

Paul J. McAuley
Second Skin

Born in Oxford, England, in 1955, Paul I. McAuley now makes his home in London. He is considered to be one of the best of the new breed of British writers (although a few Australian writers could be fit in under this heading as well) who are producing that sort of revamped, updated, wide-screen Space Opera sometimes referred to as "radical hard science fiction." A frequent contributor to *Interzone*, as well as to markets such as *Amazing*, *The Magazine of Fantasy & Science Fiction*, *Asimov's Science Fiction*, *When the Music's Over*, and elsewhere, he won the Philip K. Dick Award with his first novel, *Four Hundred Billion Stars*. His other books include the novels *Of the Fall*, *Eternal Light*, *Red Dust*, and *Pasquale's Angel*, a collection of his short work *The King of the Hill and Other Stories*, and an original anthology coedited with Kim Newman, *In Dreams*. His most recent book was the acclaimed novel *Fairyland*, which won the John W. Campbell Memorial Award last year. Upcoming is a major new trilogy, the first volume of which is *Child of the River*. His stories have appeared in our *Fifth*, *Ninth*, and *Thirteenth Annual Collections*. In the suspenseful and richly inventive story that follows, he takes us on a journey across space to the farthest reaches of the solar system, for a tale of high-tech intrigue and counterintrigue beneath the frozen surface of Proteus ...

The transport, once owned by an outer system cartel and appropriated by Earth's Pacific Community after the Quiet War, ran in a continuous, everchanging orbit between Saturn, Uranus, and Neptune. It never docked. It mined the solar wind for hydrogen to mix with the nanogram of antimatter that could power it for a century, and once or twice a year, during its intricate gravityassisted loops between Saturn's moons, maintenance drones attached remoralike to its hull, and fixed whatever its self-repairing systems couldn't handle.

Ben Lo and the six other members of the first trade delegation to Proteus since the war were transferred onto the transport as it looped around Titan, still sleeping in the hibernation pods they'd climbed into in Earth orbit. Sixty days later, they were released from the transport in individual drop capsules of structural diamond, like so many seeds scattered by a pod. Ben Lo, swaddled in the crash web that took up most of the volume of the drop capsule's little bubble, watched with growing vertigo as the battered face of Proteus drew closer. He had been awakened only a day ago, and was as weak and unsteady as a new-born kitten. The sun was behind the bubble's braking chute. Ahead, Neptune's disc was tipped in star-sprinkled black above the little moon. Neptune was subtly banded with blue and violet, its poles capped with white cloud, its equator streaked with cirrus. Slowly, slowly, Proteus began to eclipse it. The transport had already dwindled to a bright point amongst the bright points of the stars, on its way to spin up around Neptune, loop past Triton, and head on out for the next leg of its continuous voyage, halfway across the solar system to Uranus.

Like many of the moons of the outer planets, Proteus was a ball of ice and rock. Over billions of years, most of the rock had sunk to the core, and the moon's icy, dirty white surface was splotched with a scattering of large impact craters with black interiors, like well-used ash trays, and dissected by large stress fractures, some running halfway round the little globe. The spy fell toward Proteus in a thin transparent bubble of carbon, wearing a paper suit and a diaper, and trussed up in a cradle of smart cabling like an early Christian martyr. He could barely move a muscle. Invisible laser light poured all around him—the capsule was opaque to the frequency used—gently pushing against the braking sail which had unfolded and spun into a twenty kilometer diameter mirror after the capsule had been released by the transport. Everything was fine.

The capsule said, "Only another twelve hours, Mr. Lo. I suggest that you sleep. Elfhame's time zone is ten hours behind Greenwich Mean Time." Had he been asleep for a moment? Ben Lo blinked and said, "Jet lag," and laughed.

"I don't understand," the capsule said politely. It didn't need to be very intelligent. All it had to do was control the attitude of the braking sail, and keep its passenger amused and reassured until landing. Then it would be recycled.

Ben Lo didn't bother to try to explain. He was feeling the same kind of yawning apprehension that must have gripped ninety-year-old airline passengers at the end of the twentieth century. A sense of deep dislocation and estrangement. How strange that I'm here, he thought. And, how did it happen? When he'd been born, spaceships had been crude, disposable chemical rockets. The first men on the moon. President Kennedy's assassination. No, that happened before I was born. For a moment, his yawning sense of dislocation threatened to swallow him whole, but then he had it under control and it dwindled to mere strangeness. It was the treatment, he thought. The treatment and the hibernation.

Somewhere down there in the white moonscape, in one of the smaller canyons, was Ben Lo's first wife. But he mustn't think of that. Not yet. Because if he did ... no, he couldn't remember. Something bad, though.

"I can offer a variety of virtualities," the capsule said. Its voice was a husky contralto. It added, "dertain sexual services are also available."

"What I'd like is a chateaubriand steak butterflied and well-grilled over hickory wood, a Caesar salad, and a 1998 Walnut Creek Cabernet Sauvignon."

"I can offer a range of nutritive pastes, and eight flavors of water, including a balanced electrolyte," the capsule said. A prissy note seemed to have edged into its voice. It added, "I would recommend that you restrict intake of solids and fluids until after landing."

Ben Lo sighed. He had already had his skin scrubbed and repopulated with strains of bacteria and yeast native to the Protean ecosystem, and his GI tract had been reamed out and packed with a neutral gel containing a benign strain of E. coli. He said, "Give me an inflight movie."

"I would recommend virtualities," the capsule said. "I have a wide selection." Despite the capsule's minuscule intelligence, it had a greater memory capacity than all the personal computers on Earth at the end of the millennium. Ben Lo had downloaded his own archives into it.

"Wings of Desire," he said.

"But it's in black and white! And flat. And only two senses--"

"There's color later on. It has a particular relevance to me, I think. Once upon a time, capsule, there was a man who was very old, and became young again, and found that he'd lost himself. Run the movie, and you'll understand a little bit about me."

The moon, Neptune, the stars, fell into a single point of light. The light went out. The film began.

Failing through a cone of laser light, the man and the capsule watched how an angel became a human being, out of love.

The capsule skimmed the moon's dirty-white surface and shed the last of its relative velocity in the inertia buffers of the target zone, leaving its braking sail to collapse across kilometers of moonscape. It was picked up by a striding tripod that looked like a prop from The War of the Worlds, and carried down a steeply sloping tunnel through triple airlocks into something like the ER room of a hospital. With the other members of the trade delegation, Ben Lo, numbed by neural blocks, was decanted, stripped, washed, and dressed in fresh paper clothes.

Somewhere in the press of nurses and technicians he thought he glimpsed someone he knew, or thought he knew. A woman, her familiar face grown old, eyes faded blue in a face wrinkled as a turtle's ... But then he was lifted onto a gurney and wheeled away.

Waking, he had problems with remembering who he was. He knew he was nowhere on

Earth. A universally impersonal hotel room, but he was virtually in free fall. Some moon, then. But what role was he playing?

He got up, moving carefully in the fractional gravity, and pulled aside the floor-to-ceiling drapes. It was night, and across a kilometer of black air was a steep dark mountainside or perhaps a vast building, with lights wound at its base, shimmering on a river down there ... Proteus. Neptune. The trade delegation. And the thing he couldn't think about, which was fractionally nearer the surface now, like a word at the back of his tongue. He could feel it, but he couldn't shape it. Not yet.

He stripped in the small, brightly lit sphere of the bathroom and turned the walls to mirrors and looked at himself. He was too young to be who he thought he was. No, that was the treatment, of course. His third. Then why was his skin this color? He hadn't bothered to tint it for ... how long?

That sci-fi version of Othello, a century and a half ago, when he'd been a movie star. He remembered the movie vividly, although not the making of it. But that was the color he was now, his skin a rich dark mahogany, gleaming as if oiled in the lights, his hair a cap of tight black curls.

He slept again, and dreamed of his childhood home. San Francisco. Sailboats scattered across the blue bay. He'd had a little boat, a Laser. The cold salt smell of the sea. The pinnacles of the rust-red bridge looming out of banks of fog, and the fog horn booming mournfully. Cabbage leaves in the gutters of Spring Street. The crowds swirling under the crimson and gold neon lights of the trinket shops of Grant Avenue, and the intersection at Grant and California tingling with trolley car bells.

He remembered everything as if he had just seen it in a movie.

Nonassociational aphasia. It was a side effect of the treatment he'd just had. He'd been warned about it, but it was still unsettling. The woman he was here to ... Avernus. Her name now. But when they had been married, a hundred and sixtyodd years ago, she had been called Barbara Reiner. He tried to remember the taste of her mouth, the texture of her skin, and could not.

The next transport would not swing by Proteus for a hundred and seventy days, so there was no hurry to begin the formal business of the trade delegation. For a while, its members were treated as favored tourists, in a place that had no tourist industry at all.

The sinuous rill canyon which housed Elfhome had been burned to an even depth of a kilometer, sealed under a construction diamond roof, and pressurized to 750 millibars with a nitrox mix enriched with I percent carbon dioxide to stimulate plant growth. The canyon ran for fifty kilometers through a basaltic surface extrusion, possibly the remnant of the giant impact that had resurfaced the farside hemisphere of the moon a billion years ago, or the result of vulcanism caused by thermal drag when the satellite had been captured by Neptune.

The sides of the canyon were raked to form a deep vee in profile, with a long narrow lake lying at the bottom like a black ribbon, dusted with a scattering of pink and white coral keys. The Elfhamers called it the Skagerrak. The sides of the canyon were steeply terraced, with narrow vegetable gardens, rice paddies, and farms on the higher levels, close to the lamps that, strung from the diamond roof, gave an insolation equivalent to that of the Martian surface. Farther down, amongst pocket parks and linear strips of designer wilderness, houses clung to the steep slopes like soap bubbles, or stood on platforms or bluffs, all with panoramic views of the lake at the bottom and screened from their neighbors by soaring ginkgoes, cypress, palmettos, bamboo (which grew to fifty meters in the microgravity), and dragon's blood trees. All the houses were large and individually designed; Elfhamers went in for extended families. At the lowest levels were the government buildings, commercial malls and parks, the university and hospital, and the single hotel, which bore all the marks of having been recently constructed for the trade delegation. And then there was the lake, the Skagerrak, with its freshwater corals and teeming fish, and slow, ten-meter-high waves. The single, crescent-shaped beach of black sand at what Elfhamers called the North End was

very steeply raked, and constantly renewed; the surfing was fabulous. There was no real transportation system except for a single tube train line that shuttled along the west side, and moving lines with T-bar seats, like ski lifts, that made silver lines along the steep terraced slopes. Mostly, people bounded around in huge kangaroo leaps, or flew using startlingly small wings of diamond foil or little hand-held airscrews—the gravity was so low, 0.007g, that human flight was ridiculously easy. Children rode airboards or simply dived from terrace to terrace, which strictly speaking was illegal, but even adults did it sometimes, and it seemed to be one of those laws to which no one paid much attention unless someone got hurt. It was possible to break a bone if you jumped from the top of the canyon and managed to land on one of the lakeside terraces, but you'd have to work at it. Some of the kids did—the latest craze was terrace bouncing, in which half a dozen screaming youngsters tried to find out how quickly they could get from top to bottom with the fewest touchdown points.

The entire place, with its controlled, indoor weather, its bland affluent sheen, and its universal cleanliness, was ridiculously vulnerable. It reminded Ben Lo of nothing so much as an old-fashioned shopping mall, the one at Santa Monica, for instance. He'd had a bit part in a movie made in that mall, somewhere near the start of his career. He was still having trouble with his memory. He could remember every movie he'd made, but couldn't remember making any one of them.

He asked his guide if it was possible to get to the real surface. She was taken aback by the request, then suggested that he could access a mobot using the point-of-presence facility of his hotel room.

"Several hundred were released fifty years ago, and some of them are still running, I suppose. Really, there is nothing up there but some industrial units."

"I guess Avernus has her labs on the surface."

Instantly, the spy was on the alert, suppressing a thrill of panic.

His guide was a very tall, thin, pale girl called Maria. Most Elffiamers were descended from Nordic stock, and Maria had the high cheekbones, blue eyes, blond hair, and open and candid manner of her counterparts on Earth. Like most Elffhamers, she was tanned and athletically lithe, and wore a distractingly small amount of fabric: tight shorts, a band of material across her small breasts, plastic sandals, a communications bracelet.

At the mention of Avernus, Maria's eyebrows dented over her slim, straight nose. She said, "I would suppose so, yah, but there's nothing interesting to see. The program, it is reaching the end of its natural life, you see. The surface is not interesting, and it is dagerolis. The cold and the vacuuti, and still the risk of micrometeorites. Better to live inside."

Like worms in an apple, the spy thought. The girl was soft and foolish, very young and very naive. It was only natural that a member of the trade delegation would be interested in Elffiamer's most famous citizen. She wouldn't think anything of this.

Ben Lo blinked and said, "Well, yes, but I've never been there. It would be something, for someone of my age to set foot on the surface of a moon of Neptune. I was born two years before the first landing on Earth's moon, you know. Have you ever been up there?"

Maria's teeth were even and pearly white, and when she smiled, as she did now, she seemed to have altogether too many. "By point-of-presence, of course. It is part of our education. It is fine enough in its own way, but the surface is not our home, you understand."

They were sitting on the terrace of a cafe that angled out over the lake. Resin tables and chairs painted white, clipped bay trees in big white pots, terra-cotta tiles, slightly sticky underfoot, like all the floor coverings in Elffhame. Bulbs of schnapps cooled in an ice bucket.

Ben Lo tipped his chair back and looked up at the narrow strip of black sky and its strings of brilliant lamps that hung high above the steep terraces on the far side of the lake. He said, "You can't see the stars. You can't even

see Neptune."

"Well, we are on the farside," Marla said, reasonably. "But by point-of-presence mobot I have seen it, several times. I have been on Earth the same way, and Mars, but those were fixed, because of the signal lag."

"Yes, but you might as well look at a picture!"

Marla laughed. "Oh, yah. Of course. I forget that you are once a capitalist-" the way she said it, he might have been a dodo, or a dolphin-"from the United States of the Americas, as it was called then. That is why you put such trust in what you call real. But really, it is not such a big difference. You put on a mask, or you put on a pressure suit. It is all barriers to experience. And what is to see?

Dusty ice, and the same black sky as home, but with more and weaker lamps. We do not need the surface."

Ben Lo didn't press the point. His guide was perfectly charming, if earnest and humorless, and brightly but brainlessly enthusiastic for the party line, like a cadre from one of the supernats. She was transparently a government spy, and was recording everything-she had shown him the little button camera and asked his permission.

"Such a historical event this is, Mr. Lo, that we wish to make a permanent record of it. You will I hope not mind?"

So now Ben Lo changed the subject, and asked why there were no sailboats on the lake, and then had to explain to Marla what a sailboat was. Her smile was brilliant when she finally understood. "Oh yab, there are some I think who use such boards on the water, like surfing boards with sails."

"Sailboards, sure."

"The waves are very Ig, so it is not easy a sport. Not aily are allowed, besides, because of the film."

It turned out that there was a monomolecular film across the whole lake, to stop great gobs of it floating off into the lakeside terraces.

A gong beat softly in the air. Maria looked at her watch. It was tattooed on her slim, tanned wrist. "Now it will rain soon. We should go inside, I think. I can show you the library this afternoon. There are several real books in it that one of our first citizens brought all the way from Earth."

When he was not sight-seeing or attending coordination meetings with the others in the trade delegation (he knew none of them well, and they were all so much younger than him, and as bright and enthusiastic as Marla), he spent a lot of time in the library. He told Maria that he was gathering background information that would help finesse the target packages of economic exchange, and she said that it was good, this was an open society, they had nothing to hide. Of course, he couldn't use his own archive, which was under bonded quarantine, but he was happy enough typing away at one of the library terminals for hours on end, and after a while, Marla left him to it. He also made use of various point-of-presence mobots to explore the surface, especially around Elfhame's roof.

And then there were the diplomatic functions to attend: a party in the prime minister's house, a monstrous construction of pine logs and steeply pitched roofs of wooden shingles cantilevered above the lake; a reception in the assembly room of the parliament, the Riksdag; others at the university and the Supreme Court. Ben Lo started to get a permanent crick in his neck from looking up at the faces of his etiolated hosts while making conversation.

At one, held in the humid, rarefied atmosphere of the research greenhouses near the top of the East Wall of Elfhame, Ben Lo glimpsed Avernus again. His heart lifted strangely, and the spy broke off from the one-sided conversation with an earnest hydroponicist and pushed through the throng toward his target, the floor sucking at his sandals with each step.

The old woman was surrounded by a gaggle of young giants, set apart from the rest of the party. The spy was aware of people watching when he took Avernus's hand, something that caused a murmur of unrest amongst her companions.

"An old custom, dears," Avernus told them. "We predate most of the plagues that made such gestures taboo, even after the plagues were defeated. Ben,

dear, what a surprise. I had hoped never to see you again. Your employers have a strange sense of humor." A young man with big, red-framed data glasses said, "You know each other?"

"We lived in the same city," Avernus said, "many years ago." She had brushed her vigorous grey hair back from her forehead. The wine-dark velvet wrap did not flatter her skinny old woman's body. She said to Ben, "You look so young." "My third treatment," he confessed. Avernus said, "It was once said that in American lives there was no second act-but biotech has given almost everyone who can afford it a second act, and for some a third one, too. But what to do in them? One simply can't pretend to be young again-one is too aware of death, and has too much at stake, too much invested in self, to risk being young."

"There's no longer any America," Ben Lo said. "Perhaps that helps."

"To be without loyalty," the old woman said, "except to one's own continuity." The spy winced, but did not show it.

The old woman took his elbow. Her grip was surprisingly strong. "Pretend to be interested, dear," she said. "We are having a delightful conversation in this delightful party. Smile. That's better!"

Her companions laughed uneasily at this. Avernus said quietly to Ben, "You must visit me."

"I have an escort."

"Of course you do. I'm sure someone as resourceful as you will think of something. Ah, this must be your guide. what a tall girl!"

Avernus turned away, and her companions closed around her, turning their long bare backs on the Earthman.

Ben Lo asked Maria what Avernus was doing there. He was dizzy with the contrast between what his wife had been, and what she had become. He could hardly remember what they had talked about. Meet. They had to meet. They would meet.

It was beginning.

Marla said, "It is a politeness to her. Really, she should not have come, and we are glad she is leaving early. You do not worry about her, Mr. Lo. She is a sideline. We look inward, we reject the insane plans of the previous administration. Would you like to see the new oil-rich strains of Chlorella we use?"

Ben Lo smiled diplomatically. "It would be very interesting."

There had been a change of government, after the war. It had been less violent and more serious than a revolution, more like a change of climate, or of religion. Before the Quiet War (that was what it was called on Earth, for although tens of thousands had died in the war, none had died on Earth), Proteus had been loosely allied with, but not committed to, an amorphous group which wanted to exploit the outer reaches of the solar system, beyond Pluto's orbit; after the war, Proteus dropped its expansionist plans and sought to reestablish links with the trading communities of Earth.

Avernus had been on the losing side of the change in political climate.

Brought in by the previous regime because of her skills in gengineering vacuum organisms, she found herself sidelined and ostracized, her research group disbanded and replaced by government cadres, funds for her research suddenly diverted to new projects. But her contract bound her to Proteus for the next ten years, and the new government refused to release her. She had developed several important new dendrimers, light-harvesting molecules used in artificial photosynthesis, and established several potentially valuable genelines, including a novel form of photosynthesis based on a sulphur-spring Chloroflexus bacterium. The goverilment wanted to license them, but to do that it had to keep Avernus under contract, even if it would not allow her to work. Avernus wanted to escape, and Ben Lo was there to help her. The Pacific Community had plenty of uses for vacuum organisms-there was the whole of the Moon to use as a garden, to begin with-and was prepared to overlook Avernus's political stance in exchange for her expertise and her knowledge.

He was beginning to remember more and more, but there was still so much he didn't know. He supposed that the knowledge had been buried, and would flower

in due course. He tried not to worry about it.

Meanwhile, the meetings of the trade delegation and Elfhame's industrial executive finally began. Ben Lo spent most of the next ten days in a closed room dickering with Parliamentary speakers on the Trade Committee over marginal rates for exotic organics. When the meetings were finally over, he slept for three hours and then, still logy from lack of sleep but filled with excess energy, went body surfing at the black beach at the North End. It was the first time he had managed to evade Marla. She had been as exhausted as he had been by the rounds of negotiations, and he had promised that he would sleep all day so that she could get some rest.

The surf was tremendous, huge smooth slow glassy swells falling from thirty meters to batter the soft, sugary black sand with giant's paws. The air was full of spinning globs of water, and so hazed with spray, like a rain of foamy flowers, that it was necessary to wear a filtermask. It was what the whole lake would be like, without its monomolecular membrane.

Ben Lo had thought he would still have an aptitude for body surfing, because he'd done so much of it when he had been living in Los Angeles, before his movie career really took off. But he was as helpless as a kitten in the swells, his boogie board turning turtle as often as not, and twice he was caught in the undertow. The second time, a pale naked giantess got an arm around his chest and hauled him up onto dry sand.

After he hawked up a couple of lungs-full of fresh water, he managed to gasp his thanks. The woman smiled. She had black hair in a bristle cut, and startingly green eyes. She was very tall and very thin, and completely naked. She said, "At last you are away from that revisionist bitch."

Ben Lo sat up, abruptly conscious, in the presence of this young naked giantess, of his own nakedness. "Ah. You are one of Avernus's-"

The woman walked away with her boogie board under her arm, pale buttocks flexing. The spy unclipped the ankle line that tethered him to his rented board, bounded up the beach in two leaps, pulled on his shorts, and followed. Sometime later, he was standing in the middle of a vast red-lit room at blood heat and what felt like a hundred percent humidity. Racks of large-leaved plants receded into infinity; those nearest him towered high above, forming a living green wall. His arm stung, and the tall young woman, naked under a green gown open down the front, but masked and wearing disposable gloves, deftly caught the glob of expressed blood-his blood-in a capillary straw, took a disc of skin from his forearm with a spring-loaded punch, sprayed the wound with sealant and went off with her samples.

A necessary precaution, the old woman said. Avernus. He remembered now. Or at least could picture it. Taking a ski lift all the way to the top. Through a tunnel lined with tall plastic bags in which green Chlorella cultures bubbled under lights strobing in fifty millisecond pulses. Another attack of memory loss they seemed to be increasing in frequency! Stress, he told himself. "Of all the people I could identify," Avernus said, "they had to send you." "Ask me anything," Ben Lo said, although he wasn't sure that he recalled very much of their brief marriage.

"I mean identify genetically. We exchanged strands of hair in amber, do you remember? I kept mine. It was mounted in a ring."

"I didn't think that you were sentimental."

"It was my idea, and I did it with all my husbands. It reminded me of what I once was."

"My wife."

"An idiot."

"I must get back to the hotel soon. If they find out I've been wandering around without my escort, they'll start to suspect."

"Good. Let them worry. What can they do? Arrest me? Arrest you?"

"I have diplomatic immunity."

Avernus laughed. "Ben, Ben, you always were so status-conscious. That's why I left. I was just another thing you'd collected. A trophy, like your Porsche, or your Picasso."

He didn't remember.

"It wasn't a very good Picasso. One of his fakes-do you know that story?"

"I suppose I sold it."

The young woman in the green gown came back. "A positive match," she said.

"Probability of a negative identity point oh oh one or less. But he is doped up with immunosuppressants and testosterone."

"The treatment," the spy said glibly. "Is this where you do your research?"

"Of course not. They certainly would notice if you turned up there. This is one of the pharm farms. They grow tobacco here, with human genes inserted to make various immunoglobulins. They took away my people, Ben, and replaced them with spies. Ludmilia is one of my original team. They put her to drilling new agricultural tunnels."

"We are alone here," Ludmilia said.

"Or you would have made your own arrangements."

"I hate being dependent on people. Especially from Earth, if you'll forgive me. And especially you. Are the others in your trade delegation ... ?"

"Just a cover," the spy said. "They know nothing. They are looking forward to your arrival in Tycho. The laboratory is ready to be fitted out to your specifications."

"I swore I'd never go back, but they are fools here. They stand on the edge of greatness, the next big push, and they turn their backs on it and burrow into the ice like maggots."

The spy took her hands in his. Her skin was loose on her bones, and dry and cold despite the humid heat of the hydroponic greenhouse. He said, "Are you ready? Truly ready?"

She did not pull away. "I have said so. I will submit to any test, if it makes your masters happy. Ben, you are exactly as I remember you. It is very strange."

"The treatments are very good now. You must use one."

"Don't think I haven't, although not as radical as yours. I like to show my age. You could shrivel up like a Struldbrugg, and I don't have to worry about that, at least. That skin color, though. Is it a fashion?"

"I was Othello, once. Don't you like it?" Under the red lights his skin gleamed with an ebony luster.

"I always thought you'd make a good lingo, if only you had been clever enough. I asked for someone I knew, and they sent you. It almost makes me want to distrust them."

"We were young, then." He was trying to remember, searching her face. Well, it was two hundred years ago. Still, he felt as if he trembled at a great brink, and a tremendous feeling of nostalgia for what he could not remember swept through him. Tears grew like big lenses over his eyes and he brushed them into the air and apologized. "I am here to do a job," he said, and said it as much for his benefit as hers. Avernus said, "Be honest, Ben. You hardly remember anything."

"Well, it was a long time ago." But he did not feel relieved at this admission. "The past was gone. No more than pictures, no longer a part of him. Avernus said, "When we got married, I was in love, and a fool. It was in the Wayfarer's Chapel, do you remember? Hot and dry, with a Santa Ana blowing, and Channel Five's news helicopter hovering overhead. You were already famous, and two years later you were so famous I no longer recognized you."

They talked a little while about his career. The acting, the successful terms as state senator, the unsuccessful term as congressman, the fortune he had made in land deals after the partition of the USA, his semi-retirement in the upper house of the Pacific Community parliament. It was a little like an interrogation, but he didn't mind it. At least he knew this story well.

The tall young woman, Ludmilla, took him back to the hotel. It seemed natural that she should stay for a drink, and then that they should make love, with a languor and then an urgency that surprised him, although he had been told that restoration of his testosterone levels would sometimes cause emotional or physical crises that would require resolution. Ben Lo had made love in

microgravity many times, but never before with someone who had been born to it. Afterward, Ludmilla rose up from the bed and moved gracefully about the room, dipping and turning as she pulled on her scanty clothes. "I will see you again," she said, and then she was gone.

The negotiations resumed, a punishing schedule taking up at least twelve hours a day. And there were the briefings and summary sessions with the other delegates, as well as the other work the spy had to attend to when Maria thought he was asleep. Fortunately, he had a kink that allowed him to build up sleep debt and get by on an hour a night. He'd sleep long when this was done, all the way back to Earth with his prize. Then at last it was all in place, and he only had to wait.

Another reception, this time in the little zoo halfway up the West Side. The Elffhamers were running out of novel places to entertain the delegates. Most of the animals looked vaguely unhappy in the microgravity and none were very large. Bushbabies, armadillos, and mice; a pair of hippopotami no larger than domestic cats; a knee-high pink elephant with some kind of skin problem behind its disproportionately large ears.

Ludmilla brushed past Ben Lo as he came out of the rest room and said, "When can she go?"

"Tonight," the spy said.

Everything had been ready for fourteen days now. He went to find something to do now that he was committed to action.

Marla was feeding peanuts to the dwarf elephant. Ben Lo said, "Aren't you worried that the animals might escape? You wouldn't want mice running around your Shangri-la."

"They all have a kink in their metabolism. An artificial amino acid they need. That girl you talked with was once one of Avernus's assistants. She should not be here."

"She propositioned me." Maria said nothing. He said, "There are no side deals. If someone wants anything, they have to bring it to the table through the proper channels."

"You are an oddity here, it is true. Too much muscles. Many women would sleep with you, out of curiosity."

"But you have never asked, Marla. I'm ashamed." He said it playfully, but he saw that Marla suspected something. It didn't matter. Everything was in place. They came for him that night, but he was awake and dressed, counting off the minutes until his little bundle of surprises started to unpack itself. There were two of them, armed with tasers and sticky foam canisters. The spy blinded them with homemade capsicum spray (he'd stolen chilli pods from one of the hydroponic farms and suspended a water extract in a perfume spray) and killed them as they blundered about, screaming and pawing at their eyes. One of them was Marla, another a well-muscled policeman who must have spent a good portion of each day in a centrifuge gym. The spy disabled the sprinkler system, set fire to his room, kicked out the window, and ran.

There were more police waiting outside the main entrance of the hotel. The spy ran right over the edge of the terrace and landed two hundred meters down amongst blue pines grown into bubbles of soft needles in the microgravity. Above, the fire touched off the homemade plastic explosive, and a fan of burning debris shot out above the spy's head, seeming to hover in the black air for a long time before beginning to flutter down toward the Skagerrak. Briefly, he wondered if any of the delegation had survived. It didn't matter. The young, enthusiastic, and naive delegates had always been expendable.

Half the lights were out in Elffhame, and all of the transportation systems, the phone system was crashing and resetting every five minutes, and the braking lasers were sending twenty-millisecond pulses to a narrow wedge of the sky. It was a dumb bug, only a thousand lines long. The spy had laboriously typed it from memory into the library system, which connected with everything else. It wouldn't take long to trace, but by then, other things would start happening. The spy waited in the cover of the bushy pine trees. One of his teeth was capped and he pulled it out and unraveled the length of monomolecular diamond

wire coiled inside.

In the distance, people called to each other over a backdrop of ringing bells and sirens and klaxons. Flashlights flickered in the darkness on the far side of the Skagerrak's black gulf; on the terrace above the spy's hiding place, the police seemed to have brought the fire in the hotel under control. Then the branches of the pines started to doff as a wind came up; the bug had reached the air conditioning. In the darkness below, waves grew higher on the Skagerrak, sloshing and crashing together, as the wind drove waves toward the beach at the North End and reflected waves clashed with those coming onshore. The monomolecular film over the lake's surface was not infinitely strong. The wind began to tear spray from the tops of the towering waves, and filled the lower level of the canyon with flying foam flowers. Soon the waves would grow so tall that they'd spill over the lower levels.

The spy counted out ten minutes, and then started to bound up the terraces, putting all his strength into his thigh and back muscles. Most of the setbacks between each terrace were no more than thirty meters high; for someone with muscles accustomed to one gee, it was easy enough to scale them with a single jump in the microgravity, even from a standing start.

He was halfway there when the zoo's elephant charged past him in the windy semidarkness. Its trunk was raised above its head and it trumpeted a single despairing cry as it ran over the edge of the narrow terrace. Its momentum carried it a long way out into the air before it began to fall, outsized ears flapping as if trying to lift it. Higher up, the plastic explosive charges the spy had made from sugar, gelatin, and lubricating grease blew out hectares of plastic sheeting and structural frames from the long greenhouses.

The spy's legs were like wood when he reached the high agricultural regions; his heart was pounding and his lungs were burning as he tried to strain oxygen from the thin air. He grabbed a fire extinguisher and mingled with panicked staff, ricocheting down long corridors and bounding across windblown fields of crops edged by shattered glass walls and lit by stuttering red emergency lighting. He was only challenged once, and he struck the woman with the butt end of the fire extinguisher and ran on without bothering to check if she was dead or not.

Marla had shown him the place where they stored genetic material on one of her endless tours. Everything was kept in liquid nitrogen, and there was a wide selection of dewar flasks. He chose one about the size of a human head, filled it, and clamped on the lid.

Then through a set of double pressure doors, banging the switch that closed them behind him, setting down the flask and dropping the coil of diamond wire beside it, stepping into a dressing frame, and finally pausing, breathing hard, dry-mouthed and suddenly trembling, as the vacuum suit was assembled around him. As the gold-filmed bubble was lowered over his head and clamped to the neck seal, Ben Lo started, as if waking. Something was terribly wrong. What was he doing here?

Dry air hissed around his face; headup displays stuttered and scrolled down. The spy walked out of the frame, stowed the diamond wire in one of the suit's utility pockets, picked up the flask of liquid nitrogen, and started the airlock cycle, ignoring the computer's contralto as it recited a series of safety precautions while the room revolved, and opened on a flood of sunlight.

The spy came out at the top of the South End of Elfhome. The canyon stretched away to the north, its construction-diamond roof like black sheet-ice: a long, narrow lake of ice curving away downhill, it seemed, between odd, rounded hills like half-buried snowballs, their sides spattered with perfect round craters. He bounded around the tangle of pipes and fins of some kind of distillery or cracking plant, and saw the line of the railway arrowing away across a glaring white plain toward an horizon as close as the top of a hill. The railway was a single rail hung from smart A-frames whose carbon fiber legs compensated for movements in the icy surface. Thirteen hundred kilometers long, it described a complete circle around the little moon from pole to pole, part of the infrastructure left over from Elfhome's expansionist phase, when

it was planned to string sibling settlements all the way around the moon. The spy kangaroo-hopped along the sunward side of the railway, heading south toward the rendezvous point they had agreed upon. In five minutes, the canyon and its associated domes and industrial plant had disappeared beneath the horizon behind him. The ice was rippled and cracked and blistered, and crunched under the cleats of his boots at each touchdown.

"That was some diversion," a voice said over the open channel. "I hope no one was killed."

"Just an elephant, I think. Although if it landed in the lake, it might have survived." He wasn't about to tell Avernus about Maria and the policeman.

The spy stopped in the shadow of a carbon-fiber pillar, and scanned the icy terrain ahead of him. The point-of-presence mobots hadn't been allowed into this area. The ice curved away to the east and south like a warped checkerboard. There was a criss-cross pattern of ridges that marked out regular squares about two hundred meters on each side, and each square was a different color. Vacuum organisms. He'd reached the experimental plots. Avernus said over the open channel, "I can't see the pickup."

He started along the line again. At the top of his leap, he said, "I've already signaled to the transport using the braking lasers. It'll be here in less than an hour. We're a little ahead of schedule."

The transport was a small gig with a brute of a motor taking up most of its hull, leaving room for only a single hibernation pod and a small storage compartment. If everything went according to plan, that was all he would need. He came down and leaped again, and then he saw her on the far side of the curved checkerboard of the experimental plots, a tiny figure in a transparent vacuum suit sitting on a slope of black ice at what looked like the edge of the world. He bounded across the fields toward her.

The ridges were only a meter high and a couple of meters across, dirty water and methane ice fused smooth as glass. It was easy to leap over each of them; the gravity was so light that the spy could probably get into orbit if he wasn't careful. Each field held a different growth. A corrugated grey mold that gave like rubber under his boots. Flexible spikes the color of dried blood, all different heights and thicknesses, but none higher than his knees. More grey stuff, this time mounded in discrete blisters each several meters from its nearest neighbors, with fat grey ropes running beneath the ice. Irregular stacks of what looked like black plates that gave way, halfway across the field, to a blanket of black stuff like cracked tar.

The figure had turned to watch him, its helmet a gold bubble that refracted the rays of the tiny, intensely bright star of the sun. As the spy made the final bound across the last of the experimental plots—more of the black stuff, like a huge wrinkled vinyl blanket dissected by deep wandering cracks—Avernus said in his ear, "You should have kept to the boundary walls."

"It doesn't matter now."

"Ah, but I think you'll find it does."

Avernus was sitting in her pressure suit on top of a ridge of upturned strata at the rim of a huge crater. Her suit was transparent, after the fashion of the losing side of the Quiet War. It was intended to minimize the barrier between the human and the vacuum environments. She might as well have flown a flag declaring her allegiance to the outer alliance. Behind her, the crater stretched away south and west, and the railway ran right out above its dark floor on pillars that doubled and tripled in height as they stepped away down the inner slope. The crater was so large that its far side was hidden beyond the little moon's curvature. The black stuff had overgrown the ridge, and flowed down into the crater. Avernus was sitting in the only clear spot. She said, "This is my most successful strain. You can see how vigorous it is. You didn't get that suit from my lab, did you? I suggest you keep moving around. This stuff is thixotropic in the presence of foreign bodies, like smart paint. It spreads out, flowing under pressure, over the neighboring organisms, but doesn't overgrow itself."

The spy looked down, and saw that the big cleated boots of his pressure suit

had already sunken to the ankles in the black stuff. He lifted one, then the other; it was like walking in tar. He took a step toward her, and the ground collapsed beneath his boots and he was suddenly up to his knees in black stuff.

"My suit," Avernus said, "is coated with the protein by which the strain recognizes its own self. You could say I'm like a virus, fooling the immune system. I dug a trench, and that's what you stepped into. Where is the transport?"

"On its way, but you don't have to worry about it," the spy said, as he struggled to free himself. "This silly little trap won't hold me for long." Avernus stepped back. She was four meters away, and the black stuff was thigh deep around the spy now, sluggishly flowing upward. The spy flipped the catches on the flask and tipped liquid nitrogen over the stuff. The nitrogen boiled up in a cloud of dense vapor and evaporated. It had made no difference at all to the stuff's integrity.

A point of light began to grow brighter above the close horizon of the moon, moving swiftly aslant the field of stars.

"It gets brittle at close to absolute zero," Avernus said, "but only after several dozen hours." She turned, and added, "There's the transport."

The spy snarled at her. He was up to his waist, and had to fold his arms across his chest, or else they would be caught fast.

Avernus said, "You never were Ben Lo, were you? Or at any rate no more than a poor copy. The original is back on Earth, alive or dead. If he's alive, no doubt he'll claim that this is all a trick of the outer alliance against the Elfhamers and their new allies, the Pacific Community."

He said, "There's still time, Barbara. We can do this together."

The woman in the transparent pressure suit turned back to look at him. Sun flared on her bubble helmet. "Ben, poor Ben. I'll call you that for the sake of convenience. Do you know what happened to you? Someone used you. That body isn't even yours. It isn't anyone's. Oh, it looks like you, and I suppose the altered skin color disguises the rougher edges of the plastic surgery. The skin matches your genotype, and so does the blood, but the skin was cloned from your original, and the blood must come from marrow implants. No wonder there's so much immunosuppressant in your system. If we had just trusted your skin and blood, we would not have known. But your sperm-it was all female. Not a single Y chromosome. I think you're probably haploid, a construct from an unfertilized blastula. You're not even male, except somatically-you're swamped with testosterone, probably have been since gastrulation. You're a weapon, Ben. They used things like you as assassins in the Quiet War."

He was in a pressure suit, with dry air blowing around his head and headup displays blinking at the bottom of the clear helmet. A black landscape, and stars high above, with something bright pulsing, growing closer. A spaceship! That was important, but he couldn't remember why. He tried to move, and discovered that he was trapped in something like tar that came to his waist. He could feel it clamping around his legs, a terrible pressure that was compromising the heat exchange system of his suit. His legs were freezing cold, but his body was hot, and sweat prickled across his skin, collecting in the folds of the suit's undergarment.

"Don't move," a woman's voice said. "It's like quicksand. It flows under pressure. You'll last a little longer if you keep still. Struggling only makes it more liquid."

Barbara. No, she called herself Avernus now. He had the strangest feeling that someone else was there, too, just out of sight. He tried to look around, but it was terribly hard in the half-buried suit. He had been kidnapped. It was the only explanation. He remembered running from the burning hotel ... He was suddenly certain that the other members of the trade delegation were dead, and cried out, "Help me!"

Avernus squatted in front of him, moving carefully and slowly in her transparent pressure suit. He could just see the outline of her face through the gold film of her helmet's visor. "There are two personalities in there, I

think. The dominant one let you back, Ben, so that you would plead with me. But don't plead, Ben. I don't want my last memory of you to be so undignified, and anyway, I won't listen. I won't deny you've been a great help. Elfhame always was a soft target, and you punched just the right buttons, and then you kindly provided the means of getting where I want to go. They'll think I was kidnapped." Avernus turned and pointed up at the sky. "Can you see? That's your transport. Ludmilla is going to reprogram it."

"Take me with you, Barbara."

"Oh, Ben, Ben. But I'm not going to Earth. I considered it, but when they sent you, I knew that there was something wrong. I'm going out, Ben. Further out. Beyond Pluto, in the Kuiper Disk, where there are more than fifty thousand objects with a diameter of more than a hundred kilometers, and a billion comet nuclei ten kilometers or so across. And then there's the oort Cloud, and its billions of comets. The fringes of that mingle with the fringes of Alpha Centauri's cometary cloud. Life spreads. That's its one rule. In ten thousand years, my children will reach Alpha Centauri, not by starship, but simply through expansion of their territory."

"That's the way you used to talk when we were married. All that sci-fi you used to read!"

"You don't remember it, Ben. Not really. It was fed to you. All my old interviews, my books and articles, all your old movies. They did a quick construction job, and just when you started to find out about it, the other one took over."

"I don't think I'm quite myself. I don't understand what's happening, but perhaps it is something to do with the treatment I had. I told you about that."

"Hush, dear. There was no treatment. That was when they fixed you in the brain of this empty vessel."

She was too close, and she had half-turned to watch the moving point of light grow brighter. He wanted to warn her, but something clamped his lips and he almost swallowed his tongue. He watched as his left hand stealthily unfastened a utility pocket and pulled out a length of glittering wire fine as a spider-thread. Monomolecular diamond. Serrated along its length, except for five centimeters at each end, it could easily cut through pressure suit material and flesh and bone. He knew then. He knew what he was. The woman looked at him and said sharply, "What are you doing, Ben?"

And for that moment, he was called back, and he made a fist around the thread and plunged it into the black stuff. The spy screamed and reached behind his helmet and dumped all oxygen from his main pack. It hissed for a long time, but the stuff gripping his legs and waist held firm.

"It isn't an anaerobe," Avernus said. She hadn't moved. "It is a vacuum organism. A little oxygen won't hurt it."

Ben Lo found that he could speak. He said, "He wanted to cut off your head."

"I wondered why you were carrying that flask of liquid nitrogen. You were going to take my head back with you-and what? Use a bush robot to strip my brain neuron by neuron and read my memories into a computer? How convenient to have a genius captive in a bottle!"

"It's me, Barbara. I couldn't let him do that to you." His left arm was buried up to the elbow.

"Then thank you, Ben. I'm in your debt."

"I'd ask you to take me with you, but I think there's only one hibernation pod in the transport. You won't be able to take your friend, either."

"Well, Ludmilla has her family here. She doesn't want to leave. Or not yet."

"I can't remember that story about Picasso. Maybe you heard it after we-after the divorce."

"You told it to me, Ben. When things were good between us, you used to tell stories like that."

"Then I've forgotten."

"It's about an art dealer who buys a canvas in a private deal, that is signed 'Picasso.' This is in France, when Picasso was working in Cannes, and the

dealer travels there to find if it is genuine. Picasso is working in his studio. He spares the painting a brief glance and dismisses it as a fake." "I had a Picasso, once. A bull's head. I remember that, Barbara." "You thought it was a necessary sign of your wealth. You were photographed beside it several times. I always preferred Georges Braque myself. Do you want to hear the rest of the story?"

"I'm still here."

"Of course you are, as long as I stay out of reach. Well, a few months later, the dealer buys another canvas signed by Picasso. Again he travels to the studio; again Picasso spares it no more than a glance, and announces that it is a fake. The dealer protests that this is the very painting he found Picasso working on the first time he visited, but Picasso just shrugs and says, "I often paint fakes.' "

His breathing was becoming labored. Was there something wrong with the air system? The black tuff was climbing his chest. He could almost see it move, a creeping wave of black devouring him centimeter by centimeter.

The star was very close to the horizon, now.

He said, "I know a story."

"There's no more time for stories, dear. I can release you, if you want. You only have your reserve air in any case."

"No. I want to see you go."

"I'll remember you. I'll tell your story far and wide."

Ben Lo heard the echo of another voice across their link, and the woman in the transparent pressure suit stood and lifted a hand in salute and bounded away.

The spy came back, then, but Ben Lo fought him down. There was nothing he could do, after all. The woman was gone. He said, as if to himself, "I know a story. About a man who lost himself, and found himself again, just in time.

Listen. Once upon a time . . ."

Something bright rose above the horizon and dwindled away into the outer darkness.