

Think Like A Dinosaur

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Kamala Shastri came back to this world as she had left it -- naked. She tottered out of the assembler, trying to balance in Tuulen Station's delicate gravity. I caught her and bundled her into a robe with one motion, then eased her onto the float. Three years on another planet had transformed Kamala. She was leaner, more muscular. Her fingernails were now a couple of centimeters long and there were four parallel scars incised on her left cheek, perhaps some Gendian's idea of beautification. But what struck me most was the darting strangeness in her eyes. This place, so familiar to me, seemed almost to shock her. It was as if she doubted the walls and was skeptical of air. She had learned to think like an alien.

"Welcome back." The float's whisper rose to a whoosh as I walked it down the hallway.

She swallowed hard and I thought she might cry. Three years ago, she would have. Lots of migrators are devastated when they come out of the assembler; it's because there is no transition. A few seconds ago Kamala was on Gend, fourth planet of the star we call epsilon Leo, and now she was here in lunar orbit. She was almost home; her life's great adventure was over.

"Matthew?" she said.

"Michael." I couldn't help but be pleased that that she remembered me.

After all, she had changed my life.

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I've guided maybe three hundred migrations -- comings and goings -- since

I first came to Tuulen to study the dinos. Kamala Shastri's is the only

quantum scan I've ever pirated. I doubt that the dinos care; I suspect

this is a trespass they occasionally allow themselves. I know more about

her -- at least, as she was three years ago -- than I know about myself.

When the dinos sent her to Gend, she massed 50,391.72 grams and her red

cell count was 4.81 million per mm³. She could play the nagasvaram, a kind

of bamboo flute. Her father came from Thana, near Bombay, and her favorite

flavor of chewyfrute was watermelon and she'd had five lovers and when she

was eleven she had wanted to be a gymnast but instead she had become a

biomaterials engineer who at age twenty-nine had volunteered to go to the

stars to learn how to grow artificial eyes. It took her two years to go

through migrator training; she knew could have backed out at any time,

right up until the moment Silloin translated her into a superluminal

signal. It was explained to her many times what it meant to balance the

equation.

I first met her on June 22, 2069. She shuttled over from Lunex's L1 port

and came through our airlock at promptly 10:15, a small, roundish woman

with black hair parted in the middle and drawn tight against her skull.

They had darkened her skin against epsilon Leo's UV; it was the deep

blue-black of twilight. She was wearing a striped clingy and velcro

slippers to help her get around for the short time she'd be navigating our

.2 micrograv.

"Welcome to Tuulen Station." I smiled and offered my hand. "My name is Michael." We shook. "I'm supposed to be a sapientologist but I also moonlight as the local guide."

"Guide?" She nodded distractedly. "Okay." She peered past me, as if expecting someone else.

"Oh, don't worry," I said, "the dinos are in their cages."

Her eyes got wide as she let her hand slip from mine. "You call the Hanen dinos?"

"Why not?" I laughed. "They call us babies. The weeps, among other things."

She shook her head in amazement. People who've never met a dino tended to romanticize them: the wise and noble reptiles who had mastered superluminal physics and introduced Earth to the wonders of galactic civilization. I doubt Kamala had ever seen a dino play poker or gobble down a screaming rabbit. And she had never argued with Linna, who still wasn't convinced that humans were psychologically ready to go to the stars.

"Have you eaten?" I gestured down the corridor toward the reception rooms.

"Yes ... I mean, no." She didn't move. "I am not hungry."

"Let me guess. You're too nervous to eat. You're too nervous to talk, even. You wish I'd just shut up, pop you into the marble, and beam you out. Let's just get this part the hell over with, eh?"

"I don't mind the conversation, actually."

"There you go. Well, Kamala, it is my solemn duty to advise you that there are no peanut butter and jelly sandwiches on Gend. And no chicken vindaloo. What's my name again?"

"Michael?"

"See, you're not that nervous. Not one taco, or a single slice of eggplant pizza. This is your last chance to eat like a human."

"Okay." She did not actually smile -- she was too busy being brave -- but a corner of her mouth twitched. "Actually, I would not mind a cup of tea."

"Now, tea they've got." She let me guide her toward reception room D; her slippers snicked at the velcro carpet. "Of course, they brew it from lawn clippings."

"The Gendians don't keep lawns. They live underground."

"Refresh my memory." I kept my hand on her shoulder; beneath the clingy, her muscles were rigid. "Are they the ferrets or the things with the orange bumps?"

"They look nothing like ferrets."

We popped through the door bubble into reception D, a compact rectangular space with a scatter of low, unthreatening furniture. There was a kitchen station at one end, a closet with a vacuum toilet at the other. The ceiling was blue sky; the long wall showed a live view of the Charles River and the Boston skyline, baking in the late June sun. Kamala had just finished her doctorate at MIT.

I opaqued the door. She perched on the edge of a couch like a wren, ready to flit away.

While I was making her tea, my fingernail screen flashed. I answered it and a tiny Silloin came up in discreet mode. She didn't look at me; she was too busy watching arrays in the control room. =A problem,= her voice buzzed in my earstone, =most negligible, really. But we will have to void

the last two from today's schedule. Save them at Lunex until first shift tomorrow. Can this one be kept for an hour?="

"Sure," I said. "Kamala, would you like to meet a Hanen?" I transferred Silloin to a dino-sized window on the wall. "Silloin, this is Kamala Shastri. Silloin is the one who actually runs things. I'm just the doorman."

Silloin looked through the window with her near eye, then swung around and peered at Kamala with her other. She was short for a dino, just over a meter tall, but she had an enormous head that teetered on her neck like a watermelon balancing on a grapefruit. She must have just oiled herself because her silver scales shone. =Kamala, you will accept my happiest intentions for you?=" She raised her left hand, spreading the skinny digits to expose dark crescents of vestigial webbing.

"Of course, I ..."

=And you will permit us to render you this translation?="

She straightened. "Yes."

=Have you questions?="

I'm sure she had several hundred, but at this point was probably too scared to ask. While she hesitated, I broke in. "Which came first, the lizard or the egg?"

Silloin ignored me. =It will be excellent for you to begin when?="

"She's just having a little tea." I said, handing her the cup. "I'll bring her along when she's done. Say an hour?"

Kamala squirmed on couch. "No, really, it will not take me ..."

Silloin showed us her teeth, several of which were as long as piano keys.

=That would be most appropriate, Michael.= She closed; a gull flew through the space where her window had been.

"Why did you do that?" Kamala's voice was sharp.

"Because it says here that you have to wait your turn. You're not the only migrator we're sending this morning." This was a lie, of course; we had had to cut the schedule because Jodi Latchaw, the other sapientologist assigned to Tuulen, was at the University of Hipparchus presenting our paper on the Hanen concept of identity. "Don't worry, I'll make the time fly."

For a moment, we looked at each other. I could have laid down an hour's worth of patter; I'd done that often enough. Or I could have drawn her out on why she was going: no doubt she had a blind grandma or second cousin just waiting for her to bring home those artificial eyes, not to mention potential spin-offs which could well end tuberculosis, famine and premature ejaculation, blah, blah, blah. Or I could have just left her alone in the room to read the wall. The trick was guessing how spooked she really was.

"Tell me a secret," I said.

"What?"

"A secret, you know, something no one else knows."

She stared as if I'd just fallen off Mars.

"Look, in a little while you're going some place that's what ... three hundred and ten light years away? You're scheduled to stay for three years. By the time you come back, I could easily be rich, famous and elsewhere; we'll probably never see each other again. So what have you got to lose? I promise not to tell."

She leaned back on the couch, and settled the cup in her lap. "This is

another test, right? After everything they have put me through, they still have not decided whether to send me."

"Oh no, in a couple of hours you'll be cracking nuts with ferrets in some dark Gendian burrow. This is just me, talking."

"You are crazy."

"Actually, I believe the technical term is logomaniac. It's from the Greek: logos meaning word, mania meaning two bits short of a byte. I just love to chat is all. Tell you what, I'll go first. If my secret isn't juicy enough, you don't have tell me anything."

Her eyes were slits as she sipped her tea. I was fairly sure that whatever she was worrying about at the moment, it wasn't being swallowed by the big blue marble.

"I was brought up Catholic," I said, settling onto a chair in front of her. "I'm not anymore, but that's not the secret. My parents sent me to Mary, Mother of God High School; we called it Moogoo. It was run by a couple of old priests, Father Thomas and his wife, Mother Jennifer.

Father Tom taught physics, which I got a D in, mostly because he talked like he had walnuts in his mouth. Mother Jennifer taught theology and had all the warmth of a marble pew; her nickname was Mama Moogoo.

"One night, just two weeks before my graduation, Father Tom and Mama Moogoo went out in their Chevy Minimus for ice cream. On the way home, Mama Moogoo pushed a yellow light and got broadsided by an ambulance. Like I said, she was old, a hundred and twenty something; they should've lifted her license back in the '50's. She was killed instantly. Father Tom died in the hospital.

"Of course, we were all supposed to feel sorry for them and I guess I did a little, but I never really liked either of them and I resented the way their deaths had screwed things up for my class. So I was more annoyed than sorry, but then I also had this edge of guilt for being so uncharitable. Maybe you'd have to grow up Catholic to understand that. Anyway, the day after it happened they called an assembly in the gym and we were all there squirming on the bleachers and the cardinal himself telepresented a sermon. He kept trying to comfort us, like it had been our parents that had died. When I made a joke about it to the kid next to me, I got caught and spent the last week of my senior year with an in-school suspension."

Kamala had finished her tea. She slid the empty cup into one of the holders built into the table.

"Want some more?" I said.

She stirred restlessly. "Why are you telling me this?"

"It's part of the secret." I leaned forward in my chair. "See, my family lived down the street from Holy Spirit Cemetery and in order to get to the carryvan line on McKinley Ave. , I had to cut through. Now this happened a couple of days after I got in trouble at the assembly. It was around midnight and I was coming home from a graduation party where I had taken a couple of pokes of insight, so I was feeling sly as a philosopher-king. As I walked through the cemetery, I stumbled across two dirt mounds right next to each other. At first I thought they were flower beds, then I saw the wooden crosses. Fresh graves: here lies Father Tom and Mama Moogoo. There wasn't much to the crosses: they were basically just stakes with crosspieces painted white and hammered into the ground. The names were

hand printed on them. The way I figured it, they were there to mark the graves until the stones got delivered. I didn't need any insight to recognize a once in a lifetime opportunity. If I switched them, what were the chances anyone was going to notice? It was no problem sliding them out of their holes. I smoothed the dirt with my hands and then ran like hell."

Until that moment, she'd seemed bemused by my story and slightly condescending toward me. Now there was a glint of alarm in her eyes.

"That was an terrible thing to do," she said.

"Absolutely," I said, "although the dinos think that the whole idea of planting bodies in graveyards and marking them with carved rocks is weepy.

They say there is no identity in dead meat, so why get so sentimental about it? Linna keeps asking how come we don't put markers over our shit. But that's not the secret. See, it'd been a warmish night in the middle of June, only as I ran, the air turned cold. Freezing, I could see my breath.

And my shoes got heavier and heavier, like they had turned to stone. As I got closer to the back gate, it felt like I was fighting a strong wind, except my clothes weren't flapping. I slowed to a walk. I know I could have pushed through, but my heart was thumping and then I heard this whispery seashell noise and I panicked. So the secret is I'm a coward. I switched the crosses back and I never went near that cemetery again. As a matter of fact," I nodded at the walls of reception room D on Tuulen Station, "when I grew up, I got about as far away from it as I could."

She stared as I settled back in my chair. "True story," I said and raised my right hand. She seemed so astonished that I started laughing. A smile

bloomed on her dark face and suddenly she was giggling too. It was a soft, liquid sound, like a brook bubbling over smooth stones; it made me laugh even harder. Her lips were full and her teeth were very white.

"Your turn," I said, finally.

"Oh, no, I could not." She waved me off. "I don't have anything so good ..." She paused, then frowned. "You have told that before?"

"Once," I said. "To the Hanen, during the psych screening for this job.

Only I didn't tell them the last part. I know how dinos think, so I ended it when I switched the crosses. The rest is baby stuff." I wagged a finger at her. "Don't forget, you promised to keep my secret."

"Did I?"

"Tell me about when you were young. Where did you grow up?"

"Toronto." She glanced at me, appraisingly. "There was something, but not funny. Sad."

I nodded encouragement and changed the wall to Toronto 's skyline dominated by the CN Tower, Toronto-Dominion Centre, Commerce Court and the King's Needle.

She twisted to take in the view and spoke over her shoulder. "When I was ten we moved to an apartment, right downtown on Bloor Street so my mother could be close to work." She pointed at the wall and turned back to face me. "She is an accountant, my father wrote wallpaper for Imagineering. It was a huge building; it seemed as if we were always getting into the elevator with ten neighbors we never knew we had. I was coming home from school one day when an old woman stopped me in the lobby.

"Little girl," she said, "how would you like to earn a ten dollars?" My parents had warned me not to talk to strangers but she obviously was a

resident. Besides, she had an ancient pair of exolegs strapped on, so I knew I could outrun her if I needed to. She asked me to go to the store for her, handed me a grocery list and a cash card and said I should bring everything up to her apartment, 10W. I should have been more suspicious because all the downtown groceries deliver but, as I soon found out, all she really wanted was someone to talk to her. And she was willing to pay for it, usually five or ten dollars, depending how long I stayed. Before long I was stopping by almost every day after school. I think my parents would have made me stop if they had known; they were very strict. They would not have liked me taking her money. But neither of them got home until after six, so it was my secret to keep."

"Who was she?" I said. "What did you talk about?"

"Her name was Margaret Ase. She was ninety-seven years old and I think she had been some kind of counselor. Her husband and her daughter had both died and she was alone. I didn't find out much about her; she made me do most of the talking. She asked me about my friends and what I was learning in school and my family. Things like that"

Her voice trailed off as my fingernail started to flash. I answered it.

=Michael, I am pleased to call you to here.= Silloin buzzed in my ear.

She was almost twenty minutes ahead of schedule.

"See, I told you we'd make the time fly." I stood; Kamala's eyes got very wide. "I'm ready if you are."

I offered her my hand. She took it and let me help her up. She wavered for a moment and I sensed just how fragile her resolve was. I put my hand around her waist and steered her into the corridor. In the micrograv of

Tuulen Station, she already felt as insubstantial as a memory. "So tell me, what happened that was so sad?"

At first I thought she hadn't heard. She shuffled along, said nothing.

"Hey, don't keep me in suspense here, Kamala" I said. "You have to finish the story."

"No," she said. "I don't think I do."

I didn't take this personally. My only real interest in the conversation had been to distract her. If she refused to be distracted, that was her choice. Some migrators kept talking right up to the moment they slid into the big blue marble, but lots of them went quiet just before. They turned inward. Maybe in her mind she was already on Gend, blinking in the hard white light.

We arrived at the scan center, the largest space on Tuulen Station.

Immediately in front of us was the marble, containment for the quantum nondemolition sensor array -- QNSA for the acronymically inclined. It was the milky blue of glacial ice and big as two elephants. The upper hemisphere was raised and the scanning table protruded like a shiny gray tongue. Kamala approached the marble and touched her reflection, which writhed across its polished surface. To the right was a padded bench, the fogger and a toilet. I looked left, through the control room window.

Silloin stood watching us, her impossible head cocked to one side.

=She is docile?= She buzzed in my earstone.

I held up crossed fingers.

=Welcome, Kamala Shastri.= Silloin's voice came over the speakers with a soothing hush. =You are ready to open your translation?=
=

Kamala bowed to the window. "This is where I take my clothes off?"

=If you would be so convenient.=

She brushed past me to the bench. Apparently I had ceased to exist; this was between her and the dino now. She undressed quickly, folding her clingy into a neat bundle, tucking her slippers beneath the bench. Out of the corner of my eye, I could see tiny feet, heavy thighs, and the beautiful, dark smooth skin of her back. She stepped into the fogger and closed the door.

"Ready," she called.

From the control room, Silloin closed circuits which filled the fogger with a dense cloud of nanolenses. The nano stuck to Kamala and deployed, coating the surface of her body. As she breathed them, they passed from her lungs into her bloodstream. She only coughed twice; she had been well trained. When the eight minutes were up, Silloin cleared the air in the fogger and she emerged. Still ignoring me, she again faced the control room.

=Now you must arrange yourself on the scanning table,= said Silloin,
=and enable Michael to fix you.=

She crossed to the marble without hesitation, climbed the gantry beside it, eased onto the table and laid back.

I followed her up. "Sure you won't tell me the rest of the secret?"

She stared at the ceiling, unblinking.

"Okay then." I took the canister and a sparker out of my hip pouch. "This is going to happen just like you've practiced it." I used the canister to respray the bottoms of her feet with nano. I watched her belly rise and fall, rise and fall. She was deep into her breathing exercise.

"Remember, no skipping rope or whistling while you're in the scanner."

She did not answer. "Deep breath now," I said and touched a sparker to her big toe. There was a brief crackle as the nano on her skin wove into a net and stiffened, locking her in place. "Bark at the ferrets for me." I picked up my equipment, climbed down the gantry, and wheeled it back to the wall.

With a low whine, the big blue marble retracted its tongue. I watched upper hemisphere close, swallowing Kamala Shastri, then joined Silloin in the control room.

I'm not of the school who think the dinos stink, another reason I got assigned to study them up close. Parikkal, for example, has no smell at all that I can tell. Normally Silloin had the faint but not unpleasant smell of stale wine. When she was under stress, however, her scent became vinegary and biting. It must have been a wild morning for her. Breathing through my mouth, I settled onto the stool at my station.

She was working quickly, now that the marble was sealed. Even with all their training, migrators tend to get claustrophobic fast. After all, they're lying in the dark, in nanobondage, waiting to be translated.

Waiting. The simulator at the Singapore training center makes a noise while it's emulating a scan. Most compare it to a light rain pattering against the marble; for some, it's low volume radio static. As long as they hear the patter, the migrators think they're safe. We reproduce it for them while they're in our marble, even though scanning takes about three seconds and is utterly silent. From my vantage I could see that the sagittal, axial and coronal windows had stopped blinking, indicating full data capture. Silloin was skirring busily to herself; her comm didn't

bother to interpret. Wasn't saying anything baby Michael needed to know, obviously. Her head bobbed as she monitored the enormous spread of readouts; her claws clicked against touch screens that glowed orange and yellow.

At my station, there was only a migration status screen -- and a white button.

I wasn't lying when I said I was just the doorman. My field is sapientology, not quantum physics. Whatever went wrong with Kamala's migration that morning, there was nothing I could have done. The dinos tell me that the quantum nondemolition sensor array is able to circumvent Heisenberg's Uncertainty Principle by measuring spacetime's most crogglingly small quantities without collapsing the wave/particle duality.

How small? They say that no one can ever "see" anything that's only 1.62×10^{-33} centimeters long, because at that size, space and time come apart.

Time ceases to exist and space becomes a random probablistic foam, sort of like quantum spit. We humans call this the Planck-Wheeler length. There's a Planck-Wheeler time, too: 10^{-45} of a second. If something happens and something else happens and the two events are separated by an interval of a mere 10^{-45} of a second, it is impossible to say which came first. It was all dino to me -- and that's just the scanning. The Hanen use different tech to create artificial wormholes, hold them open with electromagnetic vacuum fluctuations, pass the superluminal signal through and then assemble the migrator from elementary particles at the destination.

On my status screen I could see that the signal which mapped Kamala Shastri had already been compressed and burst through the wormhole. All

that we had to wait for was for Gend to confirm acquisition. Once they officially told us that they had her, it would be my job to balance the equation.

Pitter-patter, pitter-pat.

Some Hanen technologies are so powerful that they can alter reality itself. Wormholes could be used by some time traveling fanatic to corrupt history; the scanner/assembler could be used to create a billion Silloins -- or Michael Burrs. Pristine reality, unpolluted by such anomalies, has what the dinos call harmony. Before any sapients get to join the galactic club, they must prove total commitment to preserving harmony.

Since I had come to Tuulen to study the dinos, I had pressed the white button maybe three hundred times. It was what I had to do in order to keep my assignment. Pressing it sent a killing pulse of ionizing radiation through the cerebral cortex of migrator's duplicated, and therefore unnecessary, body. No brain, no pain; death followed within seconds. Yes, the first few times I'd balanced the equation had been traumatic. It was still ... unpleasant. But this was the price of a ticket to the stars. If certain unusual people like Kamala Shastri had decided that price was reasonable, it was their choice, not mine.

=This is not a happy result, Michael.= Silloin spoke to me for the first time since I'd entered the control room. =Discrepancies are unfolding.= On my status screen I watched as the error-checking routines started turning up hits.

"Is the problem here?" I felt a knot twist suddenly inside me. "Or there?" If our original scan checked out, then all Silloin would have to do is send it to Gend again.

There was a long, infuriating silence. Silloin concentrated on part of her board as if it showed her firstborn hatchling chipping out of its egg. The respirator between her shoulders had ballooned to twice its normal size. My screen showed that Kamala had been in the marble for four minutes plus.

=It may be fortunate to recalibrate the scanner and begin over.=

"Shit." I slammed my hand against the wall, felt the pain tingle to my elbow. "I thought you had it fixed." When error-checking turned up problems, the solution was almost always to retransmit. "You're sure, Silloin? Because this one was right on the edge when I tucked her in."

Silloin gave me a dismissive sneeze and slapped at the error readouts with her bony little hand, as if to knock them back to normal. Like Linna and the other dinos, she had little patience with what she regarded as our weepy fears of migration. However, unlike Linna, she was convinced that someday, after we had used Hanen technologies long enough, we would learn to think like dinos. Maybe she's right. Maybe when we've been squirting through wormholes for hundreds of years, we'll cheerfully discard our redundant bodies. When the dinos and other sapients migrate, the redundants zap themselves -- very harmonious. They tried it with humans but it didn't always work. That's why I'm here. =The need is most clear. It will prolong about thirty minutes,= she said.

Kamala had been alone in the dark for almost six minutes, longer than any migrator I'd ever guided. "Let me hear what's going on in the marble."

The control room filled with the sound of Kamala screaming. It didn't sound human to me -- more like the shriek of tires skidding toward a crash.

"We've got to get her out of there," I said.

=That is baby thinking, Michael.=

"So she's a baby, damn it." I knew that bringing migrators out the marble was big trouble. I could have asked Silloin to turn the speakers off and sat there while Kamala suffered. It was my decision.

"Don't open the marble until I get the gantry in place." I ran for the door. "And keep the sound effects going."

At the first crack of light, she howled. The upper hemisphere seemed to lift in slow motion; inside the marble she bucked against the nano. Just when I was sure it impossible that she couldn't scream any louder, she did. We had accomplished something extraordinary, Silloin and I; we had stripped the brave biomaterials engineer away completely, leaving in her place a terrified animal.

"Kamala, it's me. Michael."

Her frantic screams cohered into words. "Stop ... don't ... oh my god, someone help!" If I could have, I would've jumped into the marble to release her, but the sensor array is fragile and I wasn't going risk causing any more problems with it. We both had to wait until the upper hemisphere swung fully open and the scanning table offered poor Kamala to me.

"It's okay. Nothing's going to happen, all right? We're bringing you out, that's all. Everything's all right."

When I released her with the sparker, she flew at me. We pitched back and almost toppled down the steps. Her grip was so tight I couldn't breathe.

"Don't kill me, don't, please, don't."

I rolled on top of her. "Kamala!" I wriggled one arm free and used it to pry myself from her. I scrabbled sideways to the top step. She lurched

clumsily in the microgravity and swung at me; her fingernails raked across the back of my hand, leaving bloody welts. "Kamala, stop!" It was all I could do not to strike back at her. I retreated down the steps.

"You bastard. What are you assholes trying to do to me?" She drew several deep shuddering breaths and began to sob.

"The scan got corrupted somehow. Silloin is working on it."

"The difficulty is obscure," said Silloin from the control room.

"But that's not your problem." I backed toward the bench.

"They lied," she mumbled and seemed to fold in upon herself as if she were just skin, no flesh or bones. "They said I wouldn't feel anything and here... do you know what it's like ... it's"

I fumbled for her clingy. "Look, here are your clothes. Why don't you get dressed? We'll get you out of here."

"You bastard," she repeated, but her voice was empty.

She let me coax her down off the gantry. I counted nubs on the wall while she fumbled back into her clingy. They were the size of the old dimes my grandfather used to hoard and they glowed with a soft golden bioluminescence. I was up to forty-seven before she was dressed and ready to return to reception D.

Where before she had perched expectantly at the edge of the couch, now she slumped back against it. "So what now?" she said.

"I don't know." I went to the kitchen station and took the carafe from the distiller. "What now, Silloin?" I poured water over the back of my hand to wash the blood off. It stung. My earstone was silent. "I guess we wait," I said finally.

"For what?"

"For her to fix"

"I'm not going back in there."

I decided to let that pass. It was probably too soon to argue with her about it, although once Silloin recalibrated the scanner, she'd have very little time to change her mind. "You want something from the kitchen? Another cup of tea, maybe?"

"How about a gin and tonic -- hold the tonic?" She rubbed beneath her eyes. "Or a couple of hundred milliliters of serentol?"

I tried to pretend she'd made a joke. "You know the dinos won't let us open the bar for migrators. The scanner might misread your brain chemistry and your visit to Gend would be nothing but a three year drunk."

"Don't you understand?" She was right back at the edge of hysteria. "I am not going!" I didn't really blame her for the way she was acting but, at that moment, all I wanted was to get rid of Kamala Shastri. I didn't care if she went on to Gend or back to Lunex or over the rainbow to Oz, just as long as I didn't have to be in the same room with this miserable creature who was trying to make me feel guilty about an accident I had nothing to do with.

"I thought I could do it." She clamped hands to her ears as if to keep from hearing her own despair. "I wasted the last two years convincing myself that I could just lie there and not think and then suddenly I'd be far away. I was going someplace wonderful and strange." She made a strangled sound and let her hands drop into her lap. "I was going to help people see."

"You did it, Kamala. You did everything we asked."

She shook her head. "I couldn't not think. That was the problem. And then there she was, trying to touch me. In the dark. I had not thought of her since" She shivered. "It's your fault for reminding me."

"Your secret friend," I said.

"Friend?" Kamala seemed puzzled by the word. "No, I wouldn't say she was a friend. I was always a little bit scared of her, because I was never quite sure what she wanted from me." She paused. "One day I went up to 10W after school. She was in her chair, staring down at Bloor Street. Her back was to me. I said, 'Hi, Ms. Ase.' I was going to show her a genie I had written, only she didn't say anything. I came around. Her skin was the color of ashes. I took her hand. It was like picking up something plastic. She was stiff, hard -- not a person anymore. She had become a thing, like a feather or a bone. I ran; I had to get out of there. I went up to our apartment and I hid from her."

She squinted, as if observing -- judging -- her younger self through the lens of time. "I think I understand now what she wanted. I think she knew she was dying; she probably wanted me there with her at the end, or at least to find her body afterward and report it. Only I could not. If I told anyone she was dead, my parents would find out about us. Maybe people would suspect me of doing something to her -- I don't know. I could have called security but I was only ten; I was afraid somehow they might trace me. A couple of weeks went by and still nobody had found her. By then it was too late to say anything. Everyone would have blamed me for keeping quiet for so long. At night I imagined her turning black and rotting into her chair like a banana. It made me sick; I couldn't sleep or eat. They

had to put me in the hospital, because I had touched her. Touched death."

=Michael, Silloin whispered, without any warning flash. =An impossibility has formed.=

"As soon as I was out of that building, I started to get better. Then they found her. After I came home, I worked hard to forget Ms. Ase. And I did, almost." Kamala wrapped her arms around herself. "But just now she was with me again, inside the marble ... I couldn't see her but somehow I knew she was reaching for me."

=Michael, Parikkal is here with Linna.=

"Don't you see?" She gave a bitter laugh. "How can I go to Gend? I'm hallucinating."

=It has broken the harmony. Join us alone. =

I was tempted to swat at the annoying buzz in my ear.

"You know, I've never told anyone about her before."

"Well, maybe some good has come of this after all." I patted her on the knee. "Excuse me for a minute?" She seemed surprised that I would leave.

I slipped into the hall and hardened the door bubble, sealing her in.

"What impossibility?" I said, heading for the control room.

=She is pleased to reopen the scanner? =

"Not pleased at all. More like scared shitless."

=This is Parikkal.= My earstone translated his skirring with a sizzling edge, like bacon frying. =The confusion was made elsewhere. No mishap can be connected to our station.=

I pushed through the bubble into the scan center. I could see the three dinos through the control window. Their heads were bobbing furiously.

"Tell me," I said.

=Our communications with Gend were marred by a transient falsehood,= said

Silloin. =Kamala Shastri has been received there and reconstructed.=

"She migrated?" I felt the deck shifting beneath my feet. "What about the one we've got here?"

=The simplicity is to load the redundant into the scanner and finalize=

"I've got news for you. She's not going anywhere near that marble."

=Her equation is not in balance.= This was Linna, speaking for the first time. Linna was not exactly in charge of Tuulen Station; she was more like a senior partner. Parikkal and Silloin had overruled her before -- at least I thought they had.

"What do you expect me to do? Wring her neck?"

There was a moment's silence -- which was not as unnerving as watching them eye me through the window, their heads now perfectly still.

"No," I said.

The dinos were skirring at each other; their heads wove and dipped. At first they cut me cold and the comm was silent, but suddenly their debate crackled through my earstone.

=This is just as I have been telling,= said Linna. =These beings have no realization of harmony. It is wrongful to further unleash them on the many worlds.=

=You may have reason,= said Parikkal. =But that is a later discussion.

The need is for the equation to be balanced.=

=There is no time We will have to discard the redundant ourselves.=

Silloin bared her long brown teeth. It would take her maybe five seconds to rip Kamala's throat out. And even though Silloin was the dino most

sympathetic to us, I had no doubt she would enjoy the kill.

=I will argue that we adjourn human migration until this world has been rethought,= said Linna.

This was typical dino condescension. Even though they appeared to be arguing with each other, they were actually speaking to me, laying the situation out so that even the baby sapient would understand. They were informing me that I was jeopardizing the future of humanity in space. That the Kamala in reception D was dead whether I quit or not. That the equation had to be balanced and it had to be now.

"Wait," I said. "Maybe I can coax her back into the scanner." I had to get away from them. I pulled my earstone out and slid it into my pocket. I was in such a hurry to escape that I stumbled as I left the scan center and had to catch myself in the hallway. I stood there for a second, staring at the hand pressed against the bulkhead. I seemed to see the splayed fingers through the wrong end of a telescope. I was far away from myself.

She had curled into herself on the couch, arms clutching knees to her chest, as if trying to shrink so that nobody would notice her.

"We're all set," I said briskly. "You'll be in the marble for less than a minute, guaranteed."

"No, Michael."

I could actually feel myself receding from Tuulen Station. "Kamala, you're throwing away a huge part of your life."

"It is my right." Her eyes were shiny.

No, it wasn't. She was redundant; she had no rights. What had she said about the dead old lady? She had become a thing, like a bone.

"Okay, then," I jabbed at her shoulder with a stiff forefinger. "Let's go."

She recoiled. "Go where?"

"Back to Lunex. I'm holding the shuttle for you. It just dropped off my afternoon list; I should be helping them settle in, instead of having to deal with you."

She unfolded herself slowly.

"Come on." I jerked her roughly to her feet. "The dinos want you off Tuulen as soon as possible and so do I." I was so distant, I couldn't see Kamala Shastri anymore.

She nodded and let me march her to the bubble door.

"And if we meet anyone in the hall, keep your mouth shut."

"You're being so mean." Her whisper was thick.

"You're being such a baby."

When the inner door glided open, she realized immediately that there was no umbilical to the shuttle. She tried to twist out of my grip but I put my shoulder into her, hard. She flew across the airlock, slammed against the outer door and caromed onto her back. As I punched at the switch to close the inner door, I came back to myself. I was doing this terrible thing -- me, Michael Burr. I couldn't help myself: I giggled. When I last saw her, Kamala was scrabbling across the deck toward me but she was too late. I was surprised that she wasn't screaming again; all I heard was her ferocious breathing.

As soon as the inner door sealed, I opened the outer door. After all, how many ways are there to kill someone on a space station? There were no guns. Maybe someone else could have stabbed or strangled her, but not me.

Poison how? Besides, I wasn't thinking, I had been trying desperately not to think of what I was doing. I was a sapientologist, not a doctor. I always thought that exposure to space meant instantaneous death. Explosive decompression or something like. I didn't want her to suffer. I was trying to make it quick. Painless.

I heard the whoosh of escaping air and thought that was it; the body had been ejected into space. I had actually turned away when thumping started, frantic, like the beat of a racing heart. She must have found something to hold onto. Thump, thump, thump! It was too much. I sagged against the inner door -- thump, thump -- slid down it, laughing. Turns out that if you empty the lungs, it is possible to survive exposure to space for at least a minute, maybe two. I thought it was funny. Thump! Hilarious, actually. I had tried my best for her -- risked my career -- and this was how she repaid me? As I laid my cheek against the door, the thumps start to weaken. There were just a few centimeters between us, the difference between life and death. Now she knew all about balancing the equation. I was laughing so hard I could scarcely breathe. Just like the meat behind the door. Die already, you weepy bitch!

I don't know how long it took. The thumping slowed. Stopped. And then I was a hero. I had preserved harmony, kept our link to the stars open. I chuckled with pride; I could think like a dinosaur.

#

I popped through the bubble door into Reception D. "It's time to board the shuttle."

Kamala had changed into a clingy and velcro slippers. There were at least ten windows open on the wall; the room filled with the murmur of talking

heads. Friends and relatives had to be notified; their hero had returned, safe and sound. "I have to go," she said to the wall. "I will call you all when I land."

She gave me a smile that seemed stiff from disuse. "I want to thank you again, Michael." I wondered how long it took migrators to get used to being human. "You were such a help and I was such a ... I was not myself."

She glanced around the room one last time and then shivered. "I was really scared."

"You were."

She shook her head. "Was it that bad?"

I shrugged and led her out into the hall.

"I feel so silly now. I mean, I was in the marble for less than a minute and then --" she snapped her fingers --- "there I was on Gend, just like you said." She brushed up against me as we walked; her body was hard under the clingy. "Anyway, I am glad we got this chance to talk. I really was going to look you up when I got back. I certainly did not expect to see you here."

"I decided to stay on." The inner door to the airlock glided open. "It's a job that grows on you." The umbilical shivered as the pressure between Tuulen Station and the shuttle equalized.

"You have got migrators waiting," she said.

"Two."

"I envy them." She turned to me. "Have you ever thought about going to the stars?"

"No," I said.

Kamala put her hand to my face . "It changes everything." I could feel the prick of her long nails -- claws, really. For a moment I thought she meant to scar my cheek the way she had been scarred.

"I know," I said.