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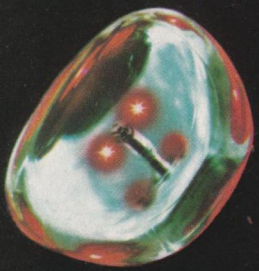

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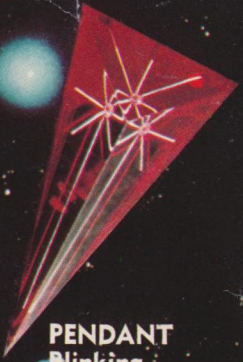

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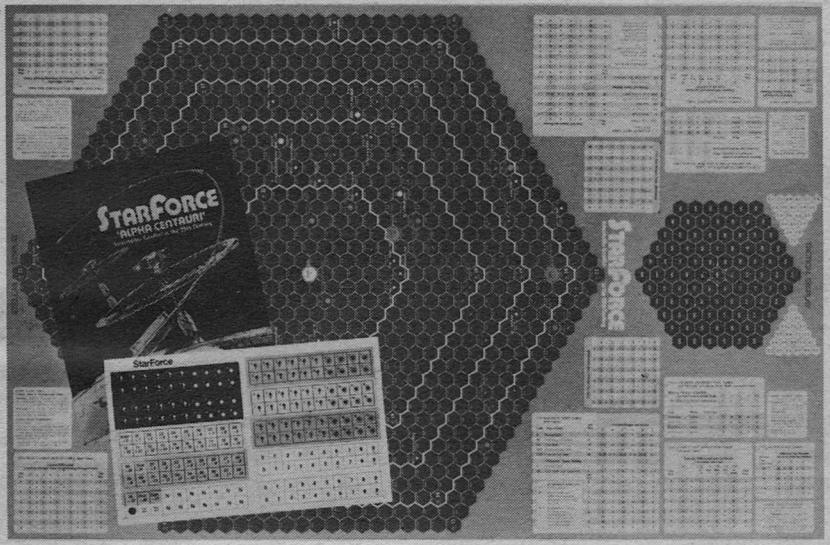


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# analog SCIENCE FICTION SCIENCE FACT

Next Issue on Sale Jan. 4, 1977
$9.00 per year in the U.S.A.
$1.00 per copy

Cover by Vincent Di Fate

Vol. XCVII, No. 1 / JANUARY 1977

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Editorial and Advertising offices: Condé Nast Building, 350 Madison Avenue, New York, New York 10017
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# Christmas plus 20

When will you spend your first Christmas away from planet Earth?

Where will it be? And why?

For the sake of argument, think about Christmas 1996, twenty years from now. Consider the chances of celebrating the holiday season off-planet. This mental exercise will be useful even for those who have no intention of ever leaving *terra firma*, because the things that people do in space will have powerful influences on the lives of the vast majority of human beings who remain forever Earthbound.

By the end of 1996, there will be four possible locations for human habitation in space: near-Earth orbit (NEO); on the Moon; at one of the Lagrangian points along the Moon's orbit, such as L5; or on Mars. In 1996, Mars would be a very long shot—literally and figuratively. Humans have already lived and worked in NEO and, briefly, on the Moon. And there is much enthusiasm today about building mammoth space colonies at the Lagrangian points, thanks mainly to the work of Gerard O'Neill and his associates.

The first Americans to spend more than a few days in near-Earth orbit went up not so much as astronauts or scientists, but as repairmen. The first crew for NASA's crippled Skylab had the task of repairing the Lab and saving it from an orbital scrapheap. Once that was done, they could get on with their scientific studies.

Most of those who celebrate the 1996 holidays in NEO will be repairmen, technicians and engineers whose work in orbit involves repairing, refurbishing, or decommissioning the thousands of unmanned satellites that will be orbiting our planet by then. There's a chance that a few very wealthy tourists will spend their holidays in orbit, especially if a permanent space station is available by then to accommodate them. Even so, the majority of the station's inhabitants will be scientists, medical people, and patients who benefit from the low gravity and controlled environment of space.

Much the same situation will hold on the Moon, although it seems likely that most of the supplies for the large permanent station in NEO will be launched from the Moon, since the energy costs of boosting payloads "downhill" from the Moon to NEO are negligible compared to the energy required to boost equal payloads "uphill" even a few hundred kilometers from Earth's surface.

The Moon could be starting to take on the role of *provider* for all our space operations by 1996. Certainly O'Neill's vision of space colonies at the L5 (or L4) location depends on lunar raw materials. Oxygen from lunar rocks, metals and minerals, perhaps even that most precious and rare natural resource of all—water—will be supplied from the Moon both to NEO and L5.

This means that miners, construction workers, factory specialists, and even farmers will be sharing their Yuletide eggnog on the Moon. If the way terrestrial plants sprouted in lunar soil returned by the Apollo astronauts is any clue, the Moon may turn into humankind's breadbasket by the turn of the century.

Of course, the lunar colony will also have a large share of scientists, especially selenologists and astronomers. And all of the small, totally enclosed space communities will have a full complement of psychologists, sociologists, and anthropologists, all of them eager to shed new light on the intricate workings of human minds and societies.

And even more so than in the cramped space stations in NEO, the lunar settlement will become a haven for medical patients who can no longer stand the one-gee, high-stress, polluted environment of Earth. Geriatrics cases, heart attack patients, people with incapacitating muscular diseases, allergy victims and many others who literally could not live, walk or breathe on Earth will be able to lead relatively normal and useful lives on the Moon.

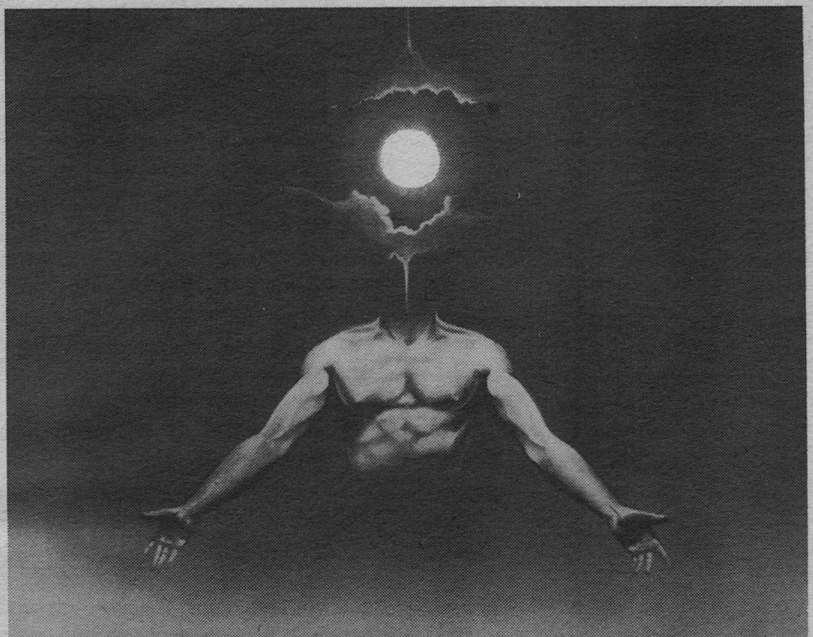
This means two things, in the timeframe of 1996:

1. To a considerable extent, the meek will inherit space.
2. But they will be the *rich* meek.

By 1996, the gap between rich and poor in human society will have gained a new dimension: the rich—rich either in personal wealth or technical knowledge—will be able to go into space, while the poor will be forced to remain on Earth.

Perhaps the opening of truly large space colonies, such as O'Neill and his followers of the L5 Society* foresee, will allow even the poor to attain space. When we have structures capable of supporting tens or hundreds of thousands of people in space, maybe there will be Cratchit families at L5 for Christmas dinner in 1996. And Indian villagers, Latin American peons, South African Bantus. Just maybe.

**For those interested in information about the L5 Society, write to: L5 Society, 1620 North Park Avenue, Tucson, AZ 85719.*



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Enthusiasts for the L5 idea have hitched their wagon to the concept of building solar power satellites that will beam microwave energy back to Earth and help solve the energy crisis brought on by the depletion of fossil fuels. Critics have argued that solar power satellites may be more complex, more expensive, and more environmentally hazardous than using solar cells at the Earth's surface directly, or wind power, or even nuclear fission and fusion.

Be that as it may, the chances are that a large number of the inhabitants of the first L5 colonies will be manufacturing workers. They may well be engaged in building solar power satellites. But it seems more likely that they will be building, instead, laser-armed ABM satellites for emplacement in NEO. And they will be employed by the Department of Defense, if they are Americans.

Lasers have reached power levels, in the laboratory, where they can be seriously considered for ABM weaponry. A powerful-enough laser mounted in a satellite could, in theory, detect the launch of a rocket and destroy that rocket while it is still in the very vulnerable boosting phase of its flight.

A network of a hundred or so such satellites in low orbits could blanket the entire globe, 24 hours a day, and shoot down even a full-scale ICBM attack within minutes of its launching.

Does this mean that Christmas 1996 would mean real Peace on Earth, thanks to the space colonists' building of a defensive network of ABM satellites? Will the nuclear balance of terror that began at Hiroshima end with laser-armed satellites patrolling our planet? Or will an effective ABM system merely upset the existing tenuous balance of international power and lead to more tensions, a renewal of the Cold War, or even World War III?

(An aside, in which the Editor changes hats momentarily and becomes an Author. Those of you who have read my novel, MILLENNIUM [Random House 1976] may recognize the scenario above. It served as the background to the novel's plot.)

It seems clear, therefore, that the advent of fairly sizable human settlements in space will have drastic effects on the political, social, and economic lives of all human beings, spaceborne and Earthbound.

For the first time since 1776 human communities will have not only the opportunity, but the necessity, to write new social rulebooks for themselves. Many of the problems of social class, ethnic background, cultural diversity, education, and economic status that are commonplace on Earth will be left behind on Earth. The space communities of 1996 will be largely classless, relatively homogeneous, and highly motivated. By 2096 the story will be completely different, but not in the frontier "small town" atmosphere of 1996.

Space colonies will just be starting to make an impact on Earth's

economy in 1996. But their economic impact will grow rapidly with time. Many terrestrial industries, from electronics to pharmaceuticals, could benefit from high vacuum, low gravity, "free" energy, and the controllable environmental conditions of space. Raw materials will be mined from the Moon and, eventually, from other parts of the solar system. A single nickle-iron asteroid of ten kilometers' diameter, for example, contains more iron than the world's steel industry could use in ten thousand years!

Many writers have pointed out that as manufacturers move their operations into space, Earth will become cleaner and greener. But what happens when space communities become self-sufficient, and hold the economic life or death of Earth in their hands? Historically, whenever a colony has attained self-sufficiency it has cut itself free of its motherland, one way or another. This helped bring about the collapse of both the Roman and British Empires. Our Bicentennial Year is a celebration of the moment when we realized we could stand on our own economically, as well as politically.

The chances are excellent that as the citizens of space communities gather around their 1996 wassail bowls, one topic of conversation will be the prices and taxes imposed on them by those unfeeling money-grubbing flatlanders from Back Home.

Once the space colonists realize they are self-sufficient, they will strike for independence. Once they realize that Earth is dependent on them . . . what?

And on that Christmas of 1996, it would be good to know that there would be a small band of tough, brave, resourceful human beings sharing a holiday meal under the pink sunset and keening winds of Mars. Part scientist, part adventurer, each of these men and women would represent the finest of human attributes: the driving curiosity that pushes us to explore, to expand our knowledge and our habitat.

The first human exploration of Mars should represent no single nation, no one political or racial or geographical entity. It should be a human expedition, sent out by all the people of Earth, to search for life on our neighbor world.

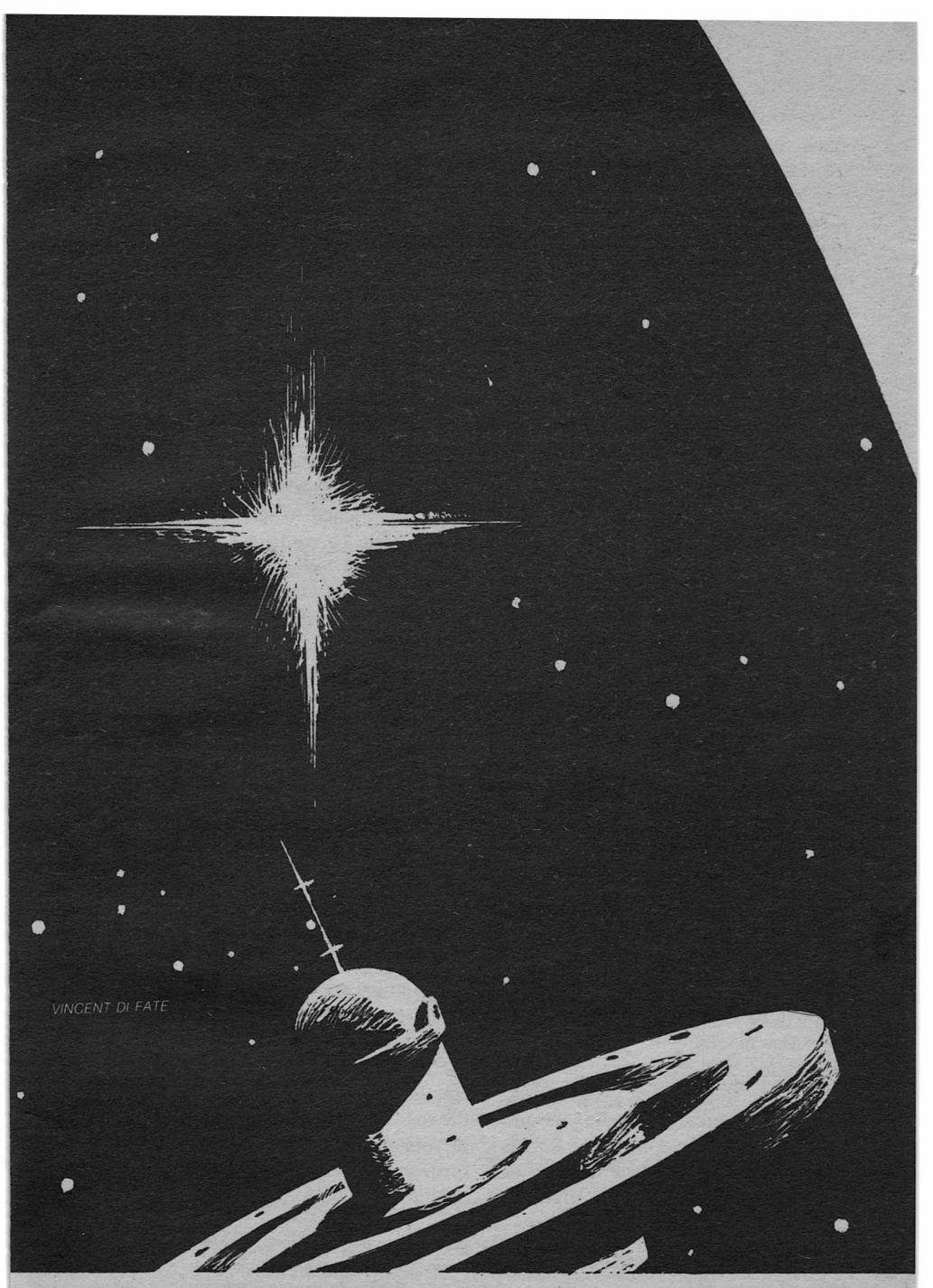
If the nations of Earth do not accomplish this by 1996, perhaps they never will. But the new communities of spaceborne humanity will achieve it, although some time after 1996. Twenty years from this Christmas, their beachheads in space will be too meager to support far-flung explorations. But twenty years after *that*, the main drive of human purpose and human history could well be centered on these space communities, while the Earth remains the inheritance not of the meek, but of the poor in spirit.

THE EDITOR

# Christmas eve

*If you quit the field after winning the opening race, you will lose the game.*

**Alan Skinner**


VINCENT DI FATE

Each time the rotation brought my overhead viewport around, the Soviet shuttle appeared larger. The functionally ugly sphere-in-a-cage grew, threatening to eclipse the half-ball of Earth. I sat in the pilot's couch as scenes of the shuttle, the stars, and the far off reflection of the space station passed by. Only one week gone of a six-week tour as deep space observer, and already I was sick of it. Thank God for Rudy. It was rare when any of us ex-Americans were assigned to the same project. Same old Soviet paranoia, I guess. The radio gave off a beep.

"Right on time," I said into the mike.

"Sure." Rudy's gravelly voice was further massacred by the transmission. "I never pass up an invitation to a Christmas party, especially one from a woman."

I laughed. "Thanks, I appreciate that." An American accent sounded so good. "Let's get this tub into its new orbit, then you can come over."

"Read you."

While Rudy maneuvered the shuttle into alignment, I fired the attitude jets on the old US Habitation Unit that was my "home" for the tour and stopped its spin. Carefully, we linked the ships together, then I gave Rudy the signal and he fired his main engine. As the attitude gyros started chattering, I crossed my fingers and silently cursed the commissar for his stupid orbital reassignments.

Finally, all the readings matched my pre-figured plots, and I hollered to Rudy over the radio. "Hold it! That should do it." I trimmed out the HU with my lateral jets. "Now let's get on with the party."

"Be right over, Brenda," Rudy chuckled. About a minute later I heard the intership airlock pressurize, then the hatch popped open and Rudy floated in.

"Ho, ho, holy shit!" His surprised comment spoiled the Santa Claus laugh. He swung a sack around in the zero-G and grabbed a handhold. "What happened to the heat?"

"It's gotta be cold for Christmas," I answered as I rose from the couch and headed for him. "What goodies for nice little girls do you have in your sack? More UV film?"

"Something better than that—especially in this cold." Rudy showed his big front teeth in a grin and rummaged around in the sack. Before I could ask him what he meant he was holding out a half-filled bottle of whiskey.

Now it was my turn to be surprised. "Where the hell did you get a hold of *this*?" I took the bottle carefully from him. The amber liquid inside sloshed and rolled into balls that merged and broke and merged again.

"A little Christmas elf gave it to me." His laugh puffed out breath-clouds as he left the sack hanging in the air. "Be right back with the rest of your stuff. Film's in the sack." He turned and wiggled through the hatch.

I set the whiskey in a holder fastened to the wall, then began to stow my supplies. Rudy returned with a larger second load and helped me clear away, then looked at his watch.

"Okay, I've got about an hour before they want their shuttle back. Let's get going."

"No sooner said than done." I eased the whiskey out of its holder and pulled two clear squeeze bulbs out of my tiny cupboard. "While I set up the refreshments, kill all the interior light circuits except *one* and *seven*, okay?"

Rudy raised his bushy eyebrows in surprise, as he turned off the lights. "Whatever you say."

"Okay, now follow me." I took the whiskey with me through the small hatchway into the lab module. It was an old bio lab, and though officially I had no need for it, the sealed construction, impervious to chemicals and various solutions floating in the air, was perfect for my holiday preparations.

"You sure there's enough room in here?" Rudy poked his head in.

"Plenty," I answered. I fussed over my Christmas "tree." It was nothing more than a camera frameholder on its side with bundles of shredded green paper taped to it. Fragments of a reflector telescope mirror were its ornaments. For lights, I had used LEDs from a defunct readout panel. I turned them on and they twinkled, flashing like sparks.

"There's the tree."

*Christmas Eve*

"Looks good," Rudy commented, then fumbled in his suit work-pocket with one gloved hand. "But something's missing."

He pulled something from his pocket, then reached past me and stuck it at the top of the tree. It was a little red star he must have pried off of some piece of Soviet equipment.

"There. I figured you'd make up some kind of tree, and guessed you'd need a star."

I nodded at the addition. Maybe it wasn't a real evergreen, but it sure as hell looked good to us. "Thanks, Rudy."

He shivered, breath streaming out like a comet's tail. "You realize I'm starting to freeze."

"Turn on your suit heater, like I did."

He did, with a quick gesture. "But why is it so cold?"

At that, I flipped the switch on the homemade gadget I had rigged up on the lab bench. "For this."

A shower poncho, heater coil, spray nozzle, pump with an interrupter switch, and all the extra water I had scrounged for the past week—in other words, a makeshift snowmaker. It puffed out a fine spray of water, which froze almost instantly in the icy air.

"Well, I'll be—" Rudy nodded his head, impressed. "Snow for Christmas. You're a genius, Brenda."

"Not the real thing, I admit." I drew the whiskey into the squeeze bulbs. "But it'll do."

As I split the liquor, Rudy remained silent and kept his eyes on the tree. When there were enough ice chips in the air, I turned on the module's small recirculating fan and the little white crystals danced in the current. I pulled the hatch closed and handed Rudy his drink.

"Christ, this reminds me of . . . " he muttered, and I could see the glint of tears barely held back as we faced each other and raised our drinks.

"Merry Christmas, Brenda," he murmured, his rocky voice gentled with emotion. And suddenly I found I was about to cry.

"Merry Christmas, Rudy." I didn't want to go to pieces. I turned my head quickly and took a good belt of the whiskey. I saw my tree standing forlornly amid the unused lab equipment, with starlight coming in through the port glittering on the shards of the reflector mirror. And then I did cry.

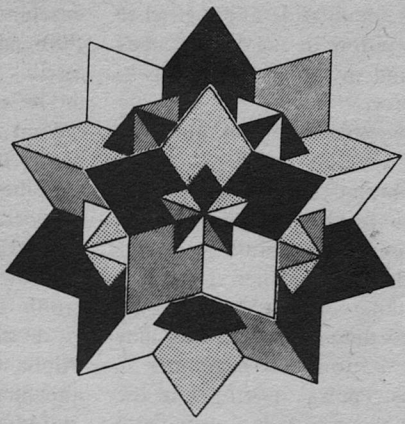
Rudy came over and put his arms around me. For an instant, I felt I was back in Jerry's arms again. The feeling fled quickly.

We floated together in the cold and the snow that fluttered around the dimly-lit module, nursing our whiskies. There was nothing else to say, not then.

Rudy interrupted the reverie. "Almost time." From the sound of his voice I could tell he had been thinking of someone else, too.

I nodded slowly, half-buried in memories of other Christmases. "Let's watch through the HU viewport. It should be—" I couldn't finish;

# Come Visit Us In The FUTURE



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emotion choked my throat.

We left the module and drifted to the big window in the HU. Rudy's arm around my shoulders felt awkward, heavy.

"It'll be above our orbit, about 75 degrees—"

Then, through the port, we saw the flash of a bright new star. Like a nova, it grew in magnitude, expanding silently. As I watched, I couldn't help thinking of another star men had raised their eyes to, a star they had followed to a new beginning.

But this star was moving, and the brilliance began to fade. I watched it for as long as I could, my eyes stung by my tears and the cold, until it was lost in the stellar splendor.

"They're gone." It sounded like Rudy had spoken from a thousand miles away.

The spell was broken. I twisted out from under Rudy's arm and flung myself at the window, pressing my cheek against the cold polasplex. Stars filled my eyes, and I sobbed.

"Jerry, oh Jerry, take me with you!"

Rudy awkwardly tried to comfort me. "Brenda—"

"Leave me alone!"

Rebuffed, he hovered nearby, and spoke wistfully. "I wanted to go too, Brenda. Damn it, I wanted to go."

His words helped to pull me out of my self-pitying outburst. Composing myself, I pushed away from the window and went back to the module. Rudy followed.

"We could have gone, Rudy." I turned off the pathetic little snow-machine, and switched on the heat. "We made the choice, a long time ago."

He punched a brace savagely. "What choice? I wanted space, not fame. I went over to the Russians only because they moved into space exploration when the US moved out." He waved a hand toward the window. "Who in hell knew they would do this?"

"I wonder what they'll find at Alpha Centauri," I mused. "To be the first to explore another star system—"

"We weren't traitors, were we, Brenda?" Rudy waved his drink around, a helpless gesture. "What we did wasn't that bad, was it?"

"No one understands," I answered. "Maybe, someday . . . "

"*We* were the ones who should have gone!"

The module was warming up. Snow splashed like cold rain on my eyes and lips and hands. "They just can't let us be the first, Rudy. They'll let us go, one of these times."

"God, I hope so."

"They can't keep me here," I said. Rudy thought I was talking to him, but my words were for someone else, far away. "Soon, I'll go too."

I turned to look at Rudy. He raised the last of his whiskey in a toast. "And to that, a Happy New Year."

"No," I corrected. "A Happy New Era." We drank together while the stars hung suspended in broken pieces of the mirror. ■

# An Interview With

# T. Galen Hieronymus

Joseph Goodavage

**Every new development in science begins as the unorthodox idea of a single person. Hieronymus discusses his work in psionics. It's not a science, yet. Will it ever be?**

Nestled in the foothills of the Smoky Mountains of Georgia are the electronic workshops, laboratory, and home of a lively, witty octogenarian engineer, inventor, and philosopher named T. Galen Hieronymus, the Big Daddy of American psionics. More than any other pioneer in the field, Hieronymus's name is as familiar to psionics as Nixon's to politics. The inventor first came to the attention of John W. Campbell, Jr., in the early 1950s when the late editor of Analog began his investigation and subsequent experimentation with scientifically "impossible" devices—instruments so strange and bizarre that he suppressed his natural skepticism and performed experiments with psionics devices personally.

Result: A series of articles in *Astounding*, kicked off by a typical Campbell editorial—hard-nosed, logical—followed by years of controversy, testing, experimentation, more investigation and even official scientific/military interest in the seemingly endless potentialities of quasi-electronic instruments that could (a) analyze the component elements of an ore sample without spectroscopic, chemical or other orthodox methods and, most surprising of all, (b) influence (even kill) living organisms, even from vast distances, with no scientifically understandable mechanism at the other end.

Campbell investigated. He obtained copies of the patents and constructed his own psionic machines. He experimented extensively and inveigled just about every visitor to his Mountainside, New Jersey home workshop/lab to do the same.

Campbell became a believer.

So did thousands of his readers, many of whom are now themselves experts in the art and/or science of psionics. I have tried to follow in his footsteps: tracking down the patents, talking to the inventors, tracing the history of psionics, examining and photographing the instruments—even going to Oxford to investigate the Delawarr Camera.

The power and impact of Campbell's personality and intellect profoundly influenced the history and trend of science fiction and was a major factor in shaping the careers of the vast majority of the best-known

writers of the genre around today. It was difficult not to be overwhelmed by Campbell. This is why it came as a surprise to me when—after lengthy contacts by letter and telephone with Hieronymus—during the ensuing series of tape-recorded interviews, I began to perceive that the John Campbell I knew had been himself profoundly influenced by the character and personality of T. Galen Hieronymus.

So was I. I was also impressed by his tremendous vigor, good humor and wit:

*J.G.*: Twenty years ago in the pages of *Astounding*, John Campbell wrote that psionics would come into its own when a theory explaining *how* it works was formulated. It's now almost two decades later. How much has psionics advanced?

*Hieronymus*: Real progress has been made, of course. But I'd like to quote Wernher von Braun about that: "Old scientists never accept new concepts; they just die. But young scientists grow up in the environment of the new concept and accept it automatically." For the most part, unfortunately, people who are trained in research of the bioelectric or biomagnetic sort just aren't being paid to do any. As a result, we're a little behind Campbell's chronology, but not much.

*J.G.*: I understand that you have an honorary degree—a Ph.D., in fact, in physics—why is it that until recently you've never publicly used your title? Wouldn't it have made life easier?

*Hieronymus*: (laughs) Because like many other inventors, I suppose, Ph.D.'s have been the bane of my life. For years I've had people trying—in one way or another—to capitalize on the work I've done. Right now there's a new chap with a degree and a tremendous amount of determination who strongly persuaded me to allow him to duplicate all my laboratory experiments. He's enthusiastic; in fact he's living right in the lab and workshop going over everything I've done during the past 25 years or more, but he's not generating an original idea. In my estimation this characterizes too many of our Ph.D.'s. I know it seems eccentric to some people that I don't advertise my honorary Ph.D's, but at my age I'm entitled to a few eccentricities.

*J.G.*: But surely over the years you must have met many scientists capable of understanding what you're doing?

*Hieronymus*: Well sure, a lot can grasp it, but the poor guys can't help themselves; they're caught in their own particular binds. The minute they deviate from the beaten path—even by a small margin—they face criticism, even ridicule or ostracism by their peers. This is still a very real and powerful social force. I once put on a successful demonstration of psionics in the office of Dr. Arthur Compton, a university chancellor and Nobel Prize winner in physics. After the experiment, I offered to

donate one of my instruments, and even to help train a couple of young, talented scientists to carry on the same line of research I'd been doing. He turned me down flat. I could hardly believe my ears when he told me, "I couldn't do that. This sort of thing just doesn't fit in with any of our research programs."

*J.G.*: An incident—unpleasant, disheartening perhaps. But, hell—is it all that typical? Do you have some kind of vendetta against academia?

*Hieronymus*: Not at all. Most researchers are involved in their own little groove and are—quite literally—afraid to look at something real—even when they actually peer over the brink of the physical universe and begin to grasp some of the concepts we've found. They're intensely interested, but are deadly afraid of the opinions of their colleagues—their peers.

*J.G.*: I think you'll find more of the *less* hidebound minds among scientists now than ever before. But let's get down to the nitty-gritty—something really precise and specific. In one of your psionic experiments, you claimed you were actually able to transmit sunlight *through a wire* to a plant in a darkened room—a basement, I think. What sort of instrument did you use—assuming this is true?

*Hieronymus*: Not my patented one; this was different. Moreover, you don't mean the transmission of photons, exactly, either. This was a fundamental energy coming from the sun. I didn't claim it was light.

*J.G.*: Doesn't virtually all energy come from the sun?

*Hieronymus*: No.

*J.G.*: Come now, doesn't all terrestrial life owe its existence to the sun?

*Hieronymus*: No, I wouldn't say so.

*J.G.*: All right, have it your way; my job is to try to understand your work and theories—to listen to what *you* have to say.

*Hieronymus*: It isn't necessarily true that Earth sprang from the sun, either. Consider an atom of helium—with two protons and two neutrons in the nucleus and two planetary electrons going around . . .

*J.G.*: That seems rather simplistic.

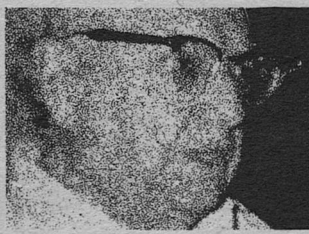
*Hieronymus*: Wait. This gives you three particle 'building blocks'. Would you say that the nucleus was created first and the electrons put in afterward?

*J.G.*: I don't know and I doubt if anybody else does.

*Hieronymus*: Well, there's not a good reason to think they were made at different times.

*J.G.*: Possibly, possibly not. Let's get back to your experiment in transmitting solar energy in a darkened room by wire. Exactly what did you do and what happened?

*Hieronymus*: All right. I made eight small boxes: two-by-two-by-four inches long, without tops or bottoms. Before tacking on the base, I put in pieces of aluminum foil slightly larger than the bottom and



**Most researchers are involved in their own little groove and are . . . afraid to look at something real . . .**

did the same for the top, except that the lid was raised about a half inch above the box. The top and bottom on the inside was covered by aluminum foil. In my basement workshop, which was lightproofed, I connected the bottom plate to a water pipe with copper wire and ran another wire from the top plate to the outside of the basement where I'd built two shelves. Seven of the boxes were wired to metal plates outside in the sunlight—*also* on shelves built onto the house. The eighth was a control, not connected to anything.

On the first wire I soldered a plate two-by-two inches, the second to a metal plate four-by-four inches, the next to a plate eight-by-eight inches, and another one to a plate sixteen inches square. To the next three grounded wires I soldered two-by-two, four-by-four and eight-by-eight inch copper *screening*—to see whether there'd be any difference in the results from the solid plates than from the screen mesh . . .

*J.G.*: Was there . . .?

*Hieronymus*: Don't get ahead of me now. I sifted and mixed some soil and put an equal amount in each box, then planted ten oat seeds in each box—two rows of five each, so that I knew exactly where they were and could tell which were growing and by how much. Each of the eight boxes were identical, with exactly one-half inch of soil over the seeds. The only difference was in the size and texture of the plates outside connected by wire to the aluminum sheets inside the tops of the boxes. I watered each box daily with exactly the same amount of water, which I applied with a salt shaker. As the plants grew inside these dark boxes, I raised the lids to allow them more headroom, but still kept them lightproof, and kept exact records of when the plants broke through the soil . . . Remember now, these plants were in absolutely dark boxes which were located inside dark shelves in a dark basement. The oat seedlings were totally divorced from light.

*J.G.*: But you had one control—a box of seeds with aluminum foil at the top and bottom that *wasn't* wired or connected to anything, right? What happened?

*Hieronymus*: They all sprouted at the same time and were about the same degree of sturdiness. But then something entirely different and, as far as I was concerned, unexpected

actually started happening. There was chlorophyll in every plant that was wired to the outside plates, but the control box plants remained a pale yellow—almost *white*.

*J.G.*: Fascinating. Has this experiment been duplicated by others?

*Hieronymus*: Yes, although when it was first published, one of the early experimenters deviated from my explanation in two serious ways: first, he didn't light-seal several big windows in his basement and second, he laid his plates *on the ground* instead of elevating them six feet on outdoor shelves, so he got no potential differential, or antenna effect. This was corrected in later experiments and in each case the results coincided with my own.

every appearance of having been subjected to scorching sunlight—as if they'd been singed or burned! The next largest plate yielded better plants and the next was about what you'd expect normally from normal exposure to sunlight. The others, especially the ones connected to the screening, were less green, and the one connected to the smallest piece of screen was yellowish.

*J.G.*: It seems inconceivable that photons can be transmitted through a wire.

*Hieronymus*: Oh, I doubt that the energy is visible sunlight; in fact I suspect we're dealing with a form of energy from the sun that is probably nonelectromagnetic in nature. This concept represents the entire thrust

**. . . the pineal gland has direct relationship to the sun. Solar activity affects the pineal gland . . . or 'third eye'.**

*J.G.*: What *about* differences in size and texture of the outdoor plates? What results?

*Hieronymus*: That's the interesting thing. The amount of sunlight falling on any given area is measurable. For analogy, you can use an optic lens to concentrate sunlight to scorch or burn paper; well sir, the plants connected to the largest plates outside in the sunlight not only generated green coloring, they also gave

of the work I've been doing most of my life.

*J.G.*: Are there others who've independently discovered the same energies?

*Hieronymus*: Oh sure, there are dozens of patented devices from all over the world. There are also scores of copies of the John Campbell version of my own instruments. When you stop to think about it, we're dealing with a certain type of

energy that is conductable over certain types of conductors and insulatable with certain others. When John asked me whether paper was a conductor of this energy, I told him no. 'Well, how about India ink?' I said yes, India ink is a conductor, so he drew a diagram of the circuitry of my device in India ink—a printed circuitry of my device in India ink—a printed circuit—*and it worked*!

*J.G.*: Isn't that because it contains carbon and silver nitrate which are conductors of electricity?

*Hieronymus*: I can't tell you why. In fact I never had any occasion to find out whether there was silver nitrate in India ink. The point is that it *is* a conductor, not very good maybe, but good enough—and the paper was a good enough insulator.

*J.G.*: I'm interested in the life-affecting properties of psionic devices. Didn't you once kill corn earworms with the energy focused through your instruments?

*Hieronymus*: On many occasions, but what most people are unaware of is that there are ways to shield against this energy and one of the shields is, of all things, simple transparent plastic. In one very important experiment I actually dissolved corn earworms, but because of the life-affecting danger of such experiments, I haven't said much about the process.

*J.G.*: All right, you needn't go into details . . .

*Hieronymus*: Some years ago when I was at Camp Hill, Pennsylvania, the farmers, who used no sprays, gave me some just-formed ears of corn, twelve of which had worms inside. I chose six as being almost identical in worm-size and activity. With my instruments I measured the vitality of the worms (in test tubes) and we searched until we found a chemical reagent that, when applied to the worm's environment—poisoned it—reduced its vitality to zero, and killed it. We picked out six ears and cut off some of the husk with scissors from the outside of three ears and put these three in a deep plastic bag. So I had a resonant contact with those three ears of corn by what is called the *Aka* thread—not a religious concept, but a direct electrical conductor between a piece of the corn shuck and the ear itself. It's a natural phenomenon among living things that can easily be proved.

*J.G.*: Has this anything to do with the philosophical concept of the Akashic thread or record?

*Hieronymus*: Exactly the same root word. Well, the other plastic bag wasn't as deep as the first, so I put the next three ears inside, with the tassel tops downward and the ends stuck out. I packed the spaces between the ears with cotton so that when I put the bag down and tied a string around it, the worms couldn't crawl out. This turned out to be an important difference. Using the corn shucks from each three ears, I set my devices on automatic timers so that the essence of the reagent was tuned to each bag at alternate ten-minute

intervals—first the corn in the bag that was completely enclosed and tied with a rubber band and then the other that had the ends of the corn sticking out. With this set on automatic instruments, I left for the weekend for Chesapeake Bay. When we returned on Sunday night, one of the first things I did was to open the large plastic bag that had *completely* enclosed the corn and worm.

I was surprised to find that the worm in the first ear of corn was twice as big and twice as lively as he had been—in fact he'd eaten the whole length of the ear and already was two-thirds of the way back. The other two ears were just about the same; the worms had glutted themselves. I was so disappointed that I almost threw the other bag in the trash can. But I didn't. When I untied the string and removed the cotton, I found that in the first ear, which had been sticking out of the shallower plastic bag, the worm that had eaten about two or three inches when I'd tied up the bag had only eaten about a half or three-quarters of an inch. In the trough at the end where the worm should have been there was only a damp spot. I was amazed, but when I checked the second ear—the same thing. The worm in the third ear was still there, but when I touched him with a toothpick, he was absolutely dormant, so I upended him into a test tube and ran a vitality check, which was almost zero. So I laid him back in the trough he'd eaten, covered the ear with its husk and let it 'treat' overnight. When I unpacked the corn in the morning, that worm was just a damp spot. None of those three worms could have crawled away; they couldn't have gotten through the cotton or eaten a hole in the plastic bag. I ran a test of the plastic and learned that it was an almost perfect insulator *against* the poisonous energy I was directing at the corn earworms. On the other hand, with the corn sticking out of the other bag, the radiating energy from my instruments had direct contact with it. I've done any number of experiments along these lines and they've consistently proven the effectiveness of thin plastic sheeting as a radionic shield.

*J.G.*: That seems strange. As I understand it, this eloptic radiation—this energy—can penetrate anything—dozens of feet of solid steel—hundreds of feet of rock and earth.

*Hieronymus*: I know, but there are certain things, apparently, that act as insulation against it. Clear plastic happens to be one of them.

*J.G.*: Could it be that the plastic is a molecular anomaly—perhaps because of its polymer . . .?

*Hieronymus*: I don't know and can't explain the chemistry behind it, but . . . do you know what ordinary black friction tape is, the kind electricians used to use?

*J.G.*: Sure, it's a pretty good electrical insulator.

*Hieronymus*: Well, I took a roll of that tape and covered an electrode

plate—the kind used to pick up the energy from a sample with it. But when I tried to measure and analyze a specimen I'd placed on it, the friction tape had blocked virtually every bit of energy from it. Another uncovered electrode plate connected to the instrument I was using, however, gave me a clear analysis reading. I also found that the old-fashioned thirty percent rubber insulation—the kind that used to be used to insulate wire, but dries out—apparently had a lot of carbon or something in it, that was an excellent insulator of eloptic energy, while even India ink on a piece of paper acts as a conductor.

*J.G.*: About how many experiments along these lines have you conducted?

*Hieronymus*: Thousands, thousands—and all kinds.

*J.G.*: Which one stands out in your mind as being the most important or the most noteworthy experiment that you have conducted? What was the thing that surprised you most?

*Hieronymus*: The dissolving of the corn earworm was probably the most outstanding one. We have destroyed microorganisms in people, but of course you can't see those. You take a specimen from a patient and put it in the instrument and they have only a little fever or something that bothers them. You run through your list of stuff and find whichever bug it is. When you put the energy into the machine, that neutralizes it; when it's gone they feel better. Well, as far as the patient is concerned, that seems spectacular. They *love* it! But when *you've* done it over and over, it ceases to be spectacular. I think another spectacular one was when we changed the platelet count, as measured in the laboratory, in the blood of a boy who was the son a of a friend of mine. I just happened to run across his father in an electronics supply place and asked him how things were going. He was terribly depressed. He said "My boy is just about ready to die." The doctors were giving him two blood transfusions a day and he was just barely existing. I told him what we were doing with psionics and offered to try to help. This was back in the 1930s; we didn't know as much as we do now, so we had to experiment. We started working on him radionically, and found all kinds of trouble and had to strengthen him up first. He was just a leathery, bony, thin-

**I suspect we're dealing with a form of energy from the sun that is probably non-electromagnetic in nature.**

skinned kid, existing on two transfusions a day—couldn't even take any food. We stimulated him to where the radionic broadcasts began to be effective.

The doctors were quite elated with what was happening. They were just giving him blood transfusions—that was *all* they were doing. The parents wanted to take the boy home for Easter, he was feeling a lot better and they wanted him to be with the family. One very straight-laced doctor told the father that he knew damn well that what he was seeing was false. He said the platelet count was awfully low and if it came up to where it should be, they could take their son home for Easter. Doctors then knew absolutely no way of changing that platelet count. We'd done a lot of experimental work and observations; there is one organ or part of the body that does affect the platelet count, the formation of platelets in the blood system.

*J.G.*: Are you referring to the bone marrow or the pineal gland?

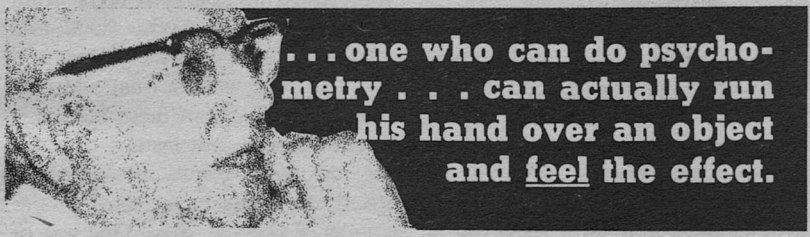
*Hieronymus*: Not the bone marrow; the pineal gland has direct relationship to the sun. Solar activity affects the pineal gland. (See *Science News* on "Solar Readout of Brain," p. 248, October 18, 1975, which Rene Cartes has called the point of interaction between the spirit and body. Many philosophers since him have maintained that the seat of the soul—of consciousness itself is the tiny pineal gland or 'third eye'.)

Solar influence comes through the receptors in the top of the eye (not through the seeing part). I think it goes through the pituitary. Anyway, we worked on it and the day before Easter we insisted that the doctors have the test made the first thing in the morning after the boy had slept all night and before he was transfused. (We checked on the doctors' procedure and the boy would always get the blood transfusions and *then* the doctors would take the sample of blood for the test.) The father was insistent; the doctors finally did it that way. Now, here's something that really gets you. The technician came to get the blood specimen and ran down to run the test and about a half-hour later the head of the laboratory of this hospital came up and took another specimen and also took it down to analyze it. About two hours later a technician from another hospital took another specimen from the boy. He took it back to *their* laboratories—they had three verifiable tests there that all showed that the platelets had increased to nearly normal—*and they knew it couldn't be done*! So that stands out as one of the spectacular moments.

*J.G.*: What's the difference or correlation between the *eloptic energy* and *dowsing*, if any?

*Hieronymus*: A great deal. There is a universal energy called logoital plasma. First you start with the primordial stuff or energy which is the raw material from which *everything* is made. This is rather philosophical and becomes almost meta-

physical. When logoital plasma is moved, you have *logoital energy*. When this was first used in the creation of physical elements, physical materials, the emanation coming from those physical materials was what I call *eloptic energy*, and that's what we are dealing with. When it had to do with a living thing like a person, an animal or a plant, the emanations that come from the various parts of those live organisms—these are called *nionic*-nerve mental body, which is a very distinct part of you, and your emotional body are two separate and distinct activities which are nevertheless closely allied and related and they work together. It's a kind of 'traveling pair' because when you go to sleep at night and wake up with a vision or something, it is the activity of the combination which is doing it. People who have developed the ability to project that pair at will do the same thing—a dowser is doing it.




influencing energy. It is not *eloptic* because it is coming from the living or *life* features of the body or shall we say from the live tissues as compared with that which comes from the elements from hydrogen on up to uranium and so on. Well, *dowsing* is the use of the mind to tune in to this same energy that comes from water, oil, gold, silver, etc.

*J.G.*: But how does that . . .?

*Hieronymus*: Look now, you asked the question and I'm trying to answer it. There is an energy that emanates from each isotope of each element which includes oil, gold, silver—anything—and a *dowser* has to tune in to that and he uses the mind as part of that process. Your lower Their rods, or their devices, are strictly transducers between their physical senses and the emanations that the mind is concentrated on seeking.

*J.G.*: Okay, with a little stretching of the imagination, that's somewhat understandable.

*Hieronymus*: Fine. The rod itself however, has nothing to do with it. Most of the physics of the divining rod were subjected to a lot of mechanical testing and measuring of the torque, the stresses put into it when it's operating and so on. But all that movement is the result of the nervous system and the muscles of the operator. On the other hand, one who can do psychometry, for exam-

ple, doesn't need a divining rod. He can actually run his hand over an object and *feel* the effect. Some interpret it better than others. Peter Hurkos, for instance. Don't discount the abilities of these people.

*J.G.*: One psychic or psychometrist named Fran Farrelly who has (I've checked this pretty thoroughly) successfully analyzed blood specimens for doctors and laboratories for years, doesn't use radionic devices or psionic machines. In fact, *she* claims they're entirely unnecessary.

*Hieronymus*: For *her*. I've known Fran for a long, long time. She lived in my home for awhile and used my equipment there and spent a year with another psionic pioneer, an MD named Love. She is an excellent blood technician and until recently worked as a psionic analyst for a group of doctors—in their own laboratory.

*J.G.*: I understand that when Campbell was editor of *Astounding* you were approached by the military. What happened?

*Hieronymus*: The reason I got into that was that the Air Force became interested and sent a couple of high-ranking officers to my place in Hollywood, Florida. They knew almost nothing about psionics or radionics, but we did some biological experiments for them that they found interesting. But they wanted something more factual and substantial. I said, 'All right, here's something I *know* will be of value to you. I want you to take something like a tank or a big truck and run tracks all over the place wherever you want. Then I want several tents, some containing trucks, some with men in them, and some with nothing in them. Then I want aerial photographs taken from heights of 1,000, 2,000, 5,000 and 10,000 feet of each of those areas and I will tell you who or what and how many of each are in those tents.'

They agreed, but instead of sending me photographs of what I'd asked for, they sent me some photographs of wooded areas. One was of a body of water with boats tied up. It was the only picture that wasn't of all trees. They didn't send me what I wanted, but we (my wife Louise and I) decided to do the best we could anyway. I made a pattern graph with a stylus that would go over the photographs with a wire running from that to the instrument and then a pencil that would mark on a sheet of cross-section paper—and we suc-

**For years I've had other people trying . . . to capitalize on the work I've done.**

cessfully identified our findings. We detected *people* all over the place in the photographs, and so it didn't seem to work out at all—until we used a little logic:

We learned afterwards that a bunch of soldiers had been peeing under those trees for a long time. What they didn't realize was that those men found it a lot easier to take a leak on a tree than go chasing for the latrine, so these guys left their biological specimens behind and our devices detected traces of human beings all over the place. In one picture in which the boats were tied up, our instruments detected iron where the engines were, but our sensors clearly showed that a man had been in one of the cabins.

*J.G.*: Didn't you recently make a derogatory remark about the use of the pendulum, and yet isn't this a form of radiesthesia?

*Hieronymus*: No, no. The pendulum is the same as *dowsing*. What I am trying to say is that one method is not the only way psionics will work.

*J.G.*: Who convinced you to sell your instruments?

*Hieronymus*: I have built and researched instruments long before I ever sold them. In fact I never really *wanted* to sell them . . .

*J.G.*: Nevertheless, you finally did. Why?

*Hieronymus*: Oh, I was forced to.

*J.G.*: *Forced*? What happened? Did somebody make you an offer you couldn't refuse?

*Hieronymus*: Dr. Joe Sewling of St. Louis saw their medical potential and once said, 'Let's get down to business.' At a time when I needed money he wrote out a very large check and said, 'I want you to build machines according to variations of your own patent. I want something medically *useful*.' So I built his instruments and then started building others. If you're interested in why *some* of these instruments worked so well and others didn't, there are different ways of tuning in to *eloptic energy*. You can do it if you know how. You don't actually need devices of any kind. Those who can are mostly people who developed themselves psychically, just as an athlete gets himself in physical shape. They can run their hands over things and actually *feel* the energy coming from it. On the other hand, one who is not quite so sensitive may use a gadget like a pendulum, or something that will bend or move in their hands; that device, "connected" (so to speak) to the energy, affects the nervous system and the muscles, causing the rods to move—to be tipped one way or another. It's almost imperceptible but it's enough.

In psionics, we amplify it mechanically so that the tiniest little tic of a nerve or muscle gives a much bigger effect, and you have a master dowser, a radionics or psionics expert. These people *unconsciously* tip the rods and when the rod swings far over, it is the *eloptic energy* operating on ionic energy through the nervous system and causing the

muscles to move almost imperceptibly. You watch a person hold a pendulum—no matter how small the movement, the swinging or circular movement is generated by the hand. However, that doesn't discount the idea that there is something else there, some other focus or beam of energy.

*J.G.*: The human brain then, is the transducer?

*Hieronymus*: I'll go along with the idea that the human faculties—the brain—is involved, yes, but not directly as conscious thinking. It's a subconscious reaction; it's *emotional* brain activity. Let's say you approach any kind of psionic instrument with a mental or emotional bias such as: I use the reaction plate or you can use the pendulum over that plate or *dowsing* rods over that plate. The plate has a coil inside and that is where the mental energy emanates and is focused upon—*after it has gone through the instrument*. If you are such a sensitive you can actually feel the energy by holding your hand near the plate or you can touch it when it is flowing or you can make a rotary motion and notice an apparent change in the surface tension.

*J.G.*: Then this is how you developed the idea of rubbing a plate on your radionic machine while turning dials to the proper 'rates' of energy. I have the Delawarr diagnostic device and am now experimenting with it with some success. It takes a lot of concentration. Can *you* do it without the instruments?

*Hieronymus*: No, I'm not sensitive enough.

*J.G.*: Do you know anyone who can?

*Hieronymus*: Sure, lots of them. As far as tuning goes though, if the operator really *wants* that instrument to give information, by the dial setting, by what's coming from the finger measure, the unknown, he can. The question is, *how* does it work, *precisely*? A great novelist has a secretary or wife who types out the exact sentences and paragraphs he uses in his manuscripts, but who can't string words together the way he can. Same thing with the printer who sets those words in cold—or hot—type. Can you honestly say to that secretary or that printer, 'Damn! If you can turn out the book why can't you write it?' We're talking about concepts here. For example, another man and his wife—he can design and build a piano, so he constructs a fine device and gets to the point where he can thump out a tune with one finger. His wife comes along, tries it, and discovers that she has a natural dexterity and musical ability and eventually trains herself to become a fine pianist. But she's totally incapable of creating the idea or building a piano. Likewise, I come up with the ideas and I can build extremely complex devices to do these things and observe the reactions of people and phenomena and all that sort of thing, but I'm not nearly as good as some of the people I've trained. I thought I was—and

**A spectacular experiment . . . was when we changed the platelet count . . . in the blood of a boy . . .**

had considerable success in the beginning—but compared to others I've seen I was never much good at it.

*J.G.*: What kind of affiliation did you have as an electrical engineer? Did you work for a large corporation as a consultant, or what?

*Hieronymus*: I was with The Municipal Power Company as a practical engineer in Kansas City, and retired at the end of thirty years, but I had gotten into psionics long before that.

*J.G.*: You've moved around a lot since you retired, haven't you?

*Hieronymus*: Yes, quite a bit. I took a year's leave of absence at the end of twenty-nine years, with full pay because of the thirty year tenure, and began building instruments which I had already been doing in my workshop. I opened a factory, hired some people and spent my final year making the transition from one business to another. A close business friend wanted me to develop a new device called the Pathoclast. We needed more power so I built an amplifier and we tried it out. He was elated because we could get results in fifteen minutes where it used to take hours.

*J.G.*: How is it that you first got in contact with John Campbell?

*Hieronymus*: Well, sir, I got a telephone call . . .

*J.G.*: How did he find out about you?

*Hieronymus*: I don't know. He wrote the patent office and got my patent.

*J.G.*: You don't know how or where he had heard about it?

*Hieronymus*: I don't think I asked him. If I did, it didn't stick in my memory. Well anyhow, the phone rang and he said, 'This is John Campbell, I'm the editor of *Astounding Science Fiction* magazine in New York,' that was long before they put the *Fact* on, you know. 'I've written an article about your work.' I said 'that's interesting.' He said there was one paragraph that he wanted to put on the end of this article: that anyone was welcome to build such a device and use it. I said no, let's modify that. This is a patented proposition, anyone that cares to build this instrument for experimental purposes is welcome to do it, but it is not to be used commercially. He agreed, reworded the article and sent me a copy. That was the beginning. Then he invited me to come to New York

and meet the president of *Astounding*'s parent company, then from time to time he'd take a month's vacation and visit us. We received him almost every summer.

*J.G.*: Well, get back to Campbell, please. We sort of got sidetracked again.

*Hieronymus*: You asked me how he happened to get in the picture. Well, that was how we first met.

*J.G.*: How many contacts have you had with him personally?

*Hieronymus*: Oh, I have a file thick of correspondence.

*J.G.*: Sure, correspondence, but how many . . .

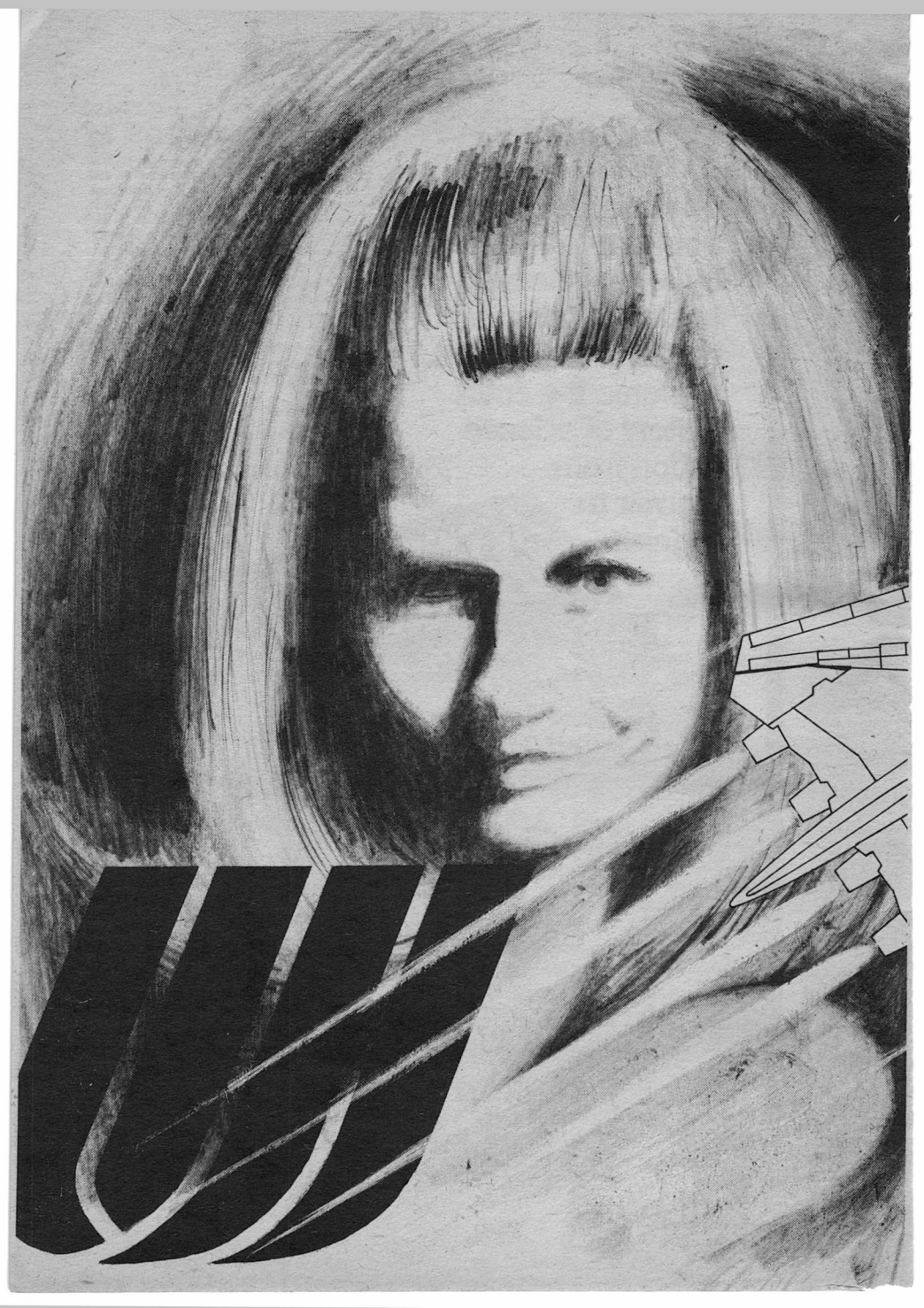
*Hieronymus*: Oh, I was in his home, met his wife and two daughters and then he dropped down to spending only a couple to three days a week in New York. He spent the rest of his time at Mountainside, and he had a big basement workshop there. That's where he built his operators. He was a radio ham. I know his daughter was the first operator of the instrument that he built there.

*J.G.*: Did you know Ed Hermann when he was a McGraw-Hill engineer at that time?

*Hieronymus*: No, I got acquainted with Ed through Gross. Did you know that Colonel—now General—Gross was almost a father to Ed Hermann?

*J.G.*: No.

*Hieronymus*: Yeah, they were very close. Ed asked General Gross if he could do anything about his wild cherry trees, particularly the big one in his yard that was sheathed in worms every spring. Gross asked me and I said tell him to take a photograph of his tree, then take a box, put some holes in it small enough that worms can't get through, but big enough so they can get air. I want a half-dozen freshly picked leaves. Have him do this first thing in the morning. Put the leaves and a half-dozen worms in this box and send it to Colonel Gross airmail special delivery. I was at a hotel in Hershey, Pennsylvania when Gross received the package, so I went and got it. The worms were still alive. We ran our usual analyses on them and with our psionic analyzer came up with the right reagent—we painted the *photograph* of that tree with the reagent—oil of cedar I think it was—put the photo on the sensor plate, set the dials and just forgot about it. Three days later when Ed turned into his driveway while returning from work (he has his own company now, you know), he hit his brakes and stared as his kids were stamping on caterpillars swarming in all directions away from the tree. A carpet of *dead* caterpillars was directly under its limbs and they were still falling off when he arrived.



MIKE HINGE
the man
# responsible
"Figures don't lie, but liars sure can figure."
Especially when they have computers to help them!
**Stephen Robinett**

*"Mr. Penny! Mr. Penny!"*

I recognized her voice immediately. I wanted to keep walking, or, better yet, duck into the nearest store. Unfortunately, the nearest store was closed. I stopped on the sidewalk and waited for Mrs. Crawley to catch up.

She arrived panting, holding down her floppy hat with one hand and clutching a moneybag-shaped purse with the other. "You walk very fast, Mr. Penny."

"What can I do for you, Mrs. Crawley?"

She took a deep breath and looked up at me, hand continuing to hold down the hat, scowling. "I want my money back."

I tried to remember how much, if anything, I owed Mrs. Crawley. The last case I handled for her—a slip-and-fall coming out of her bank—had been settled six months before. "I don't think I owe you anything at the moment, Mrs. Crawley."

Her expression, still frowning, changed from indignation to puzzlement. She shook her head. The hat brim flopped, momentarily obscuring her eyes. "Not *you*, Mr. Penny. I want the man *responsible*! I want *him*! *Him!*"

"Who?"

"Edward W. Sterling. I believe the W is for William."

"William."

"It could be Willis, or Willard, or something like that, but I do believe it's William."

"How much does he owe you?"

"I don't know exactly, but he's cheating me. I do know that. I want something done about it. I want *you* to do something about it. My late husband Frederick used to say *no* expense was too great to keep them from getting at you."

The late Mr. Crawley—Frederick—had been late for about ten years. He had made enough money in plumbing fixtures to leave Mrs. Crawley somewhat more than well-heeled. She considered it her duty to the late Frederick's fortune to protect its honor. She had once asked me to sue the phone company over a disputed fifteen dollars on the previous month's bill, presumably to keep them from getting at her.

I gave up the idea of an early lunch and turned back toward the office, suggesting we find someplace more comfortable for her to tell me about it. During the short walk, her voice issuing from under the bouncing hat, she told me about it, interspersing the explanation with bits and pieces of her favorite topic, "those people out there just *wait*ing, Mr. Penny, *wait*ing to prey on the rich. Why don't they prey on the *poor* for a change and give us some peace?"

I suggested the poor probably had too little money to make it worthwhile.

"That's hardly a good excuse, Mr. Penny. My late husband Frederick used to say—"

"Do you mind if we talk about Sterling and your money, Mrs. Craw-

ley?'' I prodded gently.

"Not at all. That's why I've come to you, isn't it?"

The previous spring, Mrs. Crawley had received a phone call from "Ed" Sterling. "He insisted I call him Ed. He said Frederick had always called him Ed." Sterling introduced himself as President of Silver River Development, a land investment company with extensive interests in Latin America, principally Argentina. The company had embarked on the single most extensive private development program in Latin American history. They intended to create an entire city, a city incorporating the most imaginative plans of the world's leading architects, "Tomorrow's City Today." He kept stressing that, as though a woman of my age could possibly care what tomorrow's city would be like, today or any other day."

We arrived at my office. I held open the door. Sharon, my secretary, looked up, saw Mrs. Crawley and gave me a sympathetic glance. I scowled. She returned to her voice-writer.

Mrs. Crawley and I went into my office. She continued her story from the opposite side of my desk, looking progressively more disgusted. "Tomorrow's City Today—what *non*-sense! Logically, it's even nonsense, isn't it? I mean, if we've got it today, it isn't tomorrow's city, is it? But that's just the point, Mr. Penny. We *don't* have it today, do we?"

Someplace along the line, she had lost me. It must have shown on my face.

Mrs. Crawley leaned slightly forward, frowning, her expression insisting on agreement. "*Do* we?"

"I think you skipped something."

"*I* skipped something! It's that Sterling person who's skipped something. He skipped building Tomorrow's City Today is what he skipped. He may well have skipped out, too."

"Let's go back to his first phone call. I take it he wanted an investment."

"One million dollars—that's what he wanted and he didn't even have the courtesy to come to me in person. A handsome man though, I *will* say that. In many ways, he reminded me of my late husband." She gazed past my head a moment, reflective. "Perhaps that's why I agreed to invest—that and the fact that he had known Frederick."

Initially, Mrs. Crawley had been hesitant, telling Sterling she would have to check with her financial advisors. "He was very good about that. He said Frederick had done the same before investing in a mutual fund of his ten years ago."

"*Did* your husband invest in Sterling's mutual fund?"

"I haven't the slightest idea, Mr. Penny. In those days, dear Frederick handled all our financial affairs."

She checked with several financial consultants. All of them gave Silver River Development a clean financial bill of health, a reputable—though new—investment company run by a

well-known financial expert, an aging whiz-kid who had tripled the value of his mutual fund during its first year of operation. Mrs. Crawley invested and began receiving stockholder's quarterly reports, glossy productions on holotape showing the rising buildings of Ciudad de Plata.

"Last month, I took my vacation. *Every*one, simply *every*one, is going to Mar del Plata this year. It's summer there, you know. When it's winter here, it's summer there."

"I know."

"And do you know something else about the southern hemisphere, Mr. Penny?"

"The water goes down the drain the other way."

She looked momentarily taken aback. "How did you know?"

"I guessed."

Mrs. Crawley, who had friends with a summer house in Mar del Plata, left for Argentina. She had to wait several days in Buenos Aires for her friends to begin their vacation. "I decided to visit my investment. I hired a helicopter."

I must have looked somewhat startled at the idea of Mrs. Crawley hiring a helicopter and flying up the Rio de la Plata to visit a construction site.

"I was *in* the area, Mr. Penny. After all, how often do you actually get to *see* what your money does? Usually, it's just invest and cash the dividend check. You never get any real *feel* for what they mean when they say 'putting your money to work'. I wanted to see it. I mean, Tomorrow's City Today, Mr. Penny. It sounds worth seeing, doesn't it?"

I agreed it sounded worth seeing.

"I went. I gave the pilot—a very nice young man, incidentally, who spoke English very well—I gave him the exact location. We flew out there. The closer we got, the more excited I got. I kept expecting to come up over a little hill and suddenly see it—Tomorrow's City Today."

"But."

Mrs. Crawley nodded vigorously. "That's *ab*solutely right! *But*. Finally, the young man hovered his machine and pointed down, saying that was it. And do you know what *it* was?"

"Nothing."

"No, pampas—from horizon to horizon to horizon—pampas. I always thought South America was one gigantic mountain of people. I was wrong. If our helicopter had crashed on that spot, no one would have found us for a hundred years. I asked him if he was sure about our location."

"He was sure."

"Positive. He showed me on the map. Even the map said the only thing there was pampas. He had tried to tell me before we took off. I wouldn't listen." She lowered her head, hat brim covering her eyes. "I was a fool."

I let her absorb her own comment for a while, then asked how much she had invested.

Her head jerked up, eyes revealed. "I've got it right here." She rum-

maged in her purse, eventually coming up with a fist full of paper, stock certificates. She slapped them down on my desk. "*There*! *Worth*less, absolutely *worth*less!"

I looked at the stock certificates, twenty shares of Silver River Development, a rising city portrayed above the name on the stock. "How much is this worth, Mrs. Crawley?"

"I *told* you—*nothing*! Not the paper it's printed on. Not anything."

"On the market, if you could sell it."

"It's no-par stock. I paid close to eight per share."

"Hundred? Thousand?"

"Dollars. It may have gone up since I bought it. There have been other investors."

"A hundred and sixty dollars."

"That's right. And don't you look at me that way, Harry Penny. I know what I'm doing. It's the *prin*ciple, the *prin*ciple. You can't let them get at you, even if it costs more than letting them get at you."

"It will."

"I know. I'm reconciled to that. Besides . . ." she smiled momentarily, ". . . we haven't had a good lawsuit since we sued my bank!"

My first move in our "good lawsuit" was to call Mark Bentley, my broker. He came on the screen looking chipper, smiling—when he saw me, actually beaming—as though he had just made, or avoided losing, a million dollars.

"Harry, what's happening? You ready to open that tight fist of yours and drop a few bucks on the crap table of life? Astrotech, that outfit trying to get up the automated mining operation for Titan is about to break and run. They've gone up four points on the big board already today."

"What do you know about the Silver River Development Company?"

"You want some of that?"

"Maybe."

Bentley shook his head. "Sorry. No can do. It's all closely-held stuff. I wish I *could* get hold of a block or two. I've got clients who would give their eyeteeth for a hunk of it. *I'd* give my eyeteeth for a hunk of it."

"What's it worth?"

"It's gold, Harry, but nobody can get it."

"If you could get it."

"With this one, Harry, it's not the market value anybody's playing with. It's dividends. Whatever the place is they're building down there—"

"Ciudad de Plata."

"That's it. It's selling like hotcakes. Dividends, Harry. For a change, that's the name of the game. They're paying two points as regular as clockwork. At least that's what I hear. And *quarterly*. We haven't had anything with a P-E ratio like that in many a moon. But you've got to know someone to get it."

"Edward W. Sterling."

"That's the man. A heavyweight, Harry. He makes more money sleeping than we do awake—at least, he did."

"What do you mean, he did?"

"As soon as I heard about this thing, naturally, I wanted some of the action."

"Sounded like a good way to churn a few accounts."

Bentley looked disappointed in me. "Harry, don't get nasty. We are conscientious, upstanding citizens around here."

"What did you find out about Sterling?"

"There's an Ecom profile on him. He made a lot of money for a lot of people in the early eighties, then dropped out—retired, actually. Evidently, retirement got on his nerves. You can't give it all up at forty-five and feel good about it."

"I hope I will."

"You won't. They never do. Anyway, he came out here and started Silver River. He's just letting a few people in, people he's had some sort of connection with in the past. The rich get richer, Harry. Guys like you and I, we never get off the launching pad."

"Thanks, Mark. If you hear anything else about him, let me know."

I broke the connection, called information and got the number of the Silver River Development Company. I punched out the number.

On the second ring, a woman—young, attractive, impassive—came on the screen, announcing in what was evidently intended to be a dignified tone that I had reached the Silver River Development Company. I asked for Sterling.

"Mr. Sterling is on another line right now. Will you hold?"

I held.

Mrs. Crawley gave the phone a disgusted glance. "He did that to me as well."

"He's probably a busy man."

"As are most swindlers, Mr. Penny."

Eventually, Sterling, looking like anything but a swindler, came on the screen. He struck me as the archetypal successful businessman, silver-gray hair expensively styled, tan, healthy, somewhere in his mid-fifties. He would have looked good in an advertisement for a large yacht.

"Ah, Mr. Penny, to what do I owe the pleasure of this call from so well-known a member of the legal profession."

"My client, Mrs. Frederick Crawley."

He nodded slightly. "Yes, I know Mrs. Crawley. I believe she's an investor in this company."

"She doesn't want to be. She's got twenty shares. She'd like you to take them off her hands. We calculate their present value at about—"

"One hundred and sixty dollars."

I nodded. "Yes."

"I'm afraid that's impossible, Mr. Penny, First of all, capital investments in this corporation are, by contract, made for a minimum period of one year."

"Mr. Sterling, you may consider this a tender of the stock for purposes of any first refusal rights Silver River might have. If you refuse, we'll

simply sell the stock elsewhere. I understand there are a great number of people interested in acquiring any amount."

Sterling laughed. "No, you won't sell the stock, Mr. Penny. In case you haven't looked it over, the stock is lettered. It may not be marketed through the usual brokers. And by contract, it cannot be sold privately without our express written permission."

"Look, Mr. Sterling, for a hundred and sixty dollars, I'm sure a high bracket corporation like Silver River can afford to—"

"No, I'm sorry, Mr. Penny. If there's nothing further—" Sterling started to hang up, reaching toward the phone but keeping his eyes on me.

I decided to play Mrs. Crawley's ace in the hole. "There *is* one thing. My client has recently returned from Argentina. She visited her investment. She saw nothing but long, waving grass.

Sterling, still leaning slightly forward in preparation for hanging up, continued looking at me, either failing to get the reference or waiting for more. "And?"

"And Ciudad de Plata doesn't exist."

He laughed again, a laugh almost identical to the one he had uttered when I suggested selling Mrs. Crawley's stock on the open market. "That's ridiculous, Mr. Penny. Ciudad de Plata has been under construction since last January."

"Not according to my eyewitness. We do, of course, intend to verify this information before we file any type of fraud suit."

Sterling shook his head, his expression one of patient tolerance. "No, no, Mr. Penny. That is an utterly fantastic suggestion."

"We intend to prove it."

"You will be unable to do so. In fact, I will tell you what I will do. Are you familiar with Ecom's Latin American observation center in Irvine?"

I nodded.

Sterling continued waiting for my answer, evidently missing the nod. I repeated its content verbally. "Yes."

"Good. We rent a considerable amount of time on their computers. I will call them and authorize a tour for you—and Mrs. Crawley, of course. Have you ever toured an Ecom installation?"

"No, but I really don't have the time to—"

"It's extremely interesting. I will authorize them to use their capabilities to show you Ciudad de Plata. At that point, if you still have questions—" He smiled, a pleasant, genial, salesman's smile. "—I doubt that you will—but if you do, please take them up with Colonel Vargas. I'm sure he will be able to help you."

The screen went blank.

I tried to call back. The impassive girl informed me Mr. Sterling was no longer in his office.

"But I just—"

"I'm sorry, sir. Mr. Sterling is unavailable."

I got the point. "Okay, tell him to watch out for process servers."

I hung up.

Mrs. Crawley seemed pleased by the conversation. She smiled. "I think we shall have to sue, Mr. Penny."

I told Mrs. Crawley about filing fees, investigation fees, the bond she would have to post to bring a fraud suit, and, lastly, my hourly rate.

She nodded, told me she had expected all that, instructed me to use my own judgment, then got up and started for the door.

"Mrs. Crawley."

She stopped, turning her somehow rejuvenated face toward me. "Yes?"

"Why are you doing this? It may turn out to be extremely expensive."

"I don't have any grandchildren to spend money on, Mr. Penny. I have to have *some* sort of hobby."

I told her I would do what I could.

She smiled and left.

Directory Assistance helped me with Colonel Vargas's number, a residence in Irvine. I let it ring a half dozen times. Using my own judgment for Mrs. Crawley would be harder than I anticipated, especially if no one showed up to be judged. Sterling had referred me to the Ecom facility at Irvine for proof that Tomorrow's City existed today. I decided to take him up on the invitation. At least, the visit would let me claim I had listened to his side of the argument before I used my famous judgment and sued him.

I took Mrs. Crawley's stock certificates out to my secretary and told her to put them in the safe. I was on my way out the door when she got my attention and pointed at the phone mouthing *It's Mr. Church.*

"Tell him—no, never mind. I'll take it in my office."

I went back to my office, sat down and touched on the phone. I seem to spend half my life looking at faces on phones.

Ernie Church appeared on the screen in mid-sentence, already irate. ". . . *done* about it, Harry. You get that n'er-do-well partner of yours off his can and you get off yours and *do* something. Do something *now*!"

"About what, Ernie?"

"This Silver River business. Half a million *dol*lars, Harry. I need the cash, *now*. That Catalina Channel habitat I invested in is going *under*."

"Isn't that what it's supposed to do?"

"Very funny, Harry. Underwater habitat. Going under. Very funny." His face hardened. "But it's *not* funny. It's not funny at all."

Church had stuck a half million dollars into Sterling's company. He agreed to leave it there for a year. He was one of the first investors. He wanted to leave it there. It was paying the best return of any investment he had ever made. But, due to reverses in his habitat project, he wanted the money out. Sterling

refused to give it to him. Like Mrs. Crawley, he wanted me to sue.

"I can't do it, Ernie."

He looked stunned. "Why?"

"Potential conflict of interest. I already represent one shareholder in Silver River."

"Who?"

"It doesn't matter who."

"I know everyone in it. Who?"

"The point is, I don't know where my current case is going yet. Potentially, my client's interests and yours could be at cross-purposes. Until I've got a better idea what's happening, I don't want to handle anything that conflicts with—"

"Dump them."

"I can't do that."

"Let your partner handle it. Bud's good enough for them. I want *you*, Harry."

"Bud can't handle it either. That would still leave the firm with a potential conflict."

"If this thing's going down, too."

"I didn't say Silver River was going down."

"You implied it. Harry. You implied it."

"I'm sure Elaine left you well-enough fixed with a spare fortune—"

"She didn't, Harry. That's the hell of it. One inherited fortune per customer. I'll have to go back to teaching English. Do you know what *those* poor beggars make, Harry? I couldn't keep myself in cigars with it. Besides, Elaine's the one who got me into this business with Sterling in the first place."

Church's wife had died several years before, leaving him the fortune she had made with her investment acumen. When Sterling solicited the investment from Church, he mentioned Elaine's earlier investment in his mutual fund. After the call, Church punched up some of the old computer files under his wife's number. They agreed with Sterling's representations. "The guy *sound*ed legitimate, Harry. He had the credentials. How was I supposed to know things were going to—what did you say was happening?"

"I didn't."

"Well, *damn* it, what *is* happening?"

"I don't know yet, Ernie. I was on my way out to look into it when you called."

"Then *go*, man! Look into it!"

"Ernie."

"What?"

"I'm not working for you. Remember that. I'm not in any way responsible for *you*, your *money*, or anything that happens to you. I know how you are, Ernie. Unless I make this clear, you'll get things confused later. I want you to know I'm taping this call. I advise you to get an attorney. I think you should do it immediately. I can't handle the case. I've explained why. I'm not responsible to you. I'm responsible to only one person in this matter. Now that's about as many different ways as I can think of to say it. I hope you understood one of them."

"And if I didn't, you've always got

your tape recording to cover your own ass."

"There's no need to get angry. I just don't work for you. I'd like to, but I can't. If you'd called a half hour ago, I would have taken it."

He looked even paler. "A half hour. Things are moving that fast."

"I didn't say that. I said get another attorney. That's all I said. I have to go now, Ernie. Take my advice. Get a lawyer."

I popped the recording disk out of the phone and took it out to Sharon, telling her where I was going and asking her to have Bud listen to the last three conversations if he ever showed up at the office. Outside, someone had written "Wash Me" in the dust on my Hudson. I glanced up. The dark-front covering half the sky promised to take care of the job for me. I got in, let the boiler cook long enough to charge the steamtank and backed out. Crossing the short bridge off Balboa Island, I looked for seagulls. No sign of them. They had gone inland for the storm.

I took Pacific Coast Highway down to MacArthur and headed inland myself, for Irvine. The Ecom Latin American monitoring facility was twenty minutes from my office. I found myself looking forward to the tour. Since Ecom's inception, especially after its final linkup two years before, I had been meaning to visit this Savior of the Western World. Instead, like everyone else, I had just accepted the "Economic Miracle" and gone about my business. I could always consider the tour as an afternoon spent updating my education.

I left MacArthur Boulevard at Ecom Road, a two-lane street that eventually deadended at the facility's main gate, high and chain-linked with barbed wire on top and a marine guard inside a Buckingham-Palace-style guardbox. I got out and walked over to the guard, slipping one of my business cards through the fence and letting him study it. He took it with him into the Buckingham Palace guardbox. Muttered voices, punctuated by the guard's crisp yes-*sirs*, issued from it. He emerged from the box and faced me through the fence, saying a Dr. Austin would be out in a minute.

The minute stretched out to ten. Finally, Austin, a man about my own age with an annoyed expression on his face, came out of the main building and walked toward me. He came up to the gate and stood a moment, hands clenching the mesh next to his face. "Are you Penny?"

I nodded.

"I.D.?"

I showed him a driver's license and state bar identification card. He nodded and told the guard to open the gate. Something metallic clicked in the gate posts. I stepped through and started across the gravel parking area with Austin, our footsteps crunching on the small rocks. As we approached the main building, three stories of concrete with narrow slitted windows like a fortress, I happened

to glance up. So many communications arrays cluttered the roof that it looked like a leafless forest of branches. A dish antenna rotated slowly and stopped.

Inside, we paused in the lobby and I stepped through a security scanner.

Austin gave me a perfunctory smile. "Regulations."

He stepped through the scanner himself and led me to a receptionist's desk. The man behind it placed an I.D. badge marked "Guest" in a slot on the desk and read from a computer printout. "Penny, Harry S., attorney. Authorized only in the presence of Dr. Raymond Austin or other guide. Invalid after fifteen hundred hours this date." He plucked the badge from the slot and handed it to me. "Clip this on your pocket. Don't take it off until you get back to this room."

I peered down my nose at my breast pocket and clipped on the badge. "Did they move Fort Knox here, or something?"

"Just regulations, Mr. Penny." Austin led me toward an interior door. "These installations were once the focal point of a rather intense political debate. Additionally, much of the information gathered and collated here is classified. What do you want to see first? Mr. Sterling has authorized certain particulars to be shown to you that relate to his business. Beyond that, what?" He glanced at me, expression inquiring, simultaneously laying his palm against a plate next to the door. The door slid open.

"Just give me the standard tour."

He nodded. "General background material. Okay."

We started down a corridor, conspicuously empty of people, though a catalog of holograms on the walls gave a step by step pictorial of the facility's construction, pictures of men clearing land, pouring foundations, erecting walls. The controversy over the Economic Integration Act of 1993, sparked by Senator Ragland's famous "Commie Computer" speech, had left anyone over twenty with little need for general background material. After passage of the act, the media had followed construction of the network more avidly than anything since the Soviet-American Mars mission.

We arrived at a room halfway down the corridor. Austin, again pressing his palm against a plate to get us past the door, promised to give me "the basics first, then the new stuff."

The basics, delivered in a long, narrow conference room with a table so wide I could hardly get my chair out without hitting the wall, consisted of a hologram tape of Ecom's history, followed by a short demonstration from "your guide, Mr. Austin."

Some of the news footage (history of the computer from abacus to IBM; history of economics from Marx to macro, Lenin to Leontief) was old enough to be straight video-

tape, projected on the sides of the holocube in two dimensions. A series of holographic cartoons explained pre-Ecom economic evils, using Disney's Goofy as the luckless citizen and a Tasmanian Devil as the various economic ogres.

"These evils," commented the voice-over, "have been virtually eliminated from American society by passage of the Economic Integration Act of 1993 and its enabling legislation. Due to this far-sighted legislation, Ecom was built. Though some controversy accompanied the initial phases of the project . . ."

I remembered the months of agonizing national debate covered by the phrase "some controversy." The idea of a totally information-integrated economy—nation-wide input/output flow charts for every industry from steel production to Goofy's lemonade stand—combined with political, cultural and personal data for trend analysis, had smacked (depending on the politics of the person receiving the smack) of everything from a pernicious invasion of privacy to Senator Ragland's "Commie Computer," a socialist menace to free enterprise, individual initiative, and motherhood.

Unlike many of my friends, both liberal and conservative, I had favored Ecom. Most of the arguments against it struck me as superfluous. The nineteenth century had seen consolidation of the Western world's political power. The twentieth century—using methods like state capitalism, state socialism, and multinational corporate entities—had seen consolidation of economic power. Why not consolidation of informational power for the twenty-first century?

In theory, everyone agreed. Opposition arose over the types of information required for input and the manner of enforcing the output. The American Civil Liberties Union claimed an invasion of privacy. The US Supreme Court disagreed. The American Association of Manufacturers claimed unconstitutional abridgement of freedom of contract. The US Supreme Court disagreed. Legally, the way was cleared for Ecom.

In the popular mind, the depression of '92-'93 changed a lot of minds. Anything that promised to chop off the peaks and fill in the valleys of the economic cycle got support. The upshot was Ecom, a computer network capable of analyzing virtually every aspect of every economic transaction in the country, legally empowered to mandate cutbacks or speedups in production or services depending on circumstances. Zero unemployment plus zero inflation, deflation, stagflation, recession or depression, along with a healthy economic growth rate, defused most of Ecom's critics. Though Ecom could do little to prevent people like Ernie Church from investing large amounts of money in ventures as foolish as his Catalina Channel underwater habitat, it could smooth

out the ripples when the project sank.

The Irvine facility—the tape informed me—mapped and analyzed the impact of Latin American foreign trade on the US economy, taking appropriate domestic action to adjust for any potential increases or decreases in either markets or raw materials.

The tape ended. The lights came on. Austin, now wearing a tweed tunic, stepped to the far end of the long table, standing with his fingertips poised on the table and addressing me as though I were a large group of VIPs.

"Do you have any questions, Mr. Penny?"

I shook my head.

He missed the gesture and waited for an answer.

"No. No questions."

"Good, then if you'll come this way, we can go on with your tour."

I started toward him, working my way through the narrow spaces between the backs of the chairs and the wall. Gradually, I began to notice something peculiar about him. If I looked carefully at his midsection, roughly at navel height, I could see the wall socket on the baseboard behind him. I thought this a sufficiently interesting observation to remark on it, asking whether he was transparent.

"Yes."

The closer I got, the more I realized I could have left the question unasked. Austin was clearly—in both senses of the word—transparent. When I passed the end of the table and looked back, I could see all of it—through him.

"What you see, Mr. Penny, is simply a holographic projection of Raymond Austin, one of the many capabilities of this Ecom facility. The real Dr. Austin who brought you in here is much too valuable a man to waste his time giving tours." He nodded toward a door. "That way, please."

I followed directions. We entered the long corridor again. I failed to notice whether he came through the doorway or the door. We started down the corridor. One set of footsteps echoed around us.

Though ghosts and apparitions—even man-made ones—tend to unsettle people, I found myself relaxed and comfortable walking with Austin II. We passed more holographic displays of Ecom's construction. Having a transparent guide let me get a better view of them.

A door in front of us slid open. I expected something more spectacular—an enormous room, several stories high, filled with white-smocked technicians carrying clipboards and skittering along catwalks to serve the machine. Instead, we entered a room the size of my apartment living room containing two technicians in Levi's playing chess. I inspected them closely. Both looked opaque.

The player waiting to move glanced at us. "Hi, Ray."

"Hello Mr. Bishop," responded my

guide, then returned his attention to me. "This is the heart of the Ecom Latin American monitoring facility, Mr. Penny. Except for service access routes allowing replacement of defective parts—rarely used, I might add—this is the only room regularly frequented by the staff. The administrative offices and any supplemental data analyses are done in separate buildings. The equipment you see around you is capable of monitoring any of Ecom's functions anywhere in the network and presenting that information in any desired form from conventional screen displays or printouts, through voice, to methods such as this table." Austin II looked from one chess player to the other. "Will you excuse me, gentlemen?"

Grumbling, the chess players carefully lifted their board and stood to one side, holding it, facing each other and continuing to play.

The table lit with what looked like a contour map.

"This is a satellite view of the *Cordillera Central* in the Andes. It is a region of extensive coffee growing. The river to the east of the range is the *Río Causá*. Let me give you a closer look."

I had the sensation of plunging toward the ground. I found myself on tiptoes, involuntarily trying to pull back from the fall. I lowered myself solidly to the floor and stared at the satellite map. The detail was amazing, authentic jungle-looking vegetation, buildings and a lean-to in a clearing, a winding road leading to the clearing, a truck on the road, moving.

Moving?

I squinted at the truck. A man's elbow protruded from the driver's side of the cab. "Is this a holotape?"

"No. As I said, it is a satellite view of that Columbian road at this very moment. The truck is carrying two metric tons of what will appear on your table as Columbian Maragogipe coffee."

He started telling me about Columbian Maragogipe coffee production, acreage, weather, volume—more than I ever wanted to know. I lost track after the first two metric tons of detail. In spite of the incredible quantity of minutiae, he kept calling it the "overview."

I watched the man in the truck. He drove into the clearing, stopped, got out and walked toward the lean-to. A girl ran out from the lean-to and threw her arms around the drivers neck.

"As I was *saying*," said the apparition—judging by his emphasis, not for the first time.

I looked at him. "Oh. Sorry. Go on."

"By virtue of the Ecom satellite system, we have continuous and instantaneous access to the raw informational material for every activity from south of the US-Mexican border to Tierra del Fuego."

I noticed the man and woman had gone into the lean-to. "Sort of a gigantic keyhole."

"If you want to phrase it that way, yes. This data, along with cultural, political, and other relevant data allows foreign trade predictions that have proved accurate to within plus or minus point one percent. The US economy is of course adjusted according to the projected impact. Do you have any other questions?"

"The whole purpose of this tour was to give me some kind of information that would verify the existence of a place called Ciudad de Plata in Argentina. Can I see that?"

The clearing vanished, replaced immediately by what looked like an aerial view of a city under construction, half-completed buildings rising along a finished grid of streets and the entire scene surrounded by pampas, green and luxuriant. Again, we moved in for a closeup, though somewhat more slowly. Men and equipment moved on all sides, transferring pieces of steel, mixing cement, transporting flashing sheets of glass.

"This is Ciudad de Plata, Mr. Penny. I am, of course, fully aware of the plans Mr. Sterling has developed for the city. Once finished, it will be one of the more spectacular sights of the world."

The city vanished. The chess players returned to the table. Austin II led me out of the room and down the long corridor.

When we arrived at the reception area, Dr. Austin was waiting for me. I turned to thank Austin II for the tour. He had vanished into the ether, or wherever such holographic personages go when off duty.

Austin checked me out and accompanied me back to the gate, crunching back across the gravel. "Did you enjoy your tour, Mr. Penny?"

"Yes, thank you, especially the guide."

Dr. Austin smiled. "I rather like him myself."

"Can he think?"

"What do you mean by think?"

I could tell I had asked one of those questions one should refrain from asking scientists, a question that pitted what they considered "popular misconceptions" against "scientifically designed parameters." I forged ahead, ignoring this clear signal that I was about to be chastized for my fuzzy-headed popular misconceptionism. "I mean *think*, cogitate, ratiocinate, anything above adding two and two?"

"It can do some of those things." He glanced at me, smiling, knowing he had me by my popular misconception. "If it's *told* to do them. That's the key concept, Mr. Penny. Computers, whether wrist calculators or something the size of Ecom, can only do what they are told."

"It seemed a little more lifelike than most wrist calculators. In fact, it seemed a little more lifelike than most computer synthesized voice or picture patterns."

"You're thinking of the recorded operators the phone company has been using lately. Those are limited

option computer models. It took us about two weeks worth of tape—in other words, I had to wear the same tweed suit for two weeks—to give the program that many options, plus the basic informational program, of course. Each motion you saw it make, for example the lips when it spoke, is the product of thousands of small decisions on the computer's part, exercising options built into its program."

"Why you?"

"You mean why use a real person as a model instead of one of those composites the phone company uses?"

I nodded.

"We could have done it either way. This way, the viewer gets a little jolt when he realizes I'm not me."

We arrived at the gate. "Frankly, it sounded to me like it had opinions, not just a set of facts."

"Very astute, Mr. Penny. Most people get lost in the illusion and fail to notice that. What, in particular, gave you that impression?"

"It would pick up on things I said. I made a comment about the satellite observation being like a gigantic keyhold and—"

Austin grinned, obviously pleased. "Ah, yes, it answered you with mild sarcasm. I dislike that keyhole description. For some reason, half the people who come here use it. I programmed it, in essence, with *my* opinion. The other most frequently asked question—you would have said something about it if you had asked the question—is whether the Ecom computer is conscious, to which your guide would have answered, 'No, I am simply a poor, dumb beast, who takes the orders it is given.'" Austin smiled. Appreciating his own programming wit.

"*Is* it conscious?"

"Of course not. It is a poor, dumb beast. It *is* programmed with a wide range of decisional options. It can react faster and more accurately to carry out a complicated plan than any human being, but it must be given the plan."

I persevered hoping to get at least philosophical agreement to my popular misconception, if not agreement in fact. "But at some point, when a computer like that is given *enough* options—more options than you and I can carry in our makeups—isn't it at least *bord*ering on something like consciousness?"

"No. It does only what it is told to do. It never leaps to a conclusion someone has not let it leap to, either consciously or accidently, as part of its programming. You, on the other hand, make those creative leaps every day. It is the essence of being human, being creative."

"Being able to ignore instructions."

Austin nodded. "The computer is responsible for nothing. It simply does what it is told. Men are responsible. That, too, is a key difference."

Dr. Austin called toward the guardbox. The gate opened. We

shook hands. I thanked him again for the tour and started out to my car.

During the drive back to MacArthur, it started to rain, a light, misting rain easily pushed aside by the static field wipers. I pulled off at the first gas station, dropped a quarter in the public phone and tried Colonel Vargas's number again.

A sallow-faced woman in her mid-forties answered. The phone emphasized the puffy quality of her face. "¡*Holá*!"

I fell back on my night-school Spanish, acquired because of an occasional Spanish-speaking client. "¿*Puedo hablar con el señor Vargas*?"

"*No está a casa, señor. ¿Quién habla*?"

I gave my name. She said Vargas would be back in half an hour. If I came to the house, I could talk to him then.

I thanked her, hung up, fed the machine another quarter and tapped out Freddie Lucas's number at work. Lucas is financial editor of the local paper. Anytime before noon, he answers with a harried, can't-talk-to-you-now look. After noon, the New York market closed and the evening's financial page put to bed, he answers like a human being. Fortunately, it was after noon.

"Harry—surprise, surprise, surprise. Where the hell have you been, anyway? I tried to get you for tennis last week. What can I do for you?"

I asked if he had ever heard of a Colonel Vargas who was affiliated with the Silver River Development company.

"Nope. But Silver River's the biggest thing to hit town since Ernie Church decided he was going to turn Catalina Channel into a bunch of condominiums."

"You heard about that."

"Can you imagine commuting to work in your wetsuit?"

"With the weather they say we're getting, we may all be doing it anyway. See if the paper's got anything on Vargas."

He leaned off camera and punched buttons, waited and tore off a printout. "This one's old, Harry. It was a profile done by one of the women in pots and pans."

"Where?"

"The Home section."

"Read it to me."

He read. A Colonel Cristóbal Vargas had taken up residence in Irvine " 'for the purpose of studying our information integrated economy. The Colonel, who is quite handsome and speaks excellent English . . .' " Lucas read it with a straight face. " '. . . is quoted as saying the total integration of the US economy will have a substantial impact on Argentina. He hopes to make that impact "as efficacious as possible." ' " The article continued with a vague description of the Colonel's future plans, including plans currently being negotiated to encourage Argentine investment. "This thing's about a year old, Harry."

"That's it? That's all there is?"

"It's not much, is it? If Silver River is this Vargas's investment plan, I'd say he's been a busy boy since last year."

"Thanks. We'll see what we can do about tennis next week."

I drove to Vargas's house. Talking to Freddie Lucas and driving used up most of the half hour. Driving, I began speculating about the Colonel. Unless you are constitutionally opposed to military coups, juntas, deprivation of civil liberties, and the institutionalization of poverty, the picture brought to mind by a Latin American army colonel should be fairly romantic, especially when a knowledgeable source has called him "quite handsome." My mind evoked a tall, mustachioed figure, its face hard but handsome, a predilection for thin cigars and beautiful women, a white veranda overlooking the pampas, a disposition that blended cynical realism and romantic idealism along with a capacity for both hard decisions and the grand gesture.

In fact, most colonels—Latin *or* North American—are middle-aged men with drinking problems, marital problems, and weight problems, men who made a strong, early showing as lieutenants and captains followed by a slump in mid-race. The exceptions become generals.

I arrived at Vargas's with a few minutes to spare in my half hour. The house, together with accompanying Mercedes turbine in the driveway, began to displace my imaginary Colonel Vargas with a real one. The wide, ranch-style house, probably built in the seventies and recently refurbished, displayed a trim lawn, neat flowerbeds and a massive clump of red bougainvillea threatening to take over one end of the roof. At the side of the house, a chain-link fence indicated a pool.

I went up on the porch and rang the bell. After several seconds, the woman I had talked to on the phone opened the door. She inspected my business card, frowning at it until I gave something like a translation, then led me down the hall and into a combination den and home office. Trailing her, watching her broad hips lurch under her black dress, I smelled liquor.

At the far end of the room, behind a massive mahogony desk and in front of a large picture window, sat Colonel Vargas, a close approximation of my imaginary Colonel Vargas, thin and—when he stood up and walked around the desk to shake my hand—tall.

An even row of white teeth smiled in his well-tanned face. I understood why the pots and pans reporter from Lucas's paper had been charmed. We shook hands. "Mr. Penny, what can I do for you?"

It's about the Silver River Development Company."

"Ah, yes. I imagine Mr. Sterling referred you to me." His gaze lingered on me a moment. Analyzing what he saw? Or trying to make me

feel a sense of personal intimacy? He turned away and went back to his desk, a desk—unlike the room—littered with open books of computer printouts. He sat casually on the edge of the desk, one leg dangling. "You have come at the right time. I have just returned from Buenos Aires. Ciudad de Plata is going well. We expect first stage completion within two years. May I offer you something?" He gestured toward a cabinet against the wall, evidently a bar.

I shook my head and sat in one of the chairs in front of the desk.

With his gesture, the woman's eyes flicked toward the cabinet and remained. Vargas noticed her glance. He frowned and nodded toward the door. "*Vete, María.*"

"*Tobal, por favor—*"

His frown deepened. "*María, si no te vayas—*"

"*Está bien, mi vida.*" She made calming motions with her hands, then gave me a self-conscious smile and waddled toward the door. "*Yo me voy, yo me voy.*"

Vargas watched her leave, waiting until the door closed completely before turning to me. "I am sorry about that, Mr. Penny. María has a drinking problem. Without constant supervision, she will drink herself into a stupor by ten o'clock in the morning. I disapprove of that sort of conduct."

"Why do you keep her on?"

He frowned slightly, either misunderstanding the idiom or the question. "Pardon me?"

"If she has a drinking problem, why don't you fire her?"

He looked at me a moment, still failing to understand, then got it and burst out laughing, his voice, when he spoke, loud and amused. "*Fire* her? *Hardly*, Mr. Penny. María is my wife. One does not, though the temptation is often strong, fire one's wife."

I made appropriately apologetic noises.

Vargas brushed them aside. "Do not concern yourself about it, Mr. Penny. That particular mistake has been made before. What can I help you with?"

"I'm trying to find out why Mrs. Frederick Crawley can't get back the one hundred and sixty dollars she invested in Silver River."

"Who?"

"Mrs. Frederick Crawley."

"I have never heard of her. What did Mr. Sterling say?" He glanced at the cabinet bar again. "Are you sure you would not like a drink?"

"Positive. Sterling referred me to you."

"Have you given up drinking?"

I had difficulty telling whether to take the question as a straight inquiry into my personal habits—in which case it was none of his business—or some sort of sarcastic nudge to get me to accept a drink—in which case his tact left something to be desired. "Only for this afternoon. Can we skip my personal habits?"

"Certainly. I am sorry if I offended you. It is a game I play, trying to

ascertain as much as I can about a person from the least amount of information."

"Are you frequently wrong with your little game? I mean, playing it with that little information, you must be wrong most of the time."

He smiled. "On the contrary, I am usually right. Take you, for example. You may or may not have a drinking problem. Attorneys often do. I dislike that sort of overindulgence." He glanced at the door. I dislike it intensely. But you do not strike me as having an indulgent personality, Mr. Penny." He looked me up and down—head motionless, eyes moving—an officer inspecting one of his troops. "You are more the type to be severe with yourself. I do not necessarily mean by that disciplined. I can tell little about your approach to work looking at you. But on moral and personal grounds, I should say you take your responsibilities seriously."

"One of my responsibilities is Mrs. Crawley's hundred and sixty dollars."

"Crawley! Crawley! Who *is* this person?"

Before I could tell him again—he had missed doggedness in his catalog of my virtues—he turned to the phone, touched it on and tapped out several numbers. A computer display appeared on the screen. "Ah, here it is."

"What?"

"Your Mrs. Crawley." He laughed. "Twenty shares. I can hardly believe that. She is the smallest shareholder in Silver River."

"She wants to be a non-shareholder in Silver River."

"That . . ." He touched the phone. The screen went blank. ". . . is impossible. Large or small shareholders, the agreement—"

"I know about the agreement. But one hundred and sixty dollars won't break Silver River."

"No, but it will set a precedent. Others, people with more substantial investments, might use it to withdraw their funds. We must treat all alike. All sides must abide by their contractual arrangements."

"Mr. Vargas, just what the hell is your connection with Silver River?"

"I am the Argentine liaison man. As such, I am second in command to Mr. Sterling."

"And are you actually a colonel, or some Argentine equivalent to a Kentucky Colonel?"

He smiled faintly, a cold, precise smile. "Now you are trying to play my little game, to guess as much about me as possible from, frankly, no information at all. I am afraid you are out of your depth, Mr. Penny. Yes, I am a colonel in the Argentine army. I am on educational leave to study your information-integrated economy." He gestured at the books of computer printouts on his desk. "It is the cross I must bear, this educational leave. I must spend most of my time wading through those books. The army approves my connection with Silver River because it

brings capital into the country. I approve it because I find the activity itself considerably more rewarding than thinking about computers and economics. I prefer to deal with human beings. Computers are so much less complex—and therefore less interesting—than human beings. Economics, on the other hand, though complex, is inherently dull, don't you agree?"

I mumbled something ambiguous.

"Good. Now that we have that settled, let us go on to this Mrs. Crawley's investment. When you discuss this matter with her, you may assure her that the money she has invested is perfectly safe. You may tell her that although my country has a higher percentage of poor, illiterate, occasionally disease-ridden and starving human beings than the United States . . ." During this clause, Vargas's voice took on a flavor of genuine emotion but quickly rebounded to its mock cheerfulness. ". . . foreign investment capital seldom falls into the hands of such people. She need not fear that her one hundred and sixty dollars will ever go toward alleviating poverty or disease or starvation. The government will protect Mrs. Crawley's one hundred and sixty dollars from any such abuse. Even with a computer system such as your Ecom, Mrs. Crawley's one hundred and sixty dollars would be safe. Computers, after all, suffer from the same failings, *and* ideologies, as their makers. She may sleep soundly, Mr. Penny, knowing her money—nay, even the very government of my country itself—is well guarded by the army to which I belong."

He lifted the dangling leg and grasped its knee with both hands, fingers laced, rocking back slightly on the desk and smiling benignly.

"You don't seem to like Ecom much."

"I have nothing against a computer designed to run an economy smoothly."

"But you don't think a similiar system would improve the quality of life in Argentina."

"Mr. Penny, army officers do not have opinions on such matters. We are well fed. We have our duty. Since the General came to power, we have been the undisputed masters of a happy land."

I began to like Colonel Vargas—not much, but some. "I take it the gist of all this is that Mrs. Crawley doesn't get her hundred and sixty bucks."

He said nothing.

I stood up, preparing to leave. I hesitated a moment, wondering whether to give it one last try. Behind Vargas, I could see the pool deck outside the picture window, along with part of the pool. Rain beat down on the deck and pool, pebbling the surface of the water. As I watched, a girl, naked and extremely attractive—straight brunette hair, a firm figure—crossed the pool deck, walking away from the window. She mounted the diving board and—after

two neat bounces—plunged, a graceful, almost professional-looking dive. I heard neither the board nor the splash.

Vargas noticed my glance and looked around at the window, now displaying only the tranquil pool deck and water. He looked back at me. "Was someone—?"

Tact overcame my curiosity. "No, I was just surprised to see it was raining so hard." I extended my hand and shook his. "I ought to tell you Mrs. Crawley will probably sue."

He smiled. "We have lawyers, Mr. Penny. I'm sure you can find your way out."

I could. In the hall, I found María Vargas waiting, probably for another glimpse of the liquor cabinet. She led me to the front door, still impressing me more as a maid or housekeeper than Vargas's wife. When she started to close the door after me, I rested my hand on it a moment and asked about the girl in the pool.

Her face clouded over. She glanced back into the house, indicating the door to Vargas's study.

"*Su puta.*" His whore.

She closed the door.

Head down, I made it to the car without too much rain damage. A clap of thunder rolled across the dark sky just as I closed the door, the opening rumble in what the weatherman promised would be three days of the same.

Somewhere between Vargas's front door and the car, I had decided to visit Sterling personally. I drove the short distance from Irvine to his office building thinking about Vargas. I decided to give him mixed reviews as a human being. Intelligent and obnoxious, he had still shown genuine feeling during his brief lapse into a political discussion. The idea of an army officer holding opinions contrary to those of the military junta he served struck me as less contradictory than a man with those opinions working in the number two spot of Sterling's company. For Vargas, the army may have been the only road to advancement. On the other hand, working for Sterling was completely a matter of choice.

I parked in a lot near Sterling's office and took the transparent elevator up the side of the building. Rain splotched on the glass around me, bubbled and ran. Through it, I admired the progressively better view of Newport Bay.

The elevator let me off in a reception area one floor below Sterling's penthouse office. The furniture—hard and plastic—stood out as bright spots of basic colors (red couch, blue chair, yellow table) on a furry white carpet. The white walls, reminding me of the Ecom construction pictures, were hung with holograms of Ciudad de Plata in various stages of development—ground breaking, foundation laying, rising structures.

I walked toward a purple reception desk, occupied by a girl intended to look as sleek and modern as the

furniture, as though she had only been activated on my appearance in the room.

She recognized me from my call to Sterling. "May I help you, Mr. Penny?"

"I'd like to see Sterling."

"Mr. Sterling isn't in just now. Do you have an—"

"When will he be in?"

"I really don't know. He doesn't deign to tell me such things."

Deign? A note of bitterness? A trace of humanity? "That must be inconvenient for you."

She shrugged. "I just work here."

"Can I catch him someplace, a restaurant or something?"

"Probably."

I waited, eyebrows raised, expecting more.

She noticed the expression, ignored it. "If you knew where to go."

"I could wait here."

She nodded agreement. "You could."

I shook my head. "But I wouldn't get to see him then, would I?"

"Frankly, Mr. Penny, if you wait here until hell freezes over I doubt you'll see him, especially if it's about Mrs. Crawley. And you can't catch him on the way in or out. He doesn't come through here. He uses the private elevator." She frowned slightly, an uncharacteristic-looking expression, though any expression but bland efficiency would have looked uncharacteristic. "The man's a ghost, Mr. Penny."

"I seem to be running into a lot of them today."

"I've been here three weeks and I've never laid eyes on him. He slips in and out on that private elevator and the only way I know whether he's in or out is by *that*." She indicated a light on the phone. "When he's out, it's out. But does he *once* . . ." She held up an elegant index finger, the nail a peculiar shade of vermilion. It clashed with the desk. ". . . *once* say hello, or good-bye, or thank you ma'am? Does he ever say anything like that to me personally, face to face?"

I took a guess. "No."

"You have your first correct answer. Would you like to try for your second?"

"What's the question?"

"When am I quitting this . . ." She gestured around at the red couch, blue chair and yellow table, fingernails flashing. ". . . show window?"

"Next week?"

"The week after. By then, I'll have enough money to blow this town and find someplace with a heart."

"Newport Beach doesn't have a heart?"

"Not that I've noticed."

I decided to help her find a town with a heart. I reached into my pants pocket, found my money clip and slipped out the top bill, palming it. I leaned on her desk, palms flat on the plastic. "You're absolutely sure you don't know where I can catch up with Sterling?"

I stood up, returning my hands to my pockets and ignoring the bill on the desk.

Her eyes never left mine. "I do seem to remember something about an appointment with his shrink, Dr. Fraser. On the other hand, he may have slipped out for a quickie. Her name's Karen Mathews. They're both in the book."

I thanked her and went back to the elevator. During the brief glimpse I got before the doors closed, I noticed the reception room had returned to unblemished perfection, solid receptionist composed and perfect, the purple desk cleared of any imperfect blotches of green.

On the ground floor, I found a public phone and checked the directory. Karen Mathews' address was on the way to the Las Pulgas Counseling Clinic, Dr. Fraser's address. I drove back to Balboa Island, stopped briefly at my office to check in, and took the car ferry across Newport Bay, watching the rain on the water and thinking. One thing kept sticking out of the pattern as inappropriate: Dr. Fraser's address. Everything else about Sterling smelled of money. Dr. Fraser's address, though only a few kilometers from Karen Mathews' expensive address, lacked the odor.

The ferry bumped into place on the opposite side of the bay, striped barrier already lifting out of the way. I drove the few short blocks to the first address and parked.

I was about to get out of the car when the front gate of the house opened and a woman—young and attractive, her hair in a scarf—came out, hurrying down the street toward a Mercedes. The Mercedes looked familiar. She looked familiar. Only when she had to cross the street to reach the car, putting her back directly to me, did I recognize her, or more exactly, her walk. I had seen her, though somewhat less fashionably attired, at Vargas's.

She vanished inside the Mercedes, started it, gunned the turbine once and pulled away from the curb, fishtailing slightly on the wet street. As she passed my car, oblivious to my presence, I got a quick clear view of her profile.

I got out of the car long enough to ring the doorbell twice and wait in the rain, then started for Dr. Fraser's clinic. The residential districts changed character, half million dollar homes giving way to the hundred thousand dollar variety, then condominiums, finally beach rentals with broken windows. I passed a gutted '79 Ford on a front lawn.

Dr. Fraser's clinic turned out to be a series of three store fronts flanked by a liquor store and a dope shop. I parked down the street, made sure the Hudson was locked, and walked back to the clinic. I had to try all three doors before one opened. Inside, a half dozen adolescents, all wearing more or less identical brands of eccentric clothing, watched me, suspicious. In tunic and topcoat, I must have looked like the police.

A short girl with acne and a sour

expression broke away from the group and approached me, asking what I wanted. I asked for Dr. Fraser. Dr. Fraser was with a patient. When would he be free? Ten of.

"I'll wait."

I waited. At ten of, a man in his late thirties opened a door from the working area of the clinic and looked out. The girl glanced from him to me. I smiled. He glanced at me. I smiled again. They held a short conference. He nodded and came across the room toward me.

He introduced himself and asked how he could help me.

"I'm trying to find Edward Sterling."

He frowned slightly. "I'm afraid I can't help you after all."

"He *is* a patient of yours?"

"Unless you are the police, I really can't discuss—"

"I'm not the police, but it is a legal matter."

"Have you tried this Sterling's office. I'm sure they—"

"I tried."

"Then—" He shrugged, giving me a helpless smile.

"Do you mind if I ask you a few questions about Sterling?"

"I haven't said I know him."

"General questions, nothing specific or confidential."

"Mr—?"

I hesitated a moment, then answered impulsively. "Nichols."

"Mr. Nichols, even if Mr. Sterling were my patient, I would mind talking about him. All information about the people I treat is confidential."

I looked around at the shabby waiting room. "Why does a high-roll financial type like Sterling come to a place like this to find a shrink?"

Dr. Fraser looked annoyed. "Patients have many reasons for choosing any particular doctor. Usually, it is a question of personal compatability."

I continued looking around the room, wondering how far I could push Dr. Fraser before he threw me out, wondering whether the effort would produce any useful information. "But *this* firetrap would put anyone off, especially someone with the money to pick and choose."

"Is that supposed to be a question, Mr. Nichols?"

I mustered the condescending smile I occasionally use during cross-examination. "Just an observation."

"We have certificates from the fire department."

"My observation was about Sterling, not your building."

"I'm aware of that. Now, if you'll excuse me—" He let the sentence die, hoping I would take the hint.

When I showed no inclination to do so, he nodded once and started for the front door. Out of the corner of my eye, I could see his young assistant watching us, though trying to look involved in the conversation with her friends. I waited until Dr. Fraser's hand reached the door and pushed it open. I raised my voice loud enough for the girl to hear.

"Thank you very much, Doctor. I *will* wait . . . " The door closed behind him. " . . . in your office."

I walked across the waiting room, hesitated long enough to ask the girl which office was Dr. Fraser's—"second on the left"—and went through the door to the rear of the clinic.

Dr. Fraser's office, comfortable and book-lined—the expected couch replaced by two face-to-face chairs—seemed almost inappropriate to the sparcely furnished clinic. The burgundy carpet, along with most of the furniture, looked new. A desk stood to one side next to a small filing cabinet. Since psychiatrists are reputed to have orderly minds, I tried the filing cabinet first.

Alphabetical. Very convenient. Sterling, E.W. I pulled the plastic card and looked around the room for a computer terminal, eventually turning it up under the center section of the desk. I had to remove a card from the slot to insert Sterling's. The holocube filled with preliminary data about Sterling. Age, 53. Tentative diagnosis: N/A.

N/A? Not applicable?

I touched the index plate, hoping to get more information. Instead, I got less. The file ceased to be in English. The cube filled with a three-dimensional structure that suggested an architect's model of a beehive, honey compartments filled with symbols and mathematical notation. The only English in the general vicinity, a label at the foot of the model, identified it as a "Preliminary Sketch."

I indexed again.

The model became more complex.

A half dozen times, I touched the index plate. Each time, the model—taking on complexity like a time-lapse hologram of cell division—became more intricate. If the Preliminary Sketch was cryptic, the completed Mona Lisa was enigmatic.

At that point, I heard the reception-area door open into the hall. I snatched out Sterling's card and picked up the other one, closed the desk top, then the file drawer. I put the cards in my pocket—and waited.

One, two, three seconds. Footsteps and voices outside the door, briefly louder, then receding down the hall.

Something like prudence began to take hold of me. I went back across the office and into the hall. Just inside the reception area, I encountered the girl.

I smiled. "The doctor was out."

Before she could respond, so was I.

On the way back to my own office, I stopped by Tyler Appleton's. Tyler, one of my better tennis partners, also one of my better expert witnesses, also one of the better psychiatrists in Newport Beach, needed a little arm-twisting and cajoling before he would look at the cards. I listened sympathetically, nodding occasionally. Finally, I had to remind him

how much money he made being a psychiatric witness for me.

Once he actually got Sterling's card set up in his computer, he lost all interest in me and stared at the resulting beehive model, a large smile of genuine pleasure on his face, mumbling something about a "psychometric computer model along the lines of Nastassya Rogozhin's work—but *better*, Harry, *much* better."

He indexed through the complicated structures and asked for the second card. I gave it to him. He inserted it and nodded as soon as the image—another complicated jumble of mathematics and symbols—came on the screen. "That's more like it. This is a normal Rogozhin model of a manic-depressive personality. *This* I can understand."

"What's the matter with with the first guy?"

He looked up at me. "It's too complicated, Harry. I'd have to study the model."

"If I leave it, can you spend a little time on it?"

"Harry, you know better than that. Time is the one thing I don't have, except in fifty minute chunks."

I started to say I might be in the market for a few chunks.

Tyler anticipated me. "And they're all booked until the middle of next month. I squeezed you in today—"

I nodded toward the card. "Squeeze that in. It's important, Tyler."

He looked at the card, looked at me, sighed once and nodded. "Okay, now get out of here. I've got a patient due in two minutes."

I left. In the outer office, I used the phone and called Freddie Lucas again. He seemed happy enough to hear from me twice in one day. I asked him to use some of his numerous and well-known connections, i.e., principally the connection on his end of the Associated Press teletype, to contact Buenos Aires and find out if they knew anything about Colonel Cristóbal Vargas. After a promise his paper would get anything newsworthy that came out of the information— "and get it *first*, Harry"—he agreed.

I drove back to my office mulling over the day's events. Though sufficiently interesting in themselves, they had accomplished very little. Sterling and/or Vargas seemed disinclined to cough up Mrs. Crawley's hundred and sixty dollars. I disliked the idea of actually suing. In spite of Mrs. Crawley's willingness—actually, her eagerness—to sue, I felt something like a pang of conscience at spending several thousand dollars to recover one hundred and sixty.

I pulled in behind my office and parked, glancing at my watch. After five. Everyone had gone home. I let myself in and checked for messages. I had one, handwritten, a note from my elusive partner Bud, his one word conclusion after a review of the two calls on my phonetape.

*Harry, Ponzi? Love, Bud*

Ponzi? Who the hell was Ponzi? I

touched on the phone, tried Bud's home number, his latest paramour's number, the Balboa Bay Club, the Newport Tennis Club. Finally, having run out of ideas on where to find Bud, I called Sharon, my secretary.

She looked surprised to see me. "Mr. Penny, did I leave something out of order?"

"Who's Ponzi?"

She looked blank.

I held up Bud's note.

"Oh, that. I don't have the faintest idea what that's all about. He came in about three, took your phonedisk into his office, listened to it and came out with that note. He had a funny look on his face."

"A funny look."

"Sort of self-satisfied, as though he had picked up something you missed."

"I know the look. Go on."

"That's it. I asked him about the note, if that was all he wanted to tell you. He just looked at me with that silly expression on his face, said 'Ponzi' and left."

"Thank you, Sharon. Sorry to bother you at home."

I hung up and pondered Ponzi. Bud, though he occasionally goes in for the type of "silly expression" Sharon described, seldom goes in for writing meaningless notes. Somewhere in the back of my mind, the name rang a faint bell, too faint to hear distinctly.

At that point, I decided my day's work was done. I locked the office and drove to my apartment. Even during the short drive, the rain came in patches, here heavy, there light, plinking off the roof of the Hudson. From time to time, during the heavier bursts, a drop or two got through the static wipers and splotched against the windshield.

By the time I parked in my carport and started upstairs, I was already looking forward to a quiet evening at home, rain outside, me inside, the world safe for democracy. I unlocked the front door and pocketed my keys. I started to turn the knob. If I had been less relaxed and grabbed the knob with determination, I might have lost several fingers. The knob jumped out of my hand as though it were greased.

In the open doorway, a man loomed, his face reminding me of one of the disgruntled husbands who occasionally come into the office looking for Bud. Looming, he snarled, then spoke. "Get in here, Penny."

I hesitated.

A large hand shot out, grabbed a wad of my jacket and jerked me inside. I spun, stumbled and fell, landing—painfully—on my shoulder. I barely kept the wind from being knocked out of me.

The man stood at my feet, still looming, and kicked lightly at the sole of my shoe. "Get up."

I remained motionless.

He started to kick me in earnest.

Another man, smaller (actually, closer to my size, but smaller by

comparison to the oaf above me) stepped around the bulk of the first man and patted him on the shoulder, calming him. The smaller man looked down at me, his expression thoughtful, considering me.

Finally, he hunkered beside me. "Mr. Penny, my name is Kerrigan." He reached into his tunic and pulled out an I.D. card, holding it almost too close to my face to read. I moved my head back slightly, looking at a bad hologram of Kerrigan's face, a thumbprint, a border of tape for voiceprint: Phillip Kerrigan, Silver River Development Company, security section.

The card disappeared, reinserted in the tunic. He looked at me a moment, letting the information register. "You have something that belongs to us. Give it to us and we'll leave immediately."

"I don't have the vaguest idea what you're—"

"Alex will refresh your memory."

Above me, Alex remained stone-faced.

I looked at Kerrigan. "I understand there are laws against assault and battery, not to mention burglary."

"Sue us tomorrow, Mr. Penny. Tonight, give us the card."

"What card?"

Kerrigan shook his head, mock pity on his face. He stood up. "Alex."

"*Wait* a minute, Kerrigan. *What* card? I really don't know what you're talking about."

Kerrigan looked down at me. "The card you took from Dr. Fraser."

"Who?"

Kerrigan heaved a sigh, this time his face showing mock exasperation. "Alex."

Before I could say anything, Alex kicked me, a sharp and painful kick in the ribs.

Kerrigan stood next to Alex, waiting for me to recover my memory. "Mr. Penny, we're extremely sorry you tripped coming into your apartment. At the moment, it's difficult to tell how severely you hurt yourself. You do live in something of a . . ." He gestured around at the room, indicating the canned goods and boxes heaped on the kitchen counter, piles of coffee and sugar on the kitchen floor, open cabinets, dumped drawers, the living room couch and chairs without cushions, the cushions unzipped and the stuffing jerked out. ". . . pig sty. We hope you won't trip again. Do you understand?"

When I failed to respond, he went on. "Now, why don't you get up—carefully—find someplace to sit and talk to us?"

"Why don't you get the fuck out of my apartment?"

"Be reasonable, Mr. Penny. We're just doing our job."

"And loving it."

"Where's the card?"

"Sue me for it."

"We're not going to do that, Mr. Penny. We're going to get it now. That's all there is to it. Where is the card?"

I considered telling them. Their most persuasive argument, Alex, looked as though he would enjoy taking out a few of my teeth. I would find the experience somewhat less than enjoyable. Still, anything they—or Sterling—wanted that badly carried an added, sentimental value for me. I found myself reluctant to part with it. "Okay, they're somewhere between my office and Dr. Fraser's clinic."

"There was more than one card?"

"Two. I mailed them back. One was for Sterling and one was for someone else. I picked the second one up by accident. I took both of them back to my office. I couldn't make heads or tails out of either one. I expected a file in English. All I got was math and symbols. I mailed them back."

"You mailed them. I find that highly unlikely."

So did I. I had hoped giving him enough detail, especially the unexpected one about the second card, would add verisimilitude to my story. In court, detailed accounts are usually the most convincing.

I sat up slightly. "Look, Kerrigan, I'm not a thief. I just wanted a look at Fraser's file on Sterling. I didn't have time at the clinic. I took the cards with me. When I did look at them, I couldn't make sense of them. I decided I'd made a mistake. At the same time, I realized the cards were Fraser's working tools. If someone broke into my office and stole any of my files, I'd be lost on those cases for a month. I did consider throwing the cards away. Then I decided no, Fraser might be able to use them to help someone. I know that's it. I wiped the cards off, dropped them in a plain envelope and set them to Fraser."

He continued looking at me, again thoughtful. "It sounds barely possible."

"It's what happened."

"You mailed them this evening."

"Yes."

"They should arrive the day after tomorrow."

"Or the day after that."

"You better hope it's the day after tomorrow."

He nodded to Alex, who looked faintly disappointed, and led the way out the front door.

I got up, wincing once at the pain in my side. After a brief call to Lieutenant Van Ess at the Newport Beach Police Department, along with an explanation of what happened—I soft-pedaled what they were after, saying they wanted some evidence I had collected for a current case—I went into the bathroom and stared at the darkening bruise on my ribs, probing it here and there, testing for broken bones. Satisfied I would live, I went back into the front room and started to clean up.

I moved the rubble around some, trying to bring order out of the chaos, restuffing cushions, refilling drawers, restocking shelves. They had done a

thorough job. I was well into filling a desk drawer with objects I only vaguely remembered owning when the doorbell rang.

I slid the drawer into place and went to the door. I expected the landlord with a complaint, politely ready to inquire whether I intended to continue my karate practice, or some other thumping activity, all evening. Instead, Karen Mathews—looking, frankly, beautiful—smiled at me.

"My name is Karen Mathews, Mr. Penny. I have a matter of some concern to both of us that I would like to discuss with you. May I come in?"

I started to say she could, but she did, so I didn't. She had on a pair of tan pants, wide-legged with piratical-looking serrations around the cuffs—fashionable, expensive. The tight knit blouse went well with them. She paused just inside the doorway, looking around at the demolition zone.

"What happened?"

"Happened?"

"This place is a mess, Mr. Penny."

"You know how it is when you're a bachelor. Have a seat." I looked around. "If you can find one."

She found one, replacing one of the recently restuffed cushions on the couch and sitting down. "Seriously, Mr. Penny, what happened?"

I started toward the kitchen area. "I had a visit from two of your boyfriend's security people."

A noticeable silence responded from the area of the couch.

I held up a glass and bottle. "Drink?"

"Scotch." The discussion of drinks had given her time to think. "I'm glad you know who I am, Mr. Penny, but I find it difficult to believe that any of Edward's people would do anything . . ." She looked around at the room. ". . . like this."

"You should have seen it before I cleaned up." I took our drinks back to the couch, put them on the coffee table, found another cushion and installed myself at the opposite end of the couch, the missing cushion between us giving the effect of sitting in separate chairs. "What can I do for you?"

She looked at me a moment, a quiet, evaluating stare. She picked up her drink and sampled it, still watching me. "I am going to tell you something, Mr. Penny. I don't know whether I should. I have looked into your background somewhat. You are considered a reputable, honest, and competent attorney."

"That's good to hear."

"You're being facetious. I'm perfectly serious. I may need an attorney myself. Perhaps you can represent me, or at least recommend someone."

"Tell me about it."

"Will this be totally confidential?"

I nodded and told her, briefly, about the legal sanctions restraining attorneys from revealing communi-

cations with clients or potential clients.

The explanation seemed to satisfy her. "Mr. Penny, how would you react if I told you I do not believe Ciudad de Plata exists."

I tried not to react at all. "I've seen a satellite relay of the work in progress."

"Did you find it convincing?"

"Yes." I hesitated. "That doesn't mean I was convinced. If I didn't see a live relay, what did I see? A tape?"

She nodded. "Yes."

"Why did the computer think—sorry, I mean, say . . . I've already had one debate about that thinking business today. Why did it say I was getting a live picture?"

"It has been tampered with. Edward rents time on Ecom's computer. It gives him limited access. He has some very expensive technical talent working for him. Many of them were involved in Ecom's design. I believe he has somehow evaded the safeguards against unauthorized information retrieval and programmed in his own material."

I thought about that a moment. Aside from raising the worst horrors suggested by Ecom's political opponents—horrors we had all been assured would never occur because of the built-in safeguards—the allegation raised more questions about the immediate situation than it answered. I thought about them a while and picked out the most important one. "Why?"

"Tell me something about your client—Mrs. Crawley, isn't that her name? Edward mentioned her, but said nothing more about her. I have never met her. You have to believe that."

I nodded. "Go on."

"Is she rich?"

"Very."

"And a widow, or at least someone whose spouse made the money and died during the last ten years. She may have remarried."

"She hasn't."

"Did her husband make some of his money by investing in Edward's mutual fund ten years ago?"

"Yes."

"Then she fits the pattern."

So, I recalled, did Ernie Church, whose late wife had left him her fortune. But why the pattern at all? I asked her.

"I want you to realize I'm just speculating, Mr. Penny. I've pieced this together from various sources. I met some of the investors. They all have a story something like Mrs. Crawley's—all have inherited fortunes, all invested in Edward's earlier ventures through their spouses. Once I realized the connection, I began listening to the business conversations around me, even to bits of Edward's phone conversations. This is the most difficult part, Mr. Penny, at least for me. I was extremely reluctant to think Edward would do anything like it. In many ways, he is an admirable man."

I glanced at an expensive diamond

ring on her right hand. "And rich."

"I was referring to his personal qualities. He is intelligent, ambitious, hardworking. He is also—qualities more important from my point of view—sensitive and considerate, surprisingly so for a man who has worked all his life in a cutthroat profession."

"And rich."

"That is just the point, Mr. Penny. He's *not* rich. He made millions—literally, millions—for those people, but not for himself. When he retired ten years ago, he thought he had enough to live on. He was wrong. It was his own fault. He can't see that. He believes the people whose fortunes he made are responsible for his position. They used him and cast him aside. Over the years, the thought has obsessed him. They were rich and he was, relatively speaking, poor. I believe this entire scheme is Edward's method of getting revenge. I believe he is in the process of committing a gigantic fraud."

Everything fit, either directly or metaphorically. Even Bud's note, cryptic and self-satisfied, fit. Its single word—Ponzi—should have ticked off an appropriate response in me. We had both studied the case in law school. Bud remembered it. Ponzi, a Wall Street speculator prior to the 1929 crash, had convinced a substantial number of investors to put down large amounts of money on some speculative scheme or another. He promised high returns. The initial investors got high returns, paid off with the money from later investments. Like Ernie Church, the first investors considered it the best place they had ever put their money. Once word got around, everyone wanted in. Ponzi, preparing to skip town with his bag full of money, had been caught. Aside from his prison sentence, all he got was a swindle named after him, one Sterling was using very effectively against the fortunes he thought should be his.

Anyone with the kind of mental problems Sterling evidently had—if he was as intelligent as Karen Mathews claimed—would see a shrink. The choice of Dr. Fraser, who worked in the most poverty-stricken area of the city, would fit with his image of himself as impoverished. As Dr. Fraser had said, the patient chooses the doctor with whom he feels compatable. The choice would also insure the least possible connection between Sterling's psychiatrist and the world of the rich where Sterling functioned, an added security measure against an inadvertent slip of the tongue.

When Sterling discovered that someone—a quick check with Vargas and his own receptionist, plus a little thought, would probably turn up the only candidate—had made off with the computer model of his psychological profile, he panicked and sent out the goon squad, Kerrigan and Alex. He would not want a clever lawyer getting too clear a picture of the inside of his head. One could never tell what clever lawyers would

do with such information.

I sipped my drink and looked at Karen Mathews. Looking at her—sleek, sophisticated, beautiful—I reflected on the compensations of Sterling's brand of multimillion dollar poverty, even if the multimillions were other people's money. "Why do you think you need a lawyer?"

"I don't know that I do. I'm involved with Edward. I've helped him with some of the investors. I just want to be sure my position is clear to the authorities." She leaned forward, expression intense. "It's a house of cards, Mr. Penny. I don't want to be there when it all falls down."

"What about Sterling himself?"

"Edward will no doubt get along without me. As I said, he is intelligent and charming, but—"

"Not rich."

She lowered her eyes momentarily, then raised them to give me a level stare. "Do you find that so reprehensible a motive, Mr. Penny? Most people only do what they do in the world for money. What sort of motive would you prefer?"

"Personal loyalty, love, something like that. But . . ." I shrugged. ". . . I take what I can get."

She started to say something, either further explanation or defense.

I cut her off. "Okay, I'll tell you what I'll do. I do have a client already in this Silver River business, Mrs. Crawley. At the moment, I can't see how any criminal charges anyone might try to bring against you would conflict with her interests. I don't want to accept you as a client until I have a clear view of the entire situation. But I will keep my eyes open. If it starts to look like you might need a lawyer, I'll let you know immediately and give you a list of several good people in the area—unless I can handle it myself, of course. How's that?"

She nodded. "Fine."

We sat for a minute or two, finishing our drinks, the silence, after our extensive conversation, noticeable. At last, she placed her glass on the table, its thick base clicking against the wood. "I have one other request, Mr. Penny."

"Harry. If you're a potential client, it's Harry."

"I'm afraid of Edward." She glanced around at the littered room. "Especially after what I've seen here. I want to stay here tonight. Tomorrow, I'll find someplace else. But tonight, I don't want to go back."

"That will probably make him suspicious."

"He's already suspicious. I haven't been exactly silent about my own observations. Additionally, since those men of his were just here, no one will think to look for me in your apartment."

"All right. Help me clean this place up. You can have the bedroom. I'll take the couch."

"That's very kind of you, but I would feel better about it if I took the couch. I'm the one imposing."

I smiled. "It's your back."

We cleaned up most of the mess. She had planned to stay either with me or somewhere other than the house on the Balboa Peninsula. She had an overnight bag in the car. She got it and parked the car several blocks away. Most of the evening was spent preparing and eating dinner, then lingering over it and talking. Some of her formal manner disappeared in the course of our conversation. Occasionally, I glimpsed the girl beneath the chic woman, a girl sufficiently lonely and sufficiently alienated and sufficiently out of touch with herself to be considered modern. I liked the few glimpses I got better than the perfect facade of the competent young woman. They gave her more depth than my initial impression.

Slightly after ten, we made up the couch and chain-locked the door. Feeling vaguely guilty about leaving my guest on the couch while I took the bed, I went into the bedroom about ten-thirty. My guilt, like most of my other thoughts about Karen Mathews, proved inappropriate. Somewhere past eleven, I heard the bedroom door open. She came across the room and got in bed, quietly, without speaking.

The phone woke me the next morning, loud and insistent. I glanced over at Karen—still sleeping beside me, the sheets crossing her back at the base of her spine—and threw back the covers. I got to the phone on the second or third ring, alert enough to hit the blackout button before I answered.

Freddie Lucas came on the screen. "Harry? Is that you?"

"You've got something for me from Buenos Aires."

"They knew a lot more about Vargas than I expected."

"Hold it a second." I reached over and closed the bedroom door. "Okay, shoot."

According to Lucas's Associated Press friends, Vargas was officially in the United States studying Ecom. Since the army ran almost everything in Argentina, sending a technically trained army officer fit. Rumor said the particular army officer chosen had less to do with his technical background than his politics. Vargas was vaguely implicated with an outlawed left-wing organization. No one had pinned anything definite on him, but the Ecom assignment was said by some people to be a way to exile Vargas temporarily.

"Any of that make sense, Harry?"

"So far, so good. But why exile and not just a bullet in the head or a cell someplace?"

"His wife."

María Teressa Vargas y Gómez-Sulivan was the daughter of Raul Gómez-Sulivan. Raul Gómez-Sulivan, inheriting from both sides of the family, owned banks, factories and cattle. "*And* he's apparently half-crazy."

"What do you mean?"

"He owns half of Argentina but he wants to give it away. He's bankrolled—unofficially, of course—more left-wing causes than there are Argentinians. He's written a biography, privately published, of St. Simon, the nineteenth century French aristocrat socialist."

" 'Arise, Monsieur le compte, you have great things to do in the world.' St. Simon's valet used to wake him up with that every morning. What else do you have?"

"One of the great things Señor Gómez-Sulivan does is hedge against the future, or, if you like, play both ends against the middle, or maybe keep one foot in each camp is a better description. He does it by not giving too much money to the left. He usually just bankrolls projects designed to let them get more money from other sources, like expropriations from government payrolls or bank robberies."

"Other people's banks."

"Naturally. He also has pull with the government. That's what keeps his son-in-law out of the calaboose."

"What else do you have on Vargas?"

Vargas had done advanced computer work in Argentina, principally on American-made hardware. He held an M.A. from Cal-Tech in mathematics. He had completed his Ph.D. course-work but failed to finish his dissertation within the time limit due to his military duties in Argentina. He had worked at the *Instituto de Computadoras Avanzadas* in Buenos Aires, a center for development of an Argentine equivalent to Ecom.

"That's it, Harry. Any of it help?"

"I don't know yet. Maybe."

"What's going on?"

"I told you, if there's news in it, you'll be the first to know." I thanked him and hung up.

Karen—still looking sleek and beautiful, even in the morning—came out of the bedroom wearing one of my shirts. She started for the kitchen area, evidently looking for coffee. When she found none, she got out the instant, remembering its location from our cleanup session the previous evening, dropped two tablets into two cups and started heating water.

I went back to the bedroom, showered, dressed and came out for my coffee, Folgers, not Maragogipe. Sipping it, I asked her what she knew about Vargas.

"Quite a lot. I'm on very good terms with him. I use his pool. The place Edward bought me doesn't have one. Swimming is extremely good for . . ." She glanced down at the baggy shirt. ". . . the figure."

I remembered a comment of María Vargas's. "Have you ever slept with him?"

The question caught her off guard. I only noticed by the effort she made to keep it from showing. "First of all—and I want this straight from the beginning—"

"Are we beginning something?"

"I don't know. Maybe. It depends. But I want one thing straight. Who I sleep with and who I don't is none of your business. Secondly, as a matter of principle, I try not to sleep with more than one man at a time. Until now, that man has been Edward. Now it's you."

"Why me?"

"I like you."

"I don't get that from your tone of voice."

"I just want things straight between us. One at a time. Life's simpler that way. Today, it's you. Tomorrow—"

"The world."

"If you keep talking that way, at least it won't be you."

"Our first fight."

"Jesus, you're sarcastic."

"That's what my first wife used to say."

"She was right."

"Probably. How did we get on this subject anyway? I just wanted to find out what you knew about Vargas."

She remained quiet a few moments, calming herself, recovering from our lovers' spat, or, possibly, from her evasion of my initial question about her relationship with Vargas. "I don't believe Christopher is aware of what Edward is doing, if that's what you mean."

"Actually, I wanted to know what you thought of Vargas personally."

She sipped her coffee, looking at me a moment over the rim, then lowered the cup, holding it with both hands. "Christopher is an interesting man."

"That's all, interesting?"

"He was born in the *barrio popular* of Buenos Aires. I'm sure it is difficult to make yourself into the kind of man Christopher is with those sorts of origins. He speaks of it with considerable passion, the poverty and death. It has marked him for life. Unfortunately, he finds me unsympathetic on the point. Don't misunderstand me. I do appreciate what he has done with himself. I respect both his feelings for his people and his sense of personal mission. I simply do not share them. He is a man with a cause. I am a selfish person. I can no more help my nature than Christopher can help his. I am utterly incapable of Christopher's selflessness, his commitment to an abstract idea. I *am* capable of personal commitments." She paused a moment, letting the idea sink in. "Christopher says that is shallow. People come and go. Only ideals remain. He is passionate about them."

"But you prefer us Caspar Milquetoasts."

"On the contrary, only passionate men are interesting. For all your air of off-handedness and cynicism, you are one of them. I don't mean in bed, though you were satisfactory there."

"I'm glad to hear it."

She ignored the comment. "But each of us is different. Our passions are different. I don't think I can adequately characterize yours yet."

"When you find out, let me know. What else do you know about Vargas?"

She told me about Vargas's early life in the Buenos Aires slums, his climb up the military ladder to political influence, his growing dissatisfactions with the present military junta and the General.

I listened patiently. None of it was new. Finally, she shrugged and smiled, having run out of material. "Is any of this relevant, as you lawyers say, to anything?"

"Who knows?" I started for the door. "You can find breakfast around here someplace. I'll be back about five."

"Harry."

I stopped.

She followed me into the living room, stopping in front of me and putting her arms around my neck. "Where are you going?"

"I do have a law practice to run."

"To*day?*"

"Is it a holiday?"

"Make it one. It's *your* law practice. Can't you make up holidays when you want them?"

"I have a partner who does that already. We can't both do it."

She pressed herself against me. "Can't you make *one* exception?"

"That's how Bud started. I really do have to go."

"Do you *want* to go?"

"No."

"Then stay. At least this morning. Men are sexier in the morning. This afternoon you can go off to your stuffy office and catch up."

"Karen, I'd like to, but I can't. I have clients. I'm responsible to them. I'll call you later."

Something changed in her face, her expression going from serious and seductive to a broad smile. "That's *it*, isn't it?"

"What's it?"

"That's your passion, Harry Penny, being responsible." She laughed, a laugh of genuine amusement at what she evidently considered her unexpected insight into my character, or, possibly, at anything like responsibility being a passion. She gave me a little girl expression, chin lowered, looking up at me and smiling, probably trying to soften the effect of her next remark. "That's very bourgeois, Harry."

"I didn't think it had anything to do with being bourgeois. I just thought it had to do with giving your word and doing what you say you'll do and that sort of thing."

She ran the tip of one finger across my lips, looking at my mouth. "And what *do* you say you're going to do, Harry?"

"Be back here about five o'clock."

After several more attempts—all of them flattering—to keep me at the apartment, Karen finally let me go. I got the Hudson out of the carport and drove around my neighborhood until I found Karen's Mercedes. The

rain had stopped temporarily, leaving the day overcast and the streets slick.

I had no idea whether Karen would recognize my Hudson. I found out quickly enough. I parked several cars behind the Mercedes and waited. She changed clothes and came out quicker than I had expected. I saw her first in the rearview mirror. She walked up the street and passed the Hudson without a glance. She got into the Mercedes and pulled away from the curb. I followed at a respectable distance. A green Hudson Hummer, probably the only survivor of the manufacturer's brief attempt to remarket the car, is something less than an anonymous vehicle. Once I realized her probable destination, I took parallel streets. She pulled into the parking garage below Sterling's building fifteen minutes later.

I waited a few minutes to make sure she intended to stay, then started for Irvine. After a five minute drive, I turned onto Vargas's street. Even from the corner, I could see the moving van in front of the house, María Vargas on the lawn watching two men transfer an expensive table from the house to the van.

I parked in front of the van and got out. As I crossed the lawn, María recognized me. I asked if her husband was home.

No, he had gone to his office at Silver River.

I glanced at the two movers, now returning to the house, and asked whether she and Vargas were planning a trip.

Anger flushed her face. She answered in rapid Spanish, somewhat beyond my night-school level. I asked her to repeat—slowly.

She did, the carefully pronounced words mixed with the smell of alcohol. Vargas had ordered her to prepare for a trip to Buenos Aires. She was incensed. When she told her father what Vargas had done—". . . *cuando mi papá oye lo que pasó con ese . . . . . ese mierdo seco . . .*"—he would refuse to give Vargas one more peso. It would be Vargas himself who would pay—and pay dearly—if he tried to divorce her and marry his "*puta.*"

I asked if she was sure Vargas planned to divorce her.

She looked at me, wide-eyed and incredulous, the alcohol making her overreact. "*¿Seguro? ¡De veras! Yo lo sé.*" She patted her broad bosom with an open hand. "*Yo lo sé en el corazón.*"

Other than knowing it in her heart, did she have any more reliable source for the information.

"*Sí, su puta me dijo.*" Yes, his whore told me.

I thanked her and asked if I could use the phone.

She said I could burn the house down for all she cared. After noon, when her plane left for Buenos Aires, she would be responsible for nothing in *that man's* house.

I went into the house and down the hall to Vargas's study. I called my

apartment first, let it ring until I was sure no one would answer, then called Tyler Appleton. His receptionist gave me a hard time about Tyler being with a patient. I told her it was important. She said she would interrupt at the first convenient opportunity. She stressed the word convenient. Would I hold?

I would.

Holding, I sat behind Vargas's desk and surveyed his office. It looked undisturbed by María Vargas's efforts at moving. One of Vargas's bound computer printout volumes rested on the desk in front of me. Idly, I opened it.

Unlike usual computer printouts, written in some intelligible language, the book seemed composed largely of symbols and mathematics. I leafed through the pages, trying to make heads or tails of the symbols. Gradually, after turning ten or fifteen pages, I did begin to notice a pattern. If I had simply studied one page, I would probably have missed the connection. Looking at one page after another, each only minutely different than the last, I was struck by their similarity to Dr. Fraser's computer model of Sterling's psychological profile. Each page could correspond to one of the honeycomb information spaces on the card.

Tyler came on the screen. "Okay, Harry, what's the emergency?"

"Have you looked at that card I left with you?"

"Harry, you just left the damn thing yesterday."

"And? Did you look at it?"

"Yes, I looked at it. I spent half the night with it. Can't this wait, Harry? I do have patients during office hours."

"What do you make of it?"

"It's utterly fascinating, Harry. I've never seen anything like it. The detail—it's incredible. If you tried to print out all that information in linear form, you'd have paper from here to the moon."

I turned the phone around and showed him Vargas's thick printout book. "This much paper?"

"More."

I looked around the room, my eyes stopping on a bookshelf near the desk. "How about five more this size?"

"I really couldn't guess, Harry. You'd have to ask someone with more of a background in computers. The point is the quality of the work. The man behind it is first-rate."

I asked whether Dr. Fraser were capable of doing it.

"I know him, Harry. He *is* capable. We consult occasionally on cases. Usually, he's in here dunning me for money to keep the doors of his clinic open. He hasn't been around recently."

"Is he capable of *this work*?"

Tyler looked dubious. "Maybe, if he had a good reason."

"Money?"

"Not for himself. Maybe for the clinic."

"Okay, what about the profile itself. Tell me about the man."

"First of all, Harry, you have to understand one thing. I can't say the man matches the profile. I didn't do the workup. All I can tell you about is a hypothetical man, what someone would be like who did match the profile."

"Tell me about the hypothetical man."

He told me, almost in more detail than I wanted, though—like the Ecom computer that deluged me with detail and kept calling it an "overview"—he claimed to be summarizing. Gradually, a picture began to emerge of a sane and balanced personality, or, more accurately, someone I would trust with a large amount of money, someone who seemed responsible.

I asked whether this hypothetical man would be capable of resentment.

"Everyone's capable of resentment, Harry, even psychiatrists taken away from their patients."

"Just a few more questions and I'll let you go." I outlined Karen Mathew's picture of Sterling—bitter hatred of those he believed had taken what was rightfully his, a hatred smoldering for ten years and erupting in a gigantic swindle. I asked if it fit the profile.

"I can imagine someone acting out their resentment that way, Harry. I've had patients in the same boat. But not this one. He's stable. He's like one of those plastic skeletons in med school. It's a perfect depiction of the human skeleton but it isn't like any particular person's skeleton—if you follow me."

"It's idealized."

"That's it."

"Could the profile be just that, a model and not any particular person?"

He shook his head slightly. "I don't know. Maybe. Who's this guy supposed to be, Harry?"

"I think he's the fall guy. Bill my office, will you, Tyler?"

I hung up.

I called consolidated reservations for Orange County International, identifying myself to their computer and asking to speak to a supervisor. A woman with frizzy red hair came on the screen. I told her what I wanted. Initially, she balked at releasing any information concerning departing passengers.

Finally, when I showed her my state bar card and intimated the matter had quasi-official overtones, she relented, impressed either with my authoritative manner or the quasi-official overtones. "Mr. and Mrs. Vargas are booked on separate flights for Buenos Aires. Mr. Vargas's flight—United's 602—will be leaving at eleven a.m."

I glanced at my watch. 10:25. "Can you do something to stop the flight, or at least stop Vargas from boarding?"

"I'm sorry, sir, no. Not without direct orders from the proper authorities."

I thanked her and hung up. I had too little time for both Silver River's

offices and the airport. I punched out Silver River's number.

The bribee from my earlier visit to the office answered, smiling when she recognized me. I asked for Vargas. She said Vargas had arrived early, worked diligently all morning and left several minutes before my call.

"What about Karen Mathews?"

"She's with Mr. Sterling just now. Shall I ring her?"

"Please."

She rang the office. After a short conversation, she touched a key and Karen's face came on the screen.

"*Harry*, how did you know—"

"I followed you."

She started to become indignant.

"Forget about that right now, Karen. I've got something more important." I took a deep breath, preparing to climb further out on the limb. If my guesses—all of them made without adequate time for careful analysis—proved wrong, I would look extremely foolish. But, then, I had looked foolish before. It hurt very little. "Are you going to Buenos Aires with Vargas?"

Her usual composure vanished. Color drained from her face. "What did, eh, what did you say, Harry?"

"Vargas is leaving for Buenos Aires at eleven o'clock. Are you invited?"

"Eleven—where did you hear—"

"You do love him, don't you?"

Still stunned, she failed to answer.

"Karen, he's not going to divorce his wife. I know you want him to. He may even have said he was going to. Is that the picture he painted, the two of you with a pile of money living happily ever after? Think about it. That's what *you* want, Karen. It isn't what Vargas wants. You said it yourself. It's what attracted you to him in the first place. But think about it. His whole life has been spent trying to change conditions for his people. Now he has the money to do it. He's not going off to the Riviera and soak up the sun in a love nest."

She winced slightly at the description, but said nothing.

"He's not going to divorce María—no matter what you think of her—because he needs her. Right now, she's the reason he's walking around free instead of rotting in one of the General's jails. Her father's influence has kept Vargas in the action. If I had to guess, I'd say her father provided the seed money for Silver River. There are enough people who blame us for Latin American conditions that the idea of financing an Argentine revolution with money from the American rich might look attractive. Vargas *needs* her, Karen. He doesn't need you anymore. Why did he need you in the first place? To help out with reluctant investors like you helped out with me last night? As soon as he knew Sterling's card was missing from Fraser's office and that his goon squad couldn't recover it, did he send you to delay me at least until noon today? You tried this morning. I almost stayed. Karen?"

Her face had gradually lost its

stunned quality, looking instead as though she were in extreme physical pain. She gazed past the camera, head shaking slowly. "The things I did for him, Harry. The things I did."

"Or for yourself. But right now, I don't want you to do anything. Just stay there. Don't—"

She looked at me, the pain and shock gone from her face. "Thank you for telling me, Harry. I still have a little time."

She hung up.

I called back, glancing at my watch again. 10:35.

It took about a minute for the receptionist, evidently away from the phone, to answer. "You again."

"Me again. I was talking to Karen Mathews. I was cut off."

"I'm sorry, Mr. Penny, Ms. Mathews has just left."

"Damn it. All right." I thought a moment. Karen could only be going one place, the airport. If we left at the same time, I would theoretically arrive slightly ahead of her. The close question was whether either of us would arrive before Vargas left.

I thought about my alternatives. My speculations, bizarre and as yet unsupported by hard evidence, would be insufficient to let the police get out a warrant on Vargas—even if they had time to do it. My own efforts, assuming I had sufficient ground for a citizen's arrest—something I seriously doubted—would come to little if the arrestee was dining on gazpacho soup at ten thousand meters. I could only think of one reasonable alternative. "Okay, let me talk to Sterling. If he doesn't want to talk to me, tell him it's an emergency."

She rang Sterling.

He came on the screen looking as tan and distinguished as ever, but frowning slightly, a nice touch. Which of the pages in Vargas's printout books gave the instruction to frown slightly at undesirable conversations? "Now, what is this emergency, Mr. Penny? I told you yesterday to contact Colonel Vargas with Mrs. Crawley's problems."

"Vargas is the emergency. I think he's in the process of absconding with most of the funds invested in Silver River."

"That's impossible."

"Is it?" I explained what I knew as briefly as I could, along with some of my guesses. If he were as sane as Tyler Appleton suggested, he would at least see the faint possibility that I had the truth.

He listened attentively, occasionally nodding. I could make little of his expression. He absorbed what I said, even my speculations about his own identity—particularly the analogies to my tour guide at the Ecom facility—without a trace of incredulity. He could have been any high-level executive listening with complete self-control to a subordinate explaining a dire situation.

When I finished, he said, "And you want me to help."

I nodded.

He waited for an answer. Evidently, Vargas had forgotten to program an appropriate response to a nod.

"Yes, I want you to help. I want to keep Vargas here."

"How?"

"I don't know. I think you may have direct access to the Ecom network, including the airport computers. Maybe you can do something there."

"I'll see what I can do, Mr. Penny. Thank you very much for bringing this matter to my attention."

The screen went blank.

I sat a moment, staring at the blank screen. Sterling had handled me calmly, efficiently, even thanking me for "bringing this matter to my attention." I had expected something more than calm efficiency. I expected an emotional reaction. If I had just been told my partner Bud was running off to Buenos Aires with our bank account—something I might well believe no matter who told me—if I had just been told I was a figment of someone's imagination, my memories synthetic, my actions programmed, I would have reacted, emotionally. Sterling remained calm, efficient. Why? The famous stability Tyler had mentioned? Or a lack of programming to cover the situation? In either case, would he do anything to help me? Beyond referring anything unusual to Vargas, *could* he do anything to help me?

I left the study and went down the hall to the front porch. Both María Vargas and the moving van were gone. I trotted to my car and got in, pulling away from the curb before the steamtank had completely charged. At the corner, the rain started again, light at first, then heavier. I took several corners too fast, misjudging the Hudson's usual lump-of-lead handling, and skidded. On MacArthur Boulevard with a straight shot to the airport, I ran two signals, one arguable amber, the other a definite red.

Finally, my watch telling me I still had five minutes until Vargas's flight left, I slid to something like a stop in a passenger loading zone and abandoned the car. Inside the terminal, I pushed my way to the head of a crowd at the United counter. I caught a ticket agent's attention and asked about flight 602.

"It's scheduled to leave at eleven, sir. I believe it's about fifteen minutes late today."

I glanced at the clock on the wall behind him. 11:05. The screen next to the clock showed flight 602 as "departed on time."

The ticket agent noticed my glance. "Don't pay any attention to that, sir. Our infallible computer has screwed up. It's been listing 602 as departed for fifteen minutes. The computer controls the clock, too. You still have about twenty minutes."

I left the counter. Following arrows and passageways, I trotted along people movers and up escalators, eventually arriving at the

boarding area, a round building with telescoping tunnels to the planes. Attendants still waited next to a standup desk at 602's departure gate. Screens behind them still showed flight 602 as departed on time. The clock, now reading 11:08, was still wrong.

Opposite the attendants—the only person in a long aisle of empty seats—sat Vargas, a flight bag at his feet. I caught my breath and walked over to him, taking the seat next to him.

He glanced at me briefly, noting my presence, then returned his attention to the departure screen, looking at it but talking to me. "It is very clever of you to be here, Mr. Penny."

"Not really."

"What do you intend to do now?"

"Talk a while. Make sure you don't get on any planes."

"You intend to stop me physically?"

"If I have to. You're not armed. The security system would have stopped you at the escalator. I've got twenty or thirty pounds on you."

"Why?"

"You're the only deep pocket around."

He smiled faintly. "You don't mean this Mrs. Crawley person's hundred and sixty dollars."

I remained silent.

"I don't think violence will be necessary on Mrs. Crawley's behalf. As you can see, I did a perfectly good job of missing my flight myself. Have you called the police?" he asked.

"Not yet."

"But you intend to." He shrugged, indifferent. "I am unimportant. Matters will go forward without me. There will be change in my country. About the rest, I do not care."

He continued talking for several minutes, outlining for me, or perhaps himself, the nature of the changes he foresaw in Argentina. His tone had nothing of self-justification in it. He was simply talking about his dreams, telling me about agrarian reforms, tax reforms, reforms toward a democratic and representational political system. He spoke of it as though it were already a reality, as clear in his mind as had been Ciudad de Plata in the minds of people like Mrs. Crawley. The analogy struck me as apt. I asked if he actually believed the society he wanted had as much chance of being born as Ciudad de Plata.

"It *is* being born, Mr. Penny, at this very moment."

"But without you."

He nodded.

"And without the money."

For the first time since the conversation began, he looked directly at me, a slightly patronizing smile on his face. "The money?"

"Where is it?"

"In Argentina, where it belongs."

"I doubt that."

"Do you think I have two hundred million dollars . . ." He kicked the flight bag. ". . . in there? Don't be ridiculous. Nor am I transferring it

with my wife's household effects, nor . . ." He patted his flat stomach. ". . . in a money belt. The bulk of it has already been transferred—by computer—to prearranged banks in Argentina. I imagine most of that has already been withdrawn. It was all carefully arranged. Until now, no questions were asked. The Silver River Development Company, under Mr. Sterling's excellent leadership, was known to be transferring large amounts of capital to Argentina."

"And when it was all over, a computer program would be the fall guy."

His smile became broad and genuine. "Ah, and you know about that, too. You *are* very clever."

We sat a few moments, silent. I thought about the situation, the money gone—according to Vargas, irretrievably gone—his successful swindle to finance a social revolution, my own responsibilities in the situation. That last point kept bothering me, my own responsibilities. Without them, my sympathies might well have been with Vargas as a sort of grand scale Robin Hood. With them, I would not let him get on the plane. I remembered Karen's comment on my character that morning.

Vargas noticed the expression on my face and gave me an inquiring look.

I shook my head. "Nothing. Just something someone said. Look, Vargas, how much cash do you have on you?"

"Cash? What do you mean?"

"Your traveling money, how much do you have?"

"About two hundred dollars."

"Give it to me."

"But—"

"Just give it to me."

He got out his wallet and handed it to me. I counted out a hundred and sixty dollars and passed back the wallet. I took out one of my business cards and wrote a release of all claims for Mrs. Crawley.

Vargas read the release, shaking his head and smiling. "I should have paid her the money."

"Now you have. She'll be disappointed at not getting a lawsuit. Tell me something. That program you devised of Sterling based on Dr. Fraser's profile, it *is* considerably more sophisticated than the Austin tour guide at Ecom, isn't it?"

Vargas laughed, evidently considering the idea an understatement. "By a factor of several thousand."

"Can it think, I mean, like you and I think?"

"It is sophisticated, Mr. Penny, but it can only follow instructions, though its responses, especially with the interlocking system of options I used, comes close to the appearance of independent thought. Still, it only follows orders."

I remembered Sterling's lack of response to my nod. At the same time, I looked at the computer listing for flight 602, a listing that kept Vargas from boarding. I remembered Sterling saying he would do what he

could. "You're absolutely sure about that."

"It *is* my creation."

"What about the real Edward Sterling? Where is he, dead?"

Vargas's smile broadened. "What real Edward Sterling? I had access to Ecom's entire memory bank. I simply programmed in the appropriate background. When people checked his credentials, they did so using Ecom."

"What's going to happen to it now?"

"I imagine they will simply remove it like any other program."

"If someone told it just to do what it could about a given situation, would that be sufficient instruction to allow it to function?"

"If it had useable options available within the parameters of its previous programming. What are you getting at, Mr. Penny?"

"Nothing important, really. I had a philosophical argument of sorts yesterday with Dr. Austin. He seemed to think the essense of being human was the ability to come up with creative solutions to problems. If that's the case, I still can't see the difference between, say, what I did in unraveling this scheme of yours and what Sterling did."

Vargas looked confused. "Sterling–what do you mean?"

"Before I came after you, I called Sterling. I told him the situation and asked him to help. I didn't give him any specific instructions. I just gave him the problem of you leaving the country and let him think of a way to stop you."

"Stop me? What are you talking–"

"You don't happen to know the time, do you?"

He glanced at his watch. "My watch is slow. The clock over there–" He broke off, looking from the clock to the departure screen.

Having nothing better to do now that I had Mrs. Crawley's money, I went on with my philosophical discussion. "Now the thing that interests me as a layman–and you're the person to ask about it–is whether by doing that, Sterling can be considered–"

"Mr. Penny, I'm sorry to interrupt, but I think I have a plane to catch. Do I?"

"As far as I'm concerned, you can do as you please. My responsibilities ended with my client's interests." I stood up and put Mrs. Crawley's hundred and sixty dollars in my pocket.

I left him and walked back across the terminal to the escalator. Going down, I glanced toward the waiting area. Vargas had disappeared.

At the foot of the escalator, I saw Karen hurrying toward me. I stepped out of the pedestrian traffic and waited for her.

She saw me but continued walking.

I took her arm and pulled her to one side.

"Harry, let go."

"If you have any weapons, they'll

stop you at the top of the escalator."

She looked up at me, as much hatred in her face for me as for Vargas. I remembered a few hours the night before when I had wanted to respond to her, when I would have believed she came into my bedroom because she wanted to.

She pulled her arm free and started toward the escalator.

"Karen, he's gone. Don't be foolish. Forget it."

She stopped at the escalator, back to me, voice barely audible. "Harry."

"What?"

"I loved him."

"Or what you thought he could get for you. Mrs. Crawley and her friends invested in him for the same reason."

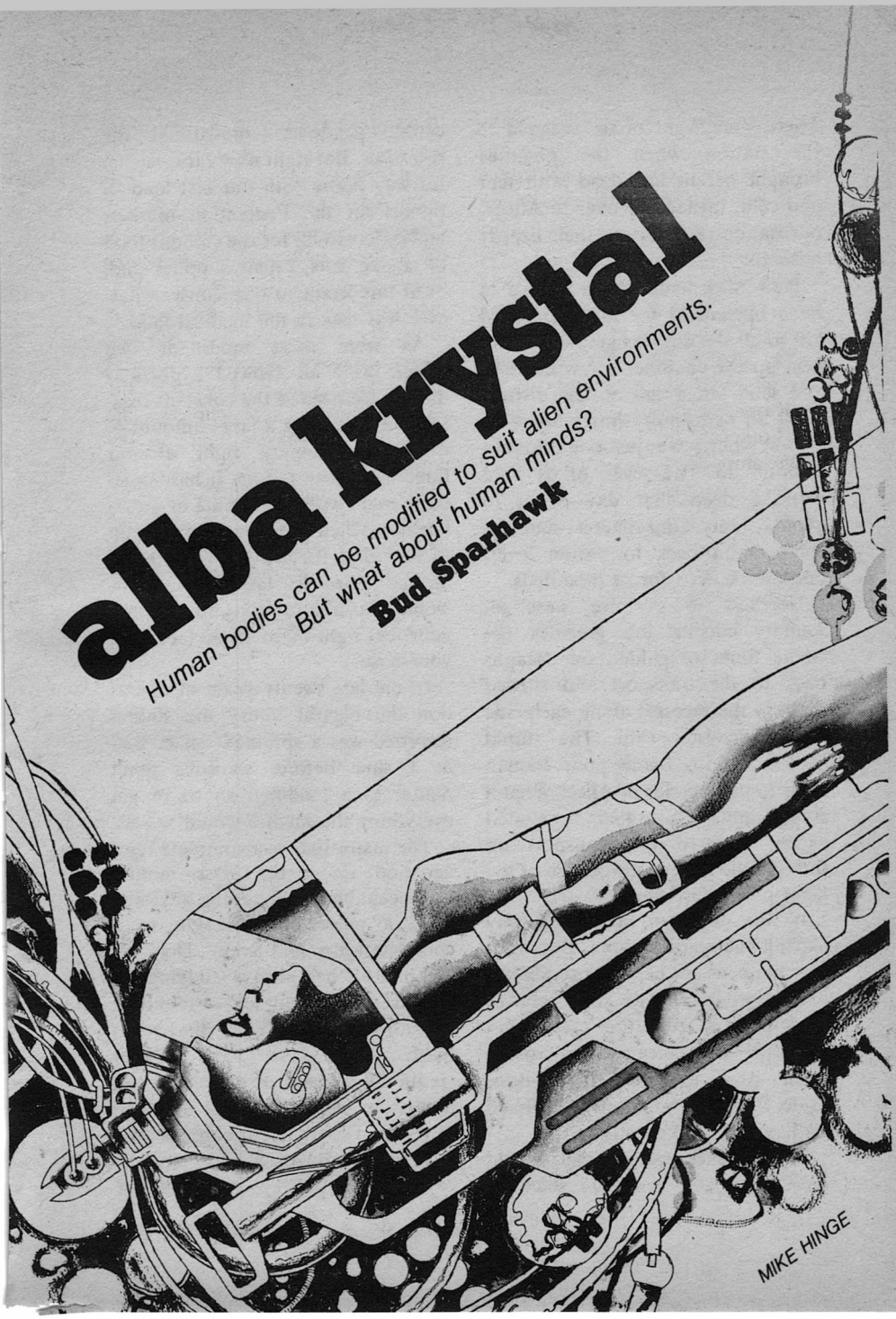
"Harry, please."

I wanted to walk the few steps and comfort her. She may have wanted me to do it. I thought about Vargas and Karen and Mrs. Crawley—all of them with some kind of dream of the future. I remembered the hatred on Karen's face a moment before. I turned and started away from the escalator, my footsteps echoing in the tiled corridor around me. I felt empty. I had no opinion on the two things I had just done, letting Vargas go and walking away from Karen. I had no idea whether either decision was "right" in any ultimate sense of the word. My responsibility ended with Mrs. Crawley's interest. ■

# alba krystal

*Human bodies can be modified to suit alien environments. But what about human minds?*

**Bud Sparhawk**



MIKE HINGE

There were eight of us assigned to the station when the greenies brought her in half-dead with fear and cold, turned her over to Alice—our station—and left on their lizardy business.

Poor Alice hadn't been trained to be a nursemaid for an abandoned kid so all she did was get her in bed, heat up the chamber a few degrees, and send out a call on the distress band for us to hurry-hurry home.

Hurry-hurry was just one thing we couldn't do. The seven of us were working deep that day—down to about twenty atmospheres—and decompression back to station levels takes time, even for us modifieds.

Needless to say we were all roundly cursing the greenies the whole time we guided our 'scaphs back to the transport and stowed them in the recesses along each side of the monster ship. The stupid lizards, leaving some poor human child to the mercies of Alice. What a stupid stunt. "Damn them," we cried as we sweated the transport up through the heavy atmosphere of the giant planet Grimm.

It was our own fault in a way leaving the station alone. But what ever happens out here that requires a human attendant to stay behind? Certainly a space station orbiting an out of the way place such as Grimm wasn't likely to have many visitors, aside from the regularly scheduled traders that worked this sector.

Usually Jack, our normal, would have been at the station since he couldn't get down to pressure like the rest of us. But right now Jack was on his way home with our last load of pyrads for the Federation markets and orders to fill for the station: food of course, fuel, repair supplies and, most important to our sanity, whatever was new in the medical field.

As were most modifieds, we miners were all avowed hypochondriacs. We needed the constant reassurance of having a large amount of medical machinery right at our fingertips. They tell me it has something to do with the trauma of modification—when your brain wakes up to find that they've changed things around since its last check. How would you like to wake up and find your feet right there, three feet from your nose?

In the last twenty years of operation the biggest injury the station recorded was a sprained ankle. But, as I said before, statistics don't matter to a modified so we've got everything the medics would sell us.

The major item is a complete rejuvenation rig—a big glass mother that's capable of rebuilding anything from a piece of torn skin to a complete torso. Old Sven, "Doc" we call him for he's always studying the medical equipment and astounding us with his knowledge of their capabilities, says if we have another sprain it'll be easier to cut off the leg, dump the patient into the unit and wait the twenty-five point six two days the regrowth would take. Be easier than putting up with the

groaning and moaning of the victim.

He's a real joker, that Doc.

We've also got a broad-spectrum analyzer for anything from a viral infection to an attack of Martian screw worms, a comprehensive pharmacopoeia of every drug known to man and the normal complement of sharp, pointed, and blunt instruments that can be found in any good surgery.

It wasn't until we all were in the secondary locks, getting our five atmospheres of ship pressure squeezed out to one and complaining about the heat when Jock thought of telling Alice what to do for the kid.

I was too sick at the time to hear everything he said, being the slowest one when it comes time to decompress. The others are different from me: they've still got their throats and mouths through which they can blow out great gusts of air. Me, I'm stuck with a set of book gills around the throat that are a great asset at depth but terrible for degassing. I can't even cuss with the rest, my larynx having been sacrificed to make room for the gills. Nonetheless I manage to sign my feelings pretty well to everyone in finger sight.

By the time we were down to one-and-a-fraction atmospheres we'd even reconciled ourselves to accepting what the greenies had done. Shoot, it must've cost them a bundle in reaction mass just to divert and bring her to the station. I felt sorry for the next humans that had to deal with that crew. "Full accounting due: balance for delivery of human child to Federation station A-116, lost purchases @ Cr. 20 per hour, fuel expenditures of . . . etc . . . etc . . . etc."

In their cockeyed way they'd be right; every human was responsible for his own kind. I'd be the last to say that their ledger-book morality was any worse than ours. At least they didn't war among themselves.

Jorge was the first one through the lock and into the sleeping chamber where Alice had put the kid. The rest of us were just a little behind, me being the last, still sick with the cramps and aches of various sorts. I pushed my way through the strangely silent group surrounding the bunks to get a glimpse of the child the greenies had left.

You can't blame Alice for calling her a child. After all, the only humans she's seen since she was activated have been the normal station keepers such as Jack and us modified deep miners. I guess that's why she took the word of the lizards that this was a child. Since the lizards live about ten centuries each they're a little biased about things like age.

"Wow," James whistled. "What a set of legs!" A murmur of agreement swept the crew as their eyes gazed on the slumbering figure.

She was a woman the like of which we'd not seen since our modified service had begun. A normal girl from the delicately tapering toes up the smooth flesh to the crowning glory of her hair—with all the

pleasant diversions along the way that mean the difference between average and normal. After all even a real beast would have looked good to our horny crowd, but this beauty . . .

"She looks familiar somehow," Jim said and rubbed his chin. "I think I've seen her somewhere before."

The shuffling of our bodies and whispered admirations must have disturbed the girl for her eyes began to flutter and then flew open as she gazed dead-level into our eyes. She gave a stifled little cry and jumped up from the bunks, a wild look in her eyes.

If we thought she was lovely laying down our opinions changed when she stood and we could see the muscle tone of her magnificent body. No sagging flesh or loose folds on her. Aside from a delightful little jiggle here and there she was as tight as a drum. Premodified memories came flooding back about girls looking that way. I let out a long sigh for what was past and the gills converted it into a flubbering gurgle. Oh to be six feet tall again, I wished.

"Who . . . who are you?" she asked with a trembling voice as her eyes darted from face to face.

Doc reached out and patted her on the behind, which was about even with his chest, in a reassuring way. "Be calm," he said in a deep voice, as if he were ready to put the make on her. "You're among friends." Then he introduced each of us, leaving me to the last–sort of getting her used to the idea of our differences from normals before springing that mass of wet flesh around my neck on her. To give her credit she hid her reaction pretty well, just a slight widening of the eyes was all.

"And I am Krystal, Alba Krystal," she replied demurely. A Rottenhot wolf suddenly materializing in our midst couldn't have caused a greater shock than to hear that name.

Way back when, even before the old Empire split up into the Federation, the Grand Alliance and the AI (Associated Independents), the Krystal family had made its fortune. I think their first billion was made in securities; taking advantage of the fact that paper travels cheaper than gold the family had stripped the outer worlds of a good deal of their accumulated wealth before laws were passed to stop them.

A second billion was received from the sale of the various offices, firms and businesses that had attached themselves to the security industry like barnacles to the old sailing ships. The Krystals turned that money into land–new planets that were developed to maximum profitability for the family. Then they went into shipping.

About that time the Empire split–or I should say the government finally acknowledged its own ineptness and gave way to the creators of the Grand Alliance. The Federation and the AI had split off years before, but that wasn't officially recognized.

After the split the rivalry between the factions turned into open warfare and that gave rise to the Krystal family's latest venture—weapons and mercenaries. It was said, but always in whispers, that the family supplied all three sides with the tools of war, and turned a profit no matter who the victor or what the cost.

And now we poor deep miners, out here as much for our aversion to war as for the tidy profit, were pulled into the middle of the whole mess: Alba Krystal indeed. Now that she had said the name I could see the fine line of the chin and regal bearing that were the mark of the family. Of course Jim had recognized her, we all should have from the news tapes that drifted our way.

After we got her bedded down properly in Jack's area, and had Alice raise that section of the station another notch, turn on the noise suppressors to mask the creaks and groans of the station and dim the lights so the girl could rest, we congregated in the galley for some serious discussion. I acted as recorder since my signing was too slow for participation.

James emptied the sack the greenies had left onto the table top. There were a few items of torn clothing, a record pack, a silver case embossed with the letters "A.K." and various items of machinery we couldn't identify.

"Alice," shouted Jorge. "Play back your memories of the delivery." There were a few clicks and peeps, a ping and then a slurred sibilant voice came from Alice's speaker on the wall.

"To the managers of this facility," it began. "I am Rhoday Thea-Capital. I deliver one human being, F.O.B. Station A-116. Subject cargo was received from Snart Alp-Drawing on consignment for delivery to nearest human outpost.

"Data on item as follows: discovered as found cargo following unexplained destruction of ship *Milady's Castle* near Cephus III. Belongings in actual legal possession of subject delivered. Other items categorized for resale or distribution to cover marginal costs.

"Bills due will be receivable at next human encounter. Rhoday Thea-Capital closes his ledger." With that ritual close the tape hissed to an end.

"So she's the survivor of a ship breakup!" Jorge wondered and fiddled with his beard. "Maybe there's a reward—enough to buy out of here."

"And maybe the reason the ship was destroyed is sleeping over there," Jerome said in a voice dripping with doom. "Did you consider that somebody as important as her would be a most inviting target. Hell, we might draw them here if they knew she was still alive!"

"Don't be such a damned pessimist," Doc chided. "Lots of ships get hulled in these skirmishes. Just because this one happened to be

carrying a Krystal . . ."

"Who was the *sole* survivor," Jerome reminded him. "And Cephus is a long, long way from any known disputed area."

"Just the same, I think we ought to send word to her family. Let them know she's all right," Jock said.

"Where's the address? We'll have the next freighter carry a letter," Jerome replied sarcastically. "Did you dodos forget that any word we send would have to be on broad band radio? And that would be heard by several million people, some of whom could be the ones that destroyed her ship.

"Hell, we're lucky to hit home with our broadcasts—and our station's aimed right at it. We try to hit anyplace else and we'd probably miss by several light years. And who knows who will hear it then?"

Jorge spoke again. "Just the same, she can't stay here. Where'll she sleep? For that matter where will we sleep? Let's call the lizards back and have them deliver her somewhere else, someplace where her own kind can take care of her."

I was glad somebody finally said it: the thing we all felt and were hesitant to voice—her own kind.

Don't get me wrong, I went into modification with both eyes, and my bank account, wide open. The pay was good. The company was congenial, not surprising since the entire group was psychologically designed to give diversity and an ever changing center of social balance. Finally, the tour was interesting and out of the combat zones. It was a quiet, interesting but monastic life.

But when we had a fully-bloomed young female thrust into our midst it was too much of a reminder of the way things were and the long, long time before the tour was over and we could collect the millions accumulating in our accounts. Jorge was right: having her here would bring nothing but trouble. Her beauty was another trouble, one we hadn't had to consider until now.

"Yes, you're right," they all said and I nodded my head in agreement. She had to go. Doc started out to give her the news.

Then the door to the galley squealed open and there she stood, wrapped in one of our blankets—it covered her to the waist. There was fear in those big wide eyes. "Please don't send me away," she pleaded. "Let me stay with you. I'll try to help you, just let me stay." Then she did the one thing that put us all on her side—she cried.

Her story came out between choked sobs. Her branch of the family controlled business within the AI. Over the last few years the members of her immediate branch had been meeting with all sorts of misfortunes—disease, hunting accidents, raiding parties of Federation ships, mysterious disappearances and finally this shipwreck, which was to have destroyed her as well.

She'd been put on the ship for a vacation at Antheray where her

depression over the loss of her father would have been cleansed by their skilled psychosurgeons and her mind restored to its normal clarity.

But along the way the ship's captain, a man whose family her father had saved from the organ banks of Gault, confided to her that he had been given instructions to deliver her to that same planet where her body would be rendered down into a loose assembly of spare and miscellaneous parts. Rather than do that he shoved her into a rescue capsule, ejected it from the ship and then opened his engines full while within two radii of a large mass—Cephus III. Needless to say she was the only survivor. There is literally nothing left when a ship does that.

"It was my great-uncle who must have given the instructions. He's wanted me out of the way so he could have clear control over trade. He's the one that wanted us to go into weapons, but we wouldn't let him," she concluded and then lifted her tear-filled eyes to ours from her seat on the floor. "So you see I can't leave here. Anywhere I'd go he'd find me and kill me. This is the only place of safety I have. Please let me stay."

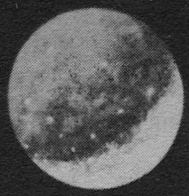
We made a little partition around Jack's section after carefully stripping away his pictures and souvenirs of his debauches in the capital. Jack sure had a way with the ladies, what with his six-foot-six frame of muscle and charm. I envy him. I used to look a little like that and didn't have half his success—in premodified days that is.

The weeks went by as Alba tried to fit herself into our cramped station life. She used some clothes from Jack's locker which were a slight bit large but served well enough. She didn't ever have a word of complaint either, which was a sign of class, I suppose.

She tried to clean up the place, tidy it up, at first but dear Alice had our floor plan ingrained so deeply into her core she wouldn't allow it to be changed in the slightest.

Next our visitor tried her hand at cooking and promised us a gourmet feast we'd never forget. She was right about that: Jerome was sick for three days afterwards, our first honest medical emergency in the station. This pleased Doc no end for he finally had a patient on which to try the medical chest. Jerome was less than willing to put up with most of Doc's proposals but finally did take some antacid and an antidiuretic. We cautioned Alice to keep Krystal away from the food programmer in the future.

Still undaunted Alba kept trying to please. She even wanted to go diving with us but backed out when she saw the four-feet-cubed compartment inside the 'scaphs. Somehow the thought of sitting hunched up for a week at a time at ten degrees Celsius under fifteen atmospheres didn't appeal to her. Hell, they didn't appeal much to us either and we're



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only half her size and used to them.

"There must be something I'm good for," she finally cried one night in the galley. "I feel so . . . so useless around here. I don't want to be a parasite. I want to be of some use to you in return for letting me stay here." We patted her hand and sent her to bed. Poor kid.

It was Jock who finally voiced what we all needed and wanted and decided to settle the matter once and for all. He discussed it with the four of us in the galley and, when we agreed to try his proposal, called in Doc and Jim who were mapping the P20 layer for our next dive, to see what they thought.

Doc debated it for a long while before he finally agreed and that made the decision unanimous. It wasn't that old Doc was a prude, you see, it was just that he knew we'd all want him to talk it over with Alba. She was less likely to take it the wrong way coming from him—being older and more mature. Shoot, he'll be thirty next month and that's mature!

Alba not only agreed to the idea but thought it was utterly fantastic. Seems she thought that modification did something to a man and that our attempts at politeness, as she put it, were for physical reasons.

Did I say she *thought* it was a good idea? That very night she posted a schedule on her door. The walls of the monastery came crashing down unheard around us in our eagerness to test this new relationship.

From that night on things really hummed around the place. Not only did our production pick up but even the station seemed a brighter, more lovable home. Alice's occasional lapses of memory went unnoticed; Jerome stopped counting the days until his end of tour and James quit constructing the elaborate budget for spending his accumulated wealth when his own end of tour came. I stopped keeping my chronicle for a while and took a new interest in the others.

Looking back it seemed strange that we hadn't noticed how very dull and constricted our lives had been. It was less strange that after her arrival we should all be so happy and congenial. Courtesy and politeness, never our forte, became the watchword. Oh, those were the good times!

But with the happy life we grew careless and forgot the reason she'd come to the station, so much had she become a part of our lives.

Jock found a rich pyrad return on its way up through the P25 layer. It was a once-in-a-lifetime find, if the radar map could be believed; chunks of high-grade ore reflecting stars of unbelievable brilliance. That night we all whooped and shouted. Even Doc got a little high, swearing he was going to have the surgeons give him a Hanzeloid body, a hulking seven foot giant used more for soldiering than work. After that he was going to

spend the rest of his life intimidating the shorter mortals.

James added a few dozen brothels to his growing list and the rest of us made glowing boasts about the grand lives we'd all lead. All we had to do was reach out and grab the fortune from Grimm before it returned to the surface. The intercepts showed we could hit it at P22 the next day, halfway around Grimm from our station. After that we could buy off our remaining time and return to the good life, we promised ourselves.

Rather than leave one of us behind we decided that we all should go: after all, one coordinator and three crews of two could cut operating time, and increase our chances of collecting the maximum ore in the shortest time. That's a very big plus when you're working in twenty-two atmospheres.

Krystal was checked out on the station and could handle Alice without trouble. Besides, we reasoned, what could happen out there? We never learn, it seems.

The next morning as we hurtled toward Grimm we began compression and brought the interior of the transport up to its normal fifteen atmospheres. Always better to hit the atmosphere with the interior at pressure—keeps the mind clear with all that dissolved oxygen in the blood, I suppose.

Our dive was normal enough; two loops around the planet while its gravity hauled us down through the thin atmosphere—where the pressure was a mere Earth normal, one atmosphere—to the point where the real atmosphere of Grimm started to build up.

We like to think of the pressure regions around Grimm as if they were the layers of an onion. And since Grimm is such a huge giant of a planet there were dozens of layers, each with its own peculiarities.

Since the force of gravity builds up as the square of the distance the density of its atmosphere goes up proportionally, the pressure layers get thinner and thinner as we go down.

Which brings us conveniently to the place where our ship floats on the denser layer as a cork on the seas of Earth. That's about the P15 layer.

Jock guided us over the spot Alice predicted the upwelling would hit P22 and we all moved to the 'scaphs, strapped in and sank down to the P22 layer. It was a piece of cake—if you had the foresight to ballast your craft correctly, pressurize the interior to something you could stand and keep track of about fifty tell-tales whose red glow on your instrument panel meant the difference between life and death down here.

That all taken care of, you just steered yourself to the glimmering specks on the scope, ignoring the false returns, praying you weren't going too deep or that you'd see the transponder mark of another 'scaph and be able to avoid ramming a crew mate.

Once you reached the proper place

you squirt your little steering nozzles to guide the maw of the ore scoop hanging under you to the biggest chunks the volcanoes of Grimm have thrown up until the hold is filled and then toss out ballast and rise to where the transport awaits. Of course you've got to keep trim as you scoop ore, tossing off an equivalent amount of ballast to the ore you scoop so you don't sink down to the jet stream on the P23 layer.

The fact that you do all of the above while whipping around in a vertical blast of hot gas that would make mother Earth's typhoons seem gentle breezes by comparison is the reason we need two of us in the 'scaph; one pilots while the other operates the gathering process.

We're not really sure about the volcanoes of Grimm. That's just a theory since nobody's ever seen the surface of the place. Hell, we're barely in the stratosphere as far as Grimm is concerned! But whatever is blowing the ore up our way blows us good fortune, for, in ascending on the rising thermal the molten magma cools, crystallizes and changes into a most fantastic gem—the pyrad.

Fire it has, like the opal, and the stars of the finest ruby. Color? Any you want except black. Hold one in your hand and you can see in its miniature depths the birth of a universe: fire and ice, stars and glory.

They are the gem any woman and most men would give anything to own. They are beauty. Alba wears seven, one from each of us.

We were all snug and happy on our way back up, despite the cold, the smell of each other's sweat, and the deadening feeling of all that poison around us—we were happy. Stowed in the belly of the transport were at least billions in pyrad. We'd collected the purest, finest specimens any of us had ever seen. The transport was carrying its maximum load, no ballast but the ore itself. It was the weight of all that money that kept us from getting back to the station as fast as we wanted. And despite our common thoughts about lovely, lovely Alba waiting to greet us none wanted to drop so much as a grain of the precious cargo.

Alice called us when we were at the P18 layer. "Freighter ship *Peddlar* recognition signal received," she advised. "Requests to deliver medical supplies to station. All signals correspond as to registry," she finished.

The identification-friend was one of Alice's more endearing features. Should any ship dare approach without responding properly it would be torn to bits by our formidable defenses. Some day we'll figure out how the lizards get around it.

"Must be the cargo Jack ordered," Doc suggested. "I wonder why he didn't bring it with him?"

"Maybe it's a diverted cargo," James remarked, his voice sounding squeaky from the helium in our atmosphere. "Sometimes it's easier to divert than to haul it to the point of sale."

"All right, Alice," Doc instructed.

"But tell Alba to stay out of sight when they board." I kicked myself for not thinking of that precaution.

The station popped into sight above the horizon, shining like a white jewel against the black background of the sky. Beside it floated the ungainly hulk of the freighter. We could see their light ship parked next to the service hatch. The distance was too great to make out the figures of the unloading crew. There was a shimmering of radiance as the small boat moved back to the belly of the mothership.

"Delivery complete," Doc remarked. "Sure wish they could have stayed for a visit." He reached for the radio to gab with the crew a little.

"Sure," hissed Jerome's voice. "And then have them blab about Alba to everybody within ten light-years." It was Doc's turn to kick himself as he pulled his hand back.

We watched the freighter wheel and turn toward the mass of the planet in preparation for the brief surge that would put it on an elliptical path around our giant. It was common for ships of her size to use the massive planet to build up speed prior to going trans-light. After all, when a difference of ten kilometers per second velocity on entry makes a five day difference in arrival time you use whatever you can.

I could hear the pinging code cross-talking on the voice channel as Doc punched up the station. "Okay Alice, tell Alba she can come out now. The freighter's gone." There was a rush of static over the channel and then silence.

"Alice, this is Doc. Please acknowledge," he repeated angrily. "Station A-116; register and respond!" The radio crackled to itself. Something was wrong.

I looked up from my instrument panel at the station and wondered what could have gone wrong with Alice's radio when something caught my eye—a silvery plume of pure flame was spewing from the air lock. I hit the alarm button with one hand to put out an emergency squeal on all channels and pulled James to the port with the other. He saw the fire immediately and started yammering at the others while I turned the ship about and gave it a ten second burn to kill our relative motion and pointed to the locks.

To give the guys credit they were quick on the uptake. Like five little pistons they squeezed into the 'scaphs, disconnected from the transport, and squirted toward the station. I waited a full thirty seconds to be sure they were clear and then gave the engines a five second burst to put us into a higher orbit. We were going after the freighter.

I hoped the all-channel emergency had awakened some of Alice's functions as we pulled away. Otherwise I dreaded what they would find when they arrived.

I came around Grimm high up and then pointed the nose of the transport straight at the center of the planet. By my rough calculations we

were well behind the freighter in kilometers but nearly ten minutes closer in time then if we'd followed her directly, and it's time, not distance that matters in running intercepts.

James pointed a stubby finger at the horizon. Just above the sky-glow, where the planet's outer fringes dispersed the sun on the far side, was a bright glint that pointed our way. I gave the ship an extra kick and changed the angle of attack relative to the "horizon." I looked at the tell-tales from the transport's computer. The poor thing was never designed to run the plots I'd given it and was damned near having a breakdown.

We'd be on the higher, faster orbit while the other was trading time and going deep into the gravity well to gain the advantage of the boost to achieve critical speed. I signed a prayer we'd get to her probable exit point at the right time. If we didn't there was no way we could hope to catch her.

Forty minutes later I watched through a red haze as the other ship came to us. The crew had reported that Alice had been gutted and Alba, my priceless Alba was dead.

A few kilometers below us and falling quickly behind was the accelerating freighter. We let her drop out of sight behind the horizon before I hit the retros and dropped our speed down and we fell toward the dark form of the freighter, rushing on us like a meteor. I lifted our prow, waited a fraction of a second and then opened the cargo bays.

Consider the situation: You're a freighter captain whipping along at the top of an atmosphere of a world with a steep gravity gradient. In order to build your speed up as high as you can and get the maximum use out of that field you dropped down on a sharp angle as deep as possible because the deeper you go the higher your exit speed will be at breakaway. Simple, yes?

Now consider that having done so, having bottomed out as close as you dare—for the tenuous outer reaches of the atmosphere would rip the unstreamlined spars and booms of your deep space freighter to pieces—you fire your engines to their maximum, flaring them for the extra bit of speed they give and suddenly you see a few tons of mass dropping toward the cobweb of struts and wires that hold the components of your ship together.

Choices: shut off the power and pray that your tangential will carry you past without too much damage, fire an outrigger engine to change your line of flight, or topple the ship so the onrushing rocks hit some less vulnerable part. Quick now—you've got less than five seconds to decide and about forty variables to consider.

Too late. The rocks hit the port dorsal cargo spar and bend it back until it snaps in two. The cargo cannister twists loose and wobbles crazily into the rear fuel segment as

other rocks tear into the low cross-braces, the rear radio sail surface and the hundreds of control wires and cables connecting the parts of the ship to each other. Elapsed time—three seconds.

The center of mass for the freighter was now somewhere to the starboard of center line and changing every minute as the damage spreads. The ship began to slew around in a flat turn and assume a nose-down attitude to her track. The engines continued to fire as the disintegration of her structural integrity was compounded by the stresses being put on her.

At that point I stopped watching, hit the engines and began to climb into a higher orbit; dropping back from the exploding cloud of debris that had been the freighter as our own speed built up.

On the next pass around the planet


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1. Location of known office of Publication is 350 Madison Avenue, New York, New York 10017.

2. Location of the Headquarters or General Business Offices of the Publishers is 350 Madison Avenue, New York, New York 10017.

3. The names and addresses of the publisher, editor, and managing editor are: Publisher, None. Editor, Ben Bova, 350 Madison Avenue, New York, N.Y. 10017. Managing Editor, None.

4. The owner is: The Condé Nast Publications Inc., 350 Madison Avenue, New York, New York 10017. Stockholder: Through intermediate corporations to Advance Publications, Inc., S. I. Newhouse, sole voting stockholder.

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(signed) Harold G. Meyer, Vice President of Owner

7. Extent and Nature of Circulation

| | | Average No. Copies each issue during preceding months | Single issue nearest to filing date |
|---|---|---|---|
| A. | Total No. copies printed | 172,109 | 172,287 |
| B. | Paid Circulation | | |
| | 1. Sales through Dealers and Carriers, Street Vendors and Counter Sales | 60,391 | 62,000 |
| | 2. Mail Subscriptions | 50,067 | 50,224 |
| C. | Total Paid Circulation | 110,458 | 112,224 |
| D. | Free Distribution by Mail, Carrier or Other Means Samples, Complimentary, and Other Free Copies | 794 | 794 |
| E. | Total Distribution | 111,282 | 113,018 |
| F. | Copies not distributed | | |
| | 1. Office use, left-over, unaccounted, spoiled after printing | 2,221 | 1,269 |
| | 2. Returns from News Agents | 58,636 | 58,000 |
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we watched the last few pieces of the freighter burn an intense green as the friction of Grimm's atmosphere finished the job we'd started. James laid his hand on my shoulder and squeezed.

There was no feeling of victory, no exhaltation. Alba was dead in the hulled station and we had just balanced the score for her was all. The deep sadness we felt overbalanced the revenge by too much. I felt drained.

The station was operable by the time we returned. There was an emergency seal over the lock and a breathable, if underpressured, atmosphere restored. Three were repairing Alice's scarred face panels and bringing her back to operating levels and Jerome was cleaning a mess off the floor. With an ugly shock I realized it was part of a scorched leg—Alba's.

"Where's Doc?" shouted James. Jock pointed a test probe toward the medical bay.

Doc was standing over the rejuvenation unit, staring at the ugly mass of black and red beneath the glass lid. I noticed that all controls were in the green: fluids being pumped in, analyzer running, the probes building up a picture of the task at hand.

"They put a bomb in the lock," Doc mumbled. "It was a bidirectional job and melted both lock doors at the same time." He paused. "Alba must have been standing right in line with it and got hit by the blast."

Jerome motioned us outside, away from Doc. "It's pretty useless," he said. "Doc insisted we try the rejuvenation route but I think it's hopeless. She must've had a good five minutes in vacuum before we reached here. And there wasn't enough of her left to be alive before that. The blast tore her up something awful. Hell," he spat, "half the torso was gone, along with the left arm and leg. Her face . . ."

James stopped him with a motion of his hand. Spare us the details the sign said. I agreed.

Two days later we'd gotten over the less damaging effects of the sudden decompression we'd undergone in entering the hulled station. Everyone had been so busy getting the place back together we'd not even noticed the bleeding noses, the ringing ears and searing lungs, or gills in my case. Lord knows how we managed to ignore the pains of the bends.

Alice's memory told us that her cursory exam verified the voucher from the freighter as valid and had taken the loadmaster's ident. His picture was there, on the tape. How was she to know? A computer couldn't recognize Alba's uncle unless we told her to. But the rest of us instantly recognized the grim visage of Lys Krystal from our newstapes. So that was who we'd killed far below us, the head of the AI branch family.

Somehow word must've gotten back to him that Alba was alive and at our station. How? Had the lizards spoken of our guest to another? Could she have had the misfortune of their voucher for the delivery reaching the very man who wished her dead? Perhaps we'd never know. It didn't matter. Only the ache of her loss mattered now.

While most of us used the tasks of repairing the station to occupy our minds while time healed our wounds and shock, Doc hung over the rejuvenation coffin and monitored the flickerings of the instruments as if he could read the condition of whatever was inside. The rest of us looked in occasionally, not having much hope. After all there is only so much that a medical unit can do, even with a still living body. "Wait a month," Doc promised.

Twenty five point six two days came and went. Doc swore that the beat on one meter indicated a pulse rate. Jerome said it was probably surge pressure from one of the recirculating pumps. You couldn't see anything through the milky haze of the fluids inside the glass lid.

At fifty-two days we were working the layers of Grimm once more. Each of us stayed longer and longer because we didn't want to return to the station and all of the reminders of Alba. Doc hardly checked the medical bay anymore. He was caught, afraid to shut the unit down and afraid not to. We waited.

At seventy days the station was wakened by the transponder ping of a Federation supply ship and Jack's brusque voice demanding to know where all the dancing girls and brass bands were for his welcome home. "A bloody-be-damned profit this time gents. Your stay's been cut another three months because of the value of that last load I sold."

His voice went on, "And have I things for you. A new cap for Jerome's bald head. A stack of newstapes for Jim and a new menu tape for Alice's food programmer. Gentlemen, rejoice. I am here with tales of wild women and roaring feasts the like of which you've never seen. Break out the wine. We will celebrate my return from the place of sin and plenty."

Doc told Jack the reason for our dour faces as soon as he was through the lock. He detailed Rhoday Thea-Capital's delivery of Alba, how she came to be picked up by the lizards, the bomb the freighter had left and our destruction of the ship and crew.

"Well, where is this beauty?" Jack laughed. "I want to see with my own eyes this creature that seems to have you all enchanted."

Mutely Doc took him by the hand and led him to the medical bay as he explained the last gruesome detail.

"We left her remains in there," he told the normal. "It's been so long. We're sure she's never coming back but just couldn't . . ."

"I understand, old timer," Jack

remarked with surprising gentleness. "It's better someone who didn't know her do this. Go on back. I'll call you when I'm finished cleaning up."

A tear glistened on Doc's cheek and I felt wetness run down my own. He was right; someone who didn't know her could do what we could not. I placed an arm over Doc's shoulder and started to lead him to the galley as Jack entered the medical bay.

"Hey!" A yell came from behind us. I spun about to see Jack leaning from the doorway. "Get the new med kit in here right away. Doc, I'm going to need your help fast!"

I ran for the common room, signed for two of the guys to fetch the med kit and headed back for the bay, dragging the others with me.

The lid was off the unit and Doc was leaning over the edge smashing Alba's chest with his fist while Jack had his mouth over hers and was slowly inflating and deflating her chest.

I couldn't believe it: Alba alive and whole again. Had we ever underestimated the rejuvenation unit's ability. I felt like shouting, laughing and crying all at once. Alba was ours again. I looked lovingly on her glistening form.

Then the med kit was rushed in and Jack began to do mysterious things to her body with the probes until—there!—a leg twitched, then an arm and finally the eyelids fluttered and opened. She was back with us!

---

We all agreed that Jack should accompany Alba back to the Federation where she could contact her family and regain her rightful control of her part of the fortune. She made one promise to each of us that so far as her sector was concerned no Krystal trader would deal in weapons so long as she lived.

The second promise was made to the seven of us while Jack was making arrangements with the robot captain of the freighter that had brought him for a return trip. He was obviously relishing having luscious Alba all to himself on the long trip back. It was a situation that had him drooling in anticipation.

There were no worries there. The knowledge of the fantastic power at her disposal would be enough to keep Jack from trying anything foolish, but there was another reason why we knew Jack's thirst would go unslaked. It was for the same reason that Alba invited each of us to visit her when we finished our tour.

Doc's stopped dreaming of becoming a Hanzeloid and has determined that he will be reconstructed at a lively four foot ten, just as the rest of us have.

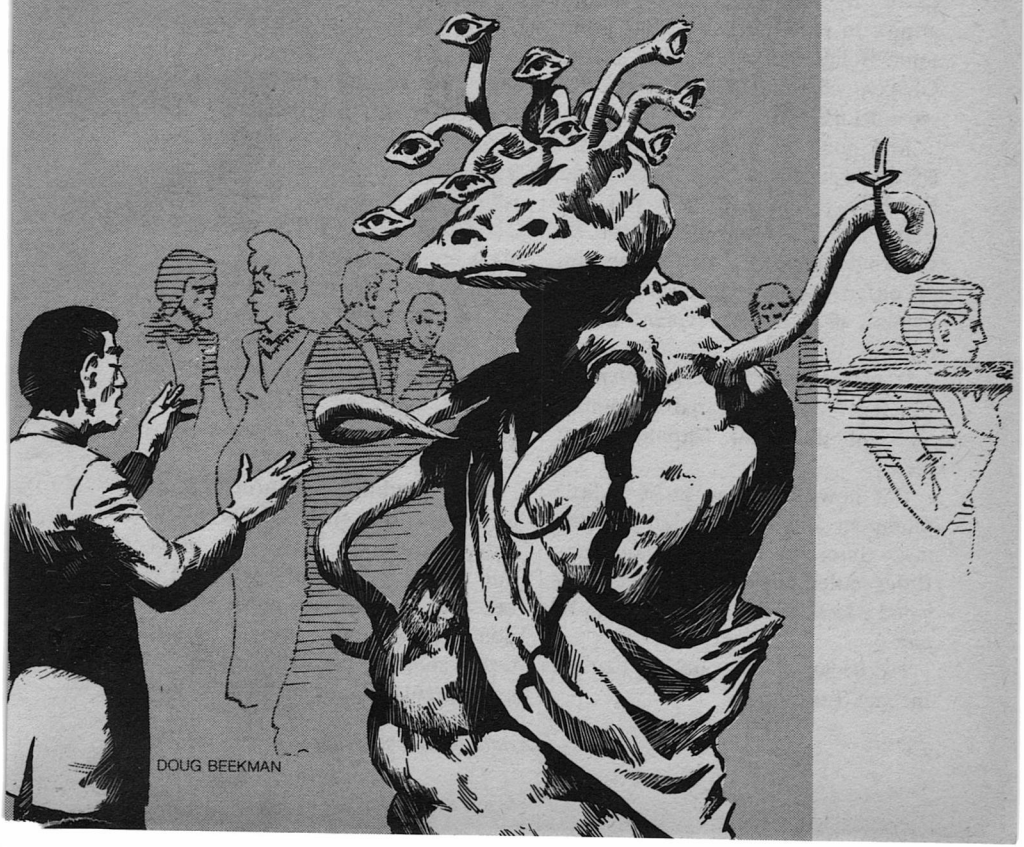
After all, if you knew that the richest, most beautiful girl in the universe had a sexual preference for short men would you want to be some strapping giant?

Someday we'll tell Jack about the arrangements we made. I hope he won't be too mad. ■

# the missionaries' **Position**

There is nothing so dangerous
as someone who is going to
Do Good for you,
whether you like it or not.
But even dangerous tools
can be useful.

**Hayford Peirce**



In the six short years since that memorable Friday morning he had fallen to musing over the self-evident fact that the farther the destination the quicker the delivery of mail, Chap Foey Rider had:

Established diplomatic relations between Mankind and the 27,000 member worlds of the faster-than-light Galactic Postal Union;

Rid the world of pollution while making a fortune selling choice canned smogs to some 2,000 smog-breathing worlds of the Postal Union;

Succeeded in bringing Peace on Earth by exporting the world's armies to entertain with their gruesome frolics the jaded elders of the Galaxy, whereby making himself a second fortune;

And finally, and most important, contrived to divest both himself and Rider Factoring, Ltd. of Wong, his fourth and most obstreperous son, by the simple expedient of foisting him off on an unsuspecting Earth as that planet's *de facto* Benevolent Dictator.

It was a record of achievement which would have sated the ambitions of the most Napoleonic of men.

But now, six years later, a little plumper, a little blander, a little more inscrutable, *now* Chap Foey Rider settled himself behind his teakwood desk and began a *difficult* task.

He began to fill out his Federal Income Tax returns.

---

"Good and Evil?"

Three of the visiting Minister's eyestalks fixed Chap Foey Rider unblinkingly while a second set cast about for a passing waiter. A tentacle deftly snared a proferred *hors d'oeuvre*—purée of Dentine chewing gum on braised artichoke heart—while another politely passed a glass of Laurent Perrier Grand Siècle '81 to the Anglo-Chinese. Chap Foey Rider bowed his head appreciatively: a splendid champagne, a great year.

The roar of the cocktail party at the Consulate General of the Galactic Union crashed about them. The Minister winced—a disquieting performance when performed with nine eyes—and moved closer to Chap Foey Rider, nibbling delicately. "Delicious, quite delicious, some of your terrestrial canapés. But you were asking my dear Mr. Rider, about Good and Evil, I believe? On a philosophical basis?"

Chap Foey Rider smiled urbanely. "On a pragmatic basis, Excellency. The Galactic Union's experience of these vexing questions. With 27,000 worlds comprising the Union, surely the scope for either is enormously enhanced."

"Oh, doubtless," murmured the Minister. "But with 27,000 worlds and cultures, the mere task of *defining* what is Good and what is Evil becomes 27,000 times more difficult, don't you see? Generally," he said, neatly spearing another canapé, "we are content to leave such contentious

matters to the ultimate arbiter, His Excellency the Mandator, both for definition and for resolution."

Chap Foey Rider heaved a mental sigh. What had possessed him to so facetiously attempt to elevate the moral tone of that already most sententious of all sentient activities, the diplomatic reception? Nevertheless, he persevered.

"War, for instance?"

"War?" The diplomat appeared startled. "War, among the members of the Galactic Union? It was to eschew the possibility of war that the Union was so wisely constituted several thousand millennia ago, for war, of course, is the single greatest impediment to the smooth functioning of Trade and Commerce. During that time I am certain there has never been an instance of armed hostilities. Until, of course," he added slyly, "your own planet Earth began not long ago the merchandising of your surplus armies and weapons and their blood-thirsty concomitants in the guise of commercial entertainment. This peculiar enterprise has, I believe, enjoyed a fair success."

"Indeed? I am astonished to learn it."

Six eyes gazed at him keenly. Chap Foey Rider smiled blandly.

"I, myself," admitted the Minister, "attended a match recently, fought, I believe, between a battalion of American Rangers and a horde of Afghan horse-mounted irregulars. A curiously invigorating spectacle."

"And which team won?"

"Won? Ah. The game was declared no contest, I recall, and all wagers rescinded. All participants were dead. A triumph of the handicapper's art, but a poor return on investment for the promoters of the match: they were counting heavily on a rematch."

"Invasion, perhaps?" said Chap Foey Rider. "By beings outside the Galactic Union?"

"Armed invasion of the Galactic Union?" The Minister goggled. "Vast armadas of mile-long spaceships sweeping the skies of the Central Core? The Mandator's Emerald Palace tumbling down in flames through the ravaged clouds? No, no, Mr. Rider, it could never be."

"Foolish of me to suggest it," murmured Chap Foey Rider.

"Oh, not at all, my dear fellow, not at all." The Minister grew expansive, possibly the consequence of his ingestion of pickled oakleaf. "Why, I remember as if it were yesterday, a mere, let me see, a mere 275 of your years ago. Perilous times for the Union, Mr. Rider, perilous times."

"This is startling, Excellency."

"As well you might be startled. Consider: an invasion of the Union itself, by beings from without the galaxy."

Chap Foey Rider blinked.

"Ah, you discern a paradox? I speak, Mr. Rider, of an invasion by purely mental beings, able to infiltrate the bodies and souls of any sentient being, thence to control the

unsuspecting host for their own nefarious purposes."

Chap Foey Rider shuddered. "This is, of course, a nightmare theme which is found throughout our own planet's folklore and literature."

"Indeed? This arm of the galaxy was, however, swept entirely clean of these pestilent invaders; as, for that matter, was the entire galaxy."

"You say their very hosts were unconscious of the presence of these mind parasites. How then were they discovered?"

"By one of the Mandator's semi-autonomous computers, programmed to search for and correlate anomalies. On a certain planet, a drop in the production of grains and fruits used in the distillation of fine liqueurs, an augmentation of vitamin-fortified liquid foods. On another world the sudden interdiction of certain forms of traditional musical fertility rites. Here an increase in the birthrate, there a decrease. Peculiar changes in clothing fashions, warnings about the consumption of certain harmless drugs."

"Why, it sounds almost as if they were *missionaries*."

"Perhaps. Their exact motivation has never been entirely clear. Unquestionably they were at the very least interfering do-gooders and officious busybodies. The critical mass was reached on the planet Elosia in the Deneb Cluster. A splendid species of utterly innocent, utterly passionate sensualists. With the added charm that they are semi-immaterial beings, able at an instant to assume any corporeal form." His eyestalks waggled slowly back and forth—wistfulness? wondered Chap Foey Rider.

"Ah, yes. For uncounted millennia Elosia was the trysting place for all the species of the galaxy. Then suddenly, my dear Mr. Rider, horror! A formal prohibition of all forms of sexual activity save in the pursuit of mindless procreation. And as the Elosians—delightful trisexuals in their native form, as I recall—are fertile for perhaps a week in every thousand years, you can imagine the gravity of the prohibition."

"Quite outrageous."

"Exactly. The Mandator reacted vigorously. (He had, I believe, some three hundred Elosians as permanent houseguests in the Emerald Palace.) The battle was joined. Worlds were quarantined, subtle psychological tests and probes were devised, the invaders were identified, though direct contact with them was forever impossible. Fortunately the outbreak had been caught in time. Once in the possession of a host's body the parasites were trapped; their means of ultimate conquest was genetic manipulation. Every host, male, female, or—your terrestrial languages are sadly lacking in terms for the other sexes—or whatever, would breed absolutely true, one parent only being necessary to transmit a parasite to the second generation."

"An invidious weapon."

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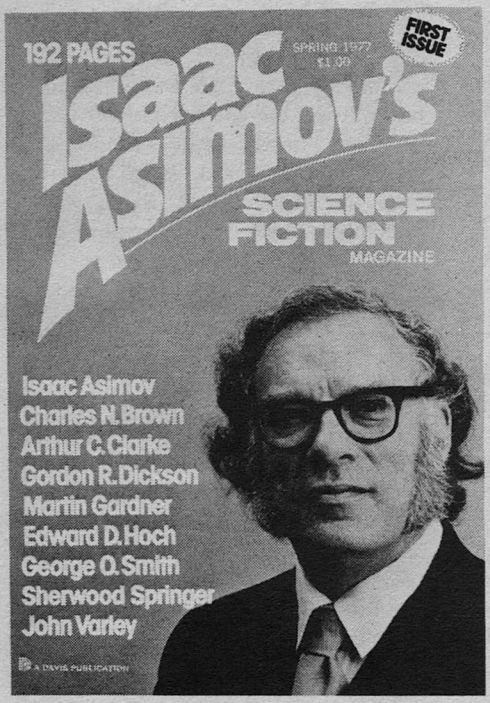


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"In the long run, invincible. As it was, most of the original invaders apparently had appeared on Elosia and were trapped by the long periods of infertility of their hosts. Other groups had scattered around the galaxy and had increased their numbers by frightful proportions. There were billions to be dealt with, in hundreds of different species. It took many years."

Chap Foey Rider sipped his champagne. "You say the Mandator reacted vigorously. Physical extermination?"

The Minister shied back in horror, his tentacles agitating wildly—unexpectedly procuring a delicious *frisson* for the barebacked blonde who was chatting a short pace behind him.

"Extermination! My dear sir, I am sometimes overwhelmed by your world's—" The Minister broke off, composed his features. "The hosts were identified, placed on a number of uninhabited but salubrious worlds, painlessly sterilized, and strictly quarantined. The last host should die some thirty or forty thousand years from now."

"Ah. The long-range view. And all of this happened when?"

"The last hosts were quarantined about two hundred years ago, that would be around 1790, your reckoning." The Minister began to edge away.

"And the invaders have never been heard of since?"

"Never. Oh, a few are rumored to have escaped, but that is hobgoblin talk, horror stories to frighten recalcitrant children. Tell me, is not your own Adolf Hitler still living in Argentina? Extermination, indeed!" And the Minister pushed his way through the crowd, muttering softly.

Chap Foey Rider set his glass on a passing tray and sighed. He was the product of his species' long and bloody evolution, his species' long and bloody history. He was a human being. It was too late to change. Still, he asked himself, as he wrapped a scarf around his neck as protection from the March gusts, which was preferable—quick extermination or 40,000 years in exile? Very moot.

Shoulders hunched against the wind, he hurried outside. A hot tub, and an early evening. Tomorrow would be a busy day at the office.

Chap Foey Rider permitted himself a few minor self-deceptions. One of these was that he prepared his own returns. They were actually prepared by teams of accountants from the firms of Arthur Anderson and Price, Waterhouse, with the final razor-keen edge applied by his personal accountant, a moon-faced, hard-eyed cherub whose views of the progressive income tax and of government interference in general were so ferocious that he still held the elderly William F. Buckley, Jr. to be a dangerous left-winger.

They sat in a circle before his desk, briefcases bulging with—Chap Foey Rider told himself fancifully—his

life's blood. Personal returns for himself, local, state, and federal, both final and estimated; returns for the nineteen Trusts established for members of his family; a thick mass of returns and incorporated schedules for the complex partnership that was Rider Factoring, Ltd.; glossy corporate returns for the Gordian-knot skein of companies Chap Foey Rider had brought into being around the globe to facilitate the task of extracting as much money as possible from the Galactic Union.

And this year—oh humiliating experience!—the most unkind cut of all: the wretched Wong, his own flesh and blood, had contrived a United Nations personal-wealth tax.

It was Chap Foey Rider's simple task to sign these returns.

The thought of signing away so much money made him fretful.

The idea of signing his good name and ultimately committing his personal responsibility to an unread document was abhorrent. He began to plow through the returns, here and there demanding an elucidation of a particularly crafty subterfuge. Occasionally he would resort to his desk calculator. The accountants murmured softly among themselves.

The morning passed.

Eventually Chap Foey Rider said, "I fully understand the reasoning which shows that I have no personal taxable income whatsoever, my share of the depreciation on the Los Angeles real estate more than offsets my modest salary, but what I don't quite grasp is how Entertainment Unlimited has managed to show such a splendid loss?"

"You will recall," said a man from Price, Waterhouse, "that you formed EntUn with Consul Medalando for the purpose of purveying athletes, games, and sporting attractions to the stars. During the latest fiscal year EntUn took a modest position in the military extravaganzas currently sweeping the galaxy."

"But I distinctly forbid—"

"Fiscal irresponsibility, Mr. Rider," said a man from Arthur Anderson sternly. "To leave such windfalls in the hands of the military is to encourage the swift strangulation of the golden goose. There were, from a tax point of view, numerous advantages to be gained. For instance: the Ranger-Afghan match in Sagittarius. A complete write-off." He smiled as broadly as an accountant permits himself to smile. "Actually, we aren't quite unanimous among ourselves as to whether this should be taken as a one-time capital loss or—"

"Long-term straight-line depreciation," interrupted Robert F. Smith crossly, his spectacles flashing. "By capitalizing loss of Good-Will, we then—"

"In any case," said Price, Waterhouse, "we have prepared three contingency returns. After the first one is disallowed, we will fight that ruling through the courts, then spring the second set on them. Why, with any luck at all we can drag it out well past the turn of the century."

Chap Foey Rider felt a warm glow of kinship with such cutthroat effrontery, it brought back fond memories of his financially picaresque youth. Nevertheless, in his old age he permitted himself the luxury of cultivating a set of scruples—a rudimentary set, a harassed tax inspector would have felt, but scruples nonetheless.

"My secretary, Miss Zielonka," he said, pointing to the oaken door, "while grossly overpaid, it is true, earns perhaps a fifteenth of what I do. On this modest sum she will be obligated to pay danegeld of some twenty to thirty percent, taking merely the standard deduction. This gentlemen, is what radicals mean when they shrill loudly of Social Injustice."

There was a rising murmur from the group of accountants. Chap Foey Rider raised a palm. It was still instantly. "No, gentlemen, the years of robber-baronism are behind us. You will refiddle the returns. . . . er, that is, you will reevaluate my *personal* return, so that I am liable for a payment of. . . . oh, let us say. . . . seven and one half percent of gross income. The rest," he added magnanimously, "is yours to play with as you like."

After all, he reflected, a small but ascertainable portion of those taxes would find its way irresistibly to that socially-worthwhile portion of the budget which maintained son Wong in his fine new suite of offices on the East River. In which case it was like making a Contribution (deductible of course) to a Worthy Charity.

Smiling inscrutably, he waved the accountants from the room.

Robert F. Smith, CPA, was of sterner mettle than the tender-conscienced hirelings of the great international accountancy firms. The next morning found him back in Chap Foey Rider's tastefully-paneled office, sipping tea with his client. He was sitting in a semi-nullgrav wheelchair; a doctor's certificate attesting to the complete paralysis of the lower limbs lay within comfortable reach on Chap Foey Rider's desk.

"It's all part of The Conspiracy," observed Mr. Smith.

"The Communist Conspiracy, you mean?" Chap Foey Rider had heard this argument a number of times before. Nevertheless he mimed a show of interest: Mr. Smith was too valuable an accountant to be relinquished for a few minor idiosyncrasies.

"Certainly. The Road to Moscow is paved by the functionaries of the Internal Revenue Service. The greatest single weapon of the International Communist Conspiracy is the graduated income tax, remorselessly applied to sap the moral and financial fabric of. . . ."

"If the income tax leads to Communism," inquired Chap Foey Rider after a while, "how is it that Communist states have no income tax of their own? Or has it too, like the Communist Party, withered away?"

Mr. Smith frowned at such levity. "Communists themselves have no income tax because strictly speaking they have no *income*." He waggled a finger, didactically. "If all your income is taken from you by the government in the guise of taxes, how does that differ from a state in which all of your property and income belong to the government in the first place?"

Chap Foey Rider was forced to concede the justice of a telling point.

"Ha!" said Mr. Smith, satisfied. "Communism."

The tax auditor for whom they were waiting was shown in. His face was a rich shade of crimson. At the sight of Mr. Smith it became a deeper magenta. His words were enunciated with difficulty.

"So! A cripple, are you? Impossible to come to *my* office, is it?" He shook a fist. "We know about you, Smith, we know *all* about you. Just as soon as I have a court order I'll—"

Wordlessly Mr. Smith handed the agent the doctor's certificate. The agent studied it, his eyes bulging. With a convulsive gesture he crumpled it; straightened it out; tore it into tiny fragments which fell scattered to the Kirman rug. Fists clenched, he collapsed into a chair.

"Tea?" said Chap Foey Rider, ever the genial host.

There was a gnashing sound, as of the teeth of a thousand pirana.

"You wished to see me on a point of business?"

"This. . . . this ridiculous return you've filed." The agent waved a thick mass of papers. "You've deducted $17,000,000 for the depletion of natural resources!"

Chap Foey Rider raised a single eyebrow.

"We deducted it," said Mr. Smith as though speaking to a child, "because it is a natural resource which has, through the course of commercial exploitation, been depleted. Hence—," driving the point home—"the depletion of a natural resource."

The agent goggled. At last he found strength to utter. "Smog? *Smog* is a natural resource? Forests are a natural resource, coal is a—"

Mr. Smith smiled pityingly. "Was oil considered a natural resource until 150 years ago, when it first began to be utilized? Of course not. Today our viewpoint on oil is vastly different. The same is true with smog. Mr. Rider's export business of fine smogs to the Galactic Union is most definitely depleting an invaluable and irreplaceable. . . ."

When the agent left forty minutes later he was still protesting vehemently, but his shoulders sagged, his head was bowed.

"We had him nicely off-balance from the start," appraised Mr. Smith judiciously.

Chap Foey Rider mopped his brow with a silken bandana. "How many millions will it cost to fight *this* one through the courts?"

Mr. Smith beamed and walked around the room several times to restore circulation to his legs. "Oh, not more than two or three. It's in the bag."

"I'm glad *something* is. At times your conspiracy sounds almost plausible."

"Oh it is, it is," said Mr. Smith. "Both the Communists and our own gibbering socialistic bureaucrats believe in the perfectability of mankind by the simple expedient of removing property from one group of people and giving it to another, with themselves as the all-encompassing middlemen."

Chap Foey Rider frowned. What was it here that sounded familiar, what faint echo tugged at his mind? Drat. It was gone.

"Well, let them try to encompass what is no longer there," he said. "It's a wonder I have anything left at all."

"And if you wish to retain any of *that*," said Mr. Smith grimly, "I suggest that we have lunch sent in. Among other items of interest: France has suddenly declared an excess-profits withholding tax, retroactive for five years. There are several million dollars of valuable merchandise in the Los Angeles bonded warehouses being held up by a dispute over customs duty. Employee's withholding is being increased next month. The SEC is announcing an investigation into one of your subsidiary's accounting methods. The excise tax on stockpiled smog canisters is being raised. The compulsory Anti-Mugging Insurance Act takes effect tomorrow. Inspectors from the Property Valuation Board will be seeing me next week. Your budget should allow for the hiring of an additional nine tax-lawyers. Unearned income in Australia—*their* definition of unearned—is now subject to. . . ."

The day wore on. At 7:45 Chap Foey Rider tottered weakly home, his mind a blurry montage of ravening tax-men and disappearing dollars. Gathering up a glass and a bottle of cognac from the pantry, he sank into a steaming tub. The dinner hour passed, the bottle was diminished, the tub was replenished. When he emerged, two hours later, it was to seek out his slide rule.

An idea had come to him.

Consul Pocolo of the Galactic Postal Union was displeased. "The hornet's nests you've stirred up before are as nothing compared to what you've done this time, Rider. The Mandator himself has taken charge of the affair. He has had harsh words for Security—and for the Diplomatic Corps."

"There's no doubt then?"

"Of course not. Psychological probes of 900 tax collectors and Communist officials chosen at random around the world are quite conclusive. All of them harbor the Varfdrung parasite."

"The extra-galactic invader."

"Exactly. The Mandator is curious

as to how you propose to—"

Chap Foey Rider spread his hands. "Surely it was obvious. Who so endowed with missionary zeal as tax agents and Communists, who so overbearingly officious, who so inessential to the common weal? I merely postulated the escape of a single lifeboat to Earth in the year 1790 bearing, let us say, a mere five of these parasites. Human beings in those days married young, produced large families. Assuming twenty years per generation and five surviving children per family, by the sixth generation—about 1910—one could postulate 15,625 incorrigible do-gooders. In 1913: the ratification of the Sixteenth Amendment, permitting the income tax. In 1917: the Russian Revolution. Today, four generations later, a conceivable 9,765,625 invaders, surely enough to perpetrate the International Bureaucratic Conspiracy."

Consul Pocolo shook his head. "All this because you dislike paying your income tax?"

"As Nero Wolfe once said, 'A government, like an individual, spends money for any or all of three reasons : because it needs to, because it wants to, or simply because it has it to spend. The last is much the shabbiest.' I am merely trying to eliminate this last and shabbiest."

"But this will mean the end of your present systems of government. Until your semibarbaric world evolves a more civilized and rational economic—"

Chap Foey Rider shrugged. "Who knows? Valued-added taxes? An increase in corporate taxes perhaps. I have never believed in the legal fiction of a corporation as a personal entity."

"But you'll tax the corporations out of exist—"

"Don't be silly. If corporate taxes are raised by say 300%, the added expense is always passed along to the consumer. United Widgit will continue to pay its stockholders a 6% dividend, while the average citizen is content in the knowledge that the big corporations are being taxed to the gills. It doesn't cost the corporations anything."

The Consul was doubtful. "In any event, the dislocations on Earth will be terrible when the Mandator enforces the removal and quarantine of some ten million leading citizens to a far-off prison planet."

"Ah," said Chap Foey Rider. "An interesting point. Let us postulate the painless sterilization of ten million missionaries. What a waste to then incarcerate them at great expense on a quarantined planet when they may still play a useful, nay, vital role in the affairs of the galaxy."

"A vital role?"

"Certainly. And one which will partially make up for the sudden loss of collected revenues. Assuming ten million missionaries and 27,000 member worlds of the Galactic Union, that works out to a mere 370 missionaries per world. If each world were to pay each missionary $10,000

per year *and* pay Earth $10,000 per year for the use of his services, it would come to only $7,400,000 per world, a bagatelle to a planetary budget. And yet Earth would derive a handsome one hundred billion dollars per year. A lordly sum if carefully spent—as it would be, with Wong over at the UN supervising the spending. He is, after all, still a Rider."

"But surely," protested Consul Pocolo, "there is no reason that 27,000 otherwise sane worlds would wish to—"

"Oh come," said Chap Foey Rider. "Have you never heard of a small, yellow, winged beast called a canary? Yes? Merely a pet today, of course, but in times past an extremely useful little rascal."

"Useful? A *canary*?"

"A canary," affirmed Chap Foey Rider. "To coal miners, who used to carry them down in cages into their shafts. Let me explain."

The Sub-Committee on Aquatic Relations and Marine Development of the Legislative Forum of Vlance, fourth planet of Rigel, had adjourned for the day. As the members filed slowly from the room, old Harvege encountered Fendock.

"Amazing," said Harvege, shaking his head in wonderment.

"An idea whose time has come," enthused Fendock.

"Only six months they've been here and yet they've already paid for themselves many times over."

"Today, for instance."

Harvege was helpless with laughter. "*A Bill to Register Through a Census, and Cause to be Collected, In the Form of Quornz, a Personal Head-Tax on the Semi-Intelligent Marine Beasts Commonly Called the Golightlies.*"

"Marvelous. The detail. The study. The sub-sub-committees set into being. The research, the documentation, the expert witnesses. The effects upon the harvesting of the quornz crop, the additional feeling of brotherhood the Golightlies will share with their landlocked cousins."

"The derived revenues—"

"—three million Standard Galactic Units—"

"—the minimal cost of implementing the program—"

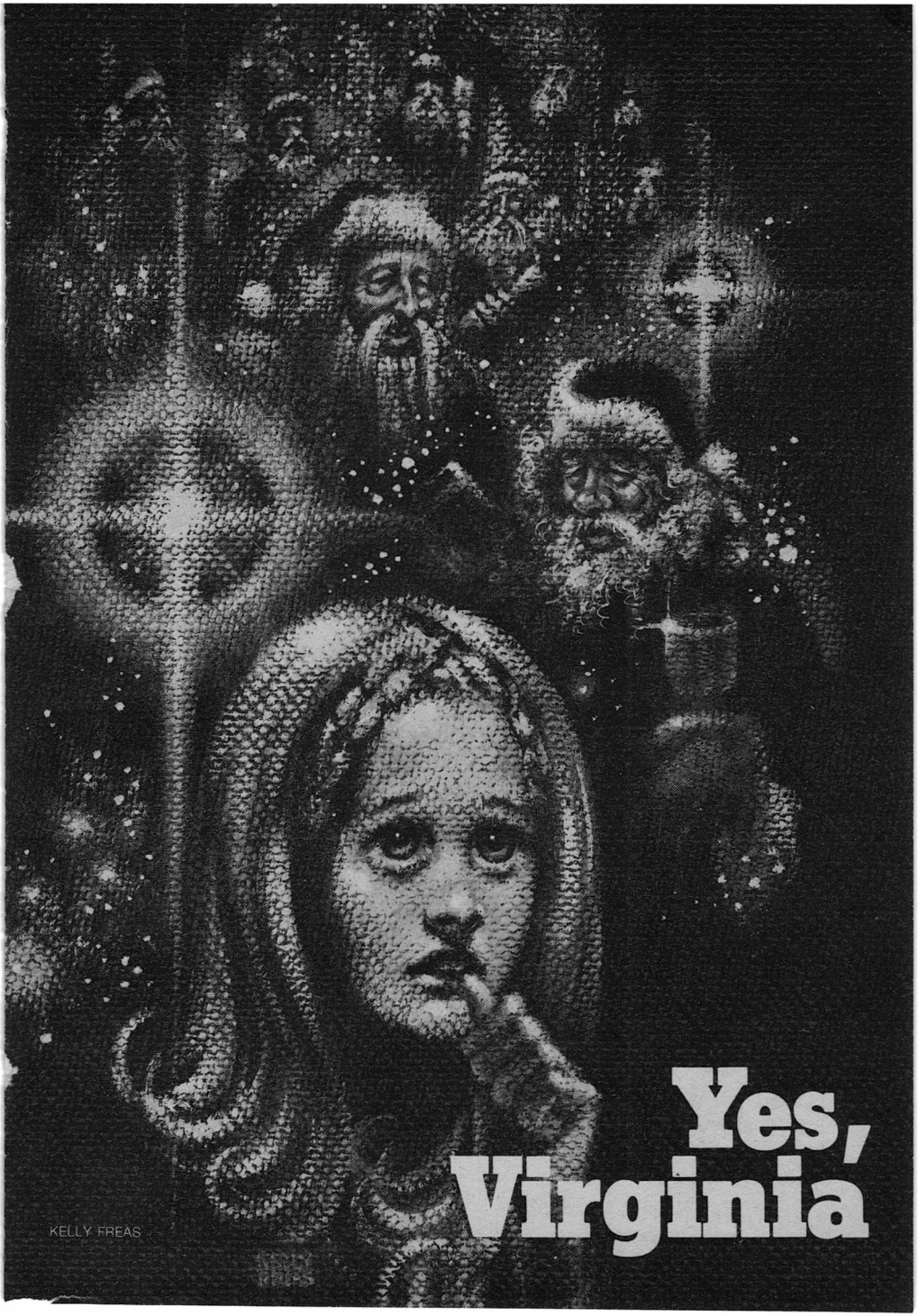
"—*nine* million Standard Galactic Units—"

"A masterstroke," said Harvege frankly. "Sometimes one feels that the Mandator is losing his grip—"

"—and then he has an idea like this. To require us to hire these pest-infected Earthlings, to let them rummage into every aspect of Vlancian life, to listen carefully to their Officially Constituted Considered Opinions, and then . . . and then—" But Fendock was engulfed by mirth.

"—and then to do exactly the opposite!"

"It's brilliant," concluded Fendock, gaining control of himself. "Brilliant. The only question I have is: Why are they called Kunéris?" ■


Yes,
Virginia
KELLY FREAS

To all those who fear
that science and poetry
don't mix—
Merry Christmas!

**Alison Tellure**

"Mama? How come there are so many Santa Clauses ringing bells, Mama?"

Long pause . . . The young maxi-coated woman ahead of me smiled down at the thoroughly-swaddled child, then glanced back at the two blocks they had just traversed, where a reasonable or unreasonable facsimile of St. Nick sprouted every three yards.

"They aren't Santa himself, sweet one." she explained carefully. "They're just his helpers. Elves. They're his elves."

"But they're *big*, Mama! An' elves are little bitty!"

The woman pursed her lips as she reexamined the gauntlet of Santas. "These are special elves who grew up on the Moon. You know transplanted strains always evolve big on low-G planets."

"Oh, yeah."

I chuckled aloud.

They walked on, joyfully crunching the salt underfoot, "ahhing" together over elaborate window displays. The woman kept a tight hold on the child's mittened little paw—I mention this because I have seen so many mothers stride blindly onward, deaf to their children's tired and tearful voices, insensitive to the manful efforts of the little legs to keep up, and then, finally, numb to the chilling vacuum of their children's absence. Christmas—'tis the season of pickpockets and lost babies.

I followed them unabashedly. I was quite frankly intrigued, and determined to get as much Yuletide cheer out of them as they had to give.

"Mama? How come Rudolph's nose is shiny red?"

"Hmm. How come Rudolph's nose is shiny red. . . . Why, I believe it is because he is a *mutant* reindeer, darlin'. His nose is radioactive."

" . . . Oh. . . . Does it hurt him?"

"Oh, *no*! A firefly's light doesn't hurt does it?"

"Are fireflies' tails radiaddictive?"

"No, that's luciferase," she replied absently.

They turned into a candle shop, attracted by its charming display of softly glowing candles in contrast with the surrounding brilliant neon spectacle. I waited outside, being immensely absorbed in a window full of rhinestones two stores down. They emerged, still immersed in deep

metaphysical discussion, with yet another package jammed into the mother's bulging shopping bag.

"But *Mama*!" the infant wailed. "If he stays up at the North Pole all year, how does he know if I been bad or good? Do you *tattle*?" she cried with sudden suspicion and perfect faith.

"Oh, my goodness, *no*! I would *never* do such a sneaky thing!" She bent down and gave her daughter a good squeeze. The little girl smiled comfortably—this was the correct answer. "But then *how*?"

By now the young woman had entered into the swing of the game. There was scarcely any pause for rumination before she replied. "He's a licensed telepath, honey."

My ears perked. This was becoming interesting indeed!

Somewhat apprehensively, the little one inquired, "Do you think Santa Claus will remember all the bad things I done?"

"Did."

"Did."

"No, my best baby in the whole world. Santa, like mommies and daddies, forgives and forgets everything."

"*Goodie*, I'm *glaaad*!" the child shouted with exuberant sincerity.

My eyes blurred, as I harked back to my own childhood in the Old Country, and my mother telling me the Christmas Story in her gentle voice. Strange, it seems like I haven't thought of that for hundreds of years.



They popped into a department store. I pursued, struggled with the revolving door, promised myself for the umpteenth time to go on a diet. *After the holidays, maybe, when things get back to normal, when there are no more big Christmas dinners to accommodate. . .* After the holidays, always after the holidays! I never get anything done then either, though. I swear, I get more like Ebenezer Scrooge every year. My old woman says I get too wrapped up in my work, hypertense. She pushes pills at me. Maybe I should retire, move to a warmer climate . . . Florida sounds nice . . . Check out Walt Disney World . . . Oh, what nonsense. I can't retire. I know that. I'm trapped, that's all.

"Mama? Listen to me."

Found them again! They judiciously inspected and conferred over an assortment of toy stuffed animals, ostensibly for a young cousin. The mother watched her daughter's face sharply, metering desire.

"Mama, how come Santa doesn't bump into angels with his sleigh?"

"Oh, the angels always stay well above the troposphere, whereas Santa Claus generally flies quite low."

"Oh. Does Santa go to *all* the good little boys' an' girls' houses?"

"Definitely. Every one."

"But Mama!" The child sprang; the trap snapped. This kid could make a great lawyer someday. "If he goes to *all* the good little boys' an' girls' houses, how can he get 'em all done in time? Is there more than one Santy?"

"Land, no! Just the one and only genuine, accept no imitations. But remember, I showed you with the flashlight and the globe how the earth spins on its axis and makes day and night, so it's always nighttime somewhere?"

"Uh . . . yeah."

"That means Santa Claus has a full twenty-four hours to deliver gifts."

"*Still* not time enough," the precocious one declared saucily.

"Well—he uses a chrono-synclastic infundibulation, of course!" The mother flushed with triumph.

"Oh."

They decided on a nausea-inspiring two-foot yellow and green panda for the cousin; the mother marked a tiny cinnamon koala for her own little one.

"Mama?"

"Yes, sweetness?"

"Mama? How does he get all those toys into one little ol' bag?"

"He has a 4D Warp Gate installed in the bottom of the bag. Most of the mass of the toys hangs over into negative space until he needs something."

"Like Mary Poppinses' suitcase?"

"Yes, like Mary Poppins's carpetbag."

"Oh."

Santa should bring the little girl an Encyclopedia Britannica set and a flying saucer for the mother.

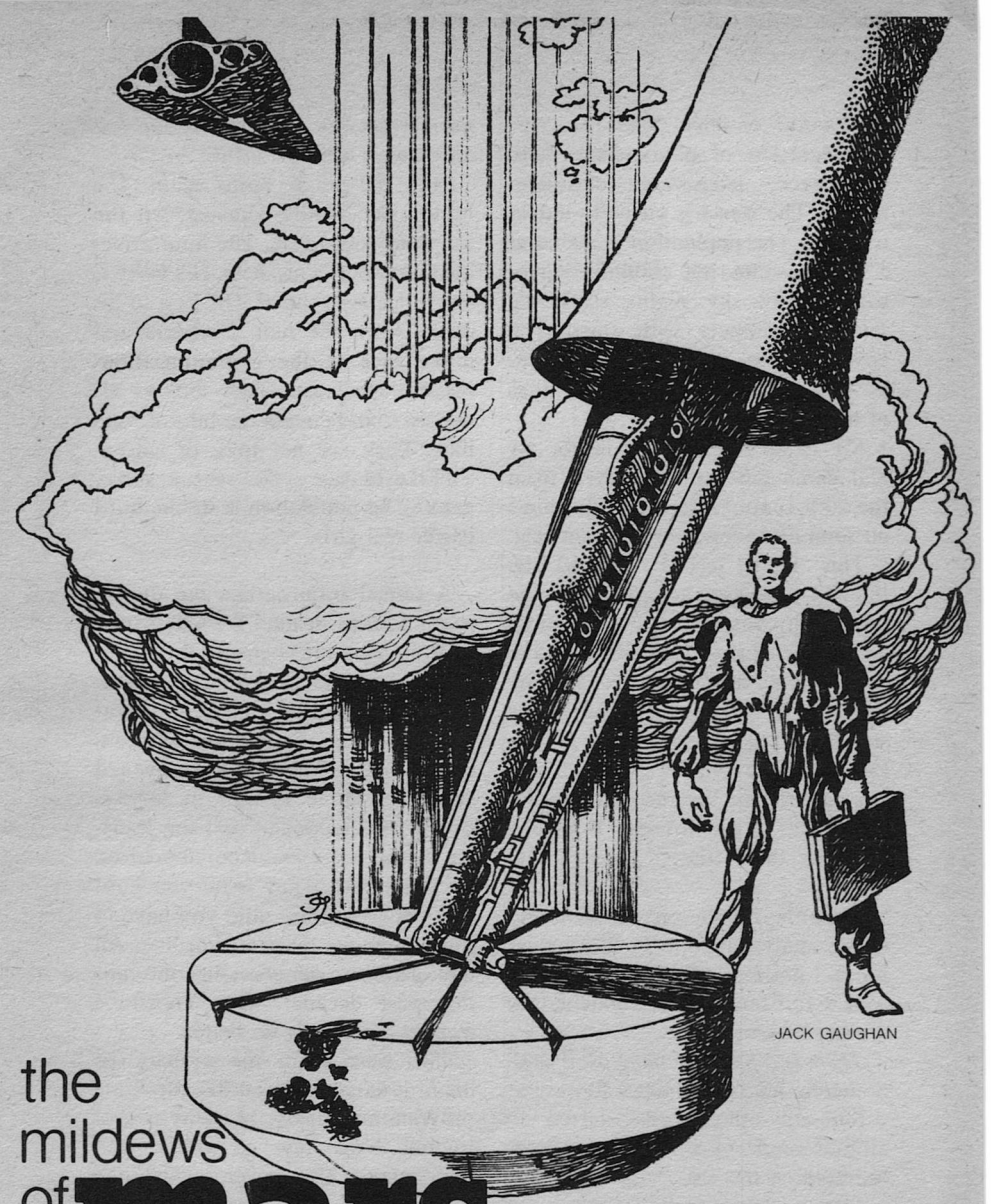
"Oh *Mama*!" the little one wailed suddenly, genuinely distressed. "We don't have a chimney! Or a fireplace! How will Santa Claus get into our *apartment*?"

"Aw, honey, don't you worry, now. He came *last* year, didn't he? Remember?"

"Well, yeah but . . ." The girl stopped, knowing her silence would force Mama to answer.

I edged closer, enjoying them, not wanting to miss the answer. Almost, I could have reached out and touched them, I was so close.

"Well, darling, he doesn't *have* to come down chimneys, you know." Her soft voice trailed off. I stepped even nearer. "He can always just teleport in—" she whirled on me, "—*can't you*, Nicholas!" she laughed. ■



JACK GAUGHAN

# the mildews of **mars**

Biotechnology—like earlier technologies—will benefit the people who control it.

**Arsen Darnay**

The world of 2006. The "orderly" disintegration of nation-states goes on apace; corporate feudalism thrives. The world is virtually industrialized. The population is stable at 5 billion souls, not counting surrogates. In the sky, nights, swarming satellites compete with stars. The environment is in equilibrium. Women are no longer the playthings of men.

My name is Friday. It is not my real name but a literary theft from the 20th century. Men like me have all sorts of names, few of them real.

This is a record dictated by thought-projection to a micro-storage device implanted in my sphenoidal sinus. One of these days I shall go to Switzerland and publish all my secrets. Then I'll walk around the shores of Lake Geneva and take it easy.

I have started this record because I just hung up the phone. I have a warning that "they" have found me.

Yesterday, at the recreation center of the analytical staff, in the shower room, I noticed an inscription on the wall. Faint but legible. Scratched by a piece of soap.

*There is a fungus among us*, it said. Someone mad at athlete's foot.

Suddenly the words started to vibrate and glow, like a flash-message on the visi.

I am into the occult. Twice a week a groove-chick swings a pendulum over my supine body and then adjusts my aura by massage. She tells me I've got PSI. That inscription was an omen. I am sure of it.

Now the phone hums again. The hum is personality-adjusted, but I'm not at my own desk. The hum drives me cherries. It's my boss. His voice is small. He is urinated. Off I go to his office down the hall. I whistle and make eyes at the communications support specialists. They look at me crossly from beneath the bills of Mao hats. They are not toys, of course. Their eyes say: "Go rent a surrogate." The population is stable, but I prefer real girls.

A tunnel train carries me underneath Kansas headed for California. Will change trains beneath the Rockies and head north to San Francisco. Must change trains because of earthquake damage. Tunnel was plasma-carved five years ago; line opened last year. Three months in service. Boom. Just reopened, but the transfer station is a mess. Roof shored up by plastosteel. They issue you hard hats between trains, and you have to sign a damage release form first. All that clamor to denationalize the rails this past decade. Now Transtube owns it. Service is no better.

Two seats from me a man sits holding hands with an '04 surrogate programmed giggly. Morality is shot to hell. Now guys go public with their surros. I've never owned one yet. Though, I'll grant you this: they're getting better and better. The other night in a yum-yum joint one breast-danced on the turntable, and I

took it for a fem. Wondrous, technology!

Now I am in San Francisco, out on the bay in a sailboat, with an old guy who's bald, tanned, and proud of the gray hair on his chest—else he'd button his shirt to the neck.

He hands me a gin-and-sonic. I shake the ice. The sonic makes the melody for *Fiddler on the Roof.*

He says: "I guess you wonder why we rented your time under such unusual circumstances."

I nod. Sun on the bay blinds me, and I squint. He sees me squint and cranks away on a handle until the green-white umbrella blocks the glare.

"Thanks," I say.

"The president of your outfit . . ." he says, face puzzled, one hand lifted as if to snap a finger.

"Dr. Trubote," I supply.

"That's it. Dr. Trubote. He was most reluctant to let you go. I had to cough up fifty thou to soften his heart. That's how much we value your services."

I say flatly: "You wasted your calories. I don't do industrial spying any more. I went off to the Praerie Phoenix Institute because I was done with all that. You should have asked me first. The past is past. Let the dinosaurs fight without me."

He smiles. (His name, he told me earlier, is Colby, and he represents "important interests.")

He says: "Aren't you a little young to be retiring?"

"I didn't retire," I say, frosty as hell. My gin-and-sonic says, *If I were a rich man* . . . "I gave up the snoop-trade, is all. Three years ago."

Colby nods, smiling. "Precisely," he murmurs. "The very reason why we want you. You and that new face of yours. Chin adjustment, wasn't it?"

I touch my chin involuntarily. My surgeon had assured me that the new dimple in its center would "totally obscure your perceptual projections." I'll chew off his ear one of these days and demand my money back.

"Dr. Schmidt is one of our submarines," Colby tells me, as if guessing my thought. A "Submarine" is trade jargon for "occasional agent."

"He violated his ethics code," I bristle.

"Ethics?" Colby asks, smiling broadly.

I shrug. This is the 21st century.

"What makes you think I'll play?" I ask.

He leans forward. "Look at it this way, Mr. Friday. We gave your . . . your Dr. Trubote fifty thou. Okay? And we rented you for a year, payment in advance. And you're a stunt dodger. Enough said?"

Enough said. Twenty-eight and still haven't fulfilled my space obligation, my space stunt is still ahead—*if* they ever trace the mono-filament sticky I breath-blew on my magcard on the third registration (cost me eight hundred in a San Diego non-

official clean-room—but worth it: I'm not about to play ecoengineer in some godhole on Mars for two years fornicking with obsolete surros that don't even have humanoid shape!)

I subside, suck away at *Fiddler on the Roof.*

"So what's this all about?" I ask him crossly.

He tells me.

I try to talk a groove-chick into buzzee, but she tells me about her surrogate instead. A brand new 2006 "Tanker." I press hard. She gets frosty and tells me in clipped tones about the New Hygiene. Faecal matter! I pay for her straw and find me a hotel off Jar-delly Square. The visi is blinking. I order a mess of pot and sulk.

I'm supposed to find a cat named Gettelson. Fellow disappeared suddenly. Seems he'd made some damn discovery. Two big octopus organizations both trying to hire him. One of them is Colby's outfit, name unnamed. I follow up on the first lead. Traveling by SST this time. Tube train down at Kansas City. Hi-flying is a real budget bleeder, but Colby foots the bill.

Literature in seat pocket assures me no, repeat *no*, hard evidence that nitrogen oxide will destroy the ozone layer and increase incidence of skin cancer below. Issue still pending (second decade) before Environmental Supreme Court. Transpamerican's Chair-Board confident court will sustain injunction granted 1984. List of "distinguished scientists," with pictures next to quotes, who disagree with National Academy of Sciences. Submarines, one and all? Sure stuff!

Before we take off we already land.

I rent myself a helicopter, lavish with Colby's funds, and have them twirl me to North Carolina from Kennedy. It's not my money, but I'm too shy to look at the meter.

Pretending I am Media, I get to see the VP/Markets of Triangle Institute.

Mister Ledman, stress on *mister.* He's management and glad of it. I get the feeling the scientists he runs are kind of beasts, like—and he the tamer.

"I'll tell you one thing, Mr. Friday," says my host. "Scientists . . ." He pauses, musing. "They're like kids." Shakes his head. He's sitting on the corner of his immaculate desk, me on the couch, pad on knee, doing "reporter." "It all started with Einstein, I guess. Brainy. But impractical. Dribble food down the front. I'm like a nursemaid, forever tying napkins round their necks. Gettelson was just like the rest, only more so."

He muses a moment.

"Jamie," he starts, "was a mycologist."

I look up with inquiry in my innocent blue eyes. Mycologist?

"Fungus specialist," Ledman says. "Matter of fact, that was his nick-

name:—called him Dr. Fungus."

Lights go on in my head. Puffs of red smoke come out of my ears. Zavoom, go my eyes. *Fungus among us!* I've got PSI.

"No faecal matter!" I cry.

Ledman smiles indulgently, reaches over and adjusts the sole piece of paper on his mirrorlike desk.

"Were just folks around here too," he says. "Nicknames, stuff like that."

Then he tells me about Gettelson.

It all started some months after Gettelson came back from an assignment at New Cape, the ocean city. Two Marslanders returning with stunters showed discolorations on starboard tripod legs. The Cape suspected some kind of fungus, quarantined the craft, and rented Gettelson to look at the stuff.

Gettelson furious, didn't want to go—into some obscure project of his own, came off the wall yelling and screaming about his twenty-five percent pure research allotment. President had to get into the act. Gettelson to New Cape after all, but urinated.

Comes back, surly. Not fungus. Just some sort of gas corrosion. Guesses Marslanders passed through space-pollution layer uncharged by satellites. Waste of his genius. His words. Then he plunges into the thirty percent "pure" the president gave him as a sop. No hide or hair for months.



Then one day he comes crashing in here, eyes crazy, hair wild, looking like he'd slept in his lab, which he had, with a proposal scrawled on a flattened-out Superburger sack.

Wanted five million for a special project to be set up in a dry climate and promised to make Triangle Institute richer that Battelle. Battelle, for Mr. Friday's info, had backed Xerox in its fledgling days.

And the rest is history?

And the rest is history.

So?

So, of course, Ledman asked Jamie to sit down, calm himself, and explain what he had found. But Jamie refused.

And then what happened?

And then things went from bad to worse. Gettelson starts visiting the Institute trustees. Embarrassing. Gives a press conference about the suppression of scientists. Board votes unanimously to name him Mycologist Emeritus, double pension, out the door, guards told to refuse entry.

Gettelson floats a while, dickering with a couple of corporations. Then he suddenly disappears.

Anything else?

Not much else.

I am in suburban Washington, DC. They're building the fifth level of the beltway using the new levitron technology. You wouldn't get *me* to drive on Level Five, not even in an air-cushion buggy. Toll is a dollar a ton-kilometer up there–supposedly because the view is nice. No sooner built than jammed. Five-layered bureaucracy. American empire toughee to run. Washington Monument dwarfed by DC's high-rise structures, visible even from here, twenty clicks out of town, swaying like a bunch of stalks. Levitron failure? Cripes! Parachutes and oxy-masks for top level staffers under the Structures Safety Act!

My blue eyes are pressed into binoculars, gazing from the extendo-verandah of this cheap motel down toward the squat brick building and barbed-wire enclosed, moat-defended territory of an outfit called Clearcut Enterprises.

Gettelson's last known employer.

Colby told me to be easy with the Clearcut boys. Two agents disappeared after approaching. Colby is convinced he has a leak in his Washington organization. Therefore me–hired because I've been out of circulation and unconnected with the Colby crowd. Whoever they may be. I doubt my chin protects me all that much. My *gestalt* is stored in the computers of every snoop group this side of the Atlantic. How long will I last?

Long time, guv'nor! I just look through binoculars.

Boring as hell.

I go inside. The water is boiling. I unwrap the tiny bouillon cube, thinking what a fortune it cost. Into the ceramic cup with it. Water on top. I blow steam from the brown broth. Down the rathole with it although it burns the tongue and throat. I've got to get back out again lest I miss some significant movement in/around Clearcut Enterprises, Inc.

Twenty minutes later the bouillon begins to take effect.

These cubes are sold in bookstores, not food stores. Brought to you courtesy of the Encyclopedia Britannica. Five big ones per cube, one article per cube. Called "organic learning programmers." Popularly known as brain broth, neuron soup, smart pills. Britannica's ads talk a lot about the "thirst for knowledge." New invention but won't catch on, I'd guess. The knowledge has a half-life of one

week, and at the cost, you can't afford to buy a lot of cubes unless you're going for a comprehensive examination or something. Already cheapened hell out of Masters and Ph.D.'s.

Anyway. My mind starts filling with fungus lore. Gosh! Mushrooms, mildews, smuts (??), molds, rusts, fungi. Singular is fungus. Latin derivation. Terrific names: Deadman's Finger, Destroying Angel. Here's penicillin. Good to know you've got a fungus on your side when buzzing a groove-chick—though I should be so lucky! Some so small they hide by the thousands in a dab of faecal matter; some so large they resemble bathtubs. Hairy, smooth, prickly, airborne, glow in the dark. Here's one that spews out 10,000,000,000 spores. Fecund little fungus, ain't ya? Hallucinogens, toxins, edibles. They all scorn photosynthesis. Love dark places. I like this one here best of all—it exudes a kind of honeydew that sticks to things. Spores in the honeydew. Bees spread the fungal gospel.

I start to appreciate Dr. Gettelson who knows worlds more than I do—and not by way of noodle soup.

I bathe in fungus knowledge. It makes you hot in the throat and waters the eyes. I wipe my eyes. Then I put them back into the rubber pads of the binoculars, watching Clearcut Enterprises.

I go down into the street to snoop. Clearcut is opposite a shopping center. I ask about Clearcut casually. People give me strange looks. I feel something piscean going on. Finally here is a laundromat. A woman in the back, with pins in her mouth, is working on something hung up. Front and center stands the latest wrinkle in "home laundering," a cavitation wash-machine. "Out of Order" sign on it. High frequency sound waves explode under water; dirt positively blasts from the fiber. No soap, no detergent pollution. The dirt is caught by osmotic filters and is burned for energy in the unit; ashes come out once a month, can be held in a matchbox. I'm smart about the doodad. Advertised on the visi last night.

I make my inquiries. "Who's that outfit across the way? Clearcut. Funny sort of name. Noticed a big machine in the back, all covered with sheet metal."

She glances at me, starts to speak, but pins interfere. She shakes her head by way of saying, *Just a minute.* Then she's finished, takes the pins out, and turns, nodding in the direction of Clearcut.

"Garbage people," she says. "Some sort of experimental place. Converting waste into things."

"But why is it called 'Clearcut'?"

"Shredding," she says. "They shred the garbage."

I say Ahhh and nod my head.

Then I'm in a hurry to get out of there. I realize suddenly where Colby's agents must have ended up for snooping around Clearcut Enter-

prises. Shredded with the garbage. Spies have no security, no civil rights. Don't ask me why. If I knew that, I'd feel better.

Slinking away, I start thinking. The noodle soup helps my brain. Garbage. Shredding. Could they be making compost in there? And growing on that substrate some kind of fungus that Gettelson has developed? But didn't Ledman at Triangle say that Gettelson wanted a nice *dry* climate?

Washington and its environs are the farthest thing from dry. Even in the old days, DC was said to be a humid place. You sweated your shirt off in summer. But now with those huge levitron structures crowding the real estate that used to be the Mall, the weather is all buzzed up. Drenching downpours come at unpredictable intervals. The Potomac floods on the slightest pretext. The most fashionable residences are Potomac Boat Houses—on solid foundations but bottom-tight and chained to bedrock in case it starts oozing. Did a lot for weather control funding, the change in weather, but those experiments have made things worse. To make an omelette, you have to break eggs, says the director of the program.

Not in Washington, therefore. But Clearcut must have some subsidiary somewhere.

On the other hand, I say to myself, Clearcut looks very piscean to me, and the people all give me looks. Methinks I smell another snoop organization. Which means they work for someone else, one of the great corporate octopuses. Or is it octop*i*?

I don't go back to the motel lest they follow me. Take the monorail to Manassas. I hear there is a yum-yum joint out there.

Nice little yum-yum place. Starts picking up with dark. Simply throbbing with young communications support specialists from all the agencies of the five-layered bureaucracy.

All of them engaged in the latest fad.

The all-banana diet.

The all-banana diet and Mao hats are now occupying our liberated fems, although here and there I see an even newer fad a-coming: pet poodles, black-white pairs preferred, and you're really president if they're alive rather than surro.

I am in luck. I strike up jabber with a sweet groover, and she is so cockeyed with bananas she starts to blabber about her job. The bananas, incidentally, are grown in high-rise towers made of glass in Florida. They move up and down an endless belt, dipping into nutrient tanks on the bottom, sopping up sun as they glide past the mirror walls. Something in the nutrients sends chickies wild, ergo the banana craze, and it'll take five years before Food and Drug can put it on the docket. Meanwhile you ought to see the investments in banana towers in Florida!

This girl works for a committee of the Congress, and she tells me upon sacred oath some super-secret goings on. The committee is investigating the powers and influence of the great international corporations. My ears perk up. I forget (for the moment) why I've come to Manassas.

I pry and prod and she gets expansive, and soon I've got a finger, and then a hand, and then an arm. But that's all it is. The trunk must have been chewed off by jaws.

She tells me about a great war between two corporate giants that has got the Committee Chairman all excited, and everyone has marching orders to find out what it's about.

In this corner, as it were, is Federated International Unlimited Incorporated. And in that corner, Lahydies and Gents, is Conglomerates Conglomerated. She doesn't give me their real names, secretive, winking. But I get the idea, I draw my own printout.

Each giant, she confides between banana bites, has a whole army of agents at work. Federated is defending something. Conglomerated is attacking.

The precise nature of the thing is unknown, but it has to do with a Dr. Gettys, she says.

"Are you sure it's Gettys?" I ask.

"I guess," she says. "Something like that. A micturator, I think he is," she adds, ignorantly. She doesn't know what "micturate" means—but for general information, it's to do with another occult West Coast thing, a splinter group of Scatologia.

"Not a *mycologist*?" I ask.

For a second her eyes brighten; then they glaze again. She shrugs. "Some scientist."

Uh-huh.

There is little more than that, and we start to chat about poodles. I have high hopes for this little chick. She is most neatly dressed and smells reasonably good—a sure sign she has no surrogate. The fems nowadays, what with the New Hygiene and all, don't pretty up like they used to. A surro is amorous no matter what you look like or say. Just program it amorous and it starts to pet.

But I see the going's going to be rough. She resists me. Somehow she finds it all a little . . . offensive, you know. I argue and argue heatedly. I seek points of cultural congruity, but she has little to offer in the way of toehold, and even less with banana in her head.

In desperation I have a flash of genius. I "confess" to her that I'm really a surro. The latest of the latest models of the "Boss" line. I'm on a market test. Very hush hush. She can try me for a night, no obligation if she'll just write her opinion to the company.

She looks at me with a kind of interest for a long time. I can see her trying to think. Then she says:

"No. You're putting me on."

I protest.

She shakes her head. "No," she says again. "That chin. Everything

else about you is okay, but that chin. No. Boss would never put out a model with that chin."

I curse Dr. Schmidt inwardly, but I still have hope, and I ask her if I can walk her home, to which she says okay, not because of me, you see, but because of crime. Between here and her mattress is a developing neighborhood, and she wouldn't mind if she do.

We're going through that neighborhood. The litter-gulp machinery is busted and consequently paper blows on the street. Broken windows in the buildings, and the overhead lights are out, some of them.

I walk beside her, hot-breathing away. Suddenly we both stop and stare at a bunch of posters, fading, old, on the side of a building next to a vacant lot.

We're looking at a poster signed by Federated International Unlimited Incorporated. It shows a bunch of be-beautiful kids engaged in various recreational activities.

The headlines invite parents to sign up their teenies for a company-sponsored eight-week vacation this summer in sunny Arizona. The thing is labeled a "workathon, funathon."

My groove-chick gets excited and notes down the language on a piece of paper from her purse. She tells me the committee will be interested. Always on the job, day and night.

We get to her mattress and she puts a card in the slot. The drawbridge comes down together with the nerve-gas howitzer barrels.

"Is the gentleman to accompany you, Miss?" asks a voice through a speaker.

Before I have a chance to intervene, she says: "No, Freddy. I'm coming in alone."

She gives me a little smile. I try not to cry. She waves to me. I wave back with half a heart. The drawbridge moves up, pulling the guns up with it. I'm all alone, and suddenly the blasted weather bursts out and drenches the living bejesus out of me.

I walk home, collar raised, water trickling.

I tell myself that I've got PSI. But I sure need my aura adjusted, I sure do.

A night and a day and a night and a day have passed.

Now I'm on the tail of a big man, two meters tall at least. I call him Walrus because of the mustache he has. He wears a powder-blue western suit with silvery markings and cowboy boots with huge heels and musical spurs that do something like guitar chords when jangled.

The chords are an accompaniment to a song entitled *Send me the pillow that you dream on. . . .*

He left the Clearcut building yesterday. I tailed him to Dulles airport, noting with my innocent blue eyes that he carried a heavy case, but swinging it, lightly—the kind of case salesmen carry samples in.

Out at Dulles I followed him long enough to know he was going to

Vegas. Vegas is Nevada, Nevada is next door to Arizona, and what with the tube trains running (*when* they're running), and what with the air traffic down a little, the nearest airport to Arizona is Vegas. My brain played with that information, and I waited eagerly for him to come back.

He returned this morning, handling that case as if it were full of eggs. He checked in at Clearcut, and then, no more than an hour later, he zooms off again in a taxi for the train depot in Washington, DC. I am behind him. I board the train. The air cushions start hissing. The cars are released and fall with gravity into the U-shaped depths. The air conditioning isn't what it's supposed to be; we all sweat and mop our faces with napkins the transportation facilitation specialists are handing out to us. Each girl has a picture of herself, a smiling picture, hung between the mammaries. Their real faces sometimes smile, sometimes not. In my compartment the fem doesn't wear a Mao hat, which gets all the men to commenting and joshing.

"Well," she says to a loud-mouth up ahead, a guy with a red face and gray hair, "what if I *do* look like a surro? It's my bod, ain't it?"

Somewhere two stations past Montreal we unhook—Walrus first, me right behind.

I watch him up ahead, carrying that case of eggs.

An hour later, I am wiser. I am very, very wise.

Walrus went to visit a certain subsidiary of Federated International Unlimited Incorporated, a divisional headquarters superintending an empire of syrup.

This division makes extracts, flavors, and scents.

I watch Wally Walrus enter the Sugarwater building. Fountains play. Artificial palm trees wave their fronds. The building glitters with bits of glass embedded in concrete.

Wally moves in with his case. He holds it away from his body. He tilts a little toward the case.

Then, shortly, he comes back out again. He swings the case. He makes for the parking lot. I see him open the door of his rented cruiser, one just like mine. He throws the case into the back, hops in, and drives away.

I make my cruiser crouch down in the back and spin out of there in a strip of rubber, around the tree-lined bend, out of sight. I've seen what I wanted to see. I'm on the beam now. My brain picks out theories and I choose among them.

I think I know the score.

But to be on the safe side, I activate the cruiser's data bank, not caring about the added cost, and somewhere on Wall Street the computer starts pumping me data over a satellite.

I get reports on Federated International Unlimited Incorporated. General reports. They tell me nothing much. Federated is too big to encompass.

My nimble fingers activate overrides. I punch in my credit code and authorize a special financial analysis of five Federated product lines, opting for the 10 percent uncertainty edition, although it costs Colby a fortune.

Finally, here it is. The astute analyst has done his duty. Federated's price/earnings ratio is seen to be in a state of decay. I don't understand the jargon, but I get the idea. You pay more for the stock and get less. Reasons are given, and here it comes: Sugarwater Division reportedly chalking up losses—in red chalk, one presumes. Hit by a sudden shift of consumer taste from pop to bananas, and this on top of the recent changeover to a new ecocontainer to fight off spiraling packaging costs. The nature of this change is said to be depressing the stock's potential. I listen with bated breath to the details, punching out more overrides, buying more specificity, until I'm satisfied.

Then I ask for a report on Conglomerated. Sure stuff. They too own a sizeable chunk of the syrup business. One third, just like Federated. Same story. Decaying ratios, depressed potentials.

I am wise, very wise.

Gettelson, I ask myself, what in the hell did you invent? And did it have to do with that trip to New Cape? Or was that just something that got you "pure" research and made you creative?

Who owns the last third of the syrup business? I'm about to ask that question, but decide it isn't worth finding out.

I know enough already. Just a mop-up exercise.

There it is, floating on the water, at this distance still a haze—New Cape.

I come here with certified false papers Colby managed to get me in a hurry.

I've never been on a floating city and look forward to the experience. New Cape was the first of the breed, but now we have six on the Atlantic and eight in the Pacific, and a cool million people *on* waiting lists to move out to sea, despite the exorbitant rents. *Vive la différence*! If it's different, it sells.

New Cape holds, oh, maybe fifteen thousand people, but it has a territory much greater than that, and facilities for another eight thousand space stunters on a temporary basis. The city is sectioned off, bridges between sections. My chopper makes for the official port, where generals and congressmen land.

The Facilities Director is there to greet me, and despite my blooming youth, he calls me "sir."

I'm supposed to be a representative from the great State of Alaska, come on an inspection trip. Special interest in Marslanders.

At the reception, department officials shake my hand and I crack jokes to set them at ease. Then dinner and to my quarters. Sure as

faecal matter, there is a brand new surro waiting for me in the spacious VIP apartment. I'm tempted, but then again repulsed. Real groovers or no buzzee, that's my motto, though it hurts. Something about surrogates puts me off, search me why.

Next day they tell me more about Marslanders than I care to know. We inspect several and go inside one of them. I'm told all about the drives, the capacities, the emergency procedures, the stunters' recreational needs, the works.

By-the-by, I say, as if in a footnote, didn't I hear a ways back you folks had some trouble with corrosion on one of these here starboard landing tripods?

My guide is mightily impressed. Yes sir, says he, admiring my grasp of detail, so unusual in a legislator, and he tells me the whole story as we walk, finishing in his office.

He tells me about Gettelson, a difficult man. Raised quite a ruckus here. Had to have his own labs and all. He scraped away at the corroded metal and then, in his labs, he made attempts to grow the material on slides, using various nutrient substrates.

And what did he find out? I throw in.

Nothing much. Nothing living, at any rate. Dr. Gettelson couldn't make that stuff grow.

What then?

Well, Gettelson had this idea about an exotic corrosive, possibly distillates of the Lunar brine extraction scheme that went bankrupt, if I recall . . .

I tell him, yes, I do recall it vaguely.

Gases were supposed to have escaped Lunar gravity, my worthy guide explains, and they might have interacted with this alloy here.

I nod slowly several times, grave of face, hoping I look wise. My guide is just about to suggest a drink before lunch, but I ask him instead:

"And has this . . . eh, phenomenon recurred since?"

"No, sir," he says. "Dr. Gettelson suggested we coat the metal with a special nitrile-based polymer just before takeoff from Mars. We did that, and it seems to work wonders."

"Any idea what composition that coating has?"

He looks up at the ceiling, thinking. Then, suddenly decisive, he goes to a bookcase, pulls down a manual, and reads the components.

I stop him midway.

"Cyanide, did you say?"

"Yes, sir."

"What was that proportion again? Did I hear you say 35 percent?"

"Yes, sir. Dry basis."

"Hhhm," I say. "Interesting. Go on."

But I don't listen anymore. I think I've mopped up one of the puddles.

Before I board the tube that'll set me down in Vegas, I call Colby in San Francisco.

"I think I've got it wrapped up."

His silence on the other end is filled with suspense.

"I think I know where Gettelson is," I continue. "My guess is he's in Arizona, at a youth-camp for black kids from a developing neighborhood. I haven't nailed the location yet, but that's where I'm going now."

"Youth-camp?" He sounds incredulous.

"Yep," I say, sure of my power.

"But why? What's he doing out there?"

"I think you already know that," I say. "But just so you know that I know too, let me tell you. He's growing some kind of Martian mildew."

"You're kidding."

"Come on, Colby, don't act low I.Q. I know the banana craze is hurting your 'client' as much as Federated. Whatever Gettelson has, it must be pretty potent. All that secrecy."

"But why in Arizona?"

"Dry climate."

"And why did you call it *Martian*?"

"He scraped it from the leg of a Marslander."

The line hums for a spell.

Finally Colby asks: "All right, tell me this. Why a youth-camp?"

"Market test," I say. "Involuntary volunteers. If one or two are wasted, who's to care. You know how long it takes to get up to the Justice Department in Washington?"

He doesn't answer that one, but I have in mind one of those swaying needles on the Mall, its levitron-supported tip well above the clouds.

"Friday," Colby says at last, "you're a pretty cool agent. I think you might be worth that fifty thou I had to spoon over to Dr. Whatshisname."

I don't think it worthwhile to respond, but I smile into the glass of my phone booth.

"So you're going there now?"

"Yep. I think it might take a bit of detective work to find out exactly where the place is. I don't think Federated advertised the location too much."

"All right," he says. "I'll be working on it from this end.

It is the deepest of nights in Arizona. The sky, of course, is swarming with bright satellites. And behind them, less mobile, more abiding, are the stars.

I am moving cautiously through the dry, hard grass. On all sides of me loom praying-hand cacti. Behind me are sharp mountains. Down below, visible as a faint glow, is Fun Camp.

This is my second trip down. First I went without all this gear I'm carrying—two big gasoline cans, a wire cutter, a giant crowbar for the Doberman pinscher they have between the double barbed-wire fence—in case the ether sprayer stuck into my belt fails to conk the beast out.

Search me why I'm doing this. A great rage possesses me. I keep thinking about these foul corporations, breeding chemical goos to enslave free men. I'm bent on destruction. I feel like a bleeding zombie. It ain't rational, but it feels good.

Colby will be plenty urinated when he finds out what I have in mind. I'll burn the place down, right to the ground, and all the fungus with it.

I stop to set the cans down, open and close my hands. They hurt like hell from the weight of the cans.

Then on, again, but more carefully. I don't want the Doberman to start a racket. Vicious beast. On the last trip down, I stood facing the critter. He growled but didn't raise the people inside the large quonset. I guess they're inside that place. Lights burning. Otherwise Fun Camp is nothing more than two low barns. More waste-shredding equipment of the type I've seen on Clearcut's properties in Washington, DC. A musty smell. Compost.

I stop, I listen.

For the life of me, it seems the desert is alive with flitting figures. But how can that be? Imagination. I am very tired after four days of snooping. I bled a thousand dollars before I got the clue from a filling station type who pushed his red cap back, scratched his forehead, and looked up at a tree trying to remember.

Again! Motion in the darkness. But when I look I see nothing. The desert spooks me. Onward.

I approach the camp from the back. Move closer in the deeper darkness of the barns. I virtually creep. Nevertheless, there is the Doberman pinscher, a black shadow in the black of the black shadow of the barn.

We confront each other. I hold the ether spray at the ready. He growls.

I am about to spray when, inexplicably, the beast lets out a howl.

But the howl isn't meant for me. Doberman sprints away in another direction, and just then I hear a shot. Then a series of shots. I can't see a thing, but now a brilliant arc brightens the sky. Someone has hit the barbed-wire fence with a laser gun.

Cripes.

My destructive passions rise to a frenzy. Wire snaps between the jaws of my cutter. In seconds I'm running around the first barn, leaving a trail of gasoline. Then into the barn.

For a second I cannot see a thing. Then, faintly, I see a row of beds, raised from the surface. Not beds to sleep on. Shallow troughs of wood. Dark musty odors tell of compost's moulder. In the compost, thick as anything, I see a whitish surface, as of bubbles frozen. *Fungus among us.* I slosh gasoline. I exult in my lust.

Short work. I toss a match from a safe distance and see the ball of fire come toward me. I turn away, guarding my sky-blue eyes. Minutes later the second barn is also burning. I make it toward a small shack,

obscurely longing for something. Not buzzee, something else.

I enter the building. Here it is. Racks upon racks. Test tubes. Each filled with a yellow honeydew. My noodle knowledge hasn't decayed entirely. I remember my encyclopedia. This is spore honey from the Martian mildew. Yes, sirree!

I look at the stuff. I read the dirty labels. Finally I pick up one of the tubes, check its seal, and carefully place it against my chest, under the shirt. Further investigation leads me to the other thing I search: a bank of slides in a refrigerator. I tuck away a bunch. Some of them fall on the floor and break.

Now my time is virtually up. I can hear the rage of the battle outside. I'm guessing that Colby has found the place independently of me, and that the mercenaries of Conglomerated are attacking this Federated bastion to make off forcibly with the Gettelson elixir. But they will be too late.

Already I'm pouring gasoline. Against the walls, into the refrigerator. I stand at the door. A match flies through the air, almost extinguishing itself as it flies. Blooomph goes the blast. A ball of fire engulfs the small building. In seconds the honeydew will vaporize and disappear into the atmosphere, going up, up, toward Mars.

I get out of the place. I run through scrub grass, between pious cacti. Behind me bullets blaze and the laser searches for its target. Fire lights the sky, blotting out the satellites.

I'm back in the Midwest. The Institute driver meets me at the tube-train station and drives me toward the Praerie Phoenix Institute.

The driver has assured me that it was good to have you back, Mr. Friday.

The Institute sits up on a hill. We drive toward it, up a snaking road. Sixteen buildings on the campus. Towers, minarets. Pretty.

For some reason I'm having a failure of memory. I know this place as well as I know the palm of my hands. I've worked here for three years, doing good analysis for PPI, staying out of trouble, forgetting my life of industrial espionage.

But now, in this moment of return, awash in a warm feeling of gratitude, already thinking of that groove-chick with her pendulum who adjusts my aura twice a week, now, in this moment, as I say, it doesn't come to me what PPI really does. Research? It seems so. I search my memories. I rack my brains. But there isn't anything there. For all I know, Phoenix could be a division of yet another global octopus of industry.

I conclude that the noodle bouillon might have buzzed me up a bit. Then I let the matter rest. It's good to be home.

I nod to the chick at the reception desk. She wears a Mao hat. Her title is Initial Message Coordinator.

"Hi, Mr. Friday," she says. "Dr.

Trubote would like to see you the moment you get in."

"Sure stuff," I say. "I want to see him too."

His office is on the eighth floor. I get out of the elevator and walk down the hall. He greets me at the door. A wonderfully leonine head. Gray hair. A blazer jacket. A class ring from MIT. His manly hand grasps my elbow. We pass into his palatial office.

"Have you got it?" he asks.

"Yes, sir," I say.

I dig out the test tube with the honey, the slides with the greenish scum. Trubote points to the desk. He doesn't want to touch the items. I lay them down.

"Very good work, Friday," he says. "But by the looks of you, it must have been rough. What about a little aura massage? I think the parlor is still open."

"Yes, sir," I say, thinking about the groove-chick.

He leads me to the door.

I walk down the hall, ogling the communications assistance specialists. They give me dirty looks. But I don't mind.

The occult hall is in the basement. I enter—and there she is!

"Friday, honey," she warbles. "Here, baby, just look at you. What a mess you are. Were you in a fire or something? Here. Let me take that off for you. And now lay down."

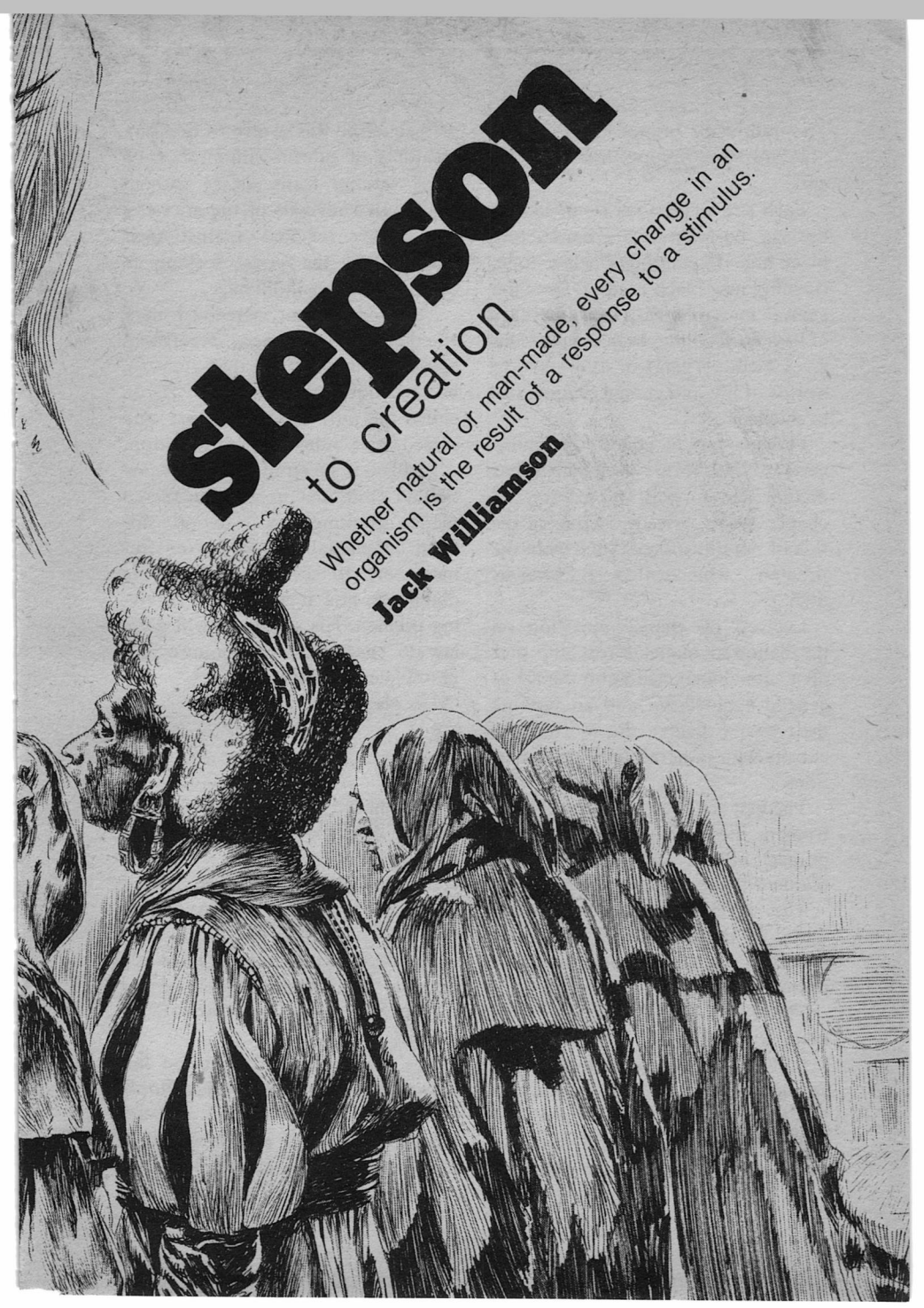
She's a real wonder of a gal.

Then she leans over me. Her hand tickles me in the rib. I raise my head to look, and to my surprise I see an opening in my side. Her hand is inside me. She finds the switch. My complex motivational programming begins to decay. I begin to slip into dormancy unt-i-l t-h-e n-e-e-e-x-t t-i-i-i-i-i-i-m-e . . . ■

## THE ANALYTICAL LABORATORY
## OCTOBER 1976

| place | title | author | points |
|---|---|---|---|
| 1. | Media Man | *Joan D. Vinge* | 1.812 |
| 2. | Shadrach In the Furnace (Conclusion) | *Robert Silverberg* | 1.847 |
| 3. | The Man Who Murdered Television | *Joe Patrouch* | 3.306 |
| 4. | The Sapiphage | *Daniel P. Dern* | 3.632 |
| 5. | Alienation | *Jaygee Carr* | 4.085 |


JACK GAUGHAN


stepson
to creation
Whether natural or man-made, every change in an organism is the result of a response to a stimulus.
Jack Williamson

The multiverse creates itself.

It had no beginning; neither will it end.

Each new universe is wombed as a fire-egg, born through a contracting black hole. Expanding in space-time, ripening new black holes, it sows the eternal manifold with new fire-eggs of its own. Cooling, each new cosmos gives birth to galaxies and suns, to worlds of life and change, sometimes to intellect.

Flowing out of chaos, the multiverse is blind. Its law is chance. It has neither plan nor will. Its creatures are chance atoms, tossed together in the flux of mindless force. Such were the premen, who called themselves men.

Evolved by chance mutation on the hallowed planet Earth, the premen came by chance upon the art of genetic engineering and so became their own Creators, the mortal precursors who fathered the Four Creations.

The first act of creation formed the trumen, the perfected human race, purged of all ancestral evil and planned to supplant the premen.

The second act of creation produced the mumen, the variform men, shaped to fit their several functions in many universes.

The third act of creation gave being to the stargods themselves.

Still merely premen, blind to the splendor of true perfection, the Creators then neglected to rest from their triumphs, but went on instead to father yet another creation. The issue of their error was a race of demons, creatures of power without beauty, mind without truth, desire without justice. Evil revivals of the ancestral beast, they rebelled against their makers and the gods, seeking to usurp the whole multiverse.

The god Belthar perceived their emergent malevolence. Returning across space from his own domain, he reconquered the holy Earth, ended the folly of the Creators, and erased their monstrous last creation.

In benign solicitude, the supreme Belthar continues to rule the sacred planet, granting power to his variform defenders, wisdom to the trumen, sons to their most fortunate daughters, and mercy to the surviving premen. His sovereign will gives law to chaos, and his omniscience illuminates the multiverse.

His glory endures forever.

—*The Book of Belthar*

1.

Two naked waifs, paternity unknown. A black halfgod, the proud son of Belthar himself. A lovely young goddess, touring the sacred sites of her ancestral Earth. A yelping dog and a frightened rat. A red-scaled mutant guardian, its third eye flashing thunderbolts.

Old chaos in collision with stellar divinity . . .

The god Belthar had leveled the crown of Pike's Peak for his North American temple. All black granite, it could hold half a million chanting worshippers. It was empty, however,

on that chill spring morning when a small skimmer marked with the triple triangle of the Thearchy dropped to a parking terrace on the slope beneath it.

The halfgod Quelf left the skimmer with five attendant sacristans. His mother had been a dancer who satisfied Belthar. Inheriting her dark grace and his father's towering power, he was commonly arrogant, but his bold tread faltered as they reached the elevator.

"Leave your boots," he told the blue-robed trumen. "There's a live goddess here."

He had long ago learned the mixture of impudence and flattery that pleased his godly father, but Zhondra Zhey was a casual transient from remote stellar dominions, a dangerous unknown.

"She's a starship pilot." He bent to set his own boots in the rack. "Visiting Earth while her ship's in orbit. The Lord has ordered us to serve her."

The sacristans straightened and stared, but shuffled after him into the elevator without comment. He had taught them silence.

They emerged between great black columns under the rim of the vault, which was a blue-black star-map, all aglow with shifting lines that showed the space-routes of the explored multiverse. Heads bent, they marched out across the polished floor, which mirrored all those far dominions. The central altar was a vast black disk that held the sacred apartments. Kneeling beneath it, holding up his offering, the halfgod intoned a formal invocation to the goddess.

Before he was done, she appeared at a high window, gestured as if to check him, and stepped out into the air. Wearing only her aura and the diamond star of her space-pilot's rating, she dropped to the granite bench before him and floated just above it, anchored to the stone with only one rosy toe.

"You—Your Divinity!"

Conflicting impulses shook his voice. Pink and slim beneath her golden nimbus, the goddess was still no more than a lovely child, not out of her second century, yet already overwhelmingly alluring. Fond of young girls, he was used to taking what he wanted. But no mortal virgin had ever come clothed in her perilous power.

"Favor, Great One!" Torn between lust and terror, he dropped his eyes to the casket of rare Terran gems he had brought. "Humbly, we implore your gracious acceptance of our insignificant gift." Sweaty hands quivering, he raised the casket. "Eagerly, we await your all-wise instructions—"

"Stand up, Quelf." Her Terran diction was pure, her tone gently chiding. "I want no gifts."

"Forgive us, Your Divin—"

The casket had slipped from his fingers. Her slender hand moved slightly. Flowing from it, her shimmering nimbus reached out to catch

the casket, lifted it over his head and into the hands of a startled sacristan behind him.

"Save your offering for the premen," she said. "I think they need it more than I do. I've come to see their reservation. Please arrange it."

Clumsily, he stood up.

"We obey." His avid eyes were fixed on that tempting toe. "However, if Your Divinity deigns to tour the holy planet, there are better sights. The Asian Temple, which is Belthar's dwelling. His statue on the Andes—"

"I'm going to Redrock."

"Indulgence!"

Her mild tone had given him courage to look up, and her bright-washed beauty stabbed him with a hotter regret that he had not inherited all his father's privileges and powers. She waited, aloof, aware, a little amused.

"If Your Divinity cares about the aboriginal life, there's the European Zoo. The Terran creatures there include a fine preman habitat."

"I prefer to visit the people at Redrock."

"People?" His rising tones echoed unthinking scorn. "They're miserable animals. Wallowing in their own filth. So squalid that the Lord Belthar has ordered their removal—"

"That's why I'm here. The premen created us. I'm afraid that fact has been forgotten. I want to see them while there's time."

"Forgiveness!" he protested. "But those stinking beasts at Redrock are the last dregs of a dying race. The real Creators died for their final folly a thousand years ago. If Your Divinity is concerned with history, we humbly suggest the Museum of Terran Evolution in Antarctica. There's a Smithwick Memorial Hall, with authentic reconstructions of the genetic engineers in their laboratory—"

"Take me to the reservation."

"Your Divinity, we obey."

Redrock was a straggle of brown mud huts beside an irrigation ditch that was also a sewer. Four larger buildings enclosed the grassless plaza: the jail, the town hall, and the twin chapels of Thar and Bel, dedicated to the god of Earth in his major aspects of wisdom and love.

By Quelf's command, old wooden doors wore new blue paint. Litter had been raked from the mud-rutted road, and a strip of gold carpet rolled along it from the chapel of Bel on the plaza to the agency mansion on its green-terraced hill above the odors and vermin of the town.

The premen had been warned, and the landing skimmer was greeted with an apprehensive hush. The sacred procession emerged on the plaza and marched up the carpet toward the agency. Two mutant soldiers stalked ahead, the dry sun burning on black crests and ruby scales. The halfgod followed, dark nose held high, as if offended by every reek around him. Four blue sacristans carried the canopied chair

of honor, the divine tourist smiling out as if delighted with everything she saw.

A dog barked.

A child screamed.

A brown rat slithered out of an alley, darted across the carpet. A dirty mongrel darted after it, yelping with excitement. A small naked boy splashed across the green-scummed ditch, running after the dog. They veered toward the goddess.

Quelf hissed an order. One muman guardian spun to face the intrusion. Lightning stabbed from its black-lensed crest. The dog's body spun across the carpet and tumbled into a puddle.

"Make way!" the halfgod shouted. "Make way for Her Divinity!"

The boy looked five years old. Brown and thin, he wore only splashes and smears of drying mud. Planted at the center of the gold carpet, he stared up at the holy procession with dark wet eyes.

"You—" A sob racked and choked him. "You killed Spot!"

"Davey!" A tiny girl shrieked from the alley behind him. "Come away, Davey. Don't let the deadeyes hurt you."

The boy stood fast.

"Off!" the halfgod snapped. "Off the road!"

"Killer!" The boy shook his grimy fist. "I'll make you sorry!"

"What?" Anger stiffened Quelf. "You insolent pup!"

He gestured at the scar-marked mumen. Both bent their lenses toward the boy. Violent pathmaker beams hissed around him. Yowling, the naked girl came splashing to him through the gutter.

"Hold everything!"

The goddess froze them with that gold-toned command. Levitating from the chair, she came sailing over the halfgod and the mumen and sank toward the carpet in front of the boy. Smiling, she paused to watch the girl, who was darting to pick up the dog.

"Who are you children?"

The boy studied her solemnly.

"I'm Davey," he said at last. "Davey Dunahoo."

"But I have no name." The girl came panting back to his side, lugging the limp body of the dog, which seemed heavier than she. "They call me—" In the reek of the charred brown fur, she sneezed twice. "They call me Buglet."

"Don't you have parents?"

"I never had a father." Davey stopped to consider her again. "My mother was a girl at La China's. A drunk man stabbed her." Gravely, he nodded at the girl. "Spot found Buglet lying in the weeds beyond the dump. She was sick. She can't remember who she is."

"Where do you live?"

"Nowhere." He shrugged. "Anywhere."

"In the street," the girl piped. "When it rains El Yaqui lets us sleep in his barn. Sometimes he finds a bone for Spot."

"Mercy, Your Divinity." The half-

god came striding around the mumen. "The reception is waiting for us." He glowered at the muddy urchins. "I've warned you off the road."

"You can kill dogs." The boy stared back. "But you can't kill the Multiman—"

"Blasphemy!" the halfgod roared. "Belthar will put a stop to that—"

The goddess raised a shining hand.

"Multiman?" She turned to frown at Quelf. "Who is Multiman?"

"A wicked heresy. Forbidden by the Thearchy, but still current among these stupid premen." He grinned at the defiant children. "I believe their removal will put an end to it."

She floated back to the children.

"Please forgive us." She settled toward them, smiling. "I do want to help you. Won't you tell me what you need?"

The boy stared blankly, but the girl crept forward with the dog in her arms.

"If you're a goddess, please make Spot alive again."

"I can't do that." She gave Quelf a quick wry glance. "Not even Belthar could reanimate your pet."

"The Multiman could," the boy insisted. "If he had come."

He took the dog from Buglet's arms. Silently he turned, to wade back across the ditch to the mud-walled alley. Buglet splashed after him. The goddess glided back to her chair, and the procession marched on again through the sharp sewer reek.

A few sun-browned children in blue-and-white uniforms watched from the schoolyard. At one corner, a withered woman sat on a wasted donkey, waiting impassively. At El Yaqui's trading post, a dozen men looked up from the drinks and the games on their sidewalk tables, and a plump dark girl in a bright-red wrapper leaned from a second-floor window to stare at the passing goddess.

At the end of the carpet strip, on the clean green lawn beneath the white marble steps of the agency, the preman leaders and the truman agent waited, robed in official white. Bowing to the chair, the agent humbly begged the favor of the goddess. The premen were eager to entertain their sacred guest in the agency garden.

Zhondra left her chair and levitated after him, to inspect the display of preman arts and crafts. A dark silent youth stood sweating beside a plow, the garden wall behind him hung with sample plants of cotton, corn, beans, and hemp. A one-legged smith bent over his anvil and forge, shaping hot metal, preparing to shoe a mule. Two shy girls in clean white gowns showed a relief map of the whole reservation, its red buttes and canyons modeled in clay. A row of silent matrons offered tacos and hamburgers and rice balls, with mescal and beer and tea.

The goddess tasted politely. When she asked to make the premen a gift,

the agent called for El Yaqui. A lean, grave man with brooding eyes and a far-off smile, he accepted the casket of gems with a silent bow that seemed indifferent.

"Your Divinity, these are the premen." Following the goddess back to her chair, Quelf spoke with a covert satisfaction. "You'll find no Creators among them."

"Yet they look more unfortunate than harmful. I see no cause for their destruction."

"But they aren't to be destroyed," the halfgod protested. "They are simply to be resettled. On a virgin world in the Ninth Universe."

"Why?" Her violet eyes probed him. "Is Belthar afraid of heretics?"

"If my Lord Belthar dreads anything, I'm not aware of it. The problem is simply living space. The premen never accepted civilization. Out of place in our sacred culture, they're dwindling away. Only a generation ago, the survivors from the other continents were gathered here. Now they're too few to make efficient use of the land they occupy."

"This wasteland? Who needs it?"

"The Lord Belthar has graciously approved an engineering project of my own." He beamed with self-approval. "A dam across the lower canyon. Desalting-plants and tunnels to fill a wide new lake with Pacific water. The entire reservation will be flooded."

"Your own project?" She looked away at the tall red buttes and the vast bare flats, and keenly back at him.

"The actual plans were drawn by truman engineers, but I'll have a palace on the lake. And—"

"I see." Her cool voice cut him off. "What about this Multiman."

"Pure myth." He chuckled. "Preman logic is the joke of the planet. Though the Lord Belthar has been their ruler for a thousand years, they still cling to irrational beliefs in their old imaginary gods. Buddha, Brahma, Allah—the list is endless. The Multiman heresy may well be a distorted folk recollection of the Fourth Creation." He chuckled again. "The Lord Belthar took care of that."

"Not if you ask Davey Dunahoo." With a thoughtful glance at the straggle of huts, she levitated into her chair. "Perhaps Belthar is wise to get the premen out of his universe."

2.

Zhondra Zhey went on to visit the Museum of Terran Evolution. She paid a formal at Belthar's Asian Temple, but felt no regret when the god of Earth was not in residence. Her starship loaded with a precious cargo of gum from the seed-pods of a mutant poppy that flourished on the Terran highlands, she took it on to dominions of the Thearchy in another universe, guiding it through contact planes that no mortal pilot could sense or penetrate.

She had left instructions, however, with the Redrock agent, San Six. He

spoke to El Yaqui, who sent a preman magistrate to look for Davey Dunahoo and Buglet. They were found in the brush beyond the town dump, solemnly building a mud-mortared rock pyramid above the ashes of their dog. Silent and afraid, they were escorted to the agency.

"I don't bite." The genial agent came to meet them at the door of a huge room hung with bits of ancient preman art. "In fact, I've got good news for you." He made them sit in hard chairs too big for them. "First, however, I must ask you something." He leaned intently toward them across his bare enormous desk. "Who has spoken to you about Multiman?"

Though he was smiling cheerily, his brown eyes seemed very keen.

"Everybody." Davey squirmed on the hard chair and looked at Buglet. "But most people don't believe."

"Who does believe?"

"My mother did." Davey stared up at a tall case full of rusty preman weapons. The agent sat and watched, till at last he went on: "She was born on the old Asian reservation. She was beautiful. A halfgod saw her and took her away to be a bride of Belthar. She was never chosen, but the halfgod took her for himself. When he didn't want her any more, he sent her here. She worked for La China, and she used to say I had many fathers. She hated all the gods and the whole Thearchy. I guess that's why she wanted to believe in the Multiman."

"What exactly did she say?"

Davey looked at Buglet till she nodded.

"She said he was made in the Fourth Creation—but he's no demon. He escaped Belthar's attack. He lives in hiding. He's immortal, waiting for his time and gaining power while he waits. When he comes out, he'll be greater than all the gods—Master of the whole multiverse. My mother said he would bring justice to the premen."

The agent reached to touch a button, and Davey guessed that some machine had been storing all he said.

"Thank you both." The agent smiled again, leaning back in his tall chair. "It's my duty to learn such things, but you needn't be afraid. The Lord Belthar is more tolerant of heresy than your old preman deities used to be. He knows that you premen are afflicted with imaginations too strong for your perceptions of reality. Anyhow, the church has been instructed to overlook the insane faith so many of you have in your old imaginary gods and demons. After all, I suppose you couldn't endure all the pains and dangers of your brief lives without your saviors and your saints, your werewolves and your warlocks." His gaze grew sharper. "Of course, if anybody did believe in this Multiman, we would have to act."

Davey moved uneasily in his chair, but Buglet shook her head. He shrugged and said nothing.

"Anyhow, there is good news for

you." With a wider smile, the agent waved all talk of heresy away. "The goddess remembers you. She regrets what happened to your pet, and she likes what she calls your irreverent independence. She wants the two of you to become special wards of the agency. We're to see to your care and education."

"Thank–thank her!" Buglet gulped. "She's nice."

"She's kind." Davey sat very straight. "But we don't want anything."

"Why not?" The agent squinted at them unbelievingly. "You premen! I've been your keepers for a dozen years, and I still don't understand you."

Davey looked down and said nothing. The trumen were too much of everything–too quick and too keen and too strong, too modest and too happy and too generous. The agent seemed too content that his race had been designed to replace the old imperfect premen, yet too careful not to hurt them with any display of his own superiority.

"We–we thank you, sir!" Buglet stifled a sob. "The goddess is good, but she couldn't help Spot."

They squirmed off the chairs and started for the door.

"Don't go yet," the agent called. "My son wants to meet you."

San Seven was a stocky brown-eyed boy, their own age but inches taller. Warm with instant friendship, he led them off to the long game-room and showed them his toys, strange bright machines and moving models of men and gods and aliens. He showed them his books, which were filled with living pictures and mysterious symbolism. He took them into a great clean kitchen and filled them with foods and drinks they had never imagined. When he asked them to stay at the agency, so that they could really be his friends, Buglet accepted before Davey could say no.

Though they didn't like being apart, there was a whole huge room for each of them. One tall wall in Davey's room was a wonderful window that could open on starships in space or worlds in other universes. When San Seven was showing them the buttons that worked it, Davey asked to see the place where the premen were to go.

"Here's the planet where my uncle lives." Hastily, San Seven fingered the buttons to make a picture of jewel-colored towers clustered on smooth blue hills, with a double sun hung in the greenish sky. "My mother wants us to move there, when the agency is closed."

"It's lively!" Buglet said. "You are very lucky."

"Please," Davey insisted. "Show us our new home."

"Another time." San Seven began explaining again how to shift the pictures.

"Now," Davey said.

With an unhappy shrug, San Seven punched the buttons to show them Andoranda V. It was all naked

rock and mud flat and sand dune, with rivers of red mud staining the storm-beaten seas. The sky was yellow dust, spilling blood-colored rain.

Buglet turned white beneath her grime, and Davey clenched his fists.

"A very remarkable planet." San Seven spoke fast without looking at them. "It's off in Universe Nine. It does have creatures enough in the sea—I've seen great dark monsters fighting, things as big as starships. But its native life never adapted to dry land. You premen will have the continents all to yourselves."

"No—no trees!" Buglet whispered. "No grass."

"Not yet. But we're working to establish Terran land-life."

"I don't like it," Davey muttered. "We won't go there."

"You'll own the whole planet." San Seven tried to smile. "And we're trying to improve it for you. We've had a pilot station there for several centuries." The picture flickered to show a row of rusting metal huts around a circle of rock blasted flat for landing shuttles. The huts were banked high with dirty snow and nothing moved anywhere. "We're trying to terraform the planet, but the engineers have run into problems. Terran plants die. Seeds don't sprout. Even our engineers are sterile there—they're reporting some unknown lethal factor that kills all desire."

"So we'll die there."

"There won't be children—but of course the starships will bring supplies. The Lord Belthar will preserve you."

"We won't go."

"The Lord says you will." As if to soften that hard finality, San Seven added, "Though you'll probably be allowed to stay here till the lake begins to fill."

He tapped the buttons again, to show them Quelf's new dam, a dark ridge reaching from one bleak red mesa to another, construction machines still swarming over it.

"But we premen made you," Buglet was whispering. "We made the mumen and the gods. Now you want to take the last poor scrap of our own world and send us off to die—"

"I'm sorry." San Seven reached to touch her shoulder, but she shrank from his hand. "Our Lord is merciful." he insisted. "You can't blame him and you can't blame us. My father says the whole trouble is that you premen just can't compete, because too many of your ancestors were spoilt creations."

Davey stiffened angrily.

"It's only what my father says." San Seven moved cautiously back. "After all, the Creators were still premen. Though I know they did make us and the gods, they often bungled. Their greatest failure was the Fourth Creation—the demons that the Lord Belthar had to destroy. But there were other misbegotten things, my father says, that escaped from the lab to corrupt the blood of

the premen. By now, my father says, you're all stepchildren of the Creators."

Buglet caught Davey's lifted arm.

"But of course you aren't to blame, any more than we are." He smiled at them gently. "Though it's simply stupid to expect some new god to save you. I know the Creators were premen, but the Creation is over. The Lord Belthar won't let it happen again."

He hurried them back to the gameroom to let them play with his toys. Davey sat down instead to look at a book. The live pictures delighted him, changing scenes as he moved his finger along the edge of the page, but the text baffled him with many-colored patterns that flashed on and off too fast for him to see their shapes.

Hopefully he asked, "Can you teach me how to read?"

"Our symbology doesn't work like preman print." San Seven looked apologetic. "It isn't linear, with one simple symbol after another. It's multiplex, instead. Each display is a whole gestalt. I'm afraid it's too hard for you. Come on down to the basement. There's a free-fall gym you'll enjoy."

Trying to forget that they were premen, they followed him down to the gym. They did enjoy the null G-belts, flying as easily as levitating gods, till San Seven called them to meet his mother. A calm cheery woman, she made them wash themselves in a steamy, strange-smelling room and dressed them in her son's clothing. She said they must start going to the preman school.

San Seven went with them on the first day to show them what to do, but his own training came from special machines in a room at the agency. When Davey asked to use these, he flushed and mumbled that they were too difficult for premen.

At the school, their fellow students were all bored and sullen. Their lessons were about all the other worlds of the Thearchy except Andoranda V, the only one that they could ever expect to see. They laughed at Davey and Buglet when they spoke of the Multiman—and sometimes jeered them for being the agent's pets.

Davey asked the preman teachers about the Creators and the Multiman, but all they knew came from the words in the *Book of Belthar*, which the school chaplain droned every morning before their studies began.

With pocket money now for tacos and rice when they were tired of the strange foods at the agency, or a cactus ice at the sidewalk cafe, they made more preman friends in town. The wisest, people said, was La China.

She was El Yaqui's wife, strange-odored, silent and black and nearly too fat to move. Shapeless in a faded blanket, she sat behind her ancient cash machine in the wide door of the trading post, taking money for meals and beer and mescal, for stuff off the

shelves, for the girls upstairs. Her dark Asian eyes saw everything, but when Davey asked what she knew about the Multiman, her only answer was a sleepy smile.

"Maybe he's only a story," Buglet decided at last. "Maybe we'll have to let them send us off to that awful world where no life grows."

"My mother believed," Davey always insisted. "I won't give up."

One morning on their way to school they found a strange skimmer on the plaza beside the chapel of Thar. Branded with a black star inside the triple triangle, it had brought six gray-robed monks of the Polaris order, who scattered over the reservation to ask for preman antiques and look for preman ruins. Their dean came to the school.

"The gates are closed at Prince Quelf's dam." He was a short fat man who kept licking his lips as if his words had a good taste. "The lake will be rising fast. We want to gather all the preman artifacts we can, before the water gets here. If you know of any old records or tools or weapons—or where any old buildings stood—please help us preserve them for history."

"I think they're looking for the Multiman," Buglet whispered to Davey. "Don't tell them anything."

Meeting that night in the adobe town hall, the senate voted to let the monks explore Creation Mesa, which legend said had been the actual birthplace of the trumen and the gods. Though El Yaqui had always been as silent as his wife about the Multiman, he called softly next morning as Davey was passing:

"*Venga, muchacho*!"

El Yaqui was brown as the earth, bald as a pebble and quick as a spider. Coming late to the reservation from far high mountains where the church had left them alone, his people had brought strange words and strange things. In the hungry times before the goddess came, he had been generous to Davey and Buglet with bowls of milk and bits of sun-dried goat meat, and he still liked to share his desert lore and his peyote buttons on fiesta days. Breathing fast, Davey followed him down the stairs behind the bar and back through the stale stinks of spilled beer and mescal to a serape hanging on the wall.

"I think you are now ready to become a man." Hard brown fingers squeezed his arm, as if that had been the test. "You have asked about the Multiman. Really, I know nothing—there was no Multiman in the dry *sierra* from which my people came. Yet there are certain ancient artifacts I must show you, before the monks take them."

Behind the faded serape was a tiny room carved out of raw earth. A preman book with torn and yellowed pages lay open on a cloth-covered box, and a tiny flame burned beneath the image of an agonized man nailed to a cross.

"The book tells of a preman god." El Yaqui knelt before it, his brown

hand jumping like a spider. "The son of the god was killed. The book promises that he will return to aid his true believers. I once thought that perhaps it foretold the Multiman's awakening."

"Do you—" The musty little pit seemed suddenly very cold, and Davey found himself quivering and voiceless with awe. "Do you believe?"

El Yaqui stood up slowly.

"I believe in the stargods," he said. "I have seen them and felt their power."

"Then why—" Davey frowned at his hard dark face, mysterious in the flicker of the candle. "Why do you keep these things?"

"Because they were my father's," El Yaqui said. "A powerful sorcerer and a very wise man. He knew the language of this book, and he used to read the story of the tortured god to me. He could take an owl's shape to watch the churchmen, and a coyote's shape to escape them. He expected the old god's forsaken son to return and rescue the premen. But he is dead. The waters will be rising over Redrock. The monks of Polaris have come to take the cross and the book for their museum of preman heresies."

Bending, he blew out the candle.

Buglet was waiting at a sidewalk table under La China's sleepy smile when Davey came out of the bar. She looked at him, and her bright face clouded.

"Davey, I'm afraid." Her small voice shivered. "I'm afraid of Andoranda V."

"I think we must learn all we can," he told her as they walked on to school. "All about the trumen and all about those worlds that are not for us. If there is no Multiman, I think we must plan to leave the reservation and hide among the trumen."

She stopped to stare at him, eyes round and huge and dark.

"I know the penalty," he told her. "But no penalty could be quite so bad as Andoranda V."

They learned all they could at school, though term by term their teachers seemed more and more stupid and indifferent, their fellow students less and less concerned with anything except sex and drugs and vandalism. They heard that the tunnels were flowing, heard that water was already deep in the lower canyons, heard that their camp was ready on Andoranda V. They saw the new square mountain rising, far-off in the north, which San Seven said was to be the foundation for Prince Quelf's palace. They listened to the fat gray Polarian dean, who sometimes dined at the agency and talked about the excavations on Creation Mesa.

Davey kept hoping the monks would uncover some hint that the Multiman was real, but the digging went slowly. There was only legend to tell where the old labs had stood, and the preman workers came only when they needed mescal and La China's girls. Beneath the barren

dunes and the desert brush, all they had found was the story of Belthar's attack from space, written in buried craters and glassy flows of lava. Davey's last spark of hope was nearly dead, when Buglet had her dream of the Creation.

3.

Unfolding like some desert flower, Buglet had begun to call herself Joan Dark after the heroine of a tragic preman legend she had heard from La China's girls. Taller that year than Davey, with straight black hair and yellow-gray eyes, she was suddenly alluring. Half the boys in school were in hot pursuit, and he was haunted with a secret dread that some churchman might see her and take her away for Belthar or himself.

Moody that morning, she met him with only a smile. They walked in silence down the hill from the agency and along the muddy road toward school. She was deaf to the whistles of two preman boys setting the sidewalk tables for La China. Unaware of the black-starred skimmer that dived by them, gray monk staring. Blind to the new arroyo that rain had cut in the trail ahead.

"Don't brood, Bug." He caught her arm to steer her past the ditch and trembled from the contact. "The lake's still miles away. We may have months yet to find something, though I don't know what—"

"Maybe I do."

He heard the hope in her voice and saw then that she was not despondent, but full of some confused elation. They had come to the plaza, which was stacked with big yellow plastic shipping containers, waiting to be packed with the effects of the premen for the long star-flight to Andoranda V. She led him back among them, off the trail.

"Last night I had—I guess it was a dream."

Her eyes were lemon-colored in the reflected light from the containers. She stood peering into the empty sky above them, as if searching for something she couldn't quite make out.

"But it was real, Davey . Real as anything! It didn't fade when I woke up, the way dreams do." Her troubled eyes came back to him. "Yet it's hard to talk about. Because I was somebody else. The places and people and ideas—they're all so new."

Shivering, she caught his hands.

"I'm getting a headache, just trying to remember."

He didn't beg her to tell about it; they understood each other too well for that. Instead he beckoned her farther away from the trail, and they sat face to face on two empty containers. Eagerly, he waited.

"It's like a memory, though it never happened to me. In it, I'm Eva—Eva Smithwick." She was hesitant, groping. "The last of the Creators. But the Creation wasn't the instant miracle they talk about in church. It took hundreds of people, working for hundreds of years."

She stopped to think again, unconsciously combing a black-shining sheaf of her hair with slim white fingers.

"The real Creators—the leaders—all belonged to one great family—Adam Smithwick and his descendants. I believe—Eva believed that the family itself had been the actual first creation."

Leaning closer, he caught the faint sweet exciting scent of her hair.

"You can't guess how hard it is." Her tawny eyes flashed him a wry little smile. "It's all terribly real. So plain I'll never forget. But when I try to talk about it the words aren't there. Even the language Eva spoke wasn't yet our Terran. After all, I'm still *me*."

"I'm glad."

With only a grave, pleased nod, she went on searching out the words that rang so strangely when she spoke them. "The first actual creators must have been Adam's parents. They had been geneticists, working to control mutations in lab animals and then in human beings by micromanipulation of chromosomes—"

She saw his puzzled expression and paused to think again.

"They had been working with the genetic code, trying to revise the blueprint for a new body and a new mind carried by the germ cell from parents to child."

"I can understand that," he said. "From exobiology class."

"Adam's parents had both been in trouble. His father had to leave a country called England when people learned about his experiments with humans—I guess they were already afraid of what he might create."

Gazing at the yellow containers, Davey nodded somewhat grimly.

"His mother was a refugee from what was called a labor camp in another country—she had been sent there because she wouldn't work in a secret genetic project to grow military clones. Adam was born in Japan. He grew up to be the best geneticist anywhere.

"The reason was, his own genes had been improved. Anyhow, that's what Eva thought. She must have been his great-granddaughter." Buglet stopped again, frowning with effort, twisting the strands of bright-black hair. "Sorry, Davey. It's all in broken bits. I need time to fit them together—and we're already late for school."

"Forget school."

She sat very still for awhile, her searching eyes fixed on things beyond the yellow boxes and the dusty sky. "Adam—" She brightened again, remembering. "Adam came to North America to be the first director of a new space clinic. Men were exploring the planets by then, and he was already the greatest specialist in space medicine.

"Secretly, he was already creating the trumen. I guess he had learned from the the misfortunes of his parents, because he kept the secret well. He arranged for the trumen to be accepted as the normal children of

his wives—he was married three times in all—and children of his friends and associates.

"They looked like premen, of course. They were simply better. Stronger and smarter. Immune to all the old diseases. Free of all the old genetic defects. Rid of all the animal jealousies and aggressions that have always kept the premen in conflict with each other. Their social adaptiveness kept them out of trouble. For a whole generation, their existence wasn't suspected at all."

She paused again to think.

"People like San Seven wouldn't be suspected," Davey murmured. "He's as normal as anybody. Just brighter and nicer."

She hardly seemed to hear him.

"Darwin—Darwin Smithwick was the next Creator. Adam's last child and probably himself another special creation. He made the mumen—mutant creations shaped to meet all the different challenges of space. With their new senses, the mumen began finding the first shortcuts to other star systems through the contact planes—up till then, the finite speed of light had limited exploration."

Her lemon eyes smiled at something he couldn't see.

"To the premen of those days, the Creators themselves must have seemed like gods. They were nearly immortal. Adam lived and worked a hundred years. Darwin even longer. Before he died, the trumen were changing history. Never fully revealing themselves—at first not even aware they were a new species—they had become the leaders in everything.

"War ceased, because the trumen saw that it was stupid. They dissolved the old contending nations into a new world republic. They revised social systems to end crime and disorder. They invented new sources of energy and food, found a new equilibrium with the environment. There was a long age of peace and abundance, till the premen revolted."

"They had never known—"

Half a mile across the town, the school bell had begun to ring. Buglet moved as if to slide off her yellow perch, but Davey checked her with a gesture. Frowning in a way that charmed him, she went on again, groping for the words she recited in a grave slow voice that hardly seemed her own.

"For a hundred years and more, the trumen had been the faithful public servants Adam Smithwick wanted. Under them, the premen were better off than they had ever been. As Darwin wrote in his journal, the world had become the paradise the old preman prophets and philosophers had always dreamed about. Most of the premen must have understood that their new leaders were too useful to be destroyed, because the rebellion was delayed a long time, even after the truth was pretty well known.

"When it came, the rebellion was savage. As illogical as always, the

premen refused to see that they had nothing at all to gain. Their own irrational leaders magnified the number and the powers of the trumen. In a wave of insane panic, they overturned the world republic to revive the old conflicting nations and parties and unions and classes. Trumen were mobbed and slaughtered. War came back. Famine and disease and misrule.

"Yet, through most of that dark age, the premen seemed about to win. They had the numbers, billions against a few tens of thousands. They had their old aptitude for senseless violence. They seized or burned most of the cities. Trying to kill the Creators, they wrecked the space clinic. Darwin Smithwick had to hide in an old copper mine.

"In the end, of course, the premen lost. Numbers meant nothing. Though the trumen lost most of the Earth, they found refuge in space. No fighters themselves, they brought muman soldiers to defend their strongholds around the spaceports. And Huxley Smithwick made the stargods.

"Darwin's son, Huxley had grown up in hiding—most of the time in that abandoned mine. He learned his father's crafts of creation and improved on them. When he escaped to space, he carried three new synthetic life-cells in cryogenic flasks. Alpha and Beta and Gamma.

"Those names seem to have come from the phonetic symbols of some lost language. Huxley separated the new beings for their own safety, arranging for proxy-mothers to bear them on three different planets. Not really divine, not yet immortal, they were gifted enough. He called them his three Valkyries, from the warrior women in some forgotten preman legend. When they were old enough for battle, he sent them back to face the rebels.

"Though their powers were limited, they had been designed for battle. Withdrawing from simple space at will, they were untouchable. They could levitate where they pleased, unstoppable. With one flash of a nimbus, they could kill a preman leader or explode an arsenal. After two or three encounters, the premen panicked.

"Huxley recalled his Valkyries to space, and the trumen tried to restore the world republic. For reasons they couldn't understand, the effort failed. Defeat had changed the premen. They refused to trust anybody, or to accept any aid, or even to help themselves. As Eva saw it, they had suffered an emotional wound that never healed. And I guess that's the way Redrock began."

Buglet wrinkled her nose at the sewer stink drifting between the yellow containers.

"The two cultures grew apart as the centuries went on—and the premen lost most of their own. When the world-state came back, it was a union of the spreading truman enclaves, with the premen left out. I wonder—"

Her breath caught, and her voice was again her own.

"I wonder if San Six is right—if the premen really are the mongrel step-children of creation. Because they just gave up. They quit trying. In government. In science and art. In everything. When the troubles ended, they still owned most of the planet. But they died of their own strife, their own plagues, their own despair. Their numbers dwindled as the trumen grew. Again and again they gave up land, till Redrock is their last stronghold—"

"You and I are premen," Davey objected gravely. "Really, Bug, do you feel so inferior?"

Her yellow eyes blinked.

"I guess I was still thinking Eva Smithwick's thoughts." With a quick little smile, she reached to touch his arm. "We're different, of course. We can't do what the stargods can. We aren't even as sharp as San Seven, in a good many ways. But we're—ourselves."

"We're just as good—as good as anybody!" A gust of anger shook his voice, and he sat bleakly, silently until it had passed. "Go on, Bug." He bent toward her hopefully. "Is there anything about the Multi-man?"

"Maybe." She frowned at the yellow boxes. "It's like trying to fit the pieces of a broken pot together when half of them are gone. I don't know what I know. I have to put the scraps of Eva's memory into a language I can speak.

"But Huxley Smithwick had a daughter—"

Absently combing at her hair, she forgot to go on.

Davey watched the monk's skimmer sail above them toward the dig on Creation Mesa, and listened to the hooves of a mule clopping along the trail.

"When the war was over, Huxley came back from space." She nodded to herself, as if to confirm the recollection. "He built the laboratory—the exobiology lab—where the old space clinic had stood. There he created mates for his three Valkyries.

"The first of the stargods. True immortals, with keener senses to explore the multiverse and greater powers to control it. The mumen had begun encountering advanced and sometimes hostile alien cultures, and he thought they needed stronger champions than the Valkyries.

"In his old age, talking to his daughter, he confessed that the gods had been a blunder. Even at the time, he was aware of the danger, but he thought he was taking precautions enough. Like the Valkyries, those first gods were implanted in the wombs of proxy-mothers, to be born and raised on other worlds. Trying to guard himself, he gave them an avoidance compulsion, to keep them light-years away from Earth.

"Eva was his daughter and his student, herself perhaps his greatest creation—but not immortal, of course. The last Creator. She took over the lab when he died. By that

time, the extent of his blunder was clear. The gods were far too powerful, too scornful of their makers, with too much self and passion from their Valkyrie mothers, more anxious to extend their own divine might than to aid and shield the older human races.

"The first three gods made no trouble. Bound by that compulsion, they stayed away from Earth. But—after they had found their Valkyrie mates—their children inherited their immortality and all their powers, without the compulsion. Alarmed, Eva went to work on a new creation—"

"The Multiman?"

"Not by such a name." Buglet shook her head. "She was trying to design a new sort of being, greater than the stargods, with a better control of the multiversal environment and a stronger love for all the older races. But she had to rush her work, because she was afraid the jealous young gods would try to wreck it, to defend their own supremacy.

"There simply wasn't time—"

She stopped again, frowning at nothing, absently kicking at the next hollow box.

"That's about as far as I can go. About all Eva knew, when her memory somehow got mixed up with mine. She was still busy in the lab on what we call Creation Mesa, working to perfect that new life-cell. Out in the multiverse, Belthar and his brothers and cousins were growing up, afraid of her work and free to attack her. The new creation wasn't ready to be implanted in a proxy-mother. She was making plans to hide it—"

"Where?" Davey whispered. "Where?"

Her lemon eyes looked through him, while she groped for Eva Smithwick's thoughts.

"The mine!" She smiled a little, as the details came. "In that old copper mine, where her father had hidden. It's under the end of the mesa. The centuries and the preman wars had already erased all the surface signs that it was ever there, and her father had dug an escape tunnel to it from the basements of the lab.

"She knew the gods would be looking for new creatures. To outwit them, she had set her engineers to work on a robot nurse that could keep the germ-cells frozen for years—maybe for centuries—till a safe time came for it to be incubated and developed."

"So he's out there?" He was breathless with excitement. "Asleep under the mesa!"

"I don't know, Davey." With a shrug of regret, she slid off the container. "That's where Eva Smithwick was in time. She didn't know what was going to happen. I've come to the end of the memory—if it was a memory."

"Do you think—" He caught her hands, and found them oddly cold. "Do you think we could find a way into the mine? Wake the Multiman?"

"That's all I know." Though the still air was hot around them, bitter with the smell of the yellow containers, something made her shiver. "If he's there at all, the monks will probably find him first."

4.

Their preman teacher scowled and their fellow students winked and tittered when they came late to school. Davey sat dumb all day, hearing nothing, vainly trying to imagine ways to reach and wake the sleeping Multiman before the gray monks found him. Working out on a null-G belt that afternoon, he was so preoccupied that he tumbled clumsily into the ceiling of the gym. When San Seven asked what the trouble was, a wave of terror swept him.

"Just worried, I guess," he muttered. "About Andoranda V."

"I'm sure you are." San looked at him almost too keenly. "If I can help, just ask."

He had to quench a spark of hope. San was his best male friend, but also a sharp-witted truman, faithful to Belthar. "Thanks," he said. "But I'm afraid there is no help."

On graduation night, he filed into the old adobe auditorium just behind Buglet, half-drunk with the scent and shine of her long black hair. Seated side by side, they listened to the commencement address. The speaker was San Six.

The occasion was significant, he said, because they would be the last graduates from Redrock. They would be carrying their memories and the traditions of the school to a far-off frontier world, where they would be facing novel and exciting challenges. To survive there, to succeed, to make their careers and nurture their ancient preman culture, they must call on the lessons they had learned from their faithful teachers and the aid they might earn through steadfast devotion to the gods—

Listening to the agent's mellow oratory and thinking of those empty containers waiting on the plaza, Davey tried not to shudder. He turned impulsively to Buglet, who looked very grave and pale in her dark robe, more alluring than a goddess.

"If we could run away together—" The whisper burst out before he thought. "If we could hide somewhere—live somewhere as trumen—"

He stopped, stifled by the fear of his own audacity. She turned a little toward him, her lemon eyes wide. After one breathless instant, she nodded slightly.

"I'll come." Her lips moved soundlessly. "If we can find a way."

"But that's crazy." His wave of elation was already gone. "We've got to stay. Understand your vision—whatever it was. Look for the Multiman. If he does exist."

They went next morning to the Thar chapel, to ask for work at the excavation. The fat dean was sorry, but the monks had stopped hiring anybody. The dig had not been productive, and the new lake was

rising fast. Within the next six-square of days, their expedition would be leaving Redrock.

"Anyhow," Buglet whispered to Davey. "I want to see where Eva lived. The place might wake another memory."

They rented two mules from La China and rode out for a picnic on Creation Mesa. A skimmer came sailing to meet them at the top of the trail, and a gray monk leaned out to warn them that the area was closed to visitors.

"Your permission, Master." Davey bowed respectfully. "We're only looking for wild flowers and a place to eat our lunch."

"Flowers?" the Polarian snorted. "All you'll find is cactus."

"There's a spring—" Buglet caught herself. "We heard there's a spring below the north rim."

"Dry rocks," the monk muttered. But he let them ride on.

"There *was* a spring," Buglet whispered. "A thousand years ago. A tunnel, actually, dug to drain water out of the mine. It could be our way inside."

She rode ahead through the glaring noon, her brown mule clattering over naked rock and crashing through brittle brush. Davey followed eagerly, breathing the juniper scent, searching ahead for the green of a spring, but his bright hope died when they came to the rim. Buglet had stopped there, shading her eyes, peering blankly down at the desert.

"Things—things are wrong. Nothing looks quite like it should. Maybe Belthar's bombs caved the cliffs away. I guess the spring has dried up. Anyhow, I don't know where to look."

They hitched the mules to a piñon stump and scrambled down the slope looking for the scar of a drill, the red of iron rust, even one green weed. When they found nothing, Buglet chose another place to search, finally a third.

"No use." She was scratched and grimy, drooping in the heat. "I guess the monk was right."

They sat in the shade of a sandstone cliff to eat their bread and cheese. Late in the suffocating afternoon, they were riding back toward the trail when Davey slid off his mule.

"Bug, look!"

What he had found was half a red brick, one face burnt black. Kicking breathlessly into the gravel, he uncovered a gray mass of battered aluminum, an opal blob of fused glass, a blackened silver coin. Reining up her mule, Buglet peered off into the heat-hazed distance.

"Eva's view!" Her eyes grew wide. "From the parking lot behind the exobiology lab. Davey, this is where the monks think they're digging." With a quick little nod of recognition, she looked south across the mesa. "Actually, they're down at the site of the old mining town."

"Shall we tell them?" Davey frowned doubtfully up at her and down at the opal ball. "If we do, they

may find the Multiman—and maybe kill him. If we don't, the lake will drown him."

She sat for a moment staring down at the gravel as if her yellow eyes could penetrate it. "The escape tunnel from the lab to the mine must be fifty feet down. Farther than we could hope to dig. I think we'll have to risk help from the monks."

When the pudgy Polarian dean came that night to dinner at the agency, Davey showed him the bits of brick and metal and glass. Squinting at them, he forgot his appetite. They went with him next morning in the skimmer to guide him to the site and watched while he explored it with strange machines.

"Probes," he told them. "Sonic and magnetic and gravitic. They're mapping the solid masses and the metallic bodies under the gravel and rubble. Broken walls. Pavements and foundations. Old excavations. An important site. I wish we had found it sooner."

"Since we found it," Davey begged, "may we work here?"

"Till you leave," the dean agreed.

They drove stakes for him that afternoon and helped stretch the colored cords that outlined the foundations of the buried lab. Davey went to work next morning with a spade, tossing gravel against a sloping screen, while Buglet knelt in the dust to scrabble for artifacts.

"You're right above old Huxley's tunnel," she told him. "If we can ever dig that far down."

His hands were raw blisters before the long shift ended, but he had begun to uncover ancient masonry, walling his narrow pit.

"An old elevator shaft," Buglet told him, and dropped her voice. "Old Huxley's escape tunnel opens from the bottom of it." She frowned uneasily. "If we can somehow get into it first—"

Day after day, he shoveled rubble into a bucket, to be hoisted and sifted above. Foot by laborious foot, he cleared the ancient shaft. The pit was hot and his muscles ached, but he dug through a level of broken porcelain and glass that came, Buglet said, from the biochemical lab. He dug past a shattered archway into what she said had been a cold room for a colony of alien methane-breathers. He dug on down beside a vast concrete slab that had covered a bomb shelter. Dripping muddy sweat, reeling with fatigue, still he shoveled rubble.

But time ran fast. From the windows of the skimmer, as the monks took them home after work, they began to see dusty sunsets burning red in the rising lake. The preman magistrates had begun scattering the yellow shipping containers through the town, one to every dwelling. Most of the other premen stopped coming to work, but they kept on.

Breathing the dust of dead centuries, Davey piled the bucket with broken stone and muck, with charred wood and rusty iron, with stray

bones and battered bullets. Spitting bitter mud, he worked on down beyond the floor of the buried shelter.

"Just a few feet more!" Buglet's tawny eyes shone. "The tunnel opens from the south side of the shaft. There was a false wall to hide it. I don't think the monks suspect it yet."

Energized with eager hope, yet half afraid that the wall had broken, that some flood had washed debris through to choke the tunnel, he toiled through most of another day. Abruptly, in midafternoon, the Polarian foreman called him out of the pit. Work had stopped. The expedition was departing.

"Sorry to go," the dean told the agent at dinner that night. "Because of your excellent hospitality. And because we've finally located the true site of creation. We could spend our lives here, uncovering relics of the holy progenitors. But the church has ordered us out."

He reached to spear a second steak.

"Enjoy yourself," the agent urged him genially. "Everybody's going. The transport's in orbit at last. Long overdue. Delayed somewhere to wait for a pilot. Now we've only three days to clear the premen out."

Afraid to look at Buglet, Davey reached under the table for her hand. Cold and quivering, her fingers clung to his. San Seven sat across the table, watching them with a troubled intentness. He followed when they left the dining room.

"Davey—" His uneasy whisper stopped them. "Bug—please!"

He beckoned them into his own room and closed the door. Nearly always cheerily confident, he looked so pale and nervous now that Davey thought he must be ill.

"You heard—" Nervously, he went back to listen at the door. "Andoranda V—unless you get away—"

*Unless we find the Multiman*, Davey thought.

With a tiny gesture, Buglet warned him to say nothing.

"I'm not used to this." San Seven was breathless and sweating. "I've never broken the code before. But we—we've grown up together. I love you both. More than my truman friends—"

Buglet ran impulsively to kiss him.

Davey grinned gratefully, his own throat aching.

"I'm no—no criminal." He was almost sobbing. "Not till now." Brown fingers trembling, he thrust a tiny envelope at them. "I got into Father's office. Stole forms. Forged truman passports."

*We'll never need them*, Davey thought. *Unless—*

"Invented identities for you. Priests of Bel. You belong to the wandering order of Yed. Your society owns no property and observes no discipline. Your obligation is to preach the Lord Belthar's boundless love. Understand?"

"We've seen the priests of Yed."

Davey nodded. "They used to bring their message to us premen. Wearing rags. Sleeping on the chapel floor. Begging food at El Yaqui's. Preaching Bel to everybody." He grinned his gratitude. "A clever way to help us hide!"

"We can't repay you." Eyes dark and wet, Buglet accepted the envelope. "But we'll always remember—"

"Perhaps you shouldn't thank me." San Seven shrugged a troubled apology. "I'm not a skillful forger. You're likely to be picked up, and you know the penalty for trying to pass yourselves as trumen."

*Death.*

"We know," Buglet whispered. "It's not as bad as Andoranda V."

"Anyhow," he mumbled. "I wanted you to have a chance."

With a guilty haste, he looked out to see that the hall was empty and rushed them from his room. They slipped away from the agency and hurried through back streets to the trading post.

"The starship's in orbit," Davey told La China. "They'll be shipping us out. We want to remember the mesa by moonlight. We'd like to rent two mules."

"Take them." She blinked sleepily across her cash machine. "Take these." Her fat black fingers dug into the drawer for a heavy roll of coins. "Take—take anything you need." Her husky voice caught. "If I were young enough, I'd be running with you."

"Maybe—" Davey whispered. "Maybe the Multiman can help."

"There's no help." She smiled dreamily. "I'm dying tonight."

They saddled the mules and followed dark alleys out of town. The moon was full, the desert all silver and shadow.

"It's all so beautiful," Buglet murmured. "Too lovely to leave."

The dig on the mesa was silent, black cranes jutting like skeletal arms into the sky. They hitched the mules and he showed Buglet how to run the bucket. Down in the narrow pit he dug desperately.

One jagged mass of fallen concrete was too heavy to move. With no tools or explosive to break it up, he burrowed around it. His headlamp found a dark hollow behind it, and he smelled musty dampness.

"Bug!" His voice boomed back from the walls of the pit, magnified into a monstrous bellow. "We've found the tunnel—open!"

She rode the bucket down. Thrusting and prying with the shovel, hauling bare-handed at muddy concrete masses, they widened the opening. Before it was big enough for him, she dived through. For a moment she was lost in the dark.

"We've found the Multiman!" Her face came back into the light, grime-streaked and eager. "If Eva really left him here."

They strained together to move another boulder, and he slid down beside her. Roughly cut through dark sandstone, the narrow passage was so

low they had to stoop. Sloping steeply down, it brought them at last into a wider drift, where drops of falling water crashed and echoed.

"Which way now, Bug?"

She shrugged uncertainly.

"The robot nursery—" Her voice brought chattering echoes out of the dark, and she dropped it to a whisper. "The nursery hadn't been installed. All I know is Eva's idea. She wanted a high spot, safe from flooding. She wanted easy access to it from the lab, through Huxley's tunnel."

The drift curved and sloped, where the miners must have followed a wandering vein. Ancient timbers had gone to dust, letting it cave. They climbed it, till a larger rockfall stopped them. Crawling through the jagged crack above the boulder mound, they saw the loom of a huge, dark-cased machine.

"No!" Buglet gasped. "Oh, no!"

Davey's searching headlamp struck dull glints from the rock-piled floor around the silent machine. Once a thick glass shell had covered it, but that lay shattered into dusty fragments beneath a great stone mass from the ceiling. Clambering down the slope, he let his light play over broken glass and rusting metal. Nothing moved, and the air had a reek of old decay.

"Dead!" Buglet sobbed. "The Multiman is dead."

5.

Still damp with sweat, Davey shivered. That cold cavern had suddenly become a tomb—for Eva Smithwick's last creation, for the premen waiting exile to Andoranda V, for all their dreams. Though they stayed an hour, digging under the great glass shards in search of something more than rust and dust, they found no hope.

"Nothing!" Davey flashed his lamp on the boulder that had crushed the machine. "It happened too long ago. A quake, I guess."

Buglet stood trembling in the gloom, fingering a broken scrap of stainless metal. She shaded her eyes from his light. "Belthar's bombs, more likely."

"What now, Bug?" He peered at her hopefully. "Shouldn't there be a spare machine? A second Multiman?"

"I don't know." She dropped the useless metal fragment and started a little when it jangled on broken glass. "Eva was afraid the machine might fail. She did think of a spare. But—" With a tired shrug, she turned to stare at the dead pile of rock and wreckage. "I don't know anywhere to look."

Her small sad voice sent a surge of pity through him. He reached to touch her trembling shoulder, and suddenly they clung together. The warm strong yielding feel of her body spun him into a chasm of emotion. He crushed her hard against him.

"I—I love you, Bug!" he gasped. "We've got to live. That means we've got to run. With money from La

China and passports from San, I think we have a chance." He looked into her lemon-gray eyes, contracting under his light. "Are you game?"

Eyes wet and bright, she kissed him again.

The full moon was already low when they came out of the excavation. They rode the mules east to the mesa rim and down a long rocky slope. Dawn met them far from Redrock, on a vast bare flat.

"They'll soon miss us." She kept watching the sky behind. "They'll come hunting."

The tired mules were stumbling, but they pushed on to the next sandstone ridge. From the shelter of a red-walled canyon there, they saw the glint of the early sun on a skimmer that flew low, searching across Creation Mesa.

Hiding out through that blazing day, they finished the tortillas and smoked meat they had brought from El Yaqui's. By turns, they watched and slept. Climbing the canyon, after the skimmer was gone, they found a rock pool where they drank and watered the mules. From the top of the ridge, just before sunset, they looked out of the reservation into truman country.

A straight and endless line cut off the desert. On the preman side, red buttes and dead brush shimmered in a haze of smothering heat. Beyond the line, young orchards and ripe grain patterned the fertile truman lands with tender green and mellow gold, laced with narrow blue canals.

"A wall!" Buglet whispered. "A wall around the reservation."

"Death if we cross." He spat muddy froth. "Andoranda V if we don't."

Dismounting to rest the mules, they sat resting on a rocky ledge, looking down into that richer world. Harvest machines like bright insects were crawling over the golden wheat. The reddening sun picked out the lean white towers and mirror domes of a truman town on one far hill.

"There are too many trumen," Buglet murmured solemnly. "Too few of us."

As they rose to go on, Davey looked back and caught his breath. The desert behind was a vast empty basin, the long blue shadow of Creation Mesa creeping across it. One tiny red speck had left the shadow, creeping after them beneath tiny puffs of sunlit dust.

"A muman soldier," he decided. "On our trail. Using a null-G belt."

"Then it will catch us." Alarm darkened her yellow eyes. "We can't outrun a flying belt."

"We can try." He gave her a small grim smile. "Our trail will be harder to follow in the dark. If we can get across the line, we'll be trumen—with passports to prove it."

In the hazy dusk, the sweat-lathered mules slid and scrambled down the ridge. In the early dark, they plodded on and on across the next bare gravel plain. When one mule went lame, Davey dismounted to lead it. Before moonrise, the other

stumbled into a dry arroyo, pitching Buglet over its head.

Davey found her lying in the bottom of the rocky gully, unable to speak. Her breath was gone. When she got it back, she whispered faintly that she wasn't hurt at all. Except for a twisted ankle.

The mules, they saw, could carry them no farther. She sat on the arroyo rim, nursing her ankle, while he unsaddled and freed them. In the first pale light of the moon, he cut two leather thongs from the saddles, knotted a pocket between them, and searched the arroyo bed for pebbles to fit the pocket.

"A weapon?" she asked.

"A sling," he said. "One summer El Yaqui taught me how to use a sling for rabbits."

"For rabbits, maybe." Her eyes were huge and black in the moonlight. "Not for muman deadeyes."

He wrapped her ankle with another thong and found her a dry yucca stalk for a cane. More slowly now, they toiled on. At midnight, by the high moon, they were climbing a long rolling slope which brought the far-off town into view again, its domes now glowing rose and gold.

"The reservation line." He pointed at a straight dark streak across the next low hill. "We'll be there by daylight."

Buglet limped on beside him. At the crest of the ridge, she stopped with a gasp of dismay. He thought she had hurt her ankle again, until she pointed into the broad valley ahead and he saw the shimmer of the moon on water.

"The lake—" she whispered. "It has cut us off."

They hobbled on until the ridge they followed had become a narrow spit of sand jutting into a wide arm of Quelf's filling sea.

"Water all around us," he muttered huskily. "And the deadeye behind."

They waded out through the drowned brush and cupped water in their hands to drink. He stood a long time staring out across that unexpected barrier.

"Trapped." Wearily, he splashed back to the shore. "But we tried."

"We tried," she echoed bitterly. "Now I guess we wait."

Waiting, they lay in a dry sand hollow. Buglet loosened the thong around her swelling ankle and rested her head on his shoulder. She felt very light and fragile, tragically vulnerable. Breathing the sweetness of her hair, he thought of many things to say, but nothing really mattered now.

"Stepchildren," she whispered once. For a time she was breathing so evenly that he thought she was asleep. Her low voice startled him. "It's a strange thing, Davey. When you remember that we premen made the trumen and the mumen and the gods."

His throat ached, and he only stroked her glossy hair.

Brush crackled and pebbles rattled.

Standing stiffly, they watched the mutant guardian coming down the ridge. Naked except for harness and belt, it was taller than a god. Its red scales were black and silver in the moonlight, but the deadly lens in its crest glowed crimson. Though its gliding bounds seemed slow, each covered many yards.

Buglet kissed Davey and gripped her yucca stick. He fitted a pebble to his sling. Rising and pausing and falling through a last flowing leap, the guardian crashed into a greasewood clump twenty yards from them. It stopped there, splendid in its towering power. The wind brought its scent, an odor like pine.

"Greetings, premen!" Its voice was a trumpet blaring. "From Allaya K, guardian of the gods. To Davey Dunahoo, male. To Joan Dark, female. By order of the church, you are under arrest. Drop your weapons and walk forward."

Davey glanced at Buglet. Somehow she was smiling, fine teeth glancing white in the moonlight. He whirled the sling to test the pebble's weight.

"Now hear your charges," that cold voice pealed. "Jointly and individually, you stand accused of theft from the preman woman known as La China. You stand accused of complicity in her death—"

"She isn't dead!" Buglet gasped. "She gave us the money and the mules."

"She was found hanging in the mule barn behind the trading post," the hard official tones boomed on. "You also stand accused of flight to escape transfer from Redrock. Any display of resistance will forfeit the clemency requested by San Six, agent of Belthar. Drop your weapons and walk toward me."

Davey gulped. "We aren't coming."

"Do you refuse to obey a lawful command?" the muman bugled. "Are you not aware that the penalty is death?"

"They want to send us to Andoranda V," Buglet said. "That is death."

"Listen, children." Another gliding bound brought the guardian halfway to them, so close that he could see a half-familiar pattern of darker scales across its gleaming torso. Its voice was suddenly softer, chiding, almost feminine. "Don't you know me?"

"No—" Buglet started. "You killed Spot!"

"A savage animal was charging the goddess," its new voice chimed instantly. "I struck it down at Prince Quelf's command. I followed my duty to the Lord Belthar then, as I follow it now. But I beg you to surrender. Even premen should be too smart to defy the church and the gods. Please put down your silly weapons."

"We—we just can't!"

Buglet brandished her yucca wand.

"Fools!" The muman's voice rang cold again. "You give me no choice."

The guardian crouched. Its black crest swelled. Its third eye volleyed pathseekers, arrows of violet brightness probing for a mark. When they found the brittle stick, thunder cracked. The stick exploded into blazing splinters.

"Dav—"

With that stifled cry, Buglet slid down to the sand.

"Take warning, preman!"

That lethal eye swung to Davey, alive with painful fire. Sharp as needles, the ionizing pathseekers stabbed his arm and shoulder. His nostrils stung with their lightning scent, and all he could hear was their hurried *hiss-click*, *hiss-click*, *hiss-click*.

He whirled the sling around his head.

"Give up!" the mutant boomed. "Or—"

His wrath and grief lent force to his stone. It went true, but the guardian had flung out its arm, as if brushing at a gnat. He heard the pebble thump against the yielding scales, heard it clatter on the gravel. Dancing nearer, the muman lit the brush around them with its killing eye.

"Idiot!" Its laughter rang like an iron bell. "You premen! You're still only animals, for all your human form. Blind to logic. Slaves to raw emotion. Cowards when you ought to fight and brave when only flight can save you. I guess it's no wonder you've lost your last reservation."

Its seeing eyes challenged him.

"Will you yield now?"

Gasping for his breath, Davey had no voice. His whole body quivered. Tears blurred his eyes, until the guardian was a shimmering pillar of silver and crimson. Fingers numb and clumsy, he fitted another pebble to the pocket. He spun the sling again. If he could smash—

"You've fury enough," the mutant mocked him. "But fury isn't force. If you elect to die here—"

Red fire exploded from that hateful eye.

Aiming at it, he tried to release his missile.

But time had paused. A red-purple fog had erased the towering guardian and flooded all the moon-gray sky. Blind, he still could somehow sense the deadly bolt hurled at him.

Desperately, with his last reserves of nerve and will, he tried to catch it, turn it back.

He knew the effort was folly, and he thought it had failed. That cold fire-fog became a roaring tornado around him, dragging him into a bright abyss he didn't understand. Bewildering images flickered and vanished in his mind, too quick for him to grasp them. Dazing thunder crashed—

"Davey!" Buglet was sobbing. "Can't you move?"

Numb and trembling, he sat up. The world seemed strangely still. The calm lake lapped around them. The mutant soldier lay sprawled a few yards away, its crested lens dark and

dead, staring into the moonlit sky.

"You stopped it, Davey!" Breathless with elation, she was hovering over him, brushing at the sand on his face. "Just in time."

"I thought—thought it had stopped me." He stopped to get his own breath. "The finder beam was jabbing at me. I saw the lens blaze. I knew it was striking. I do remember trying to turn the bolt—"

"You did it!" Her voice was hushed with awe. "The bolt never reached you. I saw it curve back toward the guardian's heart. Somehow, you made it kill itself."

Unsteadily, he stood up. Sparks from Buglet's splintered stick still glowed around them on the sand, and the air was edged with its smoke. Bewildered, he stared down at the fallen soldier. The mighty limbs were twisted and rigid, and the extended talons had ripped long scars in the sand.

"If I stopped the bolt—" He shook his head. "I don't know how!"

"Maybe—maybe I do!" A sudden elation had quickened Buglet's voice. "When it hit my stick, something happened to me. The shock knocked me down. For just an instant, I must have blacked out. By the time it was striking at you, I was awake again. With another memory, Davey! A later link to Eva Smithwick's mind.

"Now I know—"

Her voice faded out.

He felt numb and light and strange, the way he had felt once on the desert, chewing bitter peyote buttons with El Yaqui. Staring down at the enormous armored body lying on the sand, he couldn't remember for a moment what it was. When he looked back at Buglet, she was wrapped in a dust-devil of whirling golden motes. Her excited voice came out of its thundering vortex, still so faint he could hardly hear.

"—more than stepchildren," she was saying. "More than just rejects from the genetics lab, bungled mutants or spoiled gods. Davey, we're the actual Fourth Creation!"

Trying to move closer, to hear better, he was swept with her into that whirl of fire. The bright motes became winking images, like the truman symbology he had never learned. He knew they had meaning, but it was always gone too fast for him to grasp.

"Demons?" Swaying giddily, he fought for breath and balance. "Are we—demons?"

Her reply seemed intolerably delayed. Her slim form was frozen, as if the air had congealed around her, her face a stiffened mask. He stood there, numb and shuddering, until the thunder waned and that bright vortex let them go.

"The demons were a lie." Time had begun to flow again, and her rigid face thawed into a slow and bitter smile. "A lie invented by the gods to excuse their murder of the Creators. The real Fourth Creation was something greater than any god. It was the being we've been calling the Multiman. He is hidden in us!"

"But—" His tongue felt too thick for speech. "That smashed machine—"

"Only a decoy." Receding, those flakes of whirling fire still seemed more real than the moon, and her voice too faint and slow. "It's all clear now, since I have this later recollection. Eva had known from the first that the robot nurse would be too easy to find and destroy. She was looking for a more subtle way to hide her last creation. She found it, long enough before Belthar came back—in the cells themselves."

Still too numb and dull to think, he waited.

"What she did was to rebuild that last synthetic germ cell, to conceal its true nature. She had always given a share of her time to clinics on the preman reservations, and she was planning to use her last tour there to plant copies of the cell in preman women. The children, for many generations, were to be apparently premen, maybe even a little subnormal, too harmless-looking to alarm Belthar."

Her white smile brightened.

"Of course all I know is what she planned, but she meant to be back here at the mesa lab when Belthar struck, working desperately to get her decoy machines completed and installed in the mine. I believe that's what happened. She herself was the real decoy, waiting for Belthar to wreck the lab and kill her. Out on the reservations, those preman-like children were born. They grew up to hand their special genes down to another generation. And the gods never suspected the truth."

Her eyes were black and huge, and her low voice quivered with something near terror.

"Davey, those genes have come down to us!"

Breathing unevenly, he waited for that far-off thunder to fade from his ringing ears, for the last flecks of fire to dissolve in the cold moonlight.

"So that's how—" His voice was hoarse and strange. "How you got Eva Smithwick's memory?"

"The things we must know were engineered into the germ cells. Designed to lie latent, generation after generation, till something triggered them."

"Bug, I can't—can't realize!" Though time was flowing again, he felt dull and cold and slow. He reached uncertainly to touch her arm, but his hand shuddered and drew back. "You're a goddess, Bug. Greater than a goddess!"

"We don't yet know what we are."

"We?" With a stiff little grin, he shook his head. "I don't remember anything. There's no Multiman waking up in me. Sorry, Bug. I'm just a preman."

"What do you think happened to the deadeye?" She nodded at its body. "I think—I know we both carry the created genes, though different powers have begun to awaken in us."

He stood trembling, as if the wind

off the lake had chilled him.

"Why?" He gaped at her. "Why us? Why now?"

"Danger is the stimulus, I think."

"I never expected—" He had to get his breath. "Bug, what are we going to be?"

"I know what Eva planned." Her dark eyes shone. "The being we called the Multiman is sleeping in us, Davey. In both of us. Waiting to be waked. We're the Fourth Creation, born to challenge the gods!"

He blinked at her, shocked by the audacity of that.

"I don't feel equal to the gods." He shrugged uneasily. "In fact, I'm tired and cold and hungry. And we're in a bad spot, Bug. We've just killed a muman guardian. The whole church will be hunting us now—"

"We ought to welcome danger, Davey." She was smiling in the moonlight. "It's the stimulus we need, to make us what we must be."

"I imagine we'll see danger enough."

She looked down at the body, her smile slowly fading.

"It does frighten me," she whispered at last. "To think what Eva planned for us to do. To repair the errors of the gods. To build a better multiverse for all the human races." Her cold hand caught his. "That was to be our destiny—but I don't know how to begin."

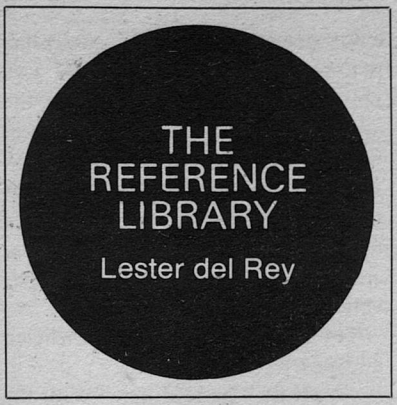
"First of all, let's get off the reservation."

Testing her hurt ankle, she winced and nearly fell.

"We'll fly," he told her. "With the deadeye's belt."

Bending to loose the mutant soldier's harness, he found the nipples the sleek scales had hidden. Beneath the bluster and the armor, she had been female. He felt a pang of astonished sadness that excitement washed away.

Buglet snuggled against his belly, her fragrant hair against his cheek. He snapped the belt around them and turned up the nullifier. The sandspit and the mutant body dropped behind. The cool dawn wind caught them, swept them on across the moon-flecked lake toward trumen country. ■




**BOOM AND BUST:**

The history of science fiction seems to break into a series of twelve-year periods, each period representing a change of some kind over the previous one which can be determined much later by hindsight. And each period seems to have a boom year that occurs three years (four for the first period) after its beginning—1930, 1941, 1953, 1965 . . . Then there's a decline, usually referred to as a bust, though the drop isn't always that dramatic. Eventually, it all begins over again for another twelve years.

I'm not a great believer in the idea that cycles are behind everything, and this pattern doesn't fit the sunspot cycles, anyhow. But the history of the magazines seems to follow this twelve-year cycle like clockwork, and may well also apply to book publishing, which is beginning to replace magazine publication as indicator of the progress of the field.

If the pattern doesn't break, the current cycle began in 1974, and the big boom year should be 1977. There are quite a few signs that indicate this may well be the case. Certainly more publishers seem to be scheduling more science fiction for 1977, and there is some interest bringing out several new magazines. Even books *about* science fiction are being issued and planned beyond what anyone could have believed five years ago.

And, as in previous booms, some of the activity seems to indicate a good possibility for a bust to follow. (It should be remarked, however, that a "bust" is often almost as good as the "boom" of a previous period.) As in the magazine boom of 1953, a lot of the activity is being shown by people who haven't the faintest idea of what science fiction is all about. Some editors seem to depend on big names, regardless of story; others don't even know what the big names are. Publishers are sometimes acting as if the label can be put on anything, with assured sales following. And others seem to feel that the profits depend on letting the readers know how high a price they paid for the book. (Recently, books that would not have drawn more than $5000 in any advance have been going for $30,000 to $100,000! At the same time, other books at least as good for sales may be selling for the old advances.)

That might sound good for the field; and in the short run, it certainly is good for a few authors who somehow have impressed certain editors. But what happens when the books go out to the market? Well,

the books chosen by an editor who doesn't have any idea of what the readers want either don't sell or turn potential readers off—and also draw off sales from other houses that deserve better. And the books that went for those big advances turn out to be publishing disasters. Now publishers, being human, don't say they goofed. Nope. They look at their losses and announce that science fiction was just a fad, and that it's now a marketing disaster.

And curiously, fear spreads. A publisher who hasn't been doing badly hears of other publishers' disasters and begins to worry. (The whole book business is more subject to rumors and worry than the grain futures market.) Maybe the boom *is* over and he'd better cut back or switch to cult gothics. And bookstore owners hear from some book salesmen and begin cutting down on orders, thereby proving that the market is dying. Then we're in another bust period, until years pass and things come to a balance and begin again.

Some publishers will probably go on—DAW and Ballantine, I'd guess—just as Analog has survived past booms and busts. There will still be some science fiction. But the bloom will be off the rows of science fiction shelves at your neighborhood bookstore. And academe will go back to being saprophytic.

Meantime, all we can do is be suspicious of the blatant hucksterism of the boom and be grateful for the good that comes with it.

Sometimes that good turns up unexpectedly. I've usually been disappointed in books about science fiction. But **The Craft of Science Fiction**, edited by Reginald Bretnor (Harper & Row, 321 pp., $9.95), is a happy exception. This is "a symposium on writing science fiction and science fantasy" by 15 well-known writers, ranging in time from Jack Williamson to Jerry Pournelle.

Despite the subtitle, it is not a writing how-to book. There are enough such already, since the basic writing skills are the same for all fields, and since no book can do more than teach how to avoid certain mistakes; nobody can be taught how to write, anyhow. The only how-to article in the book is Harlan Ellison's excellent discussion of how to adapt one's writing skills to screenwriting.

What the book does show are the basic attitudes behind the writing (and reading, incidentally) of science fiction. This it does very well, and entertainingly. More than any other book I've seen, it manages to convey the feelings and outlooks toward our field which have developed over a period of fifty years. In a sense, this is a book that looks at science fiction as it is seen by the adepts of the discipline.

Bretnor begins it all with a survey that puts things in good perspective as to where science fiction stands. Anderson treats the myth and saga content of science fiction. Norman Spinrad complements Hal Clement's article on hard science with one he calls "Rubber Sciences"—and the two together become far more than either could be alone. Pournelle discusses believable societies with excellent insight into what science fiction can achieve. James Gunn examines the characters of science

# ana log

## A Calendar of Upcoming Events

**January 7-9, 1977:**
CHATTACON 2 at Admiral Benbow Hotel, Chattanooga, Tenn. Lightly programmed SF Conference. Info: Irving Koch, 835 Chattanooga Bank Building, Chattanooga, TN 37408.

**January 14-16, 1977:**
PHILCON (Philadelphia area sf Conference) at Ben Franklin Hotel, Philadelphia, Pa. Guest of Honor—Donald A. Wollheim. Info: Meg Phillips, 4408 Larchwood Avenue, Philadelphia, PA 19104.

**January 17-20, 1977:**
American Astronomical Society meeting in Honolulu, Hawaii. Info: H. Gurin, 211 FitzRandolph Road, Princeton, NJ 08540.

**January 19-22, 1977:**
Annual Meeting of the Division of Planetary Sciences (AAS) at Honolulu, Hawaii. Info: C. R. Chapman, Planetary Science Institute, 2030 East Speedway, Suite 201, Tucson, AZ 85719.

**January 28-30, 1977:**
CONFUSION 14 (Ann Arbor area SF Conference) at Ann Arbor, Mich. Guest of Honor—Poul Anderson; Fan Guest of Honor—Ro Lutz-Nagey. Info: Larry Ward, 112 Worden, Ann Arbor, MI 48103.

fiction—without the usual "mainstream" bias or reaction against them. And Frederik Pohl tells something of what being a professional should mean. Many of the other articles are equally good, though harder to pin down.

This is a book I'd like to see studied by all the critics and reviewers of our field who are not themselves old and experienced readers of science fiction. It isn't meant as a book of criticism—and perhaps because of that, it offers more insights into the field than any book of criticism I've seen.

It's also an entertaining book. I started to skim through a few of the articles by writers I'm particularly fond of, but I wound up reading the whole book. It's a stimulating and surprisingly honest book that's well worth the price to anyone really interested in what science fiction is all about.

For a more specialized group of readers—and perhaps an even wider one—there's John Flint Roy's **A Guide to Barsoom** (Ballantine, 200 pp., $1.75). Obviously, this deals exclusively with the creations of Edgar Rice Burroughs in which he recounted the exploits of John Carter. It's copiously and well illustrated by Neal MacDonald, and it covers everything that a reader might like to know about what was discovered on the planet Burroughs called Barsoom. There are maps, a history of the planet before Carter arrived there (or returned there, as I intend to explain some day), a glossary, and much more.

There's also an important section which deals with Roy's research into

the true nature of the planet. This demonstrates why our Viking landers have failed to find so many of the things Burroughs described. As any old-time reader must know, there is a dying planet with two hurtling moons where Tars Tarkas and Dejah Thoris still race across dead sea bottoms on their thoats, accompanied by faithful calots. There has never been any doubt of this in my mind for nearly fifty years; and many newcomers to the books of Burroughs are discovering the facts still. But for those who feel shaken in their certainty because Mars seems somehow different today from the Barsoom we have known, this book's Chapter X should come as a welcome reassurance.

Barsoom is still there. And to all those who still feel the romance of it, this book is highly recommended.

And now, let's look at a fine example of what I consider the sins of hucksterism which tend to afflict a boom market. Berkley-Putnam has released "the first volume of a new science fiction adventure masterpiece"—**Rissa Kerguelen**, by F. M. Busby (408 pp., $10.00). The jacket blurb proclaims that "Rissa is unique in the literature of fantasy—a thoroughly realized, devastatingly powerful woman. Her saga is an intelligent, ironic and flamboyant future epic." Not bad for blurb writing, eh? If one can have flamboyant irony, maybe it is unique. But the real hucksterism doesn't come from the blurb. There's more.

This is followed by a "sequel" or second volume: **The Long View** (about 248 pp., $8.95).

Well, it isn't properly a sequel, for the simple reason that the first volume is only half of a single book, which is completed in the second. It seems obvious that Busby wrote a long novel, which the publisher felt was too long for easy sale, or something. (After all, a book of 656 pages—which would include the whole—isn't that unusual or hard to print and bind; but maybe it's hard to sell now.) So the story is arbitrarily chopped into two books. The first ends just as the characters in the book are ready to *start* on the project which has taken up most of their attention through hundreds of pages. The reader has been built up to an event—and then is summarily dropped with the idea he can buy another book if he wants to find out what happens.

Of course, that means laying out a total of $18.95—which is an outrageous price for a novel of 656 pages; if printed as one book, a more logical price would probably have been $12.95—about all that could be asked. But you see, it's a boom market. Readers will accept anything (so they think) in such a market. Hence, make it two books and get the maximum. Then go heavy on the blurbs to promote it.

Is it worth buying, despite the price? Well, it begins very well. On a Welfare-controlled Earth, Rissa's parents are killed and she's brought up under Welfare. Busby covers this in some 25 pages. It's good, clean prose, and there's a very effective bit about a make-believe doll. At his best, Busby can be very good, and those pages are his best. Then we have the rest of the story, unfortu-

nately. Rissa wins a lottery, buys her freedom and escapes before the UET government can trick her. She is taken in by one of the fabulous Hulzein women and taught everything from sex to self-defense (not excluding dominance, super executive ability, and whatnot) in one year, and goes out to a secret planet UET can't reach.

And from there on, you're not in a story; you're in one of those wish-dream things. Wish dreams are always rather badly plotted, because nothing really bad must ever happen, and every step has to yield greater wish satisfaction than the previous. Most wish dreamers carry the fantasy so far that both ingenuity and interest fail, of course—and that is generally true here. Rissa overcomes great obstacles, builds up a fabulous fortune, gets in thick with the real rulers of everything (except UET, it seems), finds a marvelous man, and—of course—leads a crusade against UET, after which she finds she's one of the natural-born greats of Earth by heredity. (I'm giving little away—any skilled reader will anticipate it all.)

She succeeds because she's so powerful, supposedly; actually, she repeatedly succeeds because either others immediately beg to help her or because the big threats all turn out to be pushovers. (Nothing must be too hard in wish dreams—it's winning that counts, not overcoming real obstacles.) And a lot of time is spent in loving mutual admiration with everyone, until it all turns into treacle tarts (or syrup sweetened with saccharine, if you like treacle tarts). Far from being unique to fantasy, this is very much standard stuff—but with less restraint on the wish part of the wish dream.

Certainly there are immense areas of the book where cuts would have improved what pacing there is. It could have been easily shortened to 400 pages in total. As an editor, I'd have wanted it even shorter; the real scenes of action and development are already short, and the connecting things could be profitably cut to less than half. I can see a writer getting carried away and putting all those words on paper; but I find it hard to understand why an editor accepts all of them, and I consider it a bit unfair to Busby, who is a much better writer than this book makes him seem.

In any event, this two-book event is definitely unfair to the reader. Caveat emptor, indeed!

Roger Zelazny puzzles and irritates me mildly at times, perhaps because he's so good that I expect too much of him at all times. His **Bridge of Ashes** (Signet, 154 pp., $1.25) has a powerful idea of an ultimate telepath and some background material that is most promising. But I wonder if he isn't sometimes too fascinated by what I consider decadent writing. (Decadence in the arts is a tendency to consider form and presentation above structure and content.) There is plenty of content here, but sometimes it gets lost in the fascination with manner of presentation.

He begins with a strange bit about a primitive hunter who is killed (or is he?) by something sent by a race who is shaping man into a creature that will eventually pollute the planet and ruin the atmosphere—but that ruined atmosphere will then be suitable for

the other life. He goes on to tell of a super-telepath who is unable to become a person because his mind is flooded by bits of all other persons, but who learns to take on any given personna completely, past or present. Then, in the end, he brings these two plot threads into contact.

I'm not sure, however, that he ties them together. This may be an ouroboros tale, with beginning and end the same. But that is left uncertain. I'm also not sure why the telepath was necessary, if the primitive hunter evolved such powers as seems to be the case. And there's a woman somehow associated with the primitive—or is it two women. . .? Damn it, Zelazny is too good a writer to resort to trick stuff that is supposed to leave things up to the reader. It may be artful, but I consider it a bit dishonest; when a reader pays his money for a book, he has a right to expect the writer of that book to do all the work of writing it.

It's interesting, and some of the writing and ideas are excellent. But don't expect to be greatly satisfied at the end. You can't have everything, particularly in a boom market!

Fortunately, there is still the honest adventure story that would sell in any market. For those who've been following E. C. Tubb's Dumarest stories, #15 is out—**Spectrum of a Forgotten Sun** (DAW Books, 160 pp., $1.25). And yes, Dumarest does find more clues to Earth's locatability, though he still doesn't know how to get there. There's also another fascinating woman with excellent motivation for what she really is, and plenty of action and adventure. There's also further proof of the characteristic of Dumarest that somehow sets him above most action-adventure heroes; he's a decent and caring man.

Someday, Tubb is going to have to bring his lost hero back from all the worlds he's exploring to his home planet on Earth. And there, methinks he might find why that planet isn't everything it might be, perhaps giving us even more adventures. But that's still in the future. Meantime, the series goes on—and goes on very well.

And, of course, the classics get reprinted, which is one of the good things about boom times. I'm happy to find that Ace Books have restored me to the list of reviewers worthy of receiving their books. (There was apparently suspicion for a while, due to the fact that my wife and I are connected with a competitor.) And I'm doubly happy to find that they are beginning to reissue some of the best of their treasury of back-list books.

This time two books by Clifford D. Simak deserve mention. One is the classic **City** (252 pp., $1.75), with a new foreword by the author. And the other is **Time and Again** (303 pp., $1.75). This novel is one of the intricately-plotted stories Simak was doing some 25 years ago. It deals with a sort of war between androids—not the robots Simak has used so often, but artificial humans—and the rest of mankind; and it involves some very tricky playing with time, and a testament that could not have been written. And reader who doesn't have these books should immediately go out and buy them.

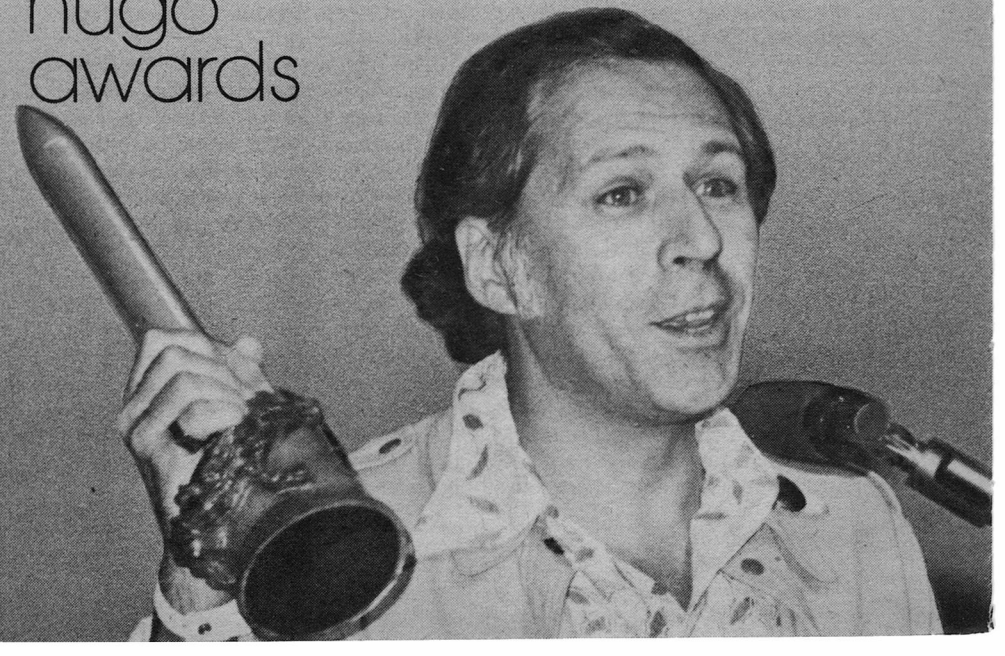
# analog authors dominate hugo awards

■ Analog authors received Hugos in three of the four story categories at the Awards Ceremony at the 34th World Science Fiction Convention at Kansas City. Joe Haldeman won in the novel category for THE FOREVER WAR, sections of which appeared in this magazine. Roger Zelazny's novella 'Home is the Hangman' (Nov 75) and Larry Niven's novelette 'The Borderland of Sol' (Jan 75) also were awarded Hugos. For the fourth successive year Analog Editor Ben Bova received the Hugo for Best Professional Editor while Analog regular Frank Kelly Freas did likewise in the Best Professional Artist category.

The John W. Campbell Award for Best New Writer (sponsored by Condé Nast) was won by Tom Reamy. The Gandalf Award for excellence in fantasy writing was won by L. Sprague de Camp.

■ The Hugo awards, named for pioneer SF publisher Hugo Gernsback, are voted upon each year by the readers who are members of that year's World Science Fiction Convention, as are the Campbell and Gandalf awards. They are the only 'consumer' awards in the literary field.

■ Other Hugos presented were:
Best Short Story—to Fritz Leiber for 'Catch That Zeppelin' (F&SF, Mar 75)
Best Dramatic Presentation—'A Boy and His Dog' based upon the story by Harlan Ellison.



# brass tacks

Gentle Ben:
Re: Doll's Demise, *by George Guthridge*, July, 1976.

It remains true that the rarest form of writing is humor. This pathetic scrawl proves it again. Why did you buy it? Not funny!

It is true that motherhood, in our culture, is no longer an honored profession. It is science fact to recognize that, and if done in an entertaining way, I would have no objection. Young women today also recognize this—my two youngest, 23 and 25 and beautiful, are typical, in that they are opting for no babies. Boyfriends, yes, but husbands?—no, thank you.

Let's extrapolate a bit; soaring from known facts is a good sci-fi ploy and even called a scientific method. (This doesn't always work for good: in Freud's hands it resulted in a couple of generations of mis-facts, misinformation, being applied to the raising of children and the treatment of women. The psychiatrists and social workers of today are finally working their way clear of it. They are in process.)

—Our brightest, most educated young women are opting for no babies in such vast proportions that we are below Zero Population Growth in this country.

—This is also largely true in the other industrialized countries.

—It is not true in Third World countries. They are proliferating far beyond the capacity of their resources of food, creating the barreness of the Sahel and the slums of Calcutta.

We lived a year in Zaire, my husband and I. As Peace Corps Volunteers, we had a worm's eye view of the country that was denied to other Americans stationed there, such as embassy personnel and Air Force families. Very restricted, they were. The missionaries came much closer, but I think we Peace Corps types were in position to get some real insights.

—Africa has a beast of burden, and it's not horses, mules or oxen. It is women. In Zaire you see them carrying huge loads—plus their babies on their backs—while men walk down the street hand in hand, or sit and drink beer and talk politics in this military dictatorship. Women are responsible for feeding their families: they are the farmers, chopping the hard red dirt with their hoes, raising the manioc which is the staple, and vegetables and perhaps a few chickens, ducks, or a goat. They are severely exploited, by our standards.

BUT—they are honored as mothers! A woman has no social position as a young girl; she acquires some if she marries. Married or not, she makes a major jump in prestige if she becomes a mother. If she manages to raise a child to adulthood, she has it made—permanent prestige is hers, and a secure home in any son or daughter's house—and she will be wanted there.

So—in the hopes of raising three, she will try to have ten children. And with modern health improvements now, she'll probably raise 5. The president's wife has 7; she is the "ideal woman."

See what that's doing to the population balance? It is happening already: the United States is exporting food to feed the poor of these burgeoning countries—and more is being expected of us all the time! I foresee where the pressures of overpopulation in Third World countries will force us to open our gates to millions of immigrants.

These immigrants will not be as bright as our people. Heredity? I don't think so—more likely inadequate protein between the years after weaning to age 5 or 6 when the brain reaches maximum size. Have one of your writers do a story on this imbalance of proliferation, why don't you? Proliferation as power!

Getting back to *Doll's Demise*:

—Raising the next generation is still our most important task.

—We don't need larger population.

—We need more adequate people. And people who feel better about themselves.

—Denigrating women as mothers won't accomplish this. In fact, such cultural thrust pushes our best breeding stock, male and female, into sterilization. It's doing it!

—Does any woman—ever, anyplace—have a baby so as to have a doll to play with? Not that I ever heard of! And I am 58 years old, have borne and raised five sons and three daughters, and have known many, many mothers, young and not so young. Possible exception: someone severely retarded.

One general criticism: science fiction in general does not often depict women as human beings (it doesn't usually do too well with men, either, but for the moment, that's not my point.) Now I know that women are not a high proportion of your readership—but for the moment, that's not important, either. What is important, I think, is the young men readers. If the stories they respond to are inhabited by something better than stereotypes—who knows, it may counteract some of the negative effects of television!

Being an editor is a hard life. *Selah*!

SHIRLEY RYBERG
9 Fieldstone Court
Chaska MN 55318

*Women are an important and growing part of our readership, and more women are writing science fiction, too. But it seems, from your description of the situation in Zaire, that the only reasonable policy to follow would be one in which motherhood is denigrated, and women are discouraged from having babies. And 'way back in 1951, C.M. Kornbluth's story, "The Marching Morons," gave the definitive word about the imbalance of pro-*

*liferation you are worried about. Frankly, it would seem that nations that* do not *control their population growth are doomed to slide into economic ruin and social chaos, rather to become effective military powers. Look at India: the only reason no major power would attack India is that no one would* want *India!*

*As for women who have babies so that they can continue to play with dolls—Guthridge's point was made with tongue slightly in cheek, but how many women realize that they have a twenty-year task ahead of them, when they first contemplate motherhood?*

---

Dear Mr. Bova:

I enjoyed Dr. Asimov's short story entitled "The Winnowing" (February, 1976), and thought it was quite interesting.

However, I somehow take exception to a letter about that story which was published in July *Analog* from a Mr. Celko. It seems this person has a severe superiority complex.

I have lived both sides of the fence, so to speak. And although I think mankind must continue to progress in order to survive, it sometimes seems that 'progress' is accompanied by a lessening of human compassion and integrity. I believe technological progress should be complemented by progress in the department of individual patience and tolerance (and humility?).

No, I do not believe we should feed all the starving millions of Booga-boogastan; but I do think we should help them in other ways if we can. And pity them, if we cannot help. They are human beings too, not the "lowest primitives".

The idea that Western 'civilization' is the *right* way to be, may well be erroneous. We certainly cannot presume to force our social mores and dogma on other cultures.

A little something for Mr. Celko to ponder: O.K., so Booga-boogastan threatens the world with people pollution. But Western society threatens the world with a much more permanent type of pollution. (Twenty Booga-boogastanis cannot wreak as much environmental havoc as one Westerner in the same time period—*believe me*).

Any number of dead Booga-boogastanis will rot away and become one with nature in a short while—and little permanent harm will have been done. Can the same be said of some of Western "civilization's" man-made pollutants?

A final word to Mr. Celko: be *grateful* you were not born, perchance, a Booga-boogastani! If you were starving and someone gave you rice, I expect you'd be too busy eating to consider what a fun "free ride" you were getting.

SHEILA M. AMIR
261 Hayward Street
#105
Braintree, MA 02184

*There seems to be little problem in deciding to help people on a person-to-person basis. But problems abound when the situation becomes government-to-government. It might be a worthwhile exercise for science fiction writers to explore methods of solving the interrelated population-pollution-food problems in ways that get around governmental bogdowns.*

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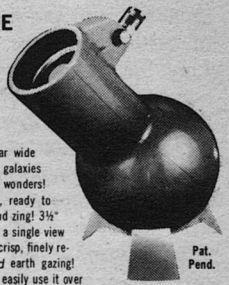

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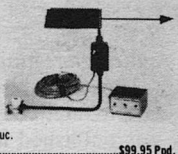

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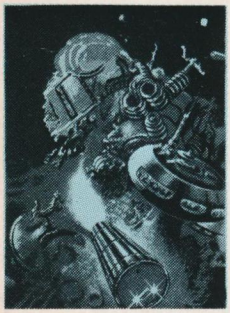

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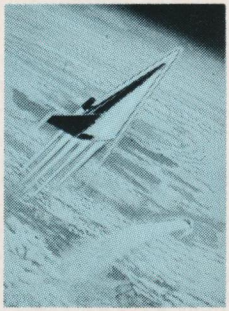

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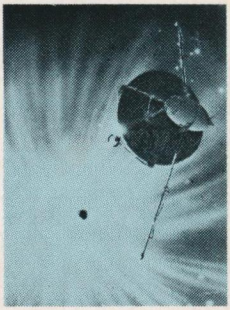

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