately. It was too soon for recessives; even the first mutants, born near Hiroshima and Nagasaki in 1946 and 1947 were not old enough yet to breed. *But my baby's all right* . Apparently, there was some degree of free radiation from atomic explosions causing the trouble. *My baby's fine. Precocious, but normal*. If more attention had been paid to the first Japanese mutations, he said…

There was that little notice in the paper in the spring of '47. *That was when Hank quit at Oak Ridge*. "Only two or three per cent of those guilty of infanticide are being caught and punished in Japan today." *But my baby's all right*.

She was dressed, combed, and ready, to the last light brush-on of lip paste, when the door chime sounded. She dashed for the door, and heard, for the first time in eighteen months, the almost-forgotten sound of a key turning in the lock before the chime had quite died away.

"Hank!"

"Maggie!"

And then there was nothing to say. So many days, so many months, of small news piling up, so many things to tell him, and now she just stood there, staring at a khaki uniform and a stranger's pale face. She traced the features with the finger of memory. The same high-bridged nose, wide-set eyes, fine feathery brows; the same long jaw, the hair a little farther back now on the high forehead, the same tilted curve to his mouth. Pale of course, he'd been underground all this time. And strange—stranger because of lost familiarity than any newcomer's face could be.

She had time to think all that before his hand reached out to touch her, and spanned the gap of eighteen months. Now, again, there was nothing to say, because there was no need. They were together, and for the moment that was enough.

"Where's the baby?"

"Sleeping. She'll be up any minute."

No urgency. Their voices were as casual as though it were a daily exchange, as though war and separation did not exist. Margaret picked up the coat he'd thrown on the chair near the door, and hung it carefully in the hall closet. She went to check the roast, leaving him to wander through the rooms by himself, remembering and coming back. She found him, finally, standing over the baby's crib.

She couldn't see his face, but she had no need to.

"I think we can wake her just this once." Margaret pulled the covers down, and lifted the white bundle from the bed. Sleepy lids pulled back heavily from smoky brown eyes.

"Hello." Hank's voice was tentative.

"Hello." The baby's assurance was more pronounced.

He had heard about it, of course, but that wasn't the same as hearing it. He turned eagerly to Margaret. "She really can—?"

"Of course she can, darling. But what's more important, she can even do nice normal things like other babies do, even stupid ones. Watch her crawl!" Margaret set the baby [on the edge of the bed.]

For a moment young Henrietta lay and eyed her parents dubiously.

"Crawl?" she asked.

"That's the idea. Your Daddy is new around here, you know. He wants to see you show off."

"Then put me on my tummy."

"Oh, of course." Margaret obligingly rolled the baby over.

"What's the matter?" Hank's voice was still casual, but an undercurrent in it began to charge the air of the room. "I thought they turned over first."

"This baby," Margaret would not notice the tension, "*This* baby does things when she wants to."

This baby's father watched with softening eyes while the head advanced and the body hunched up propelling itself across the bed.

"Why the little rascal," he burst into relieved laughter. "She looks like one of those potato-sack racers they used to have on picnics. Got her arms pulled out of the sleeves already." He reached over and grabbed the knot at the bottom of the long nightie.

"I'll do it, darling." Margaret tried to get there first.

"Don't be silly, Maggie. This may be *your* first baby, but *I* had five kid brothers." He laughed her away, and reached with his other hand for the string that closed one sleeve. He opened the sleeve bow, and groped for an arm.

"The way you wriggle," he addressed his child sternly, as his hand touched a moving knob of flesh at the shoulder, "anyone might think you are a worm, using your tummy to crawl on, instead of your hands and feet."

Margaret stood and watched, smiling. "Wait till you hear her sing, darling—"

His right hand traveled down from the shoulder to where he thought an arm would be, traveled down, and straight down, over firm small muscles that writhed in an attempt to move against the pressure of his hand. He let his fingers drift up again to the shoulder. With infinite, care, he opened the knot at the bottom of the nightgown, His wife was standing by the bed, saying: "She can do 'Jingle Bells,' and—"

His left band felt along the soft knitted fabric of the gown, up towards the diaper that folded, flat and smooth, across the bottom end of his child…No wrinkles. No kicking. *No...*

"Maggie." He tried to pull his hands from the neat fold in the diaper, from the wriggling body. "Maggie." His throat was dry; words came hard, low and grating. He spoke very slowly, thinking the sound at each word to make himself say it. His head was spinning, but be had to *know* before he let it go. "Maggie, why didn't you tell me?"

"Tell you what, darling?" Margaret's poise was the immemorial patience of woman confronted with man's childish impetuosity. Her sudden laugh sounded fantastically easy and natural in that room; it was all clear to her now.

"Is she wet? I didn't know."

She didn't know. His hands, beyond control, ran up and down the soft-skinned baby body, the

sinuous, limbless body. *Oh God, dear God*—his head shook and his muscles contracted, in a bitter spasm of hysteria. His fingers tightened on his child—*Oh God, she didn't know…*

DEAD CENTER

First Published: November 1954.

THEY GAVE him sweet ices, and kissed him all round, and the Important People who had come to dinner all smiled in a special way as his mother took him from the living room and led him down the hall to his own bedroom.

"Great kid you got there," they said to Jock, his father, and "Serious little bugger, isn't he?" Jock didn't say anything, but Toby knew he would be grinning, looking pleased and embarrassed. Then their voices changed, and that meant they had begun to talk about the important events for which the important people had come.

In his own room, Toby wriggled his toes between crisp sheets, and breathed in the powder-and-perfume smell of his mother as she bent over him for a last hurried goodnight kiss. There was no use asking for a story tonight. Toby lay still and waited while she closed the door behind her and went off to the party, click-tap, tip-clack, hurrying on her high silver heels. She had heard the voices change back there too, and she didn't want to miss anything. Toby got up and opened his door just a crack, and set himself down in back of it, and listened.

In the big square living room, against the abstract patterns of gray and vermilion and chartreuse, the men and women moved in easy patterns of familiar acts. Coffee, brandy, cigarette, cigar. Find your partner, choose your seat. Jock sprawled with perfect relaxed contentment on the low couch with the deep red corduroy cover. Tim O'Heyer balanced nervously on the edge of the same couch, wreathed in cigar-smoke, small and dark and alert. Gordon Kimberly dwarfed the big easy chair with the bulking importance of him. Ben Stein, shaggy and rumpled as ever, was running a hand through his hair till it too stood on end. He was leaning against a window frame, one hand on the back of the straight chair in which his wife Sue sat, erect and neat and proper and chic, dressed in smart black that set off perfectly her precise blonde beauty. Mrs. Kimberly, just enough overstuffed so that her pearls gave the appearance of actually choking her, was the only stranger to the house. She was standing near the doorway, politely admiring Toby's personal art gallery, as Allie Madero valiantly strove to explain each minor masterpiece.

Ruth Kruger stood still a moment, surveying her room and her guests. Eight of them, herself included, and all Very Important People. In the familiar comfort of her own living room, the idea made her giggle. Allie and Mrs. Kimberly both turned to her, questioning. She laughed and shrugged, helpless to explain, and they all went across the room to join the others.

"Guts," O'Heyer said through the cloud of smoke. "How do you do it, Jock? Walk out of a setup like this into . . . God knows what?"

"Luck," Jock corrected him. "A setup like this helps. I'm the world's pampered darling and I know it."

"Faith is what he means," Ben put in. "He just gets by believing that last year's luck is going to hold up. So it does."

"Depends on what you mean by luck. If you think of it as a vector sum composed of predictive powers and personal ability and accurate information and . . ."

"Charm and nerve and . . ."

"Guts," Tim said again, interrupting the interrupter. "All right, all of them," Ben agreed. "Luck is as good a word as any to cover the combination."

"We're all lucky people." That was Allie, drifting into range, with Ruth behind him. "We just happened to get born at the right time with the right dream. Any one of us, fifty years ago, would have been called a wild-eyed visiona—"

"Any one of us," Kimberly said heavily, "fifty ago, would have had a different dream—in time with the times."

Jock smiled, and let them talk, not joining in much. He listened to philosophy and compliments and speculations and comments, and lay sprawled across the comfortable couch in his own living room, with his wife's hand under his own, consciously letting his mind play back and forth between the two lives he lived: this, here . . . and the perfect mathematic bleakness of the metal beast that would be his home in three days' time.

He squeezed his wife's hand, and she turned and looked at him, and there was no doubt a man could have about what the world held in store.

When they had all gone, Jock walked down the hall and picked up the little boy asleep on the floor, and put him back into his bed. Toby woke up long enough to grab his father's hand and ask earnestly, out of the point in the conversation where sleep had overcome him:

"Daddy, if the universe hasn't got any ends to it, how can you tell where you are?"

"Me?" Jock asked. "I'm right next to the middle of it."

"How do you know?"

His father tapped him lightly on the chest.

"Because that's where the middle is." Jock smiled and stood up. "Go to sleep, champ. Good night."

And Toby slept, while the universe revolved in all its mystery about the small center Jock Kruger had assigned to it.

"Scared?" she asked, much later, in the spaceless silence of their bedroom.

He had to think about it before he could answer. "I guess not. I guess I think I ought to be, but I'm not. I don't think I'd do it at all if I wasn't sure." He was almost asleep, when the thought hit him, and he jerked awake and saw she was sure enough lying wide-eyed and sleepless beside him. "Baby!" he said, and it was almost an accusation. "Baby, you're not scared, are you?"

"Not if you're not," she said. But they never could lie to each other.

II

Toby sat on the platform, next to his grandmother. They were in the second row, right in back of his mother and father, so it was all right for him to wriggle a little bit, or whisper. They couldn't hear much of the speeches back there, and what they did hear mostly didn't make sense to Toby. But every now and then Grandma would grab his hand tight all of a sudden, and he understood what the whole thing was about: it was because Daddy was going away again.

His Grandma's hand was very white, with little red and tan dots in it, and big blue veins that stood out higher than the wrinkles in her skin, whenever she grabbed at his hand. Later, walking over to the towering skyscraping rocket, he held his mother's hand; it was smooth and cool and tan, all one color, and she didn't grasp at him the way Grandma did. Later still, his father's two hands, picking him up to kiss, were bigger and darker tan than his mother's, not so smooth, and the fingers were stronger, but so strong it hurt sometimes.

They took him up in an elevator, and showed him all around the inside of the rocket, where Daddy would sit, and where all the food was stored, for emergency, they said, and the radio and everything. Then it was time to say goodbye.

Daddy was laughing at first, and Toby tried to laugh, too, but he didn't really want Daddy to go away. Daddy kissed him, and he felt like crying because it was scratchy against Daddy's cheek, and the strong fingers were hurting him now. Then Daddy stopped laughing and looked at him very seriously. "You take care of your mother, now," Daddy told him. "You're a big boy this time."

"Okay," Toby said. Last time Daddy went away in a rocket, he was not-quite-four, and they teased him with the poem in the book that said, *James James Morrison Morrison Weatherby George Dupree, Took great care of his mother, though he was only three. . . .* So Toby didn't much like

Daddy saying that now, because he knew they didn't really mean it.

"Okay," he said, and then because he was angry, he said, "Only she's supposed to take care of me, isn't she?"

Daddy and Mommy both laughed, and so did the two men who were standing there waiting for Daddy to get done saying goodbye to him. He wriggled, and Daddy put him down.

"I'll bring you a piece of the moon, son," Daddy said, and Toby said, "All right, fine." He reached for his mother's hand, but he found himself hanging onto Grandma instead, because Mammy and Daddy were kissing each other, and both of them had forgotten all about him.

He thought they were never going to get done kissing.

Ruth Kruger stood in the glass control booth with her son on one side of her, and Gordon Kimberly breathing heavily on the other side. *Something's wrong*, she thought, *this time something's wrong*. And then, swiftly, *I mustn't think that way*!

Jealous? she taunted herself. *Do you want something to be wrong, just because this one isn't all yours, because Argent did some of it?*

But if anything is wrong, she prayed, *let it be now, right away, so he can't go. If anything's wrong let it be in the firing gear or the ... what? Even now, it was too late. The beast was too big and too delicate and too precise. If something went wrong, even now, it was too late. It was . . .*

You didn't finish that thought. Not if you were Ruth Kruger, and your husband was Jock Kruger, and nobody knew but the two of you how much of the courage that had gone twice round the moon, and was about to land on it, was yours. When a man knows his wife's faith is unshakeable, he can't help coming back. (But: "Baby! You're not scared, are you?")

Twice around the moon, and they called him Jumping Jock. There was never a doubt in anyone's mind who'd pilot the KIM-5, the bulky beautiful beast out there today. Kruger and Kimberly, O'Heyer and Stein. It was a combo.

It won every time. Every *time.* Nothing to doubt. No room for doubt.

"Minus five . . ." someone said into a mike, and there was perfect quiet all around. "Four . . . three ...

(But he held me too tight, and he laughed too loud.)

(Only because he thought I was scared, she answered herself.)

". . . Mar—"

You didn't even hear the whole word, because the thunder-drumming roar of the beast itself split your ears.

Ringing quiet came down and she caught up Toby, held him tight, tight. . . .

"Perfect!" Gordon Kimberly sighed. "Perfect!"

So if anything was wrong, it hadn't showed up yet.

She put Toby down, then took his hand. "Come on," she said. "I'll buy you an ice-cream soda." He grinned at her. He'd been looking very strange all day, but now he looked real again. His hair had got messed up when she grabbed him.

"We're having cocktails for the press in the conference room," Kimberly said. "I think we could find something Toby would like."

"Wel-l-l-1 . . ." She didn't want a cocktail, and she didn't want to talk to the press. "I think maybe we'll beg off this time. . . ."

"I think there might be some disappointment—" the man started; then Tim O'Heyer came dashing up.

"Come on, babe," he said. "Your old man told me to take personal charge while he was gone." He leered. On him it looked cute. She laughed. Then she looked down at Toby. "What would you rather, Tobe? Want to go out by ourselves, or go to the party?"

"I don't care," he said.

Tim took the boy's hand. "What we were thinking of was having a kind of party here, and then I think they're going to bring some dinner in, and anybody who wants to can stay up till your Daddy gets to the moon. That'll be pretty late. I guess you wouldn't want to stay up late like that, would you?"

Somebody else talking to Toby like that would be all wrong, but Tim was a friend, Toby's friend too. Ruth still didn't want to go to the party, but she remembered now that there had been plans for something like that all along, and since Toby was beginning to look eager, and it was important to keep the press on their side . .

"You win, O'Heyer," she said. "Will somebody please send out for an ice-cream soda? Cherry syrup, I think it is this week . . ." She looked inquiringly at her son. ". . . and . . . strawberry ice cream?"

Tim shuddered. Toby nodded. Ruth smiled, and they all went in to the party.

"Well, young man!" Toby thought the redheaded man in the brown suit was probably what they called a reporter, but he wasn't sure. "How about it? You going along next time?"

"I don't know," Toby said politely. "I guess not."

"Don't you want to be a famous flier like your Daddy?" a strange woman in an evening gown asked him.

"I don't know," he muttered, and looked around for his mother, but he couldn't see her.

They kept asking him questions like that, about whether he wanted to go to the moon. Daddy said he was too little. You'd think all these people would know that much.

Jock Kruger came up swiftly out of dizzying darkness into isolation and clarity. As soon as he could move his head, before he fully remembered why, he began checking the dials and meters and flashing lights on the banked panel in front of him. He was fully aware of the ship, of its needs and strains and motion, before he came to complete consciousness of himself, his weightless body, his purpose, or his memories.

But he was aware of himself as a part of the ship before he remembered his name, so that by the time he knew he had a face and hands and innards, these parts were already occupied with feeding the beast's human brain a carefully prepared stimulant out of a nippled flask fastened in front of his head.

He pressed a button under his index finger in the arm rest of the couch that held him strapped to safety. "Hi," he said. "Is anybody up besides me?"

He pressed the button under his middle finger and waited.

Not for long.

"Thank God!" a voice crackled out of the loudspeaker. "You really conked out this time, Jock. Nothing wrong?"

"Not so I'd know it. You want . . . How long was I out?"

"Twenty-three minutes, eighteen seconds, takeoff to reception. Yeah. Give us a log reading."

Methodically, in order, he read off the pointers and numbers on the control panel, the colors and codes and swinging needles and quiet ones that told him how each muscle and nerve and vital organ of the great beast was taking the trip. He did it slowly and with total concentration. Then, when he was all done, there was nothing else to do except sit back and start wondering about that big blackout.

It shouldn't have happened. It never happened before. There was nothing in the compendium of information he'd just sent back to Earth to account for it.

A different ship, different . . . different men. Two and a half years different. Years of easy living and . . . growing old? Too old for this game?

Twenty-three *minutes!*

Last time it was under ten The first time maybe 90 seconds more. It didn't matter, of course, not at takeoff. There was nothing for him to do then. Nothing now. Nothing for four more hours. He was there to put the beast back down on ...

He grinned, and felt like Jock Kruger again. Identity returned complete. This time he was there to put the beast down where no man or beast had ever been before. This time they were going to the moon.

III

Ruth Kruger sipped at a cocktail and murmured responses to the admiring, the curious, the envious,

the hopeful, and the hate-full ones who spoke to her. She was waiting for something, and after an unmeasurable stretch of time Allie Madero brought it to her.

First a big smile seeking her out across the room, so she knew it had come. Then a low-voiced confirmation.

"Wasn't it . . . an awful long time?" she asked. She hadn't been watching the clock, on purpose, but she was sure it was longer than it should have been.

Allie stopped smiling. "Twenty-three," she said. Ruth gasped. "What . . . ?"

"You figure it. I can't."

"There's nothing in the ship. I mean nothing was changed that would account for it." She shook her head slowly. This time she didn't know the ship well enough to talk like that. There could be something. Oh, Jock! "I don't know," she said. "Too many people worked on that thing. I .. ."

"Mrs. Kruger!" It was the redheaded reporter, the obnoxious one. "We just got the report on the blackout. I'd like a statement from you, if you don't mind, as d, signer of the ship—"

"I am not the designer of this ship," she said coldly. "You worked on the design, didn't you?"

"Well, then, to the best of your knowledge . . . ?"

"To the best of my knowledge, there is no change in design to account for Mr. Kruger's prolonged unconsciousness. Had there been any such prognosis, the press would have been informed."

"Mrs. Kruger, I'd like to ask you whether you feel that the innovations made by Mr. Argent could—"

"Aw, lay off, will you?" Allie broke in, trying to be casual and kidding about it; but behind her own flaming cheeks, Ruth was aware of her friend's matching anger. "How much do you want to milk this for, anyhow? So the guy conked out an extra ten minutes. If you want somebody to crucify for it, why don't you pick on one of us who doesn't happen to be married to him?" She turned to Ruth before the man could answer. "Where's Toby? He's probably about ready to bust from cookies and carbonation."

"He's in the lounge," the reporter put in. "Or he was a few minutes—"

Ruth and Allie started off without waiting for the rest. The redhead had been talking to the kid. No telling how many of them were on top of him now.

"I thought Tim was with him," Ruth said hastily, then she thought of something, and turned back long enough to say: "For the record, Mr. . . . uh . . . I know of no criticism that can be made of any of the work done by Mr. Argent." Then she went to find her son.

There was nothing to do and nothing to see except the instrument meters and dials to check and log and check and log again. Radio stations all around Earth were beamed on him. He could have kibitzed his way to the moon, but he didn't want to. He was thinking.

Thinking back, and forward, and right in this moment. Thinking of the instant's stiffness of Ruth's body when she said she wasn't scared, and the rambling big house on the hill, and Toby politely agreeing when he offered to bring him back a piece of the moon.

Thinking of Toby's growing up some day, and how little he really knew about his son, and what would they do, Toby and Ruth, if anything . . .

He'd never thought that way before. He'd never thought anything except to know he'd come back, because he couldn't stay away. It was always that simple. He couldn't stay away now, either. That hadn't changed. But as he sat there, silent and useless for the time, it occurred to him that he'd left something out of his calculations. Luck, they'd been talking about. Yes, he'd had luck. But—what was it Sue had said about a vector sum?—there was more to figure in than your own reflexes and the beast's strength. There was the outside. Space . . . environment . . . God . . . destiny. What difference does it make what name you give it?

He couldn't stay away ... but maybe he could be *kept* away.

He'd never thought that way before.

"You tired, honey?"

"No," he said. "I'm just sick of this party. I want to go home."

"It'll be over pretty soon, Toby. I think as long as we stayed this long we better wait for . . . for the end of the party."

"It's a silly party. You said you'd buy me an ice-cream soda."

"I did, darling," she said patiently. "At least, if I didn't buy it, I got it for you. You had it, didn't you?"

"Yes but you said we'd go out and have one."

"Look. Why don't you just put your head down on my lap and . . ."

"I'm no baby! Anyhow I'm not tired."

"All right. We'll go pretty soon. You just sit here on the couch, and you don't have to talk to anybody if you don't feel like it. I'll tell you what. I'll go find you a magazine or a book or something to look at, and—"

"I don't *want* a magazine. I want my own book with the pirates in it."

"You just stay put a minute, so I can find you. I'll bring you something."

She got up and went out to the other part of the building where the officers were, and collected an assortment of leaflets and folders with shiny bright pictures of mail rockets and freight transports and jets and visionary moon rocket designs, and took them back to the little lounge where she'd left him.

She looked at the clock on the way. Twenty-seven more minutes. There was no reason to believe that anything was wrong.

They were falling now. A man's body is not equipped to sense direction toward or from, up or down, without the help of landmarks or gravity. But the body of the beast was designed to know such things; and Kruger, at the nerve center, knew everything the beast knew.

Ship is extension of self, and self is—extension or limitation?—of ship. If Jock Kruger is the center of the universe—remember the late night after the party, and picking Toby off the floor?—then ship is extension of self, and the man is the brain of the beast. But if ship is universe—certainly continuum; that's universe, isn't it?—then the weakling man-thing in the couch is a limiting condition of the universe. A human brake. He was there to make it stop where it didn't "want" to.

Suppose it wouldn't stop? Suppose it had decided to be a self-determined, free-willed universe?

Jock grinned, and started setting controls. His time was coming. It was measurable in minutes, and then in seconds . . . *now!*

His hand reached for the firing lever (but what was she scared of?), groped, and touched, hesitated, clasped, and pulled.

Grown-up parties at home were fun. But other places, like this one, they were silly. Toby half-woke-up on the way home, enough to realize his Uncle Tim was driving them, and they weren't in their own car. He was sitting on the front seat next to his mother, with his head against her side, and her arm around him. He tried to come all the way awake, to listen to what they were saying, but they weren't talking, so he started to go back to sleep.

Then Uncle Tim said, "For God's sake, Ruth, he's safe, and whatever happened certainly wasn't your fault. He's got enough supplies to hold out till . . ."

"Shh!" his mother said sharply, and then, whispering, "I know."

Now he remembered.

"Mommy . . ."

"Yes, hon?"

"Did Daddy go to the moon all right?"

"Y . . . yes, dear."

Her voice was funny.

"Where is it?"

"Where's what?"

"The moon."

"Oh. We can't see it now, darling. It's around the other side of the earth."

"Well, when is he going to come back?"

Silence.

"Mommy ... when?"

"As soon as ... just as soon as he can, darling. Now go to sleep."

And now the moon was up, high in the sky, a gilded football dangling from Somebody's black serge lapel. When she was a little girl, she used to say she loved the man in the moon, and now the man in the moon loved her too, but if she was a little girl still, somebody would tuck her into bed, and pat her head and tell her to go to sleep, and she would sleep as easy, breathe as soft, as Toby did. . . .

But she wasn't a little girl, she was all grown up, and she married the man, the man in the moon, and sleep could come and sleep could go, but sleep could never stay with her while the moonwash swept the window panes.

She stood at the open window and wrote a letter in her mind and sent it up the path of light to the man in the moon. It said:

"Dear Jock: Tim says it wasn't my fault, and I can't explain it even to him. I'm sorry, darling. Please to stay alive till we can get to you. Faithfully yours, Cassandra."

IV

The glasses and ashes and litter and spilled drinks had all been cleared away. The table top gleamed in polished stripes of light and dark, where the light came through the louvered plastic of the wall. The big chairs were empty, waiting, and at each place, arranged with the precision of a formal dinner-setting, was the inevitable pad of yellow paper, two freshly-sharpened pencils, a small neat pile of typed white sheets of paper, a small glass ashtray and a shining empty water glass. Down the center of the table, spaced for comfort, three crystal pitchers of ice and water stood in perfect alignment.

Ruth was the first one there. She stood in front of a chair, fingering the little stack of paper on which someone (Allie? She'd have had to be up early to get it done so quickly) had tabulated the details of yesterday's events. "To refresh your memory," was how they always put it.

She poured a glass of water, and guiltily replaced the pitcher on the exact spot where it had been; lit a cigarette, and stared with dismay at the burnt match marring the cleanliness of the little ashtray; pulled her chair in beneath her and winced at the screech of the wooden leg across the floor.

Get it *over* with! She picked up the typed pages, and glanced at them. Two at the bottom were headed "Recommendations of U.S. Rocket Corps to Facilitate Construction of KIM-VIII." That could wait. The three top sheets she'd better get through while she was still alone.

She read slowly and carefully, trying to memorize each sentence, so that when the time came to talk, she could think of what happened this way, from outside, instead of remembering how it had been for her.

There was nothing in the report she didn't already know.

Jock Kruger had set out in the KIM-VII at 5:39 P.M., C.S.T., just at sunset. First report after recovery from blackout came at 6:02 plus. First log readings gave no reason to anticipate any difficulty. Subsequent reports and radioed log readings were, for Kruger, unusually terse and formal, and surprisingly infrequent; but earth-to-ship contact at twenty-minute intervals had been acknowledged. No reason to believe Kruger was having trouble at any time during the trip.

At 11:54, an attempt to call the ship went unanswered for 56 seconds. The radioman here described Kruger's voice as "irritable" when the reply finally came, but all he said was, "Sorry. I was firing the first brake." Then a string of figures, and a quick log reading—everything just what you'd expect.

Earth acknowledged, and waited.

Eighteen seconds later:

"Second brake." More figures. Again, everything as it should be. But twenty seconds after that call was completed:

"This is Kruger. Anything wrong with the dope I gave you?"

"Earth to Kruger. Everything okay in our book. Trouble?"

"Track me, boy. I'm off."

"You want a course correction?"

"I can figure it quicker here. I'll keep talking as I go. Stop me if I'm wrong by your book." More figures, and Kruger's calculations coincided perfectly with the swift work done at the base. Both sides came to the same conclusion, and both sides knew what it meant. The man in the beast fired once more, and once again, and made a landing.

There was no reason to believe that either ship or pilot had been hurt. There was no way of finding out. By the best calculations, they were five degrees of arc around onto the dark side. And there was no possibility at all, after that second corrective firing that Kruger had enough fuel left to take off again. The last thing Earth had heard, before the edge of the moon cut off Kruger's radio, was:

"Sorry, boys. I guess I fouled up this time. Looks like you'll have to come and . . ."

One by one, they filled the seats: Gordon Kimberly at one end, and the Colonel at the other; Tim O'Heyer to one side of Kimberly, and Ruth at the other; Allie, with her pad and pencil poised, alongside Tim; the Colonel's aide next down the line, with his little silent stenotype in front of him; the Steins across from him, next to Ruth. With a minimum of formality, Kimberly opened the meeting and introduced Col. Swenson.

The Colonel cleared his throat. "I'd like to make something clear," he said. "Right from the start, I want to make this clear. I'm here to help. Not to get in the way. My presence does not indicate any—criticism on the part of the Armed Services. We are entirely satisfied with the work you people have been doing." He cleared his throat again, and Kimberly put in:

"You saw our plans, I believe, Colonel. Everything was checked and approved by your outfit ahead of time."

"Exactly. We had no criticism then, and we have none now. The rocket program is what's important. Getting Kruger back is important, not just for ordinary humanitarian reasons—pardon me, Mrs. Kruger, if I'm too blunt —but for the sake of the whole program. Public opinion, for one thing. That's your line, isn't it, Mr. O'Heyer? And then, *we have to find out what happened!*

"I came down here today to offer any help we can give you on the relief ship, and to make a suggestion to facilitate matters."

He paused deliberately this time.

"Go ahead, Colonel," Tim said. "We're listening."

"Briefly, the proposal is that you all accept temporary commissions while the project is going on. Part of that report in front of you embodies the details of the plan. I hope you'll find it acceptable. You all know there is a great deal of—necessary, I'm afraid—red tape, you'd call it, and 'going through channels,' and such in the Services. It makes cooperation between civilian and military groups difficult. If we can all get together as one outfit 'for the duration,' so to speak . . ."

This time nobody jumped into the silence. The Colonel cleared his throat once more.

"Perhaps you'd best read the full report before we discuss it any further. I brought the matter up now just to—to let you know the attitude with which we are submitting the proposal to you . . ."

"Thank you, Colonel." O'Heyer saved him. "I've already had a chance to look at the report. Don't know that anyone else has, except of course Miss Madero. But I personally, at least, appreciate your attitude. And I think I can speak for Mr. Kimberly too. . . ."

He looked sideways at his boss; Gordon nodded.

"What I'd like to suggest now," O'Heyer went on, "since I've seen the report already, and I believe everyone else would like to have a chance to bone up some—perhaps you'd like to have a first-hand look at some of our plant, Colonel? I could take you around a bit. . . . ?"

"Thank you. I would like to." The officer stood up, his gold Rocket Corps uniform blazing in the louvered light. "If I may say so, Mr. O'Heyer, you seem remarkably sensible, for a—well, a publicity man."

"That's all right, Colonel." Tim laughed easily. "I don't even think it's a dirty word. You seem like an

all-right guy yourself—for an officer, that is."

They all laughed then, and Tim led the blaze of glory out of the room while the rest of them settled down to studying the R.C. proposals. When they had all finished, Kimberly spoke slowly, voicing the general reaction:

"I hate to admit it, but it makes sense."

"They're being pretty decent about it, aren't they?" Ben said. "Putting it to us as a proposal instead of pulling a lot of weight."

He nodded. "I've had a little contact with this man Swenson before. He's a good man to work with. It ... makes sense, that's all."

"On paper, anyhow," Sue put in.

"Well, Ruth . . ." the big man turned to her, waiting. "You haven't said anything."

"I . . . it seems all right to me," she said, and added: "Frankly, Gordon, I don't know that I ought to speak at all. I'm not quite sure why I'm here."

Allie looked up sharply, questioning, from her notes; Sue pushed back her chair and half-stood. "My God, you're not going to back out on us now?"

"I . . . look, you all know I didn't do any of the real work on the last one. It was Andy Argent's job, and *a* good one. I've got Toby to think about, and . . ."

"Kid, we need you," Sue protested. "Argent can't do this one; this is going to be another Three, only more so. Unmanned, remote-control stuff, and no returning atmosphere-landing problems. This is up your alley. It's ..." She sank back; there was nothing else to say.

"That's true, Ruth." Tim had come back in during the last outburst. Now he sat down. "Speed is what counts, gal. That's why we're letting the gold braid in on the job—we are, aren't we?" Kimberly nodded; Tim went on: "With you on the job, we've got a working team. With somebody new—well, you know what a ruckus we had until Sue got used to Argent's blueprints, and how Ben's pencil notes used to drive Andy wild. And we can't even use him this time. It's not his field. He did do a good job, but we'd have to start in with somebody new all over again . . ." He broke off, and looked at Kimberly.

"I hope you'll decide to work with us, Ruth," he said simply.

"If . . . obviously, if it's the best way to get it done quick, I will," she said. "Twenty-eight hours a day if you like."

Tim grinned. "I guess we can let the braid back in now . . . ?" He got up and went to the door.

Another Three, only more so . . . Sue's words danced in her mind while the Colonel and the Colonel's aide marched in, and took their places, while voices murmured politely, exchanging good will.

Another Three—the first ship she had designed for Kimberly. The ship that made her rich and famous, but that was nothing, because it was the ship that brought Jock to her, that made him write the letter, that made her meet him, that led to the Five and Six and now .. .

"I've got some ideas for a manned ship," he'd written. "If we could get together to discuss it some time . . ."

". . . pleasure to know you'll be working with us, Mrs. Kruger." She shook her head sharply, and located in time and place.

"Thank you, Colonel. I want to do what I can, of course. . . ."

V

James James Morrison's mother put on a golden gown . . .

Toby knew the whole thing, almost, by heart. The little boy in the poem told his mother not to go down to the end of town, wherever that was, unless she took him along. And she said she wouldn't, but she put on that golden gown and went, and thought she'd be back in time for tea. Only she wasn't. She never came back at all. *Last seen wandering vaguely . . . King John said he was sorry ...*

Who's King John? And what time is tea?

Toby sat quietly beside his mother on the front seat of the car, and looked obliquely at the golden uniform she wore, and could not find a way to ask the questions in his mind.

Where was James James's father? 'Why did James James have to be the one to keep his mother from going down to the end of the town?

"Are you in the Army now, Mommy?" he asked. "Well . . . sort of. But not for long, darling. Just till Daddy comes home."

"When is Daddy coming home?"

"Soon. Soon, I hope. Not too long."

She didn't sound right. Her voice had a cracking sound like Grandma's, and other old ladies. She didn't look right, either, in that golden-gown uniform. When she kissed him goodbye in front of the school, she didn't feel right. She didn't even smell the same as she used to.

"'Bye, boy. See you tonight," she said—the words she always said, but they sounded different.

"'Bye." He walked up the driveway and up the front steps and down the corridor and into the pretty-painted room where his teacher was waiting. Miss Callahan was nice. Today she was too nice. The other kids teased him, and called him teacher's pet. At lunch time he went back in the room before anybody else did, and made pictures all over the floor with the colored chalk. It was the worst thing he could think of to do. Miss Callahan made him wash it all up, and she wasn't nice any more for the rest of the afternoon.

When he went out front after school, he couldn't see the car anywhere. It was true then. His mother had put on that golden gown, and mow she was gone. Then he saw Grandma waving to him out of her car, and he remembered Mommy had said Grandma would come and get him. He got in the car, and she grabbed at him like she always did. He pulled away.

"Is Daddy home yet?" he asked.

Grandma started the car. "Not yet," she said, and she was crying. He didn't dare ask about Mommy after that, but she wasn't home when they got there. It was a long time after that till dinner was ready.

She came home for dinner, though.

"You have to allow for the human factor. . . ." Nobody had said it to her, of course. Nobody would.

She wondered how much tougher it made the job for everybody, having her around. She wondered how she'd stay sane, if she didn't have the job to do.

Thank God Toby was in school now! She couldn't do it, if it meant leaving him with someone else all day—even his grandmother. As it was, having the old lady in the house so much was nerve-racking.

I ought to ask her if she'd like to sleep here for a while, Ruth thought, and shivered. Dinner time was enough. Anyhow, Toby liked having her there, and that's what counted.

I'll have to go in and see his teacher. Tomorrow, she thought. I've got to make time for it tomorrow. Let her know . . . but of course she knew. Jock Kruger's family's affairs were hardly private. Just the same, I better talk to her.

Ruth got out of bed and stood at the window, waiting for the moon. Another ten minutes, fifteen, twenty maybe, and it would edge over the hills on the other side of town. The white hands on the clock said 2:40. She had to get some sleep. She couldn't stand here waiting for the moon. Get to sleep now, before it comes up. That's better. . .

"Oh, Jock!

" . . . the human factor . . ." They didn't know. She wanted to go tell them all, find somebody right away, and shout it. "It's not his fault. I did it!"

"You're not scared, are you, baby?"

Oh, no! No, no! Don't be silly. 'Who, me? Just stiff and trembling. The cold, you know . . . ?

Stop that!

She stood at the window, waiting for the moon, the man, the man in the moon.

Human factor . . . well, there wouldn't be a human factor in this one. If she went out to the field on takeoff day and told KIM-VIII she was scared, it wouldn't matter at all.

Thank *God* I *can do* something, at least!

Abruptly, she closed the blind, so she wouldn't know when it came, and pulled out the envelope she'd brought home; switched on the bed light, and unfolded the first blueprints.

It was all familiar. Just small changes here and there. Otherwise, it was the Three all over again—the first unmanned ship to be landed successfully on the moon surface. The only important difference was that this one had to have some fancy gadgetry on the landing mech. Stein had given her the orbit cafes today. The rest of the job was hers and Sue's: design and production. Between them, they could do it. What they needed was a goldberg that would take the thing once around low enough to contact Jock, if . . . to contact him, that's all. Then back again, prepared for him to take over the landing by remote, according to instructions, if he wanted to. If he could. If his radio was working. If ...

Twice around, and then down where they figured he was, if he hadn't tried to bring it down himself.

It was complicated, but only quantitatively. Nothing basically new, or untried. And no *human* factors to be allowed for, once it was off the ground.

She fell asleep, finally, with the light still on, and the blind drawn, and the blueprints spread out on the floor next to the bed.

Every day, she drove him to school, dressed in her golden gown. And every afternoon, he waited, telling himself she was sure to come home.

That was a very silly little poem, and he wasn't three, he was six now.

But it was a long time since Daddy went away.

"I'd rather not," she said stiffly.

"I'm sorry, Ruth. I know—well, I don't know, but I can imagine how you feel. I hate to ask it, but if you can do it at all . . . just be there and look confident, and . . . you know."

Look confident! I couldn't do it for Jock, she thought; why should I do it for them? But of course that was silly. They didn't know her the way Jock did. They couldn't read her smiles, or sense a barely present stiffness, or know anything except what she chose to show on the front of her face.

"Look confident? What difference does it make, Tim? If the thing works, they'll all know soon enough. If ..."

She stopped.

"All right, I'll be blunt. If it doesn't work, it's going to make a hell of a difference what the public feeling was at the time it went off. If we have to try again. If—damn it, you want it straight, all right! If we can't save Jock, we're not going to give up the whole thing! We're not going to let space travel wait another half century while the psychological effects wear off. And Jock wouldn't want us to! Don't forget that. It was his dream, too. It was yours, once upon a time. If . . ."

"All right!" She was startled by her voice. She was screaming, or almost.

"All right," she said bitterly, more quietly. "If you think I'll be holding up progress for fifty years by not dragging Toby along to a launching, I'll come."

"Oh, Ruth, I'm sorry. No, it's not that important. And I had no business talking that way. But listen, babe, you used to understand this—the way I feel, the way Jock fel—feels. Even a guy like Kimberly. You used to feel it too. Look: the single item of you showing your face at the takeoff doesn't amount to much. Neither does one ounce of fuel. But either one could be the little bit that makes the difference. Kid, we got to put everything we've got behind it this time."

"All right," she said again. "I told you I'd come."

"You do understand, don't you?" he pleaded.

"I don't know, Tim. I'm not sure I do. But you're right. I would have, once. Maybe—I don't know. It's different for a woman, I guess. But I'll come. Don't worry about it."

She turned and started out.

"Thanks, Ruth. And I am sorry. Uh—want me to come and pick you up?"

She nodded. "Thanks." She was glad she wouldn't have to drive.

VI

He kept waiting for a chance to ask her. He couldn't do it in the house before they left, because right

after she told him where they were going, she went to get dressed in her golden uniform, and he had to stay with Grandma all the time.

Then Mr. O'Heyer came with the car, and he couldn't ask because, even though he sat up front with Mommy, Mr. O'Heyer was there too.

When they got to the launching field, there were people around all the time. Once he tried to get her off by himself, but all she did was think he had to go to the bathroom. Then, bit by bit, he didn't have to ask, because he could tell from the way they were all talking, and the way the cameras were all pointed at her all the time, like they had been at Daddy the other time.

Then there was the speeches part again, and this time she got up and talked, so that settled it.

He was glad he hadn't asked. They probably all thought he knew. Maybe they'd even told him, and he'd forgotten, like he sometimes did. "Mommy," he listened to himself in his mind, "Mommy, are you going to the moon too?" Wouldn't that sound silly!

She'd come back for him, he told himself. The other times, when Daddy went some place—like when they first came here to live, and Daddy went first, then Mommy, and then they came back to get him, and some other time, he didn't remember just what—but when Daddy went away, Mommy always went to stay with him, and then they always came to get him too.

It wasn't any different from Mommy going back to be with Daddy at a party or something, instead of staying in his room to talk to him when she put him to bed. It didn't feel any worse than that, he told himself.

Only he didn't believe himself.

She never did tell me! I wouldn't of forgotten that! She should of told me!

She did not want to make a speech. Nobody had warned her that she would be called upon to make a speech. It was bad enough trying to answer reporters coherently. She stood up and went forward to the microphone dutifully, and shook hands with the President of the United States, and tried to look confident. She opened her mouth and nothing came out.

"Thank you," she said finally, though she didn't know just what for. "You've all been very kind." She turned to the mike, and spoke directly into it. "I feel that a good deal of honor is being accorded me today which is not rightfully mine. We gave ourselves a two-month limit to complete a job, and the fact that it was finished inside of six weeks instead . . ."

She had to stop because everybody was cheering, and they wouldn't have heard her.

". . . that fact is not something for which the designer of a ship can be thanked. The credit is due to all the people at Kimberly who worked so hard, and to the Rocket Corps personnel who helped so much. I think . . ." This time she paused to find the right words. It had suddenly become very important to level with the crowd, to tell them what she honestly felt.

"I think it is I who should be doing the thanking. I happen to be a designer of rockets, but much more importantly, to me, I am Jock Kruger's wife. So I want to thank everyone who helped . . ."

Grandma's hand tightened around his, and then pulled away to get a handkerchief, because she was crying. Right up here on the platform! Then he realized what Mommy had just said. She said that being jock Kruger's wife was more important to her than anything else.

It was funny that Grandma should feel bad about that. Everybody else seemed to think it was a right thing to say, the way they were yelling and clapping and shouting. It occurred to Toby with a small shock of surprise that maybe Grandma sometimes felt bad about things the same way he did.

He was sort of sorry he wouldn't have much chance to find out more about that.

She broke away from the reporters and V.I.P.'s, and went and got Toby, and asked him did he want to look inside the rocket before it left.

He nodded. He was certainly being quiet today. Poor kid—he must be pretty mixed up about the whole thing by now.

She tried to figure out what was going on inside the small brown head, but all she could think of was

how much like Jock he looked today.

She took him up the elevator inside the rocket. There wasn't much room to move around, of course, but they'd rigged it so that all the big shots who were there could have a look. She was a little startled to see the President and her mother-in-law come up together in the next elevator, but between trying to answer Toby's questions, and trying to brush off reporters, she didn't have much time to be concerned about such oddities.

She had never seen Toby so intent on anything. He wanted to know everything. Where's this, and what's that for? And where are you going to sit, Mommy?

"I'm not, hon. You know that. There isn't room in this rocket for . . ."

"Mrs. Kruger, pardon me, but . . ."

"Just a minute, please."

"Oh, I'm sorry."

"What was it you wanted to know now, Toby?" There were too many people; there was too much talk. She felt slightly dizzy. "Look, hon, I want to go on down." It was hard to talk. She saw Mrs. Kruger on the ramp, and called her, and left Toby with her. Down at the bottom, she saw Sue Stein, and asked her if she'd go take over with Toby and try to answer his questions.

"Sure. Feeling rocky, kid?"

"Kind of." She tried to smile.

"You better go lie down. Maybe Allie can get something for you. I saw her over there. . . ." She waved a vague hand. "You look like hell, kid. Better lie down." Then she rushed off.

He got away from Grandma when Sue Stein came and said Mother wanted her to show him everything. Then he said he was tired and got away from her. He could find his Grandma all right, he said.

He'd found the spot he wanted. He could just about wiggle into it, he thought.

The loudspeaker crackled over her head. Five minutes now.

The other women who'd been fixing their hair and brightening their lipstick snapped their bags shut and took a last look and ran out, to find places where they could see everything. Ruth stretched out on the couch and closed her eyes. Five minutes now, by herself, to get used to the idea that the job was done.

She had done everything she could do, including coming here today. There was nothing further she could do. From now on, or in five minutes' time, it was out of anyone's hands, but—Whose? And Jock's, of course. Once the relief rocket got there, it was up to him.

If it got there.

If he was there for it to get to.

The way they had worked it, there was a chance at least they'd know the answer in an hour's time. If the rocket made its orbit once, and only once, it would mean he was alive and well and in control of his own ship, with the radio working, and ...

And if it made a second orbit, there was still hope. It might mean nothing worse than that his radio was out. But that way they would have to wait ...

God! It could take months, if the calculations as to where he'd come down were not quite right. If . . . if a million little things that would make it harder to get the fuel from one rocket to the other.

But if they only saw one orbit.

For the first time, she let herself, forced herself to, consider the possibility that Jock was dead. That he would not come back.

He's not dead, she thought. I'd know it if he was. Like I knew something was wrong last time. Like I'd know it now if . . .

"Sixty seconds before zero," said the speaker.

But there is! She sat bolt upright, not tired or dizzy any more. Now she had faced it, she didn't feel confused. There was something ... something dreadfully wrong. .

She ran out, and as she came on to the open field, the speaker was saying, "Fifty-one."

She ran to the edge of the crowd, and couldn't get through, and had to run, keep running, around the edges, to find the aisle between the cords.

Stop it! she screamed but not out loud, because she had to use all her breath for running.

And while she ran, she tried to think.

"Minus forty-seven."

She couldn't make them stop without a reason. They'd think she was hysterical ...

". . . forty-five . . ."

Maybe she was, at that. Coolly, her mind considered the idea and rejected it. No; there was a problem that hadn't been solved, a question she hadn't answered.

But what problem? What ...

"Minus forty."

She dashed down between the ropes, toward the control booth. The guard stepped forward, then recognized her, and stepped back. The corridor between the packed crowds went on forever.

"Minus thirty-nine . . . eight . . . thirty-seven."

She stopped outside the door of Control, and tried to think, think, think what was it? What could she tell them? How could she convince them? She knew, but they'd want to know what, why ...

You just didn't change plans at a moment like this.

But if they fired the rocket before she figured it out, before she remembered the problem, and then found an answer, it was as good as murdering Jock. They could never get another one up quickly enough if anything went wrong this time.

She pushed open the door.

"Stop!" she said. "Listen, you've got to stop. Wait! There's something . . ."

Tim O'Heyer came and took her arm, and smiled and said something. Something soothing.

"Minus nineteen," somebody said into a microphone, quietly.

She kept trying to explain, and Tim kept talking at her, and when she tried to pull away she realized the hand on her arm wasn't just there to comfort her. He was keeping her from making trouble. He .. .

Oh, God! If there was just some way to make them understand! If she could only remember what was wrong . . .

"Minus three . . . two . . ."

It was no use.

She stopped fighting, caught her breath, stood still, and saw Tim's approving smile, as the word and the flare went off together:

"Mark!"

Then, in a dead calm, she looked around and saw Sue. "Where's Toby?" she asked.

She was looking in the reserved grandstand seats for Mrs. Kruger, when she heard the crowd sigh, and looked up and saw it happening.

VII

The crash fire did not damage the inside of the rocket at all. The cause of the crash was self-evident, as soon as they found Toby Kruger's body wedged into the empty space between the outer hull of the third stage, and the inner hull of the second.

The headlines were not as bad as might have been expected. Whether it was the tired and unholy calm on Ruth Kruger's face that restrained them, or Tim O'Heyer's emergency-reserve supply of Irish whisky that convinced them, the newsmen took it easy on the story. All America couldn't attend the funeral, but a representative hundred thousand citizens mobbed the streets when the boy was buried; the other hundred and eighty million saw the ceremonies more intimately on their TV sets.

Nobody who heard the quiet words spoken over the fresh grave—a historic piece of poetry to which the author, O'Heyer, could never sign his name—nobody who heard that simple speech remained entirely unmoved. Just where or when or with whom the movement started is still not known; probably it began

spontaneously in a thousand different homes during the brief ceremony; maybe O'Heyer had something to do with that part of it, too. Whichever way, the money started coming in, by wire, twenty minutes afterwards; and by the end of the week "Bring Jock Back" was denting more paychecks than the numbers racket and the nylon industry combined.

The KIM-IX was finished in a month. They didn't have Ruth Kruger to design this time, but they didn't need her: the KIM-VIII plans were still good. O'Heyer managed to keep the sleeping-pill story down to a tiny back-page notice in most of the papers, and the funeral was not televised.

Later, they brought back the perfectly preserved, emaciated body of Jock Kruger, and laid him to rest next to his wife and son. He had been a good pilot and an ingenious man. The moon couldn't kill him; it took starvation to do that.

They made an international shrine of the house, and the garden where the three graves lay.

Now they are talking of making an interplanetary shrine of the lonely rocket on the wrong side of the moon.