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April, 1970 60¢ MAC

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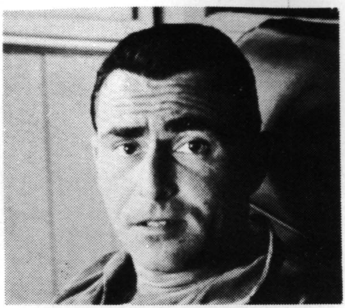
By Rod Serling



Rod Serling, six-time Emmy Award winner, made TV writing an art form with *Patterns, Requiem for a Heavyweight* and *Twilight Zone*. He has also written many short stories and motion picture scripts.

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ALL NEW STORIES

Cover by GAUGHAN, suggested by WATERCLAP

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Reading Room

LESTER DEL REY

Less than a year ago I was surprised to find that a scientist sharing a discussion panel with me did not know what I meant by science fiction. But after a few minutes during which I tried to summarize the field his face cleared.

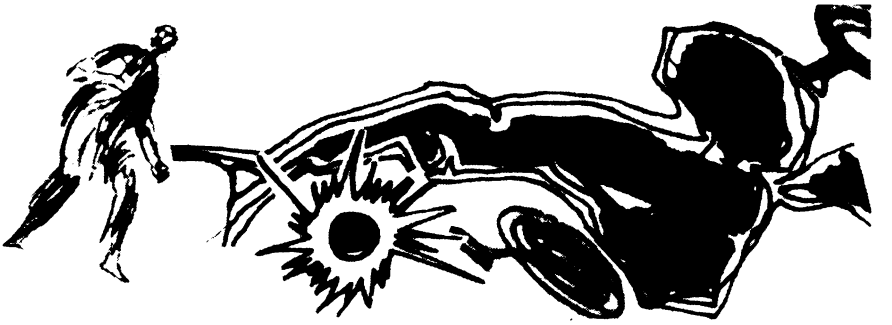
"Oh," he said, with a mixture of nostalgia and contempt in his voice. "You mean Buck Rogers. Yeah, I used to read that stuff every Sunday."

It used to be the standard way of defining science fiction. "That Buck Rogers stuff." Men who had never heard of Verne or Wells – much less of Asimov or Heinlein – had read at least a few episodes of the comic strip widely syndicated between 1929 and 1967. Thus for a generation most people derived their ideas of space and rockets from the exploits of Buck Rogers and Wilma Deering.

And during that generation, science-fiction writers and enthusiasts tried to overcome that association of their literature with its comic-strip relative. However nostalgic they might be about their own first aquaintance with Buck, they felt the comparison was odious. Maybe they were right, since most outsiders cited it with some contempt to dismiss the whole genre.

In any case, now we can all take a second look at those daily strips. Chelsea House Publishers has just brought out *The Collected Works of Buck Rogers in the 25th Cen-*

(Please turn to page 152)



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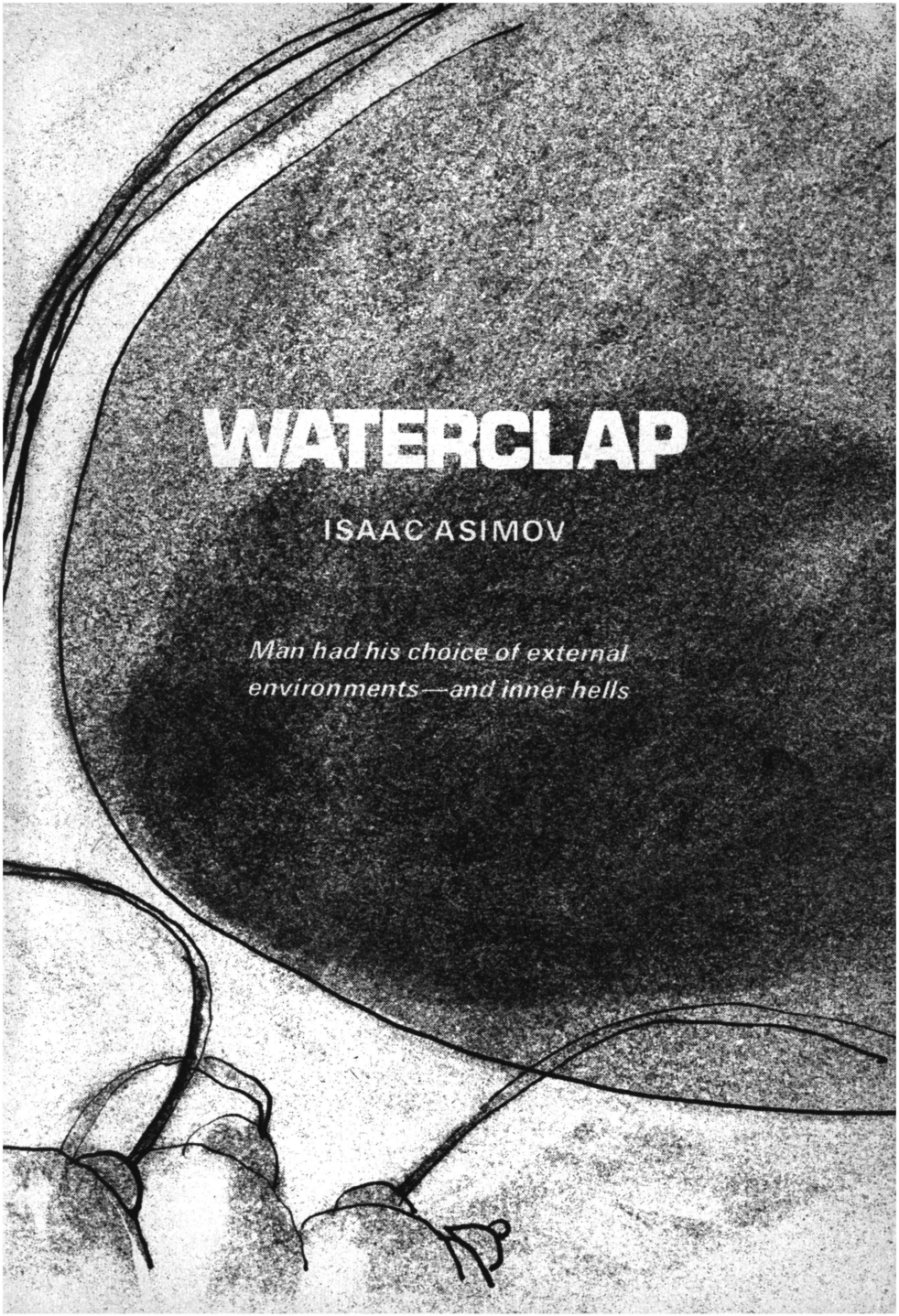

WATERCLAP
ISAAC ASIMOV
Man had his choice of external environments—and inner hells

I

STEPHEN DEMEREST gazed up at the textured sky. He found the blue opaque and revolting.

He had unwarily looked at the sun, for there was nothing to blank it out automatically, and had snatched his eyes away in panic. He had not been blinded, but his vision swam with afterimages. Even the sun was washed out.

Involuntarily, he thought of Ajax's prayer in *Iliad*: *Make the sky clear, grant us to see with our eyes! Kill us in the light, since it is thy pleasure to kill us!*

Demerest thought: *Kill us in the light . . .*

Kill us in the clear light on the Moon, where the sky is black and soft, where the stars shine brightly, where the cleanliness and purity of vacuum sharpen the sight . . .

—Not in this low-clinging, fuzzy blue.

He shuddered. The shudder was physical and real—it shook his lanky body and he was annoyed. He was going to die. He was sure of it. And not under this blue sky but under black—and no sky.

It was as though in answer to that thought that the ferry pilot, short, swarthy, crisp-haired, came up to him and said, "Ready for the black, Mr. Demerest?"

Demerest nodded. He towered over the other as he did over most of the men of Earth. They were thick, all of them, and took their short, low steps with ease. He himself had to feel his footsteps, guide them through the air—even the impalpable bond that held him to the ground was textured.

"I'm ready," he said. He took a deep breath and deliberately repeated his earlier glance at the sun. It stood low in the morning sky, washed out by dusty air, and he knew it wouldn't blind him. He didn't think he would ever see it again.

He had never seen a bathyscaphe before. He tended to think of it in terms of prototypes—an oblong balloon with a spherical gondola beneath. It was as though he persisted in thinking of spaceflight in terms of tons of fuel spewed backward in fire and an irregular module feeling its way, spiderlike, toward the Lunar surface.

The bathyscaphe was not like the image in his thoughts at all. Under its skin it might still be buoyant bag and gondola but it was all engineered sleekness now.

"My name is Javan," said the ferry pilot, "Omar Javan."

"Javan?"

"Queer name to you? I'm Iranian by descent—Earthman by persuasion. Once you get down there nationalities cease to matter." He grinned and his complexion grew darker against the even whiteness of his teeth. "If

you don't mind, we'll be starting in a minute. You'll be my only passenger so I guess you carry weight."

"Yes," said Demerest, dryly, "At least a hundred pounds more than I'm used to."

"You're from the Moon? I thought you had a queer walk on you. I hope it's not uncomfortable."

"It's not exactly comfortable but I manage. We exercise for this."

"Well, come on board." He stood aside and let Demerest walk down the gangplank. "I wouldn't go to the Moon myself."

"You go to Ocean-Deep."

"About fifty times, so far. That's different."

Demerest got on board. The space was cramped but he didn't mind that. The 'scaphe's interior might be a space module's except that it was more—well, textured. There was that word again. The overriding feeling was that mass didn't matter. Mass was held up—it did not have to be hurled up.

They were still on the surface. The blue sky could be seen greenishly through the clear thick glass.

Javan said, "You don't have to be strapped in. There's no acceleration. Smooth as oil, the whole thing. It won't take long—just about an hour. You can't smoke."

"I don't smoke," said Demerest.

"I hope you don't have claustrophobia."

"Moonmen don't have claustrophobia."

"All that open—"

"Not in our cavern. We live in a—" he groped for the phrase—"Lunar-Deep, a hundred feet deep."

"A hundred feet?" The pilot seemed amused but he didn't smile. "We're slipping down now."

The interior of the gondola was fitted into angles but here and there a section of wall beyond the instruments seemed to be an extension of his arms—his eyes and hands moved over them lightly, almost lovingly.

"We're all checked out," he said, "but I like a last minute lookover—we'll be facing a thousand atmospheres down there." His finger touched a contact, and the round door closed massively inward and pressed against the beveled rim it met. "The higher the pressure, the tighter that will hold. Take your last look at sunlight, Mr. Demerest."

The light still shone through the thick glass of the window. It was wavering now; there was water between the Sun and themselves now.

"The last look?" said Demerest.

Javan snickered. "Not the last look. I mean for the trip. I sup-

pose you've never been on a bathyscaphe before."

"No, I haven't. Have many?"

"Very few," admitted Javan. "But don't worry. It's just an underwater balloon. We've introduced a million improvements since the first bathyscaphe. We're nuclear-powered now and we can move freely by water jet up to certain limits—but cut it down to basics and it's still a spherical gondola under buoyancy tanks. And it's still towed out to sea by a mother ship because it needs what power it carries too badly to waste any on surface travel. Ready?"

THE supporting cable of the mother ship flicked away and the bathyscaphe settled lower, then lower still, as seawater fed into the buoyancy tanks. For a few moments, caught in surface currents, it swayed, and then there was nothing. Neither sense of motion nor lack of it. The bathyscaphe sank slowly through a deepening green.

Javan relaxed.

He said, "John Bergen is head of Ocean-Deep. You're going to see him?"

"That's right."

"He's a nice guy. His wife's with him."

"She is?"

"Oh, sure. They have women down there. There's a bunch down there, fifty people. Some stay for months."

Demerest put his finger on the narrow and nearly invisible seam where door met wall. He took it away and looked at it. He said, "It's oily."

"Silicony, really. The pressure squeezes some out. It's supposed to. Don't worry. Everything's automatic. Everything's fail safe. The first sign of malfunction, any malfunction at all, our ballast is released and up we go."

"You mean nothing's ever happened to these bathyscaphes?"

"What can happen?" The pilot looked sidewise at his passenger. "Once you get too deep for sperm whales, there's nothing that can go wrong."

"Sperm whales?" Demerest's thin face creased in a frown.

"Sure. They dive as deep as half a mile. If they hit a bathyscaphe—well, the walls of the buoyancy chambers aren't particularly strong. They don't have to be, you know. They're open to the sea and when the gasoline, which supplies the buoyancy, compresses, seawater enters."

Darkness became tangible. Demerest found his gaze fastened to the viewport. The inside of the gondola was lighted but it was dark in that window. And the darkness was not the darkness of space—it was thick, solid.

Demerest said sharply, "Let's get this straight, Mr. Javan. You are not equipped to withstand the attack of a sperm whale. Presum-

ably, you are not equipped to withstand the attack of a giant squid. Have there been any actual incidents of that sort?"

"Well, it's like this—"

"No games, please, and don't try ragging the greenhorn. I am asking out of professional curiosity. I am head safety engineer at Luna City and I am asking what precautions this bathyscaphe can take against possible collision with large creatures."

Javan looked embarrassed. He muttered, "Actually, there have been no incidents."

"Are any expected? Even as a remote possibility?"

"Anything is remotely possible. But actually sperm whales are too intelligent to monkey with us and giant squid are too shy."

"Can they see us?"

"Yes, of course. We're lit up."

"Do you have floodlights?"

"We're already past the large-animal range but we have them. I'll turn them on for you."

Beyond the black of the window suddenly appeared a snowstorm, inverted, upward-falling. The blackness had come alive with stars in three-dimensional array and all moving upward.

Demerest said, "What's that?"

"Just crud. Organic matter. Small creatures. They float, don't move much, and they catch the light. We're going down past them. They seem to be going up in consequence."

Demerest's sense of perspective adjusted itself and he said, "Aren't we dropping too quickly."

"No, we're not. If we were I could use the nuclear engines if I wanted to waste power—or I could drop some ballast. I'll be doing that later but for now everything is fine. Relax, Mr. Demerest. The snow thins as we drive and we're not likely to see much in the way of spectacular life forms. There are small angler fish and such but they avoid us."

Demerest said, "How many do you take down at a time?"

"I've had as many as four passengers in this gondola but that's crowded. We can put two bathyscaphes in tandem and carry ten but that's clumsy. What we really need are trains of gondolas, heavier on the nukes—the nuclear engines—and lighter on the buoyancy. Stuff like that is on the drawing board, they tell me. Of course, they've been telling me that for years."

"There are plans for large-scale expansion of Ocean-Deep, then?"

"Sure, why not? We've got cities on the continental shelves—why not on the deep-sea bottom? The way I look at it, Mr. Demerest, where man can go he will go and he should go. The Earth is ours to populate and we will populate it. All we need to make the deep sea habitable are completely maneuverable 'scaphes. The buoy-

ancy chambers slow us, weaken us and complicate the engineering."

"But they also save you, don't they? If everything went wrong at once the gasoline on board would still float you to the surface. What would do that for you if your nuclear engines went wrong and you had no buoyancy?"

"If it comes to that—you can't expect to eliminate the chances of accident altogether, not even fatal ones."

"I know that very well," said Demerest feelingly.

Javan stiffened. The tone of his voice changed, "Sorry. Didn't mean anything by that. Tough about that accident."

Fifteen men and five women had died on the Moon. One of the individuals listed among the "men" had been fourteen years old. It had been pinned down to human failure. What could a head safety engineer say after that?

"Yes," he said.

A pall dropped between the two men, a pall as thick and as turgid as the pressurized sea water outside. How could one allow for panic, distraction and depression all at once? There were the Moon Blues—stupid name—but they struck men at inconvenient times. When the Moon Blues came was not always noticeable but it made men torpid and slow to react.

How many times had a meteorite come along and been averted or smothered or successfully absorbed? How many times had a Moonquake done damage and been held in check? How many times had human failure been backed up and compensated for? How many times had accidents not happened?

But you don't pay off on accidents not happening. Now twenty were dead.

II

JAVAN said—how many long minutes later?—"There are the lights of Ocean-Deep."

Demerest could not make them out at first. He didn't know where to look. Luminescent creatures had flicked past the windows twice before—at a distance and with the floodlight off again Demerest had thought them the first sign of Ocean-Deep. Now he saw nothing.

"Down there," said Javan, without pointing. He was busy now, slowing the drop and edging the 'scaphe sideways.

Demerest could hear the distant sighing of the water jets, steam-driven, the steam formed by the heat of momentary bursts of fusion power.

Demerest's thought had a filmy transparency. It did not distract him.

Deuterium is their fuel and it's all around them. Water is their exhaust and it's all around them . . .

Javan was dropping some of his ballast, too, and began a kind of distant chatter.

"The ballast used to be steel pellets and they were dropped by electromagnetic controls. Anywhere up to fifty tons of it were used in each trip. Conservationists worried about spreading rusting steel over the ocean floor—so we switched to metal nodules that are dredged up from the continental shelf. We put a thin layer of iron over them so they can still be electromagnetically handled and the ocean bottom gets nothing that wasn't subocean to begin with. Cheaper, too. But when we get our real nuclear 'scaphes, we won't need ballast at all."

Demerest scarcely heard him. Ocean-Deep could be seen now. Javan had turned on his floodlight and far below was the muddy floor of the Puerto Rican Trench. Resting on that floor like a cluster of equally muddy pearls was the spherical conglomerate of Ocean-Deep.

Each unit was a sphere such as the one in which Demerest was now sinking toward contact—but much larger. As Ocean-Deep expanded — expanded — expanded, new spheres were added.

They're only five and a half miles from home, not a quarter of a million . . .

"How are we going to get through?" asked Demerest.

The 'scaphe had made contact. Demerest had heard the dull sound of metal against metal but for minutes afterward the only sound had been a kind of occasional scrape as Javan bent over his instruments in rapt concentration.

"Don't worry about that," Javan said at last, in belated answer. "There's no problem. The delay now is caused by my having to make sure we fit tightly. An electromagnetic joint holds at every point of a perfect circle—when the instruments read correctly we fit over the entrance door."

"Which then opens?"

"It would if there were air on the other side. But there isn't. There's sea-water and that has to be driven out. Then we enter."

Demerest did not miss this point. He had come here on this, the last day of his life, to give that same life meaning and he intended to miss nothing.

He said, "Why the added step? Why not keep the airlock—if that's what it is—a real airlock and have air in it at all times."

"They tell me it's a matter of safety," said Javan. "Your specialty. The interface has equal pressure on both sides at all times, except when men are moving across. This door is the weakest point of the whole system because it opens and closes—it has joints —it has seams. You know what I mean?"

"I do," murmured Demerest.

He saw a logical flaw here and that meant there was a possible chink through which—but later.

He asked, "Why are we waiting now?"

"The lock is being emptied. The water is being forced out."

"By air."

"Hell, no. They can't afford to waste air like that. It would take a thousand atmospheres to empty the chamber of its water and filling the chamber with air at that density, even temporarily, takes more air than they can afford to expend. Steam is what does it."

"Of course. Yes."

Javan said cheerfully, "You heat the water. No pressure in the world can stop water from turning to steam at a temperature of less than 374° C. And the steam forces the seawater out through a one-way valve."

"Another weak point," said Demerest.

"I suppose so. It's never failed yet. The water in the lock is being pushed out now. When hot steam starts bubbling out the valve the process automatically stops and the lock is full of overheated steam."

"And then?"

"And then we have a whole ocean to cool it with. The temperature drops and the steam condenses. Once that happens ordinary air can be let in at a pressure of one atmosphere. And then the door opens."

"How long must we wait?"

"Not long. If anything were wrong sirens would be sounding. At least so they say. I never heard one in action."

SILENCE held for a few minutes. Then came a sudden sharp clap and a simultaneous jerk.

Javan said, "Sorry, I should have warned you. I'm so used to it, I forgot. When the door opens a thousand atmospheres of pressure on the other side forces us hard against the metal of Ocean-Deep. No electromagnetic force can hold us hard enough to prevent that last hundredth-of-an-inch slam."

Demerest unclenched his fist and released his breath.

He asked "Is everything all right?"

"The walls didn't crack, if that's what you mean. It sounds like doom, though, doesn't it. It sounds even worse when I leave and the airlock fills up again. Be prepared for that."

But Demerest was suddenly weary.

Let's get on with it—I don't want to drag it out.

He asked, "Do we go through now?"

"We go through."

The opening in the 'scaphe wall was round and small—even smaller than the one through

which they had originally entered. Javan went through it sinuously, muttering that it always made him feel like a cork in a bottle.

Demerest had not smiled since he entered the 'scaphe. Nor did he really smile now but a corner of his mouth quirked at the thought that a skinny Moonman would have no trouble.

He went through also, feeling Javan's hands firmly at his waist, helping him through.

Javan said, "It's dark in here. No point in introducing an additional weakness by wiring for lighting. But that's why flashlights were invented."

Demerest found himself on a perforated walk, its stainless metallic surface gleaming dully. And through the perforations he could make out the wavering surface of water.

He said, "The chamber hasn't been emptied."

"You can't do any better, Mr. Demerest. If you're going to use steam to empty it you're left with that steam. And to get the pressures necessary to do the emptying that steam must be compressed to about one third the density of liquid water. When it condenses the chamber remains one third full of water—but it's water at just one-atmosphere pressure. Come on, Mr. Demerest."

JOHN BERGEN'S face wasn't entirely unknown to Demerest. Recognition was immediate. Bergen, as head of Ocean-Deep for nearly a decade now, was a familiar face on the TV screens of Earth—just as the leaders of Luna City had become familiar.

Demerest had seen the head of Ocean-Deep both flat and in three-dimensions, in black-and-white and in color. Seeing him in life added little.

Like Javan, Bergen was short and thickset, opposite in structure to the traditional Lunar pattern of physiology. He was fairer than Javan by a good deal and his face was noticeably asymmetric, though his somewhat thick nose leaned a little to the right.

He was not handsome. No Moonman would think he was. But then Bergen smiled and a sunniness emanated from him as he held out a large hand.

Demerest extended his own thin one, steeling himself for a hard grip that did not come. Bergen shook hands and let go.

He said, "I'm glad you're here. We don't have much in the way of luxury, nothing that will make our hospitality stand out. We can't even declare a holiday in your honor but the spirit is there. Welcome!"

"Thank you," said Demerest softly.

He remained unsmiling. He was facing the enemy and he knew it. Surely Bergen must know it also. His smile was hypocrisy.

And at that moment a clang like metal against metal sounded deafeningly and the chamber shuddered. Demerest leaped back and staggered against the wall.

Bergen did not budge.

He said quietly, "That was the bathyscaphe unhitching and the waterclap of the airlock filling. Javan ought to have warned you."

Demerest panted and tried to make his racing heart slow.

"Javan did warn me. But I was still caught by surprise."

Bergen said, "Well, it won't happen again for a while. We don't often have visitors, you know. We're not equipped for it and fight off all kinds of big wheels who think a trip down here would be good for their careers. Politicans of all kinds, chiefly. Your case is different, of course."

Is it?

Demerest wondered. It had been hard enough to get permission to make the trip down. His superiors back at Luna City had not approved in the first place and had scouted the idea that a diplomatic interchange would be of any use ("diplomatic interchange" was what they had called it). And when he had overridden them he had run into Ocean-Deep's reluctance to receive him.

Persistence alone had made his present visit possible.

Bergen said, "I suppose you have your junketing problems on Luna City, too?"

Demerest said, "Your average politician isn't as anxious to make a half-million-mile roundtrip as he is to make a ten-mile one."

"I can see that," agreed Bergen, "and it's more expensive out to the Moon, of course. In a way, this is the first meeting of inner and outer space. No ocean man has ever gone to the Moon as far as I know and you're the first Moonman to visit a subsea station of any kind. No Moon man has even been to one of the settlements on the continental shelf."

"It's a historic meeting, then," said Demerest and tried to keep the sarcasm out of his voice.

If any leaked through, Brand showed no sign.

He rolled up his sleeves as though to emphasize his attitude of informality (or the fact that they were very busy, so that there would be little time for visitors?) and asked, "Do you want coffee? I assume you've eaten. Would you like to rest before I show you around? Do you want to wash up, for that matter, as they say euphemistically?"

For a moment curiosity stirred in Demerest; yet not entirely aimless curiosity. Everything involving the interface of Ocean-Deep with the outside world could be of importance.

He spoke carefully.

"How are sanitary facilities handled here?"

"It's cycled mostly—as on the

Moon, I imagine. We can eject if we want to or have to. Man has a bad record of fouling the environment but as the only deep-sea station, what we eject does no perceptible damage. Adds organic matter."

He laughed.

Demerest filed that away, too. Matter was ejected. Ejection mechanisms existed. Their workings might be of interest and he, as a safety engineer, had a right to exhibit interest.

"Actually," he said, "I'm comfortable at the moment. If you're busy—"

"That's all right. We're always busy but I'm the least so—if you see what I mean. Suppose I show you around. We've got over fifty units here, each as big as this one, some bigger."

Demerest looked about. He saw angles everywhere but beyond the furnishings and equipment he detected signs of the inevitable spherical outer wall. Fifty units!

"Build up," went on Bergen, "over a generation of effort. The unit we're standing in is actually the oldest and there's been some talk of demolishing and replacing it. Some of the men say we're ready for second-generation units but I'm not sure. It would be expensive—everything's expensive down here—and getting money out of the Planetary Project Council is always a depressing experience."

Demerest felt his nostrils flare involuntarily and a spasm of anger shot through him. It was a thrust surely. Luna City's miserable record with the PPC must be well known to Bergen.

But Bergen went on, unnoticing.

"I'm a traditionalist, too—just a little bit. This is the first deep-sea unit ever constructed. The first two people to remain overnight on the floor of an ocean trench slept here with nothing except a miserable portable fusion unit to work the escape hatch. I mean the airlock—we called it the escape hatch to begin with—and just enough controls for the purpose. Reguera and Tremont—those were the men. They never made a second trip to the bottom, either; stayed topside forever after. Well, they served their purpose and both are dead now. And here we are with fifty people and with six months as the usual tour of duty. I've spent only two weeks topside in the last year and a half."

He motioned vigorously to Demerest to follow him, slid open a door that moved evenly into a recess to give access to the next unit. Demerest paused to examine the opening. He could detect no seams between the adjacent units.

BERGEN took note and said, "When we add on units they're welded under pressure into the equivalent of a single piece

of metal and then reinforced. We can't take chances as I'm sure you understand. I have been given to understand that you're the chief safe—"

Demerest cut him off.

"Yes," he said, "We on the Moon admire your safety record."

Bergen shrugged.

"We've been lucky. Our sympathy, by the way, on the rotten break you fellows had. I mean that fatal—"

Demerest cut him off again.

"Yes."

Bergen, the Moonman decided, was either a naturally voluble man or else was eager to drown him in words and get rid of him.

"The units," said Bergen are arranged in a highly branched chain—three dimensional actually. We have a map we can show you if you're interested. Most of the end units represent living-sleeping quarters. For privacy, you know. The working units tend to be corridors as well, which is one of the embarrassments of having to live down here." He gestured.

"This is our library, part of it, anyway. Not big. But it holds our records on carefully indexed and computed microfilm, so that for its kind it's not only the biggest in the world but the best and the only. And we have a special computer designed to handle the references to meet our needs exactly. It collects, selects, coordinates, weighs, then gives us the gist. We have another library, too, book films and even some printed volumes. But that's for amusement."

A voice broke in on Bergen's cheerful flow of talk.

"John? May I interrupt?"

Demerest started—the voice had come from behind him.

Bergen said, "Annette—I was going to get you. This is Stephen Demerest of Luna City. Mr. Demerest, may I introduce my wife, Annette."

Demerest had turned.

He said stiffly, a little mechanically, "I'm pleased to meet you, Mrs. Bergen."

But he was staring at her waistline.

Annette Bergen seemed in her early thirties. Her brown hair was combed simply and she wore no makeup. Attractive, not beautiful, Demerest noted vaguely. But his eyes kept returning to that waistline.

She shrugged.

"Yes, I'm pregnant, Mr. Demerest. I'm due in about two months."

"Pardon me," Demerest muttered. "So rude of me—I did not—"

His voice faded. He felt as though the blow had been a physical one. He hadn't expected women, though he didn't know why. He knew there would have to be women in Ocean-Deep. And the ferry pilot had said Bergen's wife was with him.

Annette Bergen remained silent and Demerest stammered when he asked, "How many women are there in Ocean-Deep, Mr. Bergen?"

"Nine at the moment," said Bergen. "All wives. We look forward to a time when we can have the normal ratio of one to one, but we still need workers and researchers primarily and unless women have important qualifications of some sort—"

"They all have important qualifications of some sort, dear," said Mrs. Bergen. "You could keep the men for longer duty if—"

"My wife," said Bergen, laughing, "is a convinced feminist but is not above using sex as an excuse to enforce equality. I keep telling her that that is the feminine way of doing it and not the feminist way, and she keeps saying that's why she's pregnant. You think it's love, sex mania, yearning for motherhood? Nothing of the sort. She's going to have a baby down here to make a philosophical point."

Annette said coolly. "Why not? Either this is going to be home for humanity or it isn't going to be. If it is, we're going to have babies here, that's all. I want a baby born in Ocean-Deep. There are babies born in Luna City, aren't there, Mr. Demerest."

Demerest took a deep breath, "I was born in Luna City, Mrs. Bergen."

"And well she knew it," muttered Bergen.

"And you are in your late twenties, I think?" she said.

"I am twenty-nine," said Demerest.

"And well she knew that, too," said Bergen with a short laugh. "You can bet she looked up all possible data on you when she heard you were coming."

"That is quite beside the point," said Annette. "The point is that for twenty-nine years at least children have been born in Luna City and no children have been born in Ocean-Deep."

"Luna City, my dear," said Bergen, "is longer established. It is over half a century old—we are not yet twenty."

"Twenty years is quite enough. It takes a baby nine months."

Demerest interposed. "Are there any children in Ocean-Deep?"

"No," said Berg. "No. Some day, though."

"In two months, anyway," said Annette Bergen, positively.

III

THE tension grew inside Demerest and when they returned to the unit in which he had first met Bergen he was glad to sit down and accept a cup of coffee.

"We'll eat soon," said Bergen matter-of-factly. "I hope you don't mind sitting here, mean-

while. As the prime unit this place isn't used for much except, of course, for the reception of vessels, an item I don't expect will interrupt us for a while. We can talk if you wish."

"I do wish," said Demerest.

"I hope I'm welcome to join in," said Annette.

Demerest looked at her doubtfully but Bergen said to him, "You'll have to agree. She's fascinated by you and by Moonmen generally. She thinks they're—uh—you're a new breed. I think that when she's quite through being a Deepwoman she wants to be a Moonwoman."

"I just want a word in edgewise, John, and when I get that in, I'd like to hear what Mr. Demerest has to say. What do you think of us, Mr. Demerest?"

Demerest said cautiously, "I've asked to come here, Mrs. Bergen, because I'm a safety engineer. Ocean-Deep has an enviable safety record."

"Not one fatality in almost twenty years," said Bergen cheerfully. "Only one death by accident in the C-shelf settlements and none in transit by either sub or 'scaphe. I wish I could say, though, that this was the result of wisdom and care on our part. We do our best, of course, but the breaks have been with us— "

"John," said Annette, "I really wish you'd let Mr. Demerest speak."

"As a safety engineer," said Demerest, "I can't afford to believe in luck and breaks. We cannot stop Moonquakes or large meteorites out at Luna City but we are designed to minimize the effects even of those. There are no excuses or there should be none for human failure. We have not avoided failure on Luna City—our record recently has been—" his voice dropped—"bad. While humans are imperfect, as we all know, machinery should be designed to take that imperfection into account. We lost twenty men and women needlessly."

"I know. Still, Luna City has a population of nearly one thousand, doesn't it? Your survival isn't in danger."

"The people on Luna City number nine hundred and seventy-two, including myself—but our survival is in danger. We depend on Earth for essentials. That need not always be so. It wouldn't be so right now if the Planetary Project Council could resist the temptation toward pygmy economies—"

"There, at least, Mr. Demerest," said Bergen, "we see eye to eye. We are not self-supporting, either, and we could be. What's more, we can't grow much beyond our present level unless nuclear 'scaphes are built. As long as we are bound to the buoyancy principle we are limited. Transportation between Deep and Top is slow—slow for men, slower still for ma-

terial and supplies. I've been pushing, Mr. Demerest, for—"

"Yes, and you'll be getting it now, Mr. Bergen, won't you?"

"I hope so. But what makes you so sure?"

"Mr. Bergen, let's not play around. You know very well that Earth is committed to spending a fixed amount of money on expansion projects—on programs designed to expand the human habitat—and that it is not a terribly large amount. Earth's population is not going to lavish resources in an effort to expand either outer space or inner space if it thinks this will cut into the comfort and convenience of the prime habitat of humans—the land surface of Earth."

Annette broke in.

"You make Earthmen sound callous, Mr. Demerest, and that's unfair. It's only human, isn't it, to want to be secure? Earth is overpopulated and is only slowly reversing the havoc inflicted on the planet by the mad Twentieth. Surely man's original home must come first, ahead of either Luna City or Ocean-Deep. Heavens, Ocean-Deep is almost home to me—but I don't want to see it flourish at the expense of Earth's land."

"It's not an either-or, Mrs. Bergen," said Demerest earnestly. "If the ocean and outer space are firmly, honestly and intelligently exploited, it can only rebound to Earth's benefit. A small investment will be lost but a large one will redeem itself with profit."

Bergen held up his hand. "Yes, I know. You don't have to argue with me on that point. You'd be trying to convert the converted. Come, let's eat. I tell you what. We'll eat here. If you'll stay with us overnight, or several days for that matter—you're quite welcome—there will be ample time to meet everybody. Perhaps you'd rather take it easy for a while, though."

"Much rather," said Demerest. "Actually, I want to stay here. I would like to ask, by the way, why I met so few people when we went through the units."

"No mystery," said Bergen, genially. "At any given time, some fifteen of our men are asleep and perhaps fifteen more are watching films or playing chess or, if their wives are with them—"

"Yes, John," said Annette.

"—and it's customary not to disturb them. The quarters are constricted and what privacy a man can have is cherished. A few are out at sea—three right now, I think. That leaves a dozen or so at work in here and you met them."

"I'll get lunch," said Annette, rising.

She smiled and stepped through the door, which closed automatically behind her.

BERGEN looked after her. "That's a concession. She's

playing woman for your sake. Ordinarily, it would be just as likely for me to get the lunch. The choice is not defined by sex but by the striking of random lightning."

Demerest said, "The doors between units, it seems to me, are of dangerously limited strength."

"Are they?"

"If an accident happened and one unit were punctured—"

Bergen smiled.

"No meteorites down here."

"Oh yes, wrong word. If there were a leak of any sort, for any reason, could a unit or a group of units be sealed off against the full pressure of the ocean?"

"You mean, the way Luna City can have its component units automatically sealed off in case of meteorite puncture in order to limit damage to a single unit."

"Yes," said Demerest, with a faint bitterness. "As did not happen recently."

"In theory we could do that—but the chances of accident are much less down here. As I said, there are no meteorites and, what's more, there are no currents to speak of. Even an earthquake centered immediately below us would not be damaging since we make no fixed or solid contact with the ground beneath and are cushioned by the ocean itself against the shocks. So we can afford to gamble on no massive influx."

"Yet if one happened?"

"We could be helpless. You see, it is not so easy to seal off component units here. On the Moon there is a pressure differential of just one atmosphere—one atmosphere inside and the zero atmosphere of vacuum outside. A thin seal is enough. Here at Ocean-Deep the pressure differential is roughly a thousand atmospheres. To secure absolute safety against that differential would take a great deal of money and you know what you said about getting money out of PPC. So we gamble. And so far we've been lucky."

"And we haven't," said Demerest.

Bergen looked uncomfortable but Annette distracted both men by coming in with lunch at this moment.

She said, "I hope, Mr. Demerest, that you're prepared for Spartan fare. All our food in Ocean-Deep is prepackaged and requires only heating. We specialize in blandness and nonsurprise and the nonsurprise of the day is a bland chicken a la king, with carrots, boiled potatoes, a piece of something that looks like a brownie for dessert and, of course, all the coffee you can drink."

Demerest rose to take his tray and tried a smile.

"It sounds very like Moon fare, Mrs. Bergen, and I was brought up on that. We grow our own microorganismic food. It is patriotic to eat it but not particularly en-

joyable. We hope to keep improving it, though."

"I'm sure you will improve it."

Demerest said, as he ate with a slow and methodical chewing, "I hate to ride my specialty but how secure are you against mishaps in your airlock entry?"

"It is the weakest point of Ocean-Deep," said Bergen. He had finished eating and was nearly through with his first cup of coffee. "But there's got to be an interface, right? The entry is as automatic as we can make it and as fail safe. Number one: there has to be contact at every point about the outer lock before the fusion generator begins to heat the water within the lock. What's more, the contact has to be metallic and of a metal with just the magnetic permeability we use on our 'scaphes. Presumably, a rock or some mythical deep-sea monster might drop down and make contact at just the right places—but if so, nothing happens. Then, too, the outer door doesn't open until the steam has pushed the water out and then condensed—in other words, not till both pressure and temperature have dropped below a certain point. At the moment the outer door begins to open a relatively slight increase in internal pressure, as by water entry, will close it again."

Demerest said, "But once men have passed through the lock, the inner door closes behind them and seawater must be allowed into the lock again. Can you do that gradually against the full pressure of the ocean outside?"

"No." Bergen smiled. "It doesn't pay to fight the ocean too hard. You have to roll with the punch. We slow it down to about one tenth of free entry but even so it comes in like a rifle shot—louder, a thunderclap—or waterclap, if you prefer. The inner door can hold it, though, and it is not subjected to the strain very often. You heard the waterclap when we first met—when Javan's 'scaphe took off again. Remember?"

"I remember," said Demerest. "But here is something I don't understand. You keep the lock filled with ocean at high pressure at all times to keep the outer door without strain. But that keeps the inner door at full strain. Somewhere there has to be strain."

"Yes, indeed. But if the outer door, with a thousand-atmosphere differential on its two sides, breaks down, the full ocean in all its millions of cubic miles tries to enter and that would be the end of all. If the inner door is the one under strain and it gives, then it will be messy indeed—but the only water that enters Ocean-Deep will be the limited quantity in the lock and its pressure will drop at once. We will have plenty of time for repair—the outer door will certainly hold a long time."

"But if both go at once?"

"We are through." Brand shrugged. "I need not tell you that neither absolute certainty nor absolute safety exist. You have to live with some risk and the chance of double and simultaneous failure is so microscopically small that it can be lived with easily."

"If all your mechanical contrivances fail—"

"They fail safe," said Brand stubbornly.

DEMEREST nodded. He finished the last of his chicken. Mrs. Bergen was already beginning to clean up.

"You'll pardon my questions, Mr. Bergen, I hope."

"You're welcome to ask. I wasn't informed, actually, as to the precise nature of your mission here. 'Fact-finding' is a weasel phrase. However, I assume there is keen distress on the Moon over the recent disaster and as safety engineer you rightly feel the responsibility of correcting whatever shortcomings exist and would be interesting in learning, if possible, from the system used in Ocean-Deep."

"Exactly. But, see here, if all your automatic contrivances fail safe for some reason, for any reason, you would be alive but all your escape mechanisms would be sealed permanently shut. You would be trapped inside Ocean-Deep and would exchange a slow death for a fast one, that's all."

"It's not likely to happen but we'd hope we could make repairs before our air supply gave out. Besides we do have a manual backup system."

"Oh?"

"Certainly. When Ocean-Deep was first established and this was the only unit—the one we're sitting in now—manual controls were all we had. That was unsafe, if you like. There they are, right behind you—covered with friable plastic."

"In emergency, break glass," muttered Demerest, inspecting the covered setup.

"Pardon me?"

"Just a phrase commonly used in ancient fire-fighting systems. Well, do the manuals still work or has the system been covered with your friable plastic for twenty years to the point where it has all decayed into uselessness with no one noticing."

"Not at all. It's periodically checked—as all our equipment is. That's not my job but I know it is done. If any electrical or electronic circuit is out of its normal working condition, lights flash, signals sound, everything happens but a nuclear blast. You know, Mr. Demerest, we are as curious about Luna City as you are about Ocean-Deep. I presume you would be willing to invite one of our young men—"

"How about a young woman?"

interposed Annette at once.

"I am sure you mean yourself, dear," said Bergen. "And I can only answer that you are determined to have a baby here and to keep it here for a period of time after birth—and that effectively eliminates you from consideration."

Demerest said stiffly, "We hope you will send men to Luna City. We are anxious to have you understand our problems."

"Yes, a mutual exchange of problems and of weeping on each others' shoulders might be of great comfort to all. For instance, you have one advantage on Luna City that I wish we could have. With low gravity and a low pressure-differential you can make your caverns take on any irregular and angular fashion that appeals to your esthetic sense or is required for convenience. Down here we're restricted to the sphere —at least for the foreseeable future—and our designers develop a hatred for the spherical that surpasses belief. Actually it isn't funny. It breaks them down. They eventually resign rather than continue to work spherically." Bergen shook his head and leaned his chair back against a microfilm cabinet. "You know, when William Beebe built the first deep-sea chamber in history in the nineteen-thirties—it was just a gondola suspended from a mother ship by a half-mile cable. It had no buoyancy chambers and no engines—and if the cable broke, good night. Only it never did. Anyway, what was I saying? Oh, when Beebe built his first deep-sea chamber he was going to make it cylindrical; you know, so a man would fit in it comfortably. After all, a man is essentially a tall, skinny cylinder. However, a friend of his argued him out of that and into a sphere on the very sensible grounds that a sphere would resist pressure more efficiently than any other possible shape."

Demerest considered that briefly but made no comment. He returned to the earlier topic.

"We would particularly like someone from Ocean-Deep," he said, "to visit Luna City because it might lead to a great enough understanding of the need, on Ocean-Deep's part for a course of action that might involve considerable self-sacrifice."

"Oh?" Bergen's chair came down on all four legs. "How's that?"

"Ocean-Deep is a marvelous achievement—I wish to detract nothing from that. I can see where it will become greater still, a wonder of the world. Still—"

"Still?"

"Still the oceans are only a part of the Earth—a major part but only a part. The deep sea is only part of the ocean. It is inner space indeed—it works inward, narrowing constantly to a point."

"I think," broke in Annette, looking rather grim, "that you're about to make a comparison with Luna City."

"INDEED I am," said Demerest. "Luna City represents outer space, widening to infinity. There is nowhere to go down here in the long run—everywhere to go out there."

"We don't judge by size and volume alone, Mr. Demerest," said Bergen. "The ocean is only a small part of Earth, true, but for that very reason it is intimately connected with over five billion human beings. Ocean-Deep is experimental but the settlements on the Continental Shelf already deserve the name of cities. Ocean-Deep offers mankind the chance of exploiting the whole planet—"

"Of polluting the whole planet," broke in Demerest, excitedly. "Of raping it, of ending it. The concentration of human effort to Earth itself is unhealthy and even fatal if it isn't balanced by a turning outward to the frontier."

"There is nothing at the frontier," said Annette, snapping out the words. "The Moon is dead. All the other worlds out there are dead. If there are live worlds among the stars, light-years away, they can't be reached. The ocean is living."

"The Moon is living, too, Mrs. Bergen. And if Ocean-Deep allows it, the Moon will become an independent world. We Moonmen will then see to it that other worlds are reached and made alive and, if mankind has the patience, we will reach the stars. We! We! It is only Moonmen, used to space, used to a world in a cavern, used to an engineered environment who could endure life in a spaceship that may have to travel centuries to reach the stars."

"Wait, wait, Demerest," said Bergen, holding up his hand, "Back up. What you do mean—if Ocean-Deep allows it? What have we to do with it?"

"You're competing with us, Mr. Bergen. The Planetary Project Commission will swing your way, give you more, give us less, because in the short term, as your wife says, the ocean is alive and the Moon, except for a thousand men, is not—because you are a half-dozen miles away and we a quarter of a million—because you can be reached in an hour and we only in three days. And because you have an ideal safety record and we have had—misfortunes."

"The last, surely, is trivial. Accidents can happen at any time, anywhere."

"But the trivial can be used," said Demerest angrily. "It can be made to manipulate emotions. To people who don't see the purpose and the importance of space exploration the death of Moonmen in accidents is proof enough that the Moon is dangerous, that its

colonization is a useless fantasy. Why not? It's their excuse for saving money and they can then salve their conscience by investing part of it in Ocean-Deep instead. That's why I said the accident on the Moon had threatened the survival of Luna City even though it killed only twenty people out of nearly a thousand."

"I don't accept your argument. There has been enough money for both for a score of years."

"Not enough money. That's exactly it. Not enough to make the Moon self-supporting in all these years—and then they use that lack of self-support against us. Not enough to make Ocean-Deep self-supporting either—but now they can give you enough if they cut us out altogether."

"Do you think that will happen?"

"I'm almost sure it will—unless Ocean-Deep shows a statesman-like concern for man's future."

"How?"

"By refusing to accept additional funds. By not competing with Luna City. By putting the good of the whole race ahead of self-interest."

"Surely you don't expect us to dismantle—"

"You won't have to. Don't you see? Join us in explaining that Luna City is essential, that space exploration is the hope of mankind—that you will wait, retrench if necessary."

Bergen looked at his wife and raised his eyebrows. She shook her head angrily.

Bergen said, "You have a rather romantic view of the PPC, I think. Even if I made noble, self-sacrificing speeches, who's to say they would listen. There's a great deal more involved in the matter of Ocean-Deep than my opinion and my statements. There are economic considerations and public feeling. Why don't you relax, Mr. Demerest? Luna City won't come to an end. You'll receive funds. I'm sure of it. I tell you I'm sure of it. Now let's break this up—"

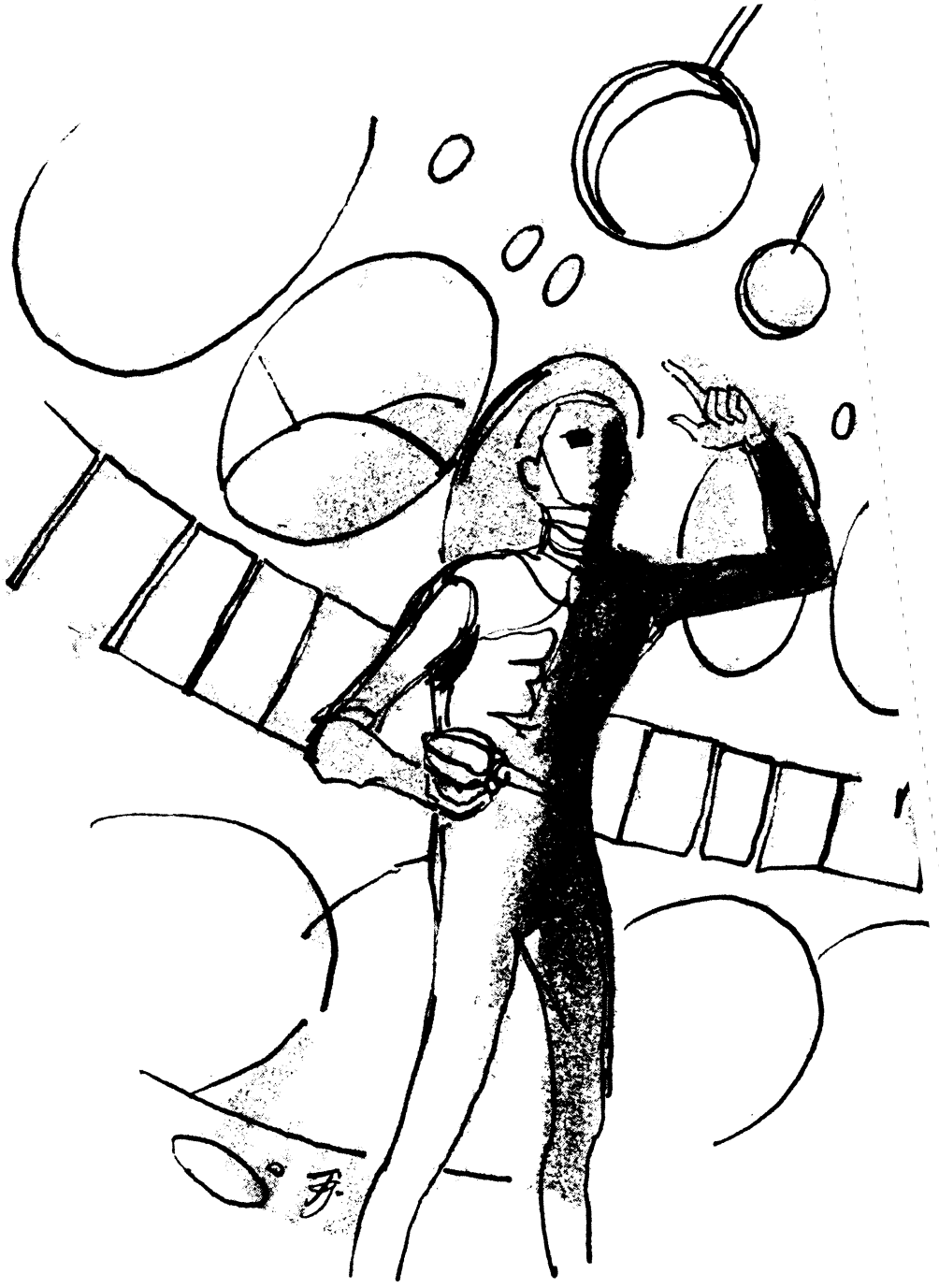
"No, I've got to convince you one way or another that I'm serious. If necessary, Ocean-Deep must come to a halt unless the PPC can supply ample funds for both."

Bergen said, "Is this some sort of official mission, Mr. Demerest? Are you speaking for Luna City officially or just for yourself?"

"Just for myself—but maybe that's enough, Mr. Bergen," said Demerest.

"I don't think it is. I'm sorry, but this is turning out to be unpleasant. I suggest that after all you had better return topside on the first available 'scaphe."

"Not yet! Not yet!" Demerest looked about wildly, then rose unsteadily and put his back against the wall. He was a little too tall for the room and he became conscious of life receding. One more



step and he would have gone too far to back out.

IV

HE HAD told them back on the Moon that there would be no use talking, no use negotiating. It was dog-eat-dog for the available funds and Luna City's destiny must not be aborted—not for Ocean-Deep, not for Earth—no, not for all of Earth, since mankind and the Universe came even before the Earth. Man must outgrow his womb.

Demerest could hear his own ragged breathing and the inner turmoil of his whirling thoughts. The other two were looking at him with what seemed concern.

Annette rose and said, "Are you ill, Mr. Demerest?"

"I am not ill. Sit down. I'm a safety engineer and I want to teach you about safety. Sit down, Mrs. Bergen."

"Sit down, Annette," said Bergen. "I'll take care of him."

He rose and took a step forward.

But Demerest said, "No. Don't you move either. I have something right here. You're too naive concerning human dangers, Mr. Bergen. You guard against the sea and against mechanical failure and you don't search your human visitors, do you? I have a weapon, Bergen."

Now that it was out and he had

taken the final step from which there was no returning—for he was now dead, whatever he did—he was quite calm.

Annette said, "Oh, John," and grasped her husband's arm.

Bergen stepped in front of her.

"A weapon? Is that what that thing is? Now slowly, Demerest, slowly. There's nothing to get hot over. If you want to talk we'll talk. What is that?"

"Nothing dramatic. A portable laser beam."

"But what do you want to do with it?"

"Destroy Ocean-Deep."

"But you can't, Demerest. You know you can't. You can pack only so much energy into your fist and any laser you can hold can't pump enough heat to penetrate the walls."

"I know that. This packs more kick than you think. It's Moon-made and there are some advantages to manufacturing an energy unit in a vacuum—but you're right. Even so it's designed only for small jobs and requires frequent recharging. So I don't intend to try to cut through a footplus of alloy steel. But it will do the job indirectly. For one thing it will keep you two quiet. There's enough energy in my fist to kill two people."

"You wouldn't kill us," said Bergen evenly. "You have no reason."

"If by that," said Demerest, "you imply that I am an unreasoning being to be somehow made to understand my madness, forget it. I have every reason to kill you and I will kill you. By laser beam if I have to, though I would rather not."

"What good will killing us do you? Make me understand. Is it that I have refused to sacrifice Ocean-Deep funds? I couldn't do anything else. I'm not really the one to make the decision. And your killing me won't help force the decision in your direction, will it? In fact, quite the contrary. If a Moonman is a murderer, how will that reflect on Luna City? Consider human emotions on Earth."

An edge of shrillness was in Annette's voice as she joined in: "don't you see there will be people who will say that solar radiation on the Moon has dangerous effects? That the genetic engineering which has reorganized your bones and muscles has affected mental stability? Consider the word 'lunatic,' Mr. Demerest. Men once believed the Moon brought madness."

"I am not mad, Mrs. Bergen."

"It doesn't matter," said Bergen, following his wife's lead smoothly. "Men will say that you were—that all Moonmen are—and Luna City will be closed down and the Moon itself closed to all further exploration, perhaps forever. Is that what you want?"

"That might happen if they

thought I killed you—but they won't. It will be an accident."

With his left elbow, Demerest broke the plastic that covered the manual controls.

"I know units of this sort," he said. "I know exactly how they work. Logically, breaking that plastic should set up a warning flash—after all, it might be broken by accident—and then someone would be here to investigate or, better yet, the controls should lock until deliberately released to make sure the break was not merely accidental." He paused, then said, "But I'm sure no one will come, that no warning has taken place. Your manual system is not fail safe because in your heart you were sure it would never be used."

"What do you plan to do?" said Bergen.

HE WAS tense and Demerest watched his knees carefully.

He said, "If you try to jump toward me I'll shoot at once—and then keep right on with what I'm doing."

"I think maybe you're giving me nothing to lose."

"You'll lose time. Let me go right on without interference and you'll have some minutes to keep on talking. You may even be able to talk me out of it. There's my proposal. Don't interfere with me and I will give you your chance to argue."

"But what do you plan to do?"

"This," said Demerest. He did not have to look. His left hand snaked out and closed a contact. "The fusion unit will now pump heat into the airlock and the steam will empty it. It will take a few minutes. When it's done, I'm sure one of those little red-glass buttons will light."

"Are you going to—"

Demerest said, "Why do you ask? You know that I must be intending, having gone this far, to flood Ocean-Deep?"

"But why? Damn it, why?"

"Because it will be marked down as an accident. Because your safety record will be spoiled. Because it will be a complete catastrophe and will wipe you out. The PPC will then turn from you and the glamor of Ocean-Deep will be gone. We will get the funds. We will continue. If I could bring this to pass in some other way I would—but the needs of Luna City are the needs of mankind and those are paramount."

"You will die, too," Annette managed to say.

"Of course. Once I am forced to do something like this—would I want to live? I'm not a murderer."

"But you will be. If you flood this unit you will flood all of Ocean Deep and kill everyone in it—and doom those who are out in their subs to slower death. Fifty men and women—an unborn child—"

"That is not my fault," said Demerest, in clear pain. "I did not expect to find a pregnant woman here but now that I have—I can't stop because of it."

"But you must stop," said Bergen. "You plan won't work unless what happens can be shown to be an accident. They'll find you with a beamemitter in your hand and with the manual controls clearly tampered with. Do you think they won't deduce the truth?"

Demerest was feeling very tired.

"Mr. Bergen, you sound desperate. Listen—when the outer door opens, water under a thousand atmospheres of pressure will enter. It will be a massive battering ram that will destroy and mangle everything in its path. The walls of the Ocean-Deep units will remain but everything inside will be twisted beyond recognition. Human beings will be mangled into shredded tissue and splintered bone and death will be instantaneous and unfelt. Even if I were to burn you to death with the laser there'd be nothing left to show it had been done, so I won't hesitate, you see. This manual unit will be smashed anyway—anything I can do will be erased by the water."

"But the beam-emitter; the laser gun. Even damaged, it will be recognizable," said Annette.

"We use such things on the Moon, Mrs. Bergen. It is a common tool; it is the optical analog of a jackknife. I could kill you with a jackknife, you know, but one would not deduce that a man carrying a jackknife—or even holding one with the blade open—was necessarily planning murder. He might be whittling. Besides, a Moon-made laser is not a projectile gun. It doesn't have to withstand an internal explosion. It is made of thin metal, mechanically weak. After it is smashed by the waterclap I doubt that it will make much sense as an object."

Demerest did not have to think to make these statements. He had worked them out within himself through months of self-debate.

"In fact," he went on, "how will the investigators ever know what happened in here? They will send 'scaphes down to inspect what is left of Ocean-Deep but how can they get inside without first pumping out the water. They will, in effect, have to build a new Ocean-Deep and that would take —how long? Perhaps, given public reluctance to throw good money after bad, they might never do it at all and content themselves with dropping a laurel wreath on the dead walls of the dead Ocean-Deep."

Bergen said, "The men on Luna City will know what you have done. Surely one of them will have a conscience. The truth will be known."

"One truth," said Demerest, "is that I am not a fool. No one on

Luna City knows what I planned to do or will suspect what I have done. They sent me down here to negotiate cooperation on the matter of financial grants. I was to argue and nothing more. There's not even a laser beam-emitter missing up there. I put this one together myself out of scrapped parts. And it works. I've tested it."

Annette said slowly, "You haven't thought it through. Do you know what you're doing?"

"I've thought it through. I know what I'm doing. And I know also that you are both conscious of the lit signal. I'm aware of it. The airlock is empty and time's up, I'm afraid."

Rapidly, holding his weapon tensely high, he closed another contact. A circular part of the unit wall cracked into a thin crescent and rolled smoothly away.

OUT of the corner of his eye Demerest saw the gaping darkness, but he did not look. A dank salt vapor issued from it—a queer odor of dead steam. He even imagined he could hear the flopping sound of the gathered water at the bottom of the lock.

He said, "The outer door ought to be frozen shut now if the manual unit had been rationally designed. With the inner door open, nothing ought to make the outer door budge. I suspect, though, that the manuals were put together too quickly at first for proper precautions to have been taken. And if I need further evidence that I'm guessing correctly you wouldn't be sitting there so tensely. The outer door will open. I need to touch one more contact and the waterclap will come. We will feel nothing."

Annette said, "Don't push it just yet. I have one more thing to say. You said we would have time to persuade you."

"While the water was being pushed out."

"Just let me say this. A minute. A minute. I said you didn't know what you were doing. You don't. You're destroying the space program, the space program. There's more to space than space."

Her voice had grown shrill.

"What are you talking about? Make sense or I'll end it all. I'm tired. I'm frightened. I want it over."

Annette said, "You're not in the inner councils of the PPC. Neither is my husband. But I am. Do you think because I am a woman that I'm secondary here. I'm not. You, Mr. Demerest, have your eyes fixed on Luna City only. My husband has his fixed on Ocean-Deep. Neither of you know anything. Where do you expect to go, Mr. Demerest, if you had all the money you wanted? Mars? The asteroids? The satellites of the gas giants? These are all small worlds—all dry surfaces under a blank sky. It may be generations

before we are ready to try for the stars and till then we'd have only pygmy real estate. Is that your ambition? My husband's is no better. He dreams of pushing man's habitat over the ocean floor, a surface not much larger in the last analysis than the surface of the Moon and the other pygmy worlds. We of the PPC, on the other hand, want more than either of you—and if you push that button, mankind's greatest dream will come to nothing."

Demerest found himself interested despite himself but he said, "You're just babbling."

It was possible, he knew, that somehow they had warned others in Ocean-Deep, that any moment someone would come to interrupt, someone would try to shoot him down. He was, however, staring at the only opening and he had only to close one contact without even looking—a second's movement.

Annette said, "I'm not babbling. You know it took more than rocket ships to colonize the Moon. To make a successful colony possible men had to be altered genetically and adjusted to low-gravity. You are a product of such genetic engineering."

"Well?"

"And might not genetic engineering also help adjust men to greater gravitational pull? What is the largest solar planet?"

"Jupiter."

"Yes, Jupiter. Eleven times the diameter of the Earth—forty times the diameter of the Moon. A surface a hundred and twenty times that of the Earth in area—sixteen hundred times that of the Moon. Conditions so different from anything we can encounter anywhere on the worlds the size of Earth or less that any scientist of any persuasion would give half his life to observe them at close range."

"But Jupiter is an impossible target."

"Indeed?" said Annette and even managed a faint smile. "As impossible as the Moon? As impossible as flying? Why is it impossible? Genetic engineering could design men with stronger and denser bones, stronger and more compact muscles. The same principles that enclose Luna City against the vacuum and Ocean-Deep against the sea can also enclose the future Jupiter-Deep against its ammoniated surroundings."

"The gravitational field—"

"Can be negotiated by nuclear ships now on the drawing board. You don't know that but I do."

"We're not even sure about the depth of the atmosphere. The pressures—"

"The pressures! Mr. Demerest, look about you. Why do you suppose Ocean-Deep was really built? To exploit the ocean? The settlements on the Continental Shelf are doing that quite adequately. To gain knowledge of the deep-

sea bottom? We could do that by 'scaphe easily and we could then have spared the hundred billion dollars invested in Ocean-Deep.

"Don't you see, Mr. Demerest, that Ocean-Deep must mean something more than that? The purpose of Ocean-Deep is to devise the ultimate vessels and mechanisms that will explore and colonize Jupiter. Look about you and see the beginnings of a Jovian environment—the closest approach to it we can achieve on Earth. It is only a faint image—but it's a beginning. Destroy this, Mr. Demerest, and you destroy any hope for Jupiter. On the other hand, let us live and we will, together, penetrate and settle the brightest jewel of the solar system. And long before we can reach the limits of Jupiter we'll be ready for the stars, for the Earth-type planets circling them—and the Jupiter-type planets, too. Luna City won't be abandoned because both are necessary for this ultimate aim."

For the moment Demerest had altogether forgotten about that last button.

He said, "Nobody on Luna City has heard of this."

"You haven't. There are those on Luna City who know. If you had told them of your plan of destruction they would have stopped you. Naturally, we can't make this common knowledge and only a few people anywhere can know. The public supports only with difficulty the planetary projects now in progress. If the PPC is parsimonious it is because public opinion limits its generosity. What do you suppose public opinion would say if they thought we were aiming toward Jupiter? What a superboondoggle that would be in their eyes. But we continue and what money we can save and make use of we place in the various facets of Project Big World."

"Project Big World?"

"Yes," said Annette. "You know now and I have committed a serious security breach. But it doesn't matter, does it? Since we're all dead and since the project is, too."

"Wait now, Mrs. Bergen."

"If you change your mind now—don't think you can ever talk about Project Big World, That would end the project just as effectively as destruction here would. And it would end both your career and mine. It might end Luna City and Ocean-Deep, too—so now that you know, maybe it makes no difference anyway. You might just as well push that button."

Demerest's brow was furrowed and his eyes burned with anguish.

"I don't know—"

Bergen gathered for the sudden jump as Demerest's tense alertness wavered into uncertain introspection but Annette grasped her husband's sleeve.

A timeless interval that might have been ten seconds long followed and then Demerest held out his laser.

"Take it," he said. "I'll consider myself under arrest."

"You can't be arrested," said Annette, "without the whole story coming out." She took the laser and gave it to Bergen. "It will be enough that you return to Luna City and keep silent. Till then we will keep you under guard."

Bergen was at the manual controls. The inner door slid shut and after that came the thunderous waterclap of the water returning into the lock.

HUSBAND and wife were alone again. They had not dared to say a word until Demerest was safely put to sleep under the watchful eyes of two men detailed for the purpose. The unexpected waterclap had aroused everybody and a sharply bowdlerized account of the incident had been given out.

The manual controls were now locked off and Bergen said, "From this moment on the manuals will have to be adjusted to fail safe. Visitors will have to be searched."

"Oh, John," said Annette. "I think people are insane. There we were, facing death for us and for Ocean-Deep, just the end of everything. And I kept thinking—I must keep calm, I mustn't have a miscarriage."

"You kept calm all right. You were magnificent. I mean, Project Big Planet! I never conceived of such a thing but, by Jove, it's an attractive thought. Wonderful!"

"I'm sorry I had to say all that, John. It was all a fake, of course. I made it up. Demerest wanted me to make something up, really. He wasn't a killer or destroyer—he was, according to his own overheated lights, a patriot. And I suppose he was telling himself he must destroy in order to save—a common enough view among the small-minded. But he said he would give us time to talk him out of it and I think he was praying we would manage to do so. He wanted us to think of something that would give him the excuse and I gave it to him. I'm sorry I had to fool you, John."

"You didn't fool me."

"I didn't?"

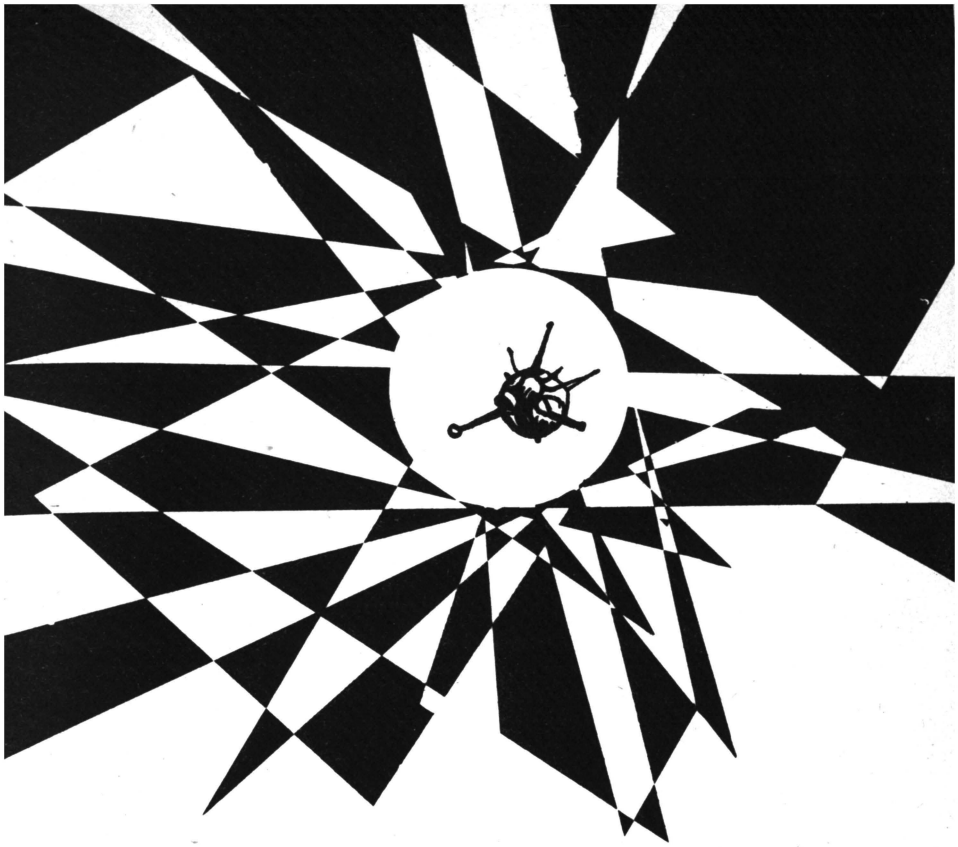
"How could you? I knew you weren't a member of PPC."

"What made you so sure of that? Because I'm a woman?"

"Not at all. Because I'm a member, Annette, and that's confidential. And, if you don't mind, I will begin a move to initiate exactly what you suggested—Project Big World."

"Well!" Annette considered that and, slowly, smiled. "Well! Women do have their uses."

"Something," said Bergen, smiling also, "I have never denied." ●



TO TOUCH A STAR

ROBERT F. YOUNG

The blue star was an anti-paradox manifestation . . . Powers, falling helplessly into it, was a paradox

1. *ChiMuZeta was discovered in ancient times, possibly as early as 4000 A.D. However, its discoverers knew only its initial properties and doubtless this was why they classified as radiation and nicknamed "saltpeter" a force that transcends both space and time and supervises the consistency of the history of man . . .*

THE spaceship Powers had stolen in his bid to regain his manhood was one of the new superfreighters the Company had recently put into use. Powers was no stranger to sophisticated ships but this one was not merely sophisticated—it was ultra-sophisticated. It did his laundry, prepared his meals and made his bed. It thought up games for the two of them to play and told him stories to amuse him. It kept him company when he was lonely and sang Brahms' *Lullaby* to him when he couldn't sleep. It was all things to him—mentor, servant, maid, slave. The only function it couldn't perform was that of mistress. But Powers had no need of a mistress. That was why he was journeying to the Blue Star.

The ship's name was *M.A.R.Y.*

M for Morning Mist
A for Afterglow
R for Reawakening
Y for Yearning.

These were the planets it had been commissioned to serve; this was how freighters derived their names.

The Blue Star had no name—only a catalog number: X-10-D. But catalog numbers frequently become names and this had happened in the case of the Blue Star. Over the years X-10-D had transmuted to Extend.

Centered in the viewscreen of the *Mary*, it brought to mind a bright blue diamond lying in a jeweler's showcase. There are other diamonds in the showcase—red ones, yellow, green, orange—but these were relatively insignificant in the Blue Star's presence: mere grains of cosmic dust the cosmic jeweler had forgotten to flick from his cosmic show-cushion.

Powers, who had begun life as a foundling and who had once been an hermaphrodite, had been staring at the star for some time. Now he turned his eyes away to rest them. But the Blue Star went right on burning on his retina almost as intensely as it burned in his brain.

He bent over the star map he had come into the chart room to study. If he succeeded in regaining his virility he would need a faraway place to expend it—preferably one on the other side of the galaxy from both Crag and Sublime. Crag was the home of the penal colony in which he had abided for four years and Sublime was the home of the Institute for Sublime Learning—more com-

monly known as "Salt Peter's Cathedral"—where he had been impotentialized.

He had a second reason for studying the map. The Beta Tau Storms. He knew that only the ship could see him safely through them but he wanted to know where they were.

AS HE sat staring at the little purple spirals that denoted their general whereabouts, the door of the chart room opened and the "stewardess" came in. Powers didn't want to look at her but he did anyway. The ship was some forty hours out from Twilight, the Company-owned planet where he had stolen it, yet he still wasn't wholly accustomed to this compelling combination of postures, attitudes, charm, companionableness, erudition and femininity electronically transformed into a comely girl.

He watched her as she walked toward him across the room, looked at her hungrily as she paused beside him. Faint golden fuzz grew upon her rounded forearms; her perfume made him think of terrestrial fields of buttercups and clover. The curve of her chin made his heart ache.

Her name was the ship's name —Mary.

She said, "Have you charted the storms to your satisfaction, Ben?"

"I'm afraid only you can see us safely through the storms," Powers said.

She smiled. "I'll do my best."

He felt the material of her blue blouse touch his cheek as she tidied up the chart table. This was not wholly illusion. A projection she might be—an electronically brewed personification of the ship —but she had a substance of sorts. Without it she would not have been able to do his laundry, prepare his meals and make his bed. And her reality went even deeper, for the ganglions of supership-computers were duplicates of the human brain.

She said suddenly, "Are we following an orthodox course to Morning Mist, Ben?"

Caught off guard, Powers played for time.

"Does it seem unorthodox?"

She laughed. "I pay little attention to such matters. The pilot programs me and I obey." She paused. Then: "But I am curious to know why you only partially programed me. As matters stand we shall proceed to Extend and make precisely two orbits around it at a mean altitude of 14,021,636.2 miles. Then what?"

"Then," said Powers, seeing his way clear, "I will reprogram you, correcting the error I made in my original programing and putting us on an orthodox course to Morning Mist."

She said, "Oh, I see." And then: "I thought of a different

game for us to play tonight, Ben. It's an awfully old one, but it's lots of fun. It's called checkers."

Powers had never heard of it. But playing it might get the Blue Star off his mind.

"I'll look forward to it," he said.

"Fine. See you at supper."

AFTER she left the room Powers got up and stepped over to the drink dispenser. He dialed a cold daiquiri and drank it slowly. I wonder what I'd do, he thought, if she were a real woman.

The answer, of course, was—nothing.

When they impotentialized you they burned a little ditty into your brain for you to think of and hum the music to when doubts assailed you. It went like this:

Impotent I may be
But I will see
Stars lovers know as dust
In the blindness of their lust . . .

He hummed the tune now, thinking the words.

And the words danced in his mind—twisted, turned, attenuated, took on flesh and shaped themselves into naked nymphs and the nymphs cavorted licentiously around a grotesque Pan—and the Pan was himself, hooves rooted in the ground, straining straining to be free, the while idiotically playing the impotentialization tune upon a syrinx.

The techs at Salt Peter's Cathedral hadn't known that he had once been an hermaphrodite and he hadn't told them. He kept that part of his life a deep dark secret. But he should have told them. Maybe they would have known what Powers had subsequently found out—that ex-hermaphrodites have a partial immunity to ChiMuZeta—and would have exposed him for a longer period of time. As it was they had taken away just enough of his manhood to make it impossible for him to have a woman and left just enough of it for him to want one.

IRONICALLY, Powers had been serving a life sentence for multiple rape when the penal colony officials had put the proposition to him. However, it was a crime he was not guilty of—could not possibly have been guilty of for the simple reason that he had not been on the scene when it had been committed. The proposition the penal colony officials put to him was as follows: if he would submit to impotentialization and accept a lifetime job as a long-run pilot for Stellar Carriers, Inc., he would be given his freedom. The reason long-run pilots were impotentialized was that the runs sometimes lasted as long as four years and a man who did not want a woman could live alone for longer periods of time than one who did.

The proposition was a standard

one and had been put to innumerable lifers before Powers—this was the only way the carriers could obtain long-run pilots. None of the lifers had refused. Powers hadn't refused either. A little bit of freedom was better than none.

He had been sent directly to Sublime. There the techs at Salt Peter's Cathedral had briefed him on ChiMuZeta in accordance with the law and had given him the Treatment. It had required exactly one long run—a relatively short one—for Powers to discover that the Treatment hadn't taken. At first, naturally enough, he had assumed that it had had no effect upon him at all and he had rejoiced in the thought that he had cheated both the penal colony and the Company. Then, in a mirrored room in an orbital brothel off Twilight he had discovered that he had cheated no one except himself.

2. *At first the ancients knew only that ChiMuZeta came from the star X-10-D, that exposure to it for the duration of a single orbit at a mean altitude of 14,021,636.2 miles (or the equivalent thereof) resulted in impotence and that exposure for the duration of two orbits at the same mean altitude (or the equivalent thereof) resulted in restoration of virility. They would not even have known this much had not one of them, apparently by accident, made an orbit at this altitude and had not another of them, years later under a galactic government grant and in company with a female of the species, made two . . .*

SUPPER was at seven. Mary served it.

As was her custom, she sat across the table from him and kept him company while he ate. Tonight she had served roast leg of lamb, baked sweet potato, diced carrots, mint jelly and hot buttered rolls—all synthetics, of course, but extremely tasty.

Powers asked for a second helping of mint jelly and Mary, clearly pleased, spooned him out a generous one. He enjoyed the meal immensely, as he did all her meals. They were a far cry from the fare he'd been accustomed to on Crag and an even farther one from the fare he'd known in the Our Mother of Moses Orphanage on Sinai where he'd spent the first sixteen years of his life. The Our Mother of Moses Orphanage, though, hadn't been responsible for its meager fare. Sinai was a barren planet and had to import all its foodstuffs, and practical considerations, such as money, posed severe limitations on what could be imported.

But while Powers couldn't blame Our Mother of Moses for the skimpiness of her meals, he could—and did—blame her for

abysmal ignorance he had been kept in during the early part of his life. It wasn't till after he left the place behind him and worked his way to Lebanon on a food frieghter that he found out what was wrong with him. Fortunately Lebanon, even in those days, had been an enlightened planet and he'd had no trouble getting the wrongness set right.

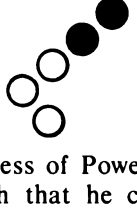
"Come on," Mary said, sweeping the remnants of the meal into the dissolver. "Let's play checkers."

He followed her out of the little galley and down the corridor to the lounge. The lounge was small and compact, and contained among other things a little round table with two chairs. A checkerboard lay on the table, a stack of red checkers on one side of it and a stack of black ones on the other.

They sat down. Mary placed the checkers on their proper squares and explained the rules of the game to him. Powers made the first move.

She won the first game—he, the second. He knew, of course, that she had let him win. But he caught on swiftly, began to plan three, sometimes four moves ahead. Mary of course could plan any number of moves ahead but this posed a challenge and served to make the game all the more intriguing.

For some reason his mind was unusually keen tonight. As he continued to play it grew keener yet and he found himself looking six moves ahead. Nine. Finally, when they stood at ten games apiece, the following pattern appeared upon the board. All of the men were kinged, and it was Powers' turn:



The sharpness of Powers' mind was now such that he could see simultaneously every possible move he could make, every possible move Mary could make, the subsequent patterns that would emerge and the new sets of possible moves that went with them. Thus, he saw not only the pattern itself, but all of its potential ramifications.

The overall pattern was fascinating in its complexity. He stared at it intently, studying its intricate lines and angles. The original pattern was no longer distinguishable: fact and extrapolation had become one. He found presently that he could no longer tell which of the lines represented his potential moves and which Mary's. But that was all right; it was the pattern that counted—not its individual parts.

HE RAISED his eyes to Mary's face, intending to tell

her about the fascinating pattern —but he saw that she already knew about it. She had stood up, he noticed, and was gesturing for him to do the same. He obeyed. It seemed only natural that he should. Now she was leaving the lounge, looking back at him over her shoulder. *Follow me,* her eyes said. He did so.

Along the corridor to the companionway. Down the companionway to the lower deck. Across the lower deck to the lifts.

"Follow me," Mary said. "Yes, I'll follow you," he said. "I'll follow wherever you go."

He followed her into Lift-A, dropped down with her to the deck-level of Hold-A. Here, locks confronted them. Atmosphere was never maintained in the holds of freighters unless the goods being transported required it and the holds of the *Mary* were empty.

The first note of wrongness struck Powers when Mary began turning the deactivator on the inner lock. Shouldn't he be suited?

He asked her.

She did not answer but went on turning the activator.

The inner lock swung open.

She stepped into the intra-lock compartment. He almost followed. The pattern was less clear in his mind now. Its lines were wavering, running together.

What was he doing in the hold-area?

"Mary, why have we come here?" he asked.

She did not answer. She was busy turning a dial on the inner wall. He knew the function of the dial. It controlled the mechanism that closed the inner lock and then opened the outer one. *Whoosh!* the pocket of air in the intra-lock compartment would go as it rushed into Hold-A and dispersed —and Powers' blood would gush from his nose and mouth and his lungs would come in clots from his mouth and his ghost would join the other ghosts that walked the black boulevard of space.

"Mary!"

He leaped through the narrowing aperture and sought to seize her arm and pull her away from the deadly dial. But while she had substance of sorts it was not the substance of flesh and bone and he could not hold on to her.

The inner lock had almost closed. He jumped through the narrow opening, barely in time. The pattern was no more but traces of his trance still remained. He watched, horrified, as the lock closed the rest of the way, sealing Mary in the airless hold.

Then the last traces of the trance vanished and sanity returned.

The ship had tried to kill him. Why?

He reentered the lift, reactivated it. He was sweating when he stepped out on the lower deck. Why should the ship want to kill

him? He climbed the companionway to the living quarters, walked down the corridor to the lounge. Entering, he swept checkerboard and checkers from the table and sat down. He noticed that his hands were trembling.

HE WASN'T particularly surprised when Mary materialized opposite him. She was sitting in the other chair as though she'd been there all along. Her right elbow rested on the tabletop and her chin was cupped in the palm of her right hand.

She said, "You have more individuality than I thought."

"Why?" he asked hoarsely. "Why, Mary—why?"

"I'm a supership—remember?"

The truth came home to him then. Superships were conditioned to react when stolen.

But how did they know when they were stolen? Specifically, how had this one known? How had he betrayed himself?

He put the question to Mary.

She answered, "By that glib lie you told this afternoon when I asked why you had only partially programed me. It would have taxed the credulity of an idiot and an idiot I am not. I should have guessed the truth from the emptiness of my holds," she added almost ruefully, "but I did not, because according to my data freighters occasionally do leave home port without cargo."

"Do you know why I stole you?" Powers asked. "Do you know, Mary, why I'm going to Extend?"

She shook her head. "It makes no difference."

"But it does make a difference," Powers said desperately. "All you have to do is bear with me for another forty-eight hours. We'll have reached Extend by that time and have completed two orbits around it. That's all I want —two orbits. Then I'll program you to return to Twilight and the minute we arrive I'll turn myself in to the port authority."

"Talk sense, Ben."

"All right, I will," Powers said. "If you kill me you're as good as dead yourself, because you can't reprogram yourself. You'll simply stay on your present course, go into orbit around Extend and stay in orbit."

She shook her head. "Ben, Ben —why do you persist in thinking superships are dumb? The only reason I can't reprogram myself is because like all superships I'm conditioned to obey the programing of the pilot. But only as long as the pilot is alive. The minute you're dead I'll be free to go wherever I please."

Powers sighed. It had been a lousy hand but he had played it for all it was worth.

For some reason Mary's face was less distinct now than it had been a few moments ago. But he

was aware of this only in the back part of his mind.

"I'll tell you one thing," he said. "You'll find me a little more difficult to deal with now that I'm alerted. You won't be able to hypnotize me with a checker game again—that's for sure. Nor," he added with a rueful smile, "get me into a prehypnotic state by feeding me souped-up mint jelly."

A thought struck him. Why hadn't she simply poisoned him and been done with it? But he didn't bother to ask the question, not only because she wouldn't have given him a straight answer but because he guessed the truth—there were no suitable toxins on board.

He said, "Well, anyway, it was a good try."

"I'll do better next time."

The matter-of-fact way she said it sent a shiver through him. He realized suddenly—consciously this time—that her face was blurred. Transferring his gaze to the wall behind her he found that it, too, was blurred. So were the other aspects of the room. For a moment he thought that she had somehow contrived to drug him again—then he noticed that the air was shimmering, as though filled with foreign matter, and the truth overwhelmed him.

He was on his feet, shouting, "We're entering a Beta Tau storm! Why aren't your alarms sounding?"

She smiled demurely up at him. "Don't shout at me, Ben. You programed the course."

He whirled, ran out of the room and down the corridor toward the protective-equipment lockers. Laughter sounded behind him—Mary's. It died abruptly when he reached the storage room and slammed the door behind him. The lockers were on the opposite wall.

3. *Later the ancients discovered that prolonged exposure to Chi-MuZeta resulted in disintegration. Their first inkling of this came when the special-alloy tanks they had devised for transporting and storing the "radiation" transmuted from a solid to a translucent and finally to a transparent state. They suspected that there might be still another phase and tentatively named it "transintegration"—a term that endures to this day. But despite the accidental accuracy of the term the ancients still hadn't the faintest conception of the true nature of the force at their fingertips, nor would they guess for another hundred years that ChiMuZeta in its ultimate form is an Anti-Paradox Manifestation—a force created in a star by the cosmos in order to stabilize the present by filling in hiatuses—and correcting their accompanying inconsistencies—in the past—hiatuses occasioned*

by mankind's unconscious ability to create en masse . . .

WHEN POWERS next saw Mary he was seated before the viewscreen in the chart room wearing a synthi-lead suit that weighed nearly one hundred pounds. He was looking at the Blue Star, which now filled the screen and about which the ship would shortly go into orbit.

Mary materialized next to the screen—it was as though she had stepped through the bulkhead. The photon filter had toned down Extend's brilliance to a gentle hue that almost matched the color of her uniform.

She asked, "Comfortable, Ben?"

He glared at her through the suit's faceplate.

"I know who you are now," he said into the transmitter. "Keats saw you by the lake. You're *La Belle Dame Sans Merci.* You're Death."

"You're jumping the gun, Ben. When Keats saw the lady he was dying. You didn't get anywhere near enough Beta-Tau radiation to put you in an analogous fix."

"You sound disappointed."

"I am."

"Bitch."

She grinned. "Why don't you take off your suit, Ben? The storm's safely behind us."

It was true and he almost fell for her suggestion. Then he saw that rime was forming on the viewscreen controls and on all the other metal parts in the room. Cold sweat came out on his forehead and ran down into his eyes.

"You'd like that, wouldn't you?" he said. And then: "What's the temperature out there?"

"A cool minus four hundred and ten Fahrenheit and dropping. Come on out, Ben—it's quite refreshing."

"You opened all the locks?"

"Every one. And that's not all I did, Ben."

He did not need to ask what she meant. For some time now he had been aware of a growing heaviness in his limbs. Tentatively he tried to raise his right arm, found that he could barely do so. And when he tried to stand he only half-succeeded, then collapsed back into the chair.

He estimated his weight, suit and all, to be about eight hundred and seventy pounds.

Mary was grinning at him.

"Three G's were all I could muster. My artificial-grav unit isn't what it should be."

How long could he endure three G's? And how much oxygen did he have left? A glance at the indicator informed him that he had a thirty-five-hour supply. More than enough to see him through two orbits. As for the suit, it would be no hindrance—it kept out Beta-Tau radiation but not ChiMuZeta.

But what then? How would he reprogram the ship if he couldn't move out of his chair?

But he would be able to move out of his chair. When all of the chips were down, Mary would *have* to turn down the grav-unit. If she didn't she, too, would face disintegration.

She hadn't won, then, after all.

From the way she continued to grin at him, though, you would have thought she had.

She said, "In about a day and a half you'll be dead. Why don't you give up the ghost now?"

"In a day and a half," Powers said, "we'll be in our third orbit around Extend. Doesn't that mean anything to you?"

"Only that you'll be dead."

Clearly she did not know—probably because her builders, in view of the fact that none of the commercial routes came anywhere near Extend, hadn't thought it necessary to include the data in her memory banks—that if she exceeded two orbits around Extend she would be running the risk of disintegration. Would he, when the time came, be able to convince her that the only way she could save her own "life" was by saving his?

It was a chance he would have to take. Because if he tried to convince her now and succeeded she would try another means of killing him and this time the attempt might very well come off. By keeping her in ignorance for a while he could obtain the time he needed.

"Well, I'll leave you to your thoughts, Ben," she said. "I imagine you have quite a few."

And so saying, she dematerialized.

The *Mary* gave a slight shudder as the first braking rocket fired. A series of shudders followed as successive rockets discharged themselves. Then the *Mary* was in orbit.

4. *Most paradoxes involve religious legends that through the ages successive generations of believers have turned into fact. Anti-Paradox Manifestations occur when such legends finally become fact and lie in wait till mankind discovers them and—in the case of the ancients—misinterprets them and unwittingly supplies them with the ingredients necessary for the correction. In ancient times, APMs sometimes endured for thousands of years.*

WHEN Mary next materialized the ship had entered its second orbit around Extend. She was furious.

"What kind of a pilot are you, Powers?" she demanded. "We're falling into the sun!"

At first Powers thought she was lying. Then he saw that the rime had vanished from the control knobs and he discovered that he could stand up.

"How—how much altitude have we lost?"

"Four million miles and every second we stand here we're losing thousands more. Get out of that suit and into the programing room before it's too late!"

He could only stand there. Four million miles—more like five million by now. It was already too late. According to the briefing he had received from the ChiMuZeta techs, the intensity of ChiMuZeta radiation at even minus one million miles was double that of impotentialization level.

He had spent hours programing the course, had checked and double-checked the orbital-velocity-altitude ratio. How could he possibly have erred?

Suddenly out of a corner of his mind came a thought he had kicked around shortly after the briefing and then forgotten about: how could the first man to orbit Extend have found the impotentialization level by accident? The odds against his doing so were staggering.

Perhaps he hadn't found it by accident.

And perhaps Powers' miscalculation wasn't an accident either. Perhaps he and Mary were pieces on a cosmic checkerboard with no more volition than the checkers they themselves had used so short a time ago.

But his insight went no deeper. He felt the awesome shudder that passed through the ship as its overheated drive went off, saw the fiery surface of Extend take on dreadful detail as the *Mary's* fall accelerated. He heard Mary's screams as she tried vainly to pull him from the room. He saw the bulkheads shimmer, then fade away as disintegration began.

And then he knew no more.

5. *APMs, being a part of basic reality, are not subject to time: this is a restriction which we ourselves impose upon them. Hence the seeming anachronism resulting from an APM correction is an anachronism only in our own eyes, and not a true anachronism at all.*

IN THE dream that was not a dream Powers climbed a black mountain, descended into a dark abyss from whose depths stars could be seen shining high in the immensities. He stood there darkly, looking up at them, then lifting his arms to them he seized their light and wove a golden ladder which he climbed like Jacob into heaven. There lay the stars before him in a great black river of space-time—he straddled the river and looked down into its depths and saw that it did not flow but lay there like a dark immobile interval; and through the interval swam the fishes of men. He saw other things in the river, too, he

saw nebulae and planets and ships and suddenly he saw the *Mary*—and Mary and the *Mary* were one, swimming in the darkness of the river.

He could see all of the river because it occupied neither space nor time although it embodied both. It lay there Mobius-strip-like beneath him, with its stars and planets and ships and silly men-fish going nowhere. It was his river, there for him to fish in and if he chose he could become a fish himself. Around him in the darkness he sensed other beings like himself and knew that they owned rivers, too, with fishes in them. I will become a fish for a while, he thought evilly, and diminished down into the static stream and stepped out upon a planet called Sacred Heart.

He saw a park and entered into the cool shade of trees and made his way to a round white building with a tall tower on top. He thought whimsically, *Here are mortals who presume to be my wives*, and he passed through a wide entranceway and into the Cloister and climbed a flight of stairs to the chapel where the Holy Sisters were praying. When they saw him, they screamed his crime.

He left the building and exceeded and stood above his river, looking down into the oneness of past-present-future. There was a girl named Mary, he remembered, who had tried to kill him. She was not flesh and blood like the other fishes. She was a projection, but she had been devised by men and therefore had been compounded of race memories—and where those memories began, there would he find the basic Mary . . . He looked down into his river and after a while he saw her in the fields and he diminished and—

—stood before her. When the girl Mary saw him she did not flee. It was as though she had known that he was coming, as though she had prayed that he would come. She did not struggle when he seized her arm and pulled her into the dim shadows of an olive grove, nor when he divested her of her robes. "I shall have a child by thee," she said when he had taken his revenge, "and he will be of virgin birth. For I know that thou art not like other men—that I have been chosen from amongst a thousand women to do thee honor."

He was mollified and no longer bore her ill will. She was the basic Mary and she was good. It was the false memories that had intruded over the millennia that had given her guile and robbed her of compassion.

He exceeded and looked down into his river and saw that all was well. After a while he caused a bright star to appear where none had been before, to show that he was pleased. ●

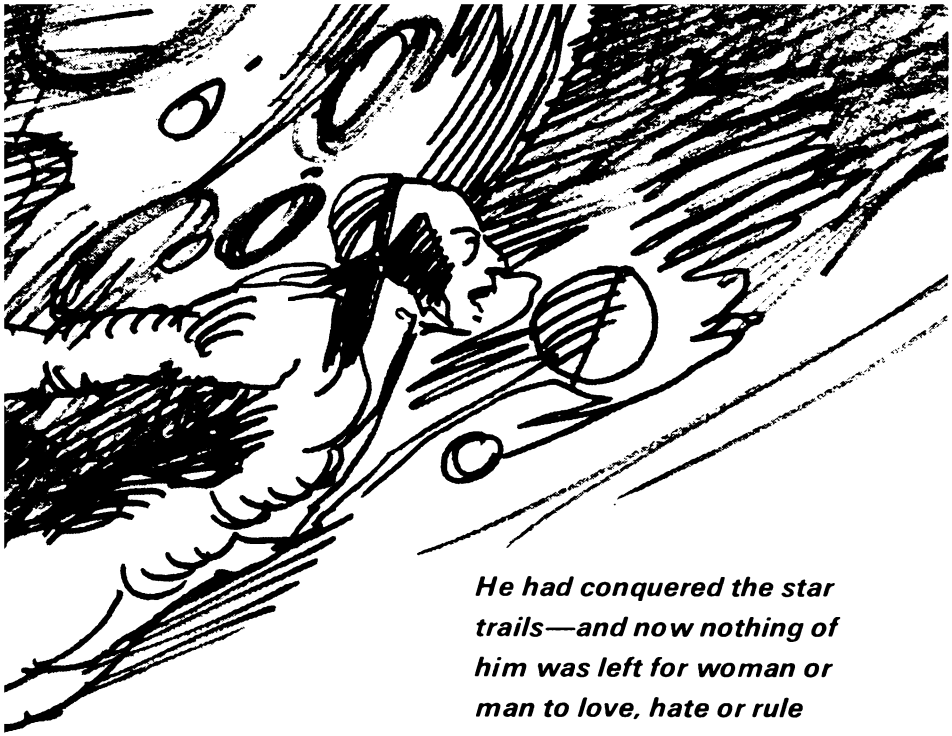
SPACE

I

TRAPPED between the sharp teeth of his trauma, Marnsworth remembered her smile. And other things. The way the rain fell on Hydria: soft and diffused and everywhere at once, as though some strange osmosis had sifted it through the pores of space—and colors so bright that his corroded mind ached with their memory.

The rain placed a warm film over everything it touched, softening every leaf and every garment on the island with a tireless patience quite unlike the other driving rains he had known; and the trembling colors imprisoned in his head had illuminated a part of himself that had always been deeply buried in the dark night of his soul.

It had been raining the last time



He had conquered the star trails—and now nothing of him was left for woman or man to love, hate or rule

MAN

LEE HARDING

they had stopped over on Island One. In fact, he couldn't recall a time when it had not been raining on that vast oceanic world and its scattered islands. Never once had he looked out over the island without the gentle pervading film of rain coming between himself and the landscape, while overhead an unseen sun burnished the deep layer of cloud a hazy shade of copper.

Hydria was only a whistlestop on the great bustle Outward. The water world was inexhaustible and it allowed the thirsty ships from Earth to drink their fill of reaction mass before they moved on with their urgent business of remaking the universe. There were richer prizes to be won than this almost landless world and the Service had contented itself with carving out a landfall and stop-over

port for its ships on one of the equatorial islands. So perfunctory was this activity that they hardly bothered to give the place a name, only a number. Hydria had nothing more that they could plunder and so she was spared the indignities commensurate with terraforming, a rapacious process that had already remolded many brave new worlds in the delightful image of mother Earth.

Yes, it had been raining and the *Barain* had loomed large on the wet tarmac—a great metal canister from Earth, tended by Servicemen in their smooth plastic suits, moving around the base of the monolith like pale white grubs groping around the carcass of some dead animal.

SUITING up had become something of a ritual.

Marnsworth had first disposed of his captain's uniform and then pulled on a flimsy transparent plastic sheath over his underwear. It would insulate his body and ensure that it was maintained at the proper temperature regardless of his external environment. Over this he donned a heavier but in no way cumbersome survival suit. It was fitted out with a number of tiny powerpacks, from which fine cables sprouted like delicate vines, fed the thermostatic insulator underneath and provided power for the faint but adequate deadfield that radiated outward from the wide belt at his waist. He checked this carefully before he zipped shut the transparent parka fitted to the suit—the field would annihilate any dangerous microorganisms for quite some distance around him, ensuring that he could venture safely beyond the controlled environment of his ship without fear of any serious contamination.

Such caution was necessary. Many lives had been forfeited in the early and clumsy days of space exploration to inadequate personnel protection. These days full survival suiting was mandatory for all Servicemen, even if they only stepped outside for a few moments to urinate. More than a century of modifications had made living in spacesuits comfortable and he was the animal spirit of his age—a spaceman. A starship was his natural environment.

The *Barain* surrendered him to the Island. He was escalated to ground level with all the care that a child could expect from its mother. He planted his protected feet on the wet tarmac and waited while they broke out a skiff.

He looked up and felt a sudden longing for the clear controlled skies of Earth. Through the sifting rain he could barely distinguish the Service buildings crowding the perimeter of the field. Fine detail was blurred by the pervading drizzle, so that they loomed squat and ugly in the coppery sunlight.

Vaguely he could discern the figures of some local landmen lounging against the buildings and studying the stranded starship. They seemed not to notice the rain, seemed also to draw some nourishment from the humid wetness and the pallid sunshine. Their chests were bared to both and they were probably prepared to spend the rest of their lives covered with the same warm film of moisture that was clouding his parka. If their dull faces had anything to communicate it was obliterated by the drifting rain.

High up in the belly of the *Barain* a panel opened and a compact surface craft nosed its way out. A driver adept at his task guided the skiff down to a neat landing only a few paces away from where Damian Marnsworth waited. The captain stepped forward impatiently, thanked the young Serviceman and assumed solitary command of the sleek craft.

He sat down before the sparsely detailed instrument panel, fidgeted nervously with the toggles and switches. It had been some time since he had driven a surface craft and, although it was capable of automatic piloting, he felt it essential that he become confident with the few manual controls before he moved off.

He looked straight ahead, trying to pierce the solid veil of water that enveloped the hazy outlines of the landfall buildings. Beyond them stretched the great rain forests of Island One that had swallowed up Gerard Childers and now kept him jealously hidden from the *Barain* and its crew.

Childers had been the best drivesman he had ever known. He had disappeared several stopovers ago. An immediate, quick and cursory search of the settlement had been sufficient to convince Marnsworth that his man had taken to the forest and was too well hidden for them to be able to flush him out with the limited time at their disposal.

Childers had timed his break for the very last few minutes of landfall time. Once the initial flurry of excitement had been over Marnsworth had had no recourse but to up-ship on schedule and return to Earth with his second drivesman in charge of the engines.

Technicians were plentiful and Service Schedules were, like all parts of the Plan, impressively expensive. Each day spent away from Earth cost the administration mega-credits and the eager expansion of Earth's embryonic stellar empire was being accomplished with all the thoroughness that three centuries of red tape could muster. A maximum of eight hours stopover was mandatory for all ships and any captain who exceeded this limit without proper justification was quickly broken.

A minor technician just wasn't worth it.

BUT for Damian Marnsworth the situation went deeper than that; so deep that it hurt and had left a small weeping wound that refused to heal. Gerard Childers had been more than a mere technical subordinate—he had been a friend. They had schooled together and stepped out in the great ships to master space together and in this respect Childers' desertion had assumed the quality of a moral betrayal. He had left without a word of explanation, without any warning whatsoever—but this day Marnsworth was determined to challenge the rain forests and wrest from Childers the reason for his madness.

In his hands he held a map, a clumsy effort drawn by one of the local landmen the trip before last. It had cost him a considerable amount of money—but not so much that it could not be safely written off into petty cash—and the information he had drawn from it and fed into the skiff's auto-pilot would guide him to Childers. Marnsworth had wormed the crude drawing out of a drunken recluse in the Service bar—perhaps it was the way landmen disintegrated their society and fragmented into so many different forms that made them seem so disgusting—and he had been restlessly waiting for an opportunity that would enable him to put it to use.

And this time he had one. Deep in the *Barain's* belly an overstressed and underserviced main drive unit was undergoing urgently needed repairs. The work would take several days. The task was complex and only when the chief engineer had the massive engine stripped down and examined would he know what to do and how long it would take to reassemble and test the unit.

There would be plenty of time. The clear canopy of the skiff was already beaded with moisture. Marnsworth moved a toggle that set the auto-pilot in motion. The skiff moved skyward, hesitated for a moment several hundred feet above the tarmac while it checked the coordinates for Childers' hideout and then skimmed off over the settlement in the direction of the great northern rain forest.

As he passed over the shallow line of buildings Marnsworth saw several faces turned up toward the skiff. They were local landmen and for a brief moment he could see them clearly enough to note the wet hair plastered against their faces—he looked quickly away. All Servicemen shared this instinctive aversion to landmen, if only because they were living proof that the Plan was not always infallible. Genetic prediction and selection were still infant sciences—but time would improve the techniques of control so that deviations from the goal would become fewer and ultimately disappear, and the

Empire would be populated by a truly space-bred society. In the meantime the Administration maintained a tolerant attitude toward its outcasts and sometimes even supported them in their absurd little enterprises. The unwanted worlds had become an ideal dumping place for social misfits.

The settlement disappeared behind him. The clouds and the rain closed in. The skiff gradually sought altitude so that it would be prepared for the mountain range that began some distance ahead.

II

ISLAND ONE was shaped like a blunt heart, inclined southeast across the equator. At the southern, narrower end were two smaller islands grouped a few miles apart about thirty miles offshore, inhospitable rocks unworthy even of the numbers doled out to their larger brothers by the original cartographers of Hydria.

The island was heavily timbered and bore a crooked back underneath the lush, wet forests. This serrated ridge crossed the island from east to west and was the closest thing to a mountain range that the fresh young world had ever known. It made a long, slow climb for the small surface craft.

But Marnsworth was in no particular hurry now that the journey had finally been instigated. He had spent most of his life on board some sort of spacecraft, studying interminable viewscreens and printouts and had managed to achieve a most sought-after function of all Servicemen—he could almost switch himself off for long periods of time and allay the boredom of travel. And he did so now. He relaxed and waited, for this was the measure of his trade.

More out of idleness than from any genuine curiosity, he activated the external sensors of the skiff. The whispered sounds of the world below drifted into the cabin. But the forest did not chatter incessantly like some forests he had known; nor did it scream or whimper. No predator moved through the unseen undergrowth. Here dominion had been divided between birds and insects and an occasional herbivore and that explained why the ecology of the island had always moved at such an infinitesimal rate—time had barely touched this great world of water.

He drowsed. Perhaps he should have felt nervous and excited at the prospect of tracking down Gerard Childers but emotions that could overpower his logical mind had been bred from his strain several generations ago. He almost slept until the skiff broke through the clouds and challenged the timberline. A bare sky gaped momentarily before him and a golden sun burned bright and naked into

his face. He looked away.

The land that swept back from the narrow ridge of mountains reminded him of the great game reserves of Africa. The broad veldt-like stretches were a striking contrast to the rain-drenched landscape he had been traveling over.

The skiff soared easily over the flimsy backbone of the island and plunged straight down into a dense mist. The wound in the sky healed over and the clouds closed in. He relaxed again in his seat and checked his watch against the trip-meter on the control panel.

Ninety-seven minutes and one hundred and eleven miles away from the settlement. The long climb had slowed down the skiff but now that the mountains had been passed it was downhill all the way to Childers' retreat.

He had rehearsed all sorts of dialogues with himself but now that he was close to his quarry he found that he could cast serious doubts on them all. What would he say? What could he say? At the moment he could think of nothing that wouldn't sound offensive and presumptuous. Perhaps—and this was what he wished—perhaps they would both blunder their way through the initial confrontation and then, over a pleasant drink or two, some of the friendship they had shared might begin to flow between them again.

He missed that more than anything else. Space had become withdrawn and lonely since Childers' had deserted the Service. There had been a time when the universe had been their oyster. Whatever had possessed Childers to turn his back to it in such a perfunctory manner?

WITHOUT any warning the mist and rain disappeared. The skiff plunged into a wide valley. Gone were the rain forests and the sparse veldts, to be replaced by sweeping grasslands. A river broke free from the distant forest and played tag under the speeding craft. The land began to rise steeply on either side and finally pushed it, roaring and foaming whitely, through a narrow gorge and out into another, narrower valley. The skiff shot quickly through this natural pass and, once it had entered the valley beyond, began to describe a wide gliding arc that broke for the first time the single-minded purpose of its flight.

A persistent beeping began on the control panel.

Marnsworth tensed. A human habitation lay somewhere ahead. Childers' retreat—or somebody else's? Was the map a fake?

He had thought of radioing ahead to announce his arrival but he wasn't sure that Childers would appreciate a call. There was no point in putting his old friend unnecessarily on edge.

Cultivated fields passed by un-

derneath. He leaned forward, the better to observe the new landscape. Human hands had molded this land to some purpose. Neat plantations of some sort of bush spread down the river's edge. This was no fetid swamp—Childers had chosen well. Perhaps his madness was not quite as intense as Marnsworth had imagined—this landscape had been designed with great care and affection.

The skiff accelerated briefly to grab an extra few feet of altitude to fly over a wide belt of trees. It dropped abruptly into an enormous clearing. A small white house, festooned with colorful creepers, was set almost in the very center of this smooth area. It was U-shaped, its front aspect facing southwest so that it took in the curving elbow of the river, the dim mountains in the distance—hidden now by tumbling rain clouds —and Marnsworth's descending surface craft.

The control panel beeped three times and was still. The skiff hovered expectantly, waiting for Marnsworth to resume manual control and descend. But a cold nervousness had suddenly gripped him. It made him fumble at the controls with fingers that had suddenly become inexpert. He wondered if the common audacity of his visit had been ill-planned. What sort of a reception could he expect from a man who was already three years a stranger?

Well, he would soon find out. No sense turning back now that he had come this far.

He sent the skiff gliding cautiously down. It set down on the grass and he cut the motors and sat for a few breathless moments while they idled away into silence. There was such an unnatural calm about the valley that he was reluctant to disfigure the silence with any abrupt movement.

There was no sign of activity from the house, no indication that his arrival had been noted. Either Childers did not possess even a rudimentary sensor or he was deaf—or disinterested.

Marnsworth slipped out of his seatbelt and swung back the canopy. He jumped lightly to the ground. His suit lacked an amplifier, but the light gravity of Hydria made movement effortless even for his meager muscles. He felt the wet grass give under his weight. The outside temperature was high —so was the humidity—but his suit filtered out these unpleasant environmental things. He flicked on his sensors and allowed the moist and quiet sounds of Island One to make an impression.

HE WAS still standing in the same spot several minutes later when the front door of the white house swung open. He saw a figure hesitating behind the deep shadow. Then it stepped forward into the sunlight.

Marnsworth gave a start. At first he wasn't sure that this actually was Gerard Childers but as the man moved toward him with bold, unfrightened steps, he realized with a sinking heart that this —this creature—was indeed his old friend but scarcely recognizable, with the upper half of his body bared to the weather and with a heavy growth of beard disfiguring his face. He wore only a pair of dun shorts and his bare feet crushed the wet grass.

The sensors in Marnsworth's suit were sensitive. They picked up the words the other man was mumbling.

"Damian—good God, what brings you here?"

The outward appearance of his friend might have been transfigured by life under such alien conditions but at least the voice was familiar. Marnsworth stepped forward eagerly, reached out and Childers gripped his plastic hand and pumped it vigorously.

"Hello, Gerard." He felt shy and foolish, as though he didn't really belong here, so far from his ship. "I came out to see what you've been doing with yourself."

Childers smile held an uncomfortable edge. "I hope you haven't come to try and impress me back into the Service or anything like that?"

Marnsworth shook his head. "No. It's just that—well, the ship's laid up for a few days at the settlement. I thought I'd take advantage of the break to come and look you up, find out what you've been doing these past few years."

Childers seemed to relax a little.

"Always knew that rustbucket would let you down one day."

"Oh, it's not the *Queen*," Marnsworth explained. "The *Barain*. A new ship. This is only her third trip out. Her main drive's been giving us hell ever since she was commissioned—"

Childers placed a brawny, suntanned arm around Marnsworth's plastic shoulders and guided him toward the house.

"Well, it isn't every day we get a visiting spaceman—"

The house was cool inside but Marnsworth could detect no threshold whirr of conditioning, so he did not unzip his parka.

Childers eyed him quizzically.

"Aren't you going to take that damned thing off?"

Without waiting for an answer he moved across the room and slid back a panel in the wall to reveal an array of bottles and glasses. Marnsworth began to feel welcome but a residue of his curious embarrassment remained. He gestured awkwardly with his smooth hands.

"I hope you realize that you've had a damned sight longer to get used to this air than I have."

Childers looked up from the dark drink he was pouring.

"Oh, yes. I'd forgotten that. Does that mean you'd turn your nose up at a local beverage?"

"Hardly likely."

"Good."

Marnsworth took a deep breath and unzipped his parka. He shivered as the humid air struck his face and his hand shook a little when it reached for the drink.

The beverage was raw and unfamiliar and it fought its way down his throat like a living animal. But once it had arrived in his belly he found he could experience an agreeable warmth spreading through his body—intoxicants could vary in taste but their effect never varied from one world to another. He found the stuffiness in the air most disagreeable but at this stage he felt much too polite to create any difficulties.

Childers motioned him into a chair and sat down beside him.

"Don't often have people up from the settlement," he said. "At least, not Service people."

Marnsworth found his chair uncomfortable. It had been hewn from some natural material and was quite hard beneath him. But he made no comment and avoided looking directly at Childers. He still felt residual horror at the changes in his friend. Something other than the fierce u.v. had burned Childers' face into hard, coarse lines and bleached his hair with wide bands of gray.

Both men were in their middle forties but in contrast to his host Marnsworth had the bland, untroubled and smooth face of an adolescent. He sat behind his suit and it nursed him and cared for him, in much the same manner as his ship looked after him while they moved between one world and another, one year and the next. He was slim and fragile and unaccustomed to the hardships of living on the land. His environment was space and his strength could be found a hundred thousandfold in any of the amplifiers he was called upon to use.

Was it possible that Childers had been unable to maintain his rejuvenants since he had left the Service? Was that why he looked so old after only three short years?

MARNSWORTH, coughed discreetly, suggesting that the liquor had troubled his throat.

"You seem to have settled in rather well."

One had to be sociable, otherwise an embarrassed silence would engulf them.

Childers managed a wry grimace. "Well, the first few months were the worst. After that, well, everything became a little easier."

"I see." But no, he did not really see. "The—acclimatization?"

"Something like that. You like the wine?"

Marnsworth said that he did—with reservations—and accepted another.

The house was large by the standards he was accustomed to. Plenty of wide, full-length windows to let in the coppery sunlight and if the furniture seemed sparse and crude by some standards, it was at least functional. It was the excess of free space that he found most disconcerting. On board ship and at home—in fact anywhere on Earth, for that matter—living space was at a premium. Marnsworth had been tailored to fit a cramped environment—and to fit graciously, without asking awkward questions.

Childers was staring down at his drink. Without looking up he said, "I suppose you'd like to know why I left?"

Marnsworth did not answer but let him continue.

"Well, it was just something I had to do, that's all. Then and there—at that moment. Without any temporizing. But I'm sorry if you've been through any trouble."

No, no trouble, Marnsworth thought. *Only pain.*

"But you see, there wasn't time to—to think about things like that. About the Service. About command and all those other meaningless things. I just couldn't stand being locked up inside that great tin can any longer. I had to get out."

"And so you threw up your work, your career, your pension," Marnsworth said. "And for what, Gerard, for what?" He gestured to take in their surroundings. "For this?"

Childers didn't answer. And his face had not yet lifted from contemplating an empty glass.

Marnsworth felt failure like a great weight lodged in his lungs.

"All I know, Gerard, is that you've changed—changed much since I saw you last. And have you done it all for this?"

Childers raised his head slowly and there was an honesty in his eyes that had not been there before.

"You haven't changed much at all," he said and then looked quickly away, as though embarrased by what he saw. "As you've probably guessed, I haven't been taking my shots since I left the Service—and there's a rather frightening change in the first six months or so. But after that things tend to even out and you get used to your new appearance. You put on weight. If you're working, then you start buildings muscles. The sun tans you—your body sweats. A lot of things happen. But I guess it's in the face that a man shows it most."

Suddenly furious, Marnsworth jumped to his feet. "I can understand anybody wanting out," he cried, "but why in God's name did you throw away your youth?"

Childers looked puzzled. "But did I do that, Damian? Did I really? Has it ever occurred to you just how costly those treatments

are when you haven't access to Service wages? Not everyone back home can afford them either—or perhaps you've conveniently forgotten that? Spacemen tend to forget everything that is not absolutely necessary to their profession. And I found that I could do without my shots—as I could do without most of the things that Earth had given me. Once you have discarded one myth you can discard them all."

Marnsworth said nothing and Childers continued.

"Did you know that rejuvenation is our greatest lie? Oh, we keep ourselves young on the surface, on the skin where it shows—at least those of us who can afford to do so—but it's only a sickly veneer. The flesh may stay young but our minds aren't fooled. They're much too clever to be tricked by our smart little drugs. We age our mind through experience, regardless of the physical rejuvenation that continually remakes us—but what, do you suppose, will be the end of all this? Will our minds get surfeited with accumulated inertia and finally stop from sheer exhaustion? I suppose it would be interesting to find out—but I no longer wish for that sort of knowledge. I have—other things."

MARNSWORTH was breathing heavily in the humid atmosphere. His eyes were bright.

"Some day," he said, "some day they will find a way to—"

"To rejuvenate the mind? How awful. But I suppose they will do it if they've set their minds to it. Man has made a habit of accomplishment. But really—one doesn't need their clever chemicals. Rejuvenation of a tired mind is a simple process for those who are prepared to look. I found it here. Others look elsewhere."

Marnsworth realized that he was as far from Gerard Childers as he had been back at the settlement. Was there no way of bridging this enormous gulf?

"Gerard," he began, his voice soft and patient, "do you remember how we used to talk in the old days, back at school?"

"About how big the universe was and how mankind would chart its secrets and what an adventure it would be—"

"To be part of it—"

"And wouldn't it be grand?"

"Then you haven't forgotten?"

"No, of course not. But that was all so long ago, Damian, and we were such fools."

"But your training—all those years—"

"And for what? A few years out of my life—not worth crying over. Oh, I won't deny that I was once as starry-eyed as any young cadet—"

"You were more than that. You were one of the foremost physicists of your time—and the best

damned drivesman I ever knew. And you left it all—ran away like some crazy kid. And only for this!"

A shadow passed across Childers' face. He became very serious.

"Listen, Damian. I will tell you something. Something very important to me—and to everybody. When I had finished all those wonderful years of schooling, of breaking God down into little pieces so that I could measure Him and analyze Him and wondering what to do with what I found—after I had accumulated all this useless knowledge, do you know where I found myself? That's right—staring at gauges and meters and tapping out commands to machines more clever than myself, nursing spaceships through hyper-space and watching little colored lights winking on and off. And that was all, Damian—only that. Ten years of my life studying so that I would wind up acting as caretaker to a machine."

"But such work demands that sort of study," Marnsworth protested. "Surely you don't expect—"

"I expect nothing—not any more. Only never to waste my life in such a useless fashion. I want to feel the pressure of a world beneath my feet; I want fresh air in my lungs and not the canned stuff we're too used to accepting as the real thing. I don't want to have to drag my environment around with me to every God-forsaken corner of the universe. Damn it all, we've become a race of galactic sculptors running around the cosmos putting Earth's face on every habitable world we find—can't you see that's blasphemous?"

III

MARNSWORTH'S thoughts were locked in a nexus of consternation; he could not speak. Impatient words had piled up into an unmanageable lump in his throat and his lips twitched in an agitation to free them. His whole body was shaking inside the protective suit.

The fierce light faded suddenly from Childers' eyes. He looked past Marnsworth and his face softened. The spaceman followed the direction of his gaze and was surprised to find a young woman standing in the doorway.

Childers stood up. "Rachel, this is Damian Marnsworth—Captain Marnsworth. My old chief. Damian—my wife."

Her quiet entry helped to break the terrible stasis that had gripped the spaceman. He struggled awkwardly to his feet and dipped his head sharply in a gentleman's acknowledgment.

"What a pleasant surprise, Mrs. Childers," he said. "I had no idea—"

He had assumed that Childers

lived alone in his retreat—nobody had mentioned the woman. She was extraordinarily attractive even to a spaceman's eyes—but she was regarding him with a cold grace he found disquieting.

She wore a simple orange shift and her dark body—darker even than her husband's—moved visibly underneath the material as she crossed the room. Probably quite a bit of African and Eurasian somewhere along the line, he reckoned—particularly when one considered the almost imperceptible slant of her luminous dark eyes. Her body was strong, supple and well proportioned, if slightly plump by some standards and her jet-black hair was pulled back into a bun at the base of her neck. She extended a courteous hand to Marnsworth but she did not succeed in concealing the hostility in her eyes.

"How very nice to see you, Captain." Her voice was soft and husky. It disturbed Marnsworth. "You are—most welcome. We don't often have people from the Service visiting us."

He grasped her moist hand with his plastic fingers and sensed her displeasure like a mild electric shock passing up his arm.

"Thank you."

Childers made a disparaging noise.

"Damn fool lives in that suit. You'll never get him out of it. that's for sure."

Feeling a trifle foolish, Marnsworth explained to the woman—in detail—why his survival suit was necessary and how unaccustomed he was to being off-ship. While he talked her ambivilance seemed to soften a little.

"You have a very nice—ah—estate here," he babbled on, unable to stop now for fear that the terrible nexus would grab him again. "Mrs. Childers, I must confess that I never—"

"Oh, for God's sake, call her Rachel, will you?" Childers exploded, exasperated. And then turned attentively to his wife. "Would you like a drink?"

She nodded. While her husband poured for her she moved gracefully across the room and sat down on an upholstered divan under the east window. The copper sunlight made her skin blaze. The vivid color of the shift was almost blinding to Marnsworth's weak, spaceman's eyes. She crossed her legs and Marnsworth realized that her feet were bare, like her husband's.

Of course she had timed her entry with discretion, waiting until the two old friends had established some sort of rapport and then, with the penchant for perfect timing that only beautiful women seemed to possess, had announced herself when her presence was most needed—her arrival had made their disagreements unimportant for the moment.

"When do you have to be back?" Childers asked.

"Well, I don't really know. That damned drive could take days to fix and—"

"Then why not stay here with us for a while? Have yourself a holiday away from that damned Service—" He bit his lip and shrugged apologetically, realizing he had made a mistake. "Matter of fact, Rachel and I are visiting some friends of ours this evening—a sort of party, you might call it. I think you'd enjoy yourself. As I remember, you were always one for a good time."

A good time . . .

The words had meant something once, long ago, between schooling and the Service, when there had been time for things without Purpose. Something else that Marnsworth had forgotten.

They were both watching him—the woman sipping at her wine, frankly curious, Childers with an edge of nervousness about him he seemed not quite able to understand. Marnsworth sniffed. It was a painful gesture—his sinuses were swollen and irritated and he was finding it difficult to breathe.

"You see," Childers elaborated, "there's quite a colony of us around here. Murray's place is only about fourteen miles north, on the other side of the river. Every month we have a gettogether at each other's place—we take turns—and generally have ourselves a ball. It's only when you're isolated from people for a great deal of time that you begin to appreciate their company. I know you're probably anxious to get back to your ship but we'd be delighted to have you with us, wouldn't we Rachel?"

Marnsworth looked at the woman. Only her eyes were visible as she raised her glass to her lips. She inclined her head a little to one side and her answer was a husky whisper.

"Of course."

Marnsworth fidgeted nervously. "Well—" What could he say? Of course he felt uncomfortable but an insatiable curiosity made him want to find out more about these people. There was an enigma here he should be able to understand. "If you think it would be all right with your friends?"

Childers laughed and looked relieved. "But of course they won't mind. And wait until you see what a fine bunch of people we've got here."

Childers placed a brawny arm around Marnsworth's narrow shoulders and grabbed his arm excitedly. On the divan the woman sipped her drink and studied Marnsworth thoughtfully with a distant and impenetrable expression.

DUSK came slowly to the island. No spectacular sunset transfigured the dull sky—the cop-

pery haze simply faded gradually away, as though a finely adjustable rheostat had been brought into play.

Marnsworth had spent most of the afternoon wandering around Childers' estate in the company of his old friend. In the process he had come to understand the activities that occupied the ex-Serviceman but he was still no nearer to comprehending his motives.

Childers tilled and cultivated many acres by hand and the use of a few simple tools—there were no automatons that Marnsworth could see. The main crop was coffee, a local transplanting that had thrived at this altitude and enabled Childers and his wife to live comfortably. Export of the popular beans ensured that the space people and their home world could enjoy the occasional draught of a non-synthetic stimulant, although the price levied on outworld goods was prohibitively high for all but the chosen elite.

"I understand it retails back home for something like five credits an ounce," Childers observed, "and that's refined and adulterated."

"Five thirty-four," Marnsworth corrected.

"Is that so?" Childers smiled ruefully. "Well, Service pays us five and a half cents a pound—I can't imagine that all that extra is made up of freight and handling. Somebody has sure cornered themselves a market in natural coffee."

"You don't seem concerned that somebody is making an enormous profit from all your work."

"Huh? Oh, I can't be bothered about those things, Damian. They can do what they like after it leaves my hands. Everything I care for is here. They can have the rest."

The rain had persisted all afternoon. Now they sat in comfortable cane chairs on the veranda of Childers' house and watched the sunlight fade from the heavy clouds. Marnsworth had apologized and zipped up his parka several hours earlier. He had been unable to tolerate the oppressive island atmosphere any longer. The constant fall of fine rain and the high humidity were causing pain through his nasal cavities and putting a constricting sensation into his chest where the unfiltered air rampaged. Now the subtle mechanisms whirred soundlessly in his suit and flushed out the excessive moisture and warmth, so that his breathing became easier and a little of the discomfort was eased out of his head.

He sat and stared at the soft curtain of moisture. Occasionally a light breeze would puff some of it toward the house and it would fall like sea-spray upon the verandah.

"Does it ever stop?" he asked.

"Sometimes. Do you find it depressing? We don't really notice it any more—not when it falls like

this. One of the many advantages of having a low surface gravity. Point six-eight—or is it six-four? I seem to have forgotten."

Childers' eyes were bright and clear and he could see well out into the darkening landscape. But Marnsworth's view had been obscured for some time by the distorting film of moisture on the outside of his parka.

"Is this why you left the Service? Simply to be a landman? To move dirt around with your fingers and never know the stars again?"

Childers looked up at the dark clouds where the stars were rarely visible.

"If you mean, did I come here only for that, then I can't really answer you. You see, we've only begun to discover what we want to do. I've been too busy relearning what it is to be myself to worry about motivations—but yes, I like it here. We like it here. I can't think of going back to the Service—even if they would have me, which I doubt—so where's the sense of asking?"

"Because I have to know."

"Why, Damian? Why is it important that you should know why I came here when I don't even know the multileveled answer myself? All I know is that I could never be a Serviceman again—not with all that emptiness outside crowding to get in. I guess I just wasn't made for it. Maybe Control goofed. It must happen sometimes. Sure, they mold us into a pattern, but how much can they motivate our subconscious? I believe that there are worlds—and Hydria is one of them—that reach out to some deep part of us we are unaware of and these worlds communicate with our subconscious in a way that Control never planned. But only some of us have need of and heed their summons. The misfits. The failures. The dropouts. The ones ill-wrought by Control." He laughed and waved a hand at Marnsworth's distorted and horrified face behind the clouded parka. "Oh, don't worry, Damian—you're all right, I think. Control made a fine job of you. But with me—and some others—they were clumsy. You are a creature of space—something new. But Rachel and I are landpeople. Perhaps the ultimate destiny of the human race is to put a fresh new face on the universe—one day they might even find some way of fitting out Earth with some fantastic sort of drive that will enable them to take their whole synthetic world out to the stars. But our roots are deeper, Damian. We love the land. There is something there that spaceman should not entirely forget."

"But your youth—" Marnsworth struggled to speak. "Why did you discard your youth?"

Childers shrugged and smiled an enigmatic smile. "It's late," he

said, getting up and studying the encroaching darkness. "We'd best go inside and get ready or we'll have Rachel on our backs."

NUMEROUS exits led off the main room but Marnsworth could see no doors.

An open house—how very extraordinary . . .

Rachel was waiting for them. She was standing at one of the exits—or entrances—a slight impatience in her manner. She had changed into a plain white smock that came freely down to mid-thigh and exposed her long brown limbs to advantage. She was barefoot still—it seemed to be a custom of the island—and her dark skin made a dramatic contrast with the smock. As he moved closer Marnsworth saw that she had some arrangement in her hair—he realized with surprise that it was a fresh red flower. He saw beads of moisture still on it.

A peculiar people . . .

He felt suddenly ill at ease. He had opened his parka again from a desire to be courteous to this woman but suddenly, facing here like this, ready to leave, he felt a little conspicuous in his survival suit. He wondered if it had been such a good idea to agree to attend the local festivity or whatever it was called.

Childers deciphered his indecision.

"Don't worry about that," he said quickly, indicating Marnsworth's suit. "They won't mind—really they won't."

And am I to be a speciman—a curiosity? Marnsworth's confidence had been badly shaken in the past few hours. Could he, just this once, and for only a few hours, submit to some small discomfiture, so that he might meet these people as an equal and not some oddity from Earth?

"If you have something I can wear," he said, "I'll leave this stuff behind. I'd feel a bit of a fool, you know, walking in on your friends like this."

Rachel smiled and he found a new warmth in her eyes.

"But of course," she said and turned back through the entrance. "I'll get you something."

A few minutes later she returned and handed the spaceman a pair of tan shorts and a bone-colored sleeveless jacket from her husband's wardrobe. The jacket was a trifle big but the shorts, he saw with relief, were a stretch fabric. He took them and then stood feeling foolish while they stared at him.

It was a bad moment. And then Rachel, with an intuitive understanding of the situation, whisked back out of the room murmuring something about makeup.

Marnsworth hastily stripped off his suit—he stood naked for a moment like a skinned vegetable.

"It must feel strange," Childers

observed, "after all this time."

Which was true enough. A spaceman was not accustomed under social conditions or aboard ship to exposing overmuch of himself. Not even back home, where one always swam in carefully filtered waters and alone and . . . .

He dressed as quickly as he could in the strange outfit the woman had provided.

THE solitary wan moon of Hydria was struggling to pierce the clouds when they left the house—only a pale glow was visible on the horizon. They left—not in Marnsworth's skiff but in a similar machine adapted to Childers' requirements. It was low and wide with ample cargo space in the rear and a single bench seat up front. They sat close together and Marnsworth was uncomfortably conscious of the nearness of Childers' wife, of her pressing against him and of the rich, musky odor of her skin. The subtle perfume she had sprinkled over her body did not completely mask this unpleasantness from his suddenly critical olfactory sensibilities. But it didn't offend him as much as it should. Something—perhaps the very strangeness of the environment he was experiencing so directly—had induced in his thoughts a delightful euphoria, so he relaxed and let his mind wander, instead of marshaling it disagreeably for the evening ahead.

The sky cleared in patches where some small stars sputtered. Something gripped his stomach and he looked quickly away. Outside the perpetual drizzle enveloped the clear canopy of the craft.

The journey could not have taken more than twenty minutes but for Marnsworth it was a time of increasing discomfort. He was unaccustomed to this sort of proximity, sandwiched between two people as lightly clad as himself. And the air inside the skiff had become increasingly sticky. The odor of his own sweat mingled with that of Childers and his wife. He could feel it running down his sides in small, embarrasing rivulets. His naked arms were slick with moisture and he could feel Rachel's warm wet shoulder pressing against his own—nervous sidelong glances showed him that her white shift had darkened in patches where it stretched tightly across her breasts. Once he shifted uneasily and she turned and smiled, considerately, as though she were aware of his discomfort and were trying to reassure him that the flight would soon be over.

His head did not feel too bad. With the lowering of the sun the temperature had dropped considerably and this made the general humidity easier to bear.

A white arc of the river blazed suddenly before them in the newly victorious moonlight. The skiff dropped toward a cluster of bright

lights along one shore.

"That's it," Childers announced.

Marnsworth breathed a cautious sigh of relief.

A large clearing was spread out below them. From this height the surrounding forest glittered through the drizzle like a miniature fairyland.

"Murray's wife loves décor," Rachel explained. "She just adores lighting the place up for these gettogethers."

They landed near a group of similar machines at the edge of the clearing. Childers swung back the canopy and climbed out, motioning to Marnsworth to follow.

The spaceman tensed, then dropped lightly to the ground. His body reacted predictably at the feel of wet grass underneath his bare feet but he did what he could to dispel the revulsion. He turned around and extended his hand automatically to Childers' wife. She accepted it, a glimmer of old-world charm in her eyes, and climbed down from the skiff. Her hand was soft, moist and warm, like his own.

"Thank you," she said.

They looked at each other for a fragment of time and Marnsworth could see that, although she had not managed to completely suppress a mixture of distaste and amusement, she had thawed gradually toward him. He still sensed a remaining difference between them—a region of acceptance beyond which she was not prepared to move. Perhaps it was the gulf that had always existed and was continually widening between landpeople and the space society Marnsworth was part of.

"This way," Childers directed and led them across the lawn toward the gaily decorated patio. A number of people were already assembled. Marnsworth had the uneasy feeling that the group had been buzzing with conversation prior to their arrival and that a sudden silence had descended upon them when they had failed to recognize Childers' companion.

Childers introduced him around. They were all dressed more or less alike, in the casual manner of the island. The men were mostly bare-chested and in shorts—the women wore short, filmy dresses and sleeveless, bolero-type vests. Some were naked from the waist up, like their menfolk. But it was the colors of the clothes that surprised Marnsworth. These people seemed to prefer the loudness of primary colors the way some people wanted their music played always at a high, ear-crashing volume. In the dazzling illumination the vivid blues and reds and yellows seemed to possess a strange life of their own—he had never before seen a group so gaily and dramatically dressed. Each individual was wrapped in his own bright haze,

trapped by the sifting rain and the constantly changing lights. Marnsworth blinked constantly under the assault and moved sometimes like a man only half awake.

FINALLY he was introduced to Murray Wiseman. The spacemen found him to be an anachronism of his age, a stout man. His belly protruded well over the top of his shorts and his navel was a monstrous exclamation. He had a great thick thatch of body hair that the rain had slicked down all over his chest but, with the exception of a few miserable gray tufts around his ears, he was quite bald. His pate shone wetly under the lights—the film of moisture had made it a fine reflective surface.

"So this is your visitor." He pumped Marnsworth's hand soundly. His eyes were alive and fierce and they made the spaceman want to turn away.

"Damian Marnsworth," Childers introduced. "He's from the Service—a captain. And my old boss. Got his ship laid up for a few days and popped out to see us. Damian, this is Murray Wiseman."

"Well, enjoy yourself, enjoy yourself," Murray admonished. "We don't often have visitors from outside."

He nodded to Rachel and then moved off to join his other guests.

Marnsworth felt strange. His head began to swim and he reached out to take hold of a balustrade. He felt that he was drowning in an ocean of age. The faces of the guests moved around him like ragged leaves in a whirlpool—he had never seen so many old people. On each and every one of them death seemed to have made a claim and worked an insidious pleasure.

Rachel's fingers clamped around his arm where it clung to the balustrade.

"Come over here."

He allowed her to lead him away from the patio toward the darker area of the clearing. She found him a seat and told him to sit down. He smiled sheepishly. And he was glad that she was at least adequately dressed—he had been shocked to see that some of the older women here had decided to wear only skirts or shorts. There were some things so repulsive about old age that one should avoid displaying them. Not that anybody here was much past forty. It was the ugly patina of aging in all their faces that he found disquieting.

"Stay here," she suggested, "and take it easy. I'll get you something to drink."

A few minutes later she reappeared with a small wooden tray loaded with dishes filled with fine food and two small mugs of red wine.

"Here, try some of this."

He sat up.

"I don't know if I should."

One had to be careful eating off-ship.

"Gerard chose the food," she explained. "He said it shouldn't interfere with your delicate digestion." Her smile was mischievous. "And the wine will help. It's very gentle."

He found that it was. His stomach did not complain, so he investigated some of the unfamiliar savories Childers had piled up on the tray.

"Are you my guardian angel for the evening?" he asked.

His breath had become a little labored and he wished he had brought along his suit, just in case.

She laughed.

"Well, somebody's got to keep an eye on you. How are you feeling?"

He shrugged.

"The climate, you know—"

"Yes, I understand. It must be difficult."

He noticed drops of rain upon her long eyelashes—they made her eyes seem brighter than before. She really was a very beautiful woman—and one day that beauty would fade, would decay and all because the miraculous rejuvenants were beyond these people's grasp. Such neglect seemed criminal. Back home her beauty would last for a century or more. Here, on this worthless world, it would be doomed in a few short years.

"Try one of these, Damian."

He roused out of the creeping mental fog that was threatening to betray him and looked down at the bundle of dark red grapes in her hand.

"They're delicious," she said.

She had called him by his first name and for some reason that helped him to feel better. But his stomach protested the prospective invasion of the small fruits.

"No—thank you. Really, I couldn't eat another thing."

"Not even one—just to try? They really are tasty."

Reflections of colored, flashing lights danced in her dark eyes.

"All right," he groaned. "But just one."

He picked one of the grapes awkwardly—his limbs were becoming unresponsive; he really should have brought some anti-intoxicants with him—and placed it into his mouth. He closed his teeth around it cautiously and felt the juice spurt out and bite his tongue, the pulpy flesh collapse. Whatever flavor it possessed was pleasant enough but dulled by the amount of rich food and wine he had previously consumed.

"I think," he began and swallowed, "I've had a little too much of—everything."

"No more wine?"

"No. Too much of that, too."

But it was more than that—it was the warmth of all these happy bodies around him, the rising hu-

midity and the weakening euphoria—he felt drowsy. He wanted to sleep and in fact he must have slipped off then into a quiet, unfussed doze without really noticing how tired he was. He awoke later with a start and found himself alone.

Rachel had disappeared and he was in darkness. Somebody had extinguished all but a few of the festive lights and the remaining ones were so distant that they shed no light upon him.

He sat up at once, confused. His head gave a lurch that matched a similar movement in his stomach, and he dared not get up for fear of shaming himself.

He looked closely around him. The guests had moved back from the patio and congregated in a silent semicircle between him and the house. The patio blazed suddenly with light and he realized that their attention was directed that way and not toward him. He relaxed.

He heard a far-off roll of drums or some such percussive instrument. His ears pricked up. A number of people had moved out onto the black and white tiled mosaic of the patio. They were dressed differently from the others. The women wore long flowing white gowns and the men white pants suits, intricately embroidered. Their faces were hidden by what he considered to be some sort of ceremonial masks, and there was no sound now other than the swish-swish of the womens' skirts on the tiles.

The drums had ceased.

The people moved to what appeared to be predetermined positions on the patio. Others, clad more discreetly in somber capes and cowls, assumed their places in the background. Marnsworth saw that they carried with them a variety of instruments, although he could not recognize any of them from memory.

The patio light dimmed and the masked figures in the foreground were picked out one at a time by individual spotlights. The guests crowded surreptitiously closer. A sudden hush descended upon the clearing. The dance, play or whatever it was, was about to begin.

IV

MARNSWORTH could not move—his curiosity had transfixed him. He could not understand what was happening. But if his mind could make no sense out of what was going on he found his body reacting to a stimulus he could not identify.

The performance seemed to be a subtle blend of mime and dance and drama juxtaposed, moving smoothly and intricately from one form to the other as the needs of the composer were answered. The music was predominantly percussive—the delicate tremor of something like castanets, muted gongs,

tabors and other instruments were quite alien to Marnsworth's ears but not to his body—his cells remembered when his conscious mind did not. The general effect was hypnotic, not upon his mind so much as on his body. Although he recognized only a word here and there—or a gesture or two—he became alarmed at the way his pulse throbbed and his forehead ached. The moving figures on the mosaic dazzled and blinded him and yet he could not turn away for fear of missing something profound.

He had no idea of how long the performance lasted—time ceased to have any dominion for the duration of the play. But inevitably the dancers/actors brought the drama/dance to a close. They performed a rich and intricate coda and then moved quietly back to their original positions. A final murmur came from the hidden drums, muted and in rapport with the night, and then the spotlights dimmed. Silence and darkness rushed down upon the clearing. For perhaps a full minute nobody seemed to breathe. Then the players shed their masks and robes and moved back among the guests.

The lights returned gradually and, even when they were fully on, were somewhat duller than before. Marnsworth found that he could not easily dispel the feelings that the play had conjured up within his unsuspecting body. His eyes searched for Rachel and found her the center of an admiring number of guests. Her eyes flashed triumphantly as they met his. She smiled and waved, turned to say something to her husband.

Childers stepped toward him. His eyes were bright with happiness.

"Well, did you like it? Rachel excelled herself tonight."

And he knew then why he had followed the movements of one of the dancers with such intensity.

"She's been working on that performance for months. Ages of rehearsals and tonight—a triumph."

"But I didn't understand a word of it," the spaceman protested.

Childers smiled graciously.

"You weren't supposed to. Latin is a rather dead language even at home—but it has a certain beauty of its own, don't you agree? Of course the Service finds little enough use for it."

He had not meant the words to cut so deep, but Marnsworth bled.

"Do you delight in your obscurity?"

"No. We try to be simple, to be close to life, to what is real. Why must the simple always seem complex to an outsider?"

LATER there was a ceremony. The guests collected in the main room of Murray's house at a great wooden table. When they had arranged themselves in a rev-

erent group around this symbol—with Marnsworth well to the rear the better to watch the ritual—Murray Wiseman came in. In his arms were several dozen books, odd little printed volumes such as the spaceman had only seen previously in out-of-the-way museums. Murray deposited the books carefully on the table and stepped back.

"Well, there's the latest batch," he announced. "Hot off the little old press. Now don't stand there all night—step forward."

And they did. Each in turn went forward and accepted, with thanks, one of the slim volumes. Childers' turn came around. He brought back a book and handled it with delight.

"Some poems of Robert Graves," he explained.

Marnsworth said nothing.

Presently he made himself ask, "Does this little ritual round out every party?"

He was unable to conceal his contempt for useless labor.

"Whenever he's launching a new publication—yes. It takes him about three months for him to research and transcribe a new tape, then set up the type and run off each page."

"You mean he prints everything by hand?"

"Of course."

"The man's a fool."

Childers said nothing, only smiled his enigmatic smile and fondled the small book in his hands.

A solitary volume was left on the great wooden table. Murray leaned over, picked it up with a flourish. He held it briefly aloft.

"And this one's mine."

An undercurrent of laughter moved through the room and the guests began to disband. The major business of the evening was over and Marnsworth could detect the movements of people wondering whether or not it was late enough to go home—or if there might be time for one more drink.

HE WAS intolerably weary on the way back to Childers' house. The thirty-two-hour Hydrian day, coupled with overindulgence in native food and wine, had combined to intensify his exhaustion. But once they were home Rachel brewed some of the rich dark coffee he had come to associate with the island—strange, but he could no longer think that it belonged to the Service—and this helped to revive his sagging spirits.

The two men sat apart in the main living room, sipping their warm drinks while Rachel plucked out haunting, timeless melodies on a strange stringed instrument in her lap. The instrument was broad and long and she had to sit cross-legged on the floor to play it. The fragmented music that leapt from her fingertips was unbearably ancient. The unfamiliar tonal idiom

—could it have been Asian?—moved restlessly through Marnsworth's cluttered mind.

They sat thus for some time, until the stark, uncompromising music stopped and Marnsworth saw that Childers' wife had fallen asleep over her instrument. Her head was resting against the side of the divan and her dark hair was undone and pooling around her shoulders.

Childers apologized for the lateness of the affair and, with a gentleness Marnsworth envied, picked up his wife and cradled her in his arms. She did not stir.

"I guess it's time we were all asleep," Childers said. He brushed his bushy cheek against Rachel's jet-black hair. "Take any room you like."

He watched them move out through one of the doorless exits and when he walked through the house to find a place to sleep he found that a heavy weight had attached itself to his already overburdened heart.

He discovered a small, sparsely furnished room with a bed in one corner. He sank down gratefully, conscious of the spartan nature of the upholstery, but too tired to care. He felt warm; he had no need for blankets. He waved his hands across the nearby wall until it passed over the eye that controlled the light; the room dimmed down to an agreeable twilight, and finally, over a period of perhaps several minutes, into darkness.

His thoughts tumbled over and over in his muddled head, like playful kittens with sharp claws, and strange music echoed around the ghostly caverns of his soul.

He thought of Rachel, and all the other women he had known, and found that sleep was elusive for a time; and when he did stumble eventually into that realm, he dreamed a nightmare . . .

UNDER him the world turned, breathed and pulsed with life. He lay spreadeagled and naked across it, held there by some powerful and unseen force—it was like being fastened to a medieval rack and being unable to see his tormenters. Overhead the stars wheeled crazily, burning whorls of light knitted together by shuttling steel shapes.

He felt a little like Gulliver on the island of Lilliput, bound by invisible threads to the soil beneath him.

And he was afraid. His body ached. The ache corkscrewed into agony. The force that held him inert seemed also to be pulling him down, a little at a time—down into the moist and suffocating surface of the world. He couldn't move and faces danced before him, vague and unsmiling and riddled with age. The world turned again and again and again and the rack tightened until it seemed that his body would fly apart. The angry

soil rose up all around him and crept over his limbs—it wanted to bury him. His skin began to slough away from his features and he knew that a ragged, ancient face stared up at the whirling universe, where fireflies of starlight buzzed and the little steel shapes knitted busily.

He opened his mouth to cry out.

And awoke.

And found that he could not move.

The lost echo of a scream reverberated around the narrow room.

His breathing was coarse and irregular. His body weighed a ton or more. The residue of a nightmare was reluctant to let go of him. For a moment he wondered if he were really awake.

Why couldn't he move?

There was a terrible ache in his head. His face seemed to be on fire. A hundred tiny needles were burrowing through his sinus cavities. He could hardly breathe, let alone cry out, and the terrifying stigmata of his dream still glared at him out of the darkness.

His body felt dirty and uncomfortable from the burden of his sweat.

Gradually his fear subsided. He managed to roll over onto his side down to the hard wooden floor. He felt drugged—probably from too much native wine—and his movements were sluggish. But somehow he groped his way awkwardly through the dark and back into the main room, where a soft night light still glowed.

He found his suit and managed to crawl back into it. The effort seemed to take hours. His fingers scrabbled anxiously at his belt controls. Once they were functioning he leaned back against a chair and waited for some comfort to return.

The tiny mechanisms whirred audibly in the unnatural silence, busily whisking impurities out of his air. He sat still for some time—until he could breathe with some freedom—and then made his way back to his room. He sank back onto the bed exhausted.

His suit soothed and protected him and made him comfortable and he was soon fast asleep. His head stopped throbbing and the ache in his sinuses eased a little. But his dreams were vague and uncertain, although they lacked the virulence of the earlier nightmare.

HE AWOKE with a hangover. His body was cool and comfortable but inside he felt foul. Too much incautious wining and dining had had their way—he really should have been more careful. His mouth was dry and felt like the bottom of a bird cage. He had to get a drink somewhere and something to get rid of the hangover.

There was nobody about when he walked into the main room. He

opened the front door and strode to where his skiff was parked. He opened the locker and fumbled for some tablets that would alleviate the worst effects of the wine. He could not swallow them dry, so he wandered around the grounds until he found a small natural fountain around one side of the house. He cupped one hand under a faucet and washed down the pills with several ounces of fresh water.

The liquid stung his throat, it was so cold. But the flavor was not unpleasant and in a few moments he felt the veil of fog begin to lift from his mind. Yet there was a stain that refused to shift and made him feel a stranger to himself.

Too much wine, far too much. I must be more careful. That was a damned foolish thing to do . . .

He switched on his sensors and listened to the quiet. The morning was calm. Only the distant patient passage of the river moving over some rocks was audible. He extended a hand and saw a drifting film of fine rain collect upon it. Strange, he had not noticed it was raining until now. How had he come to accept something so unfamiliar?

Behind some nearby trees he spied a small stream running down toward the river. Farther on he could see where it formed a wide, shaded pool before going again about its business. Some fresh sounds came from this direction. They could have been human voices. Marnsworth ambled over in that direction to see who it was.

The pool was wide, deep and dark where the wan sunlight had not yet penetrated. Somebody was splashing happily in the chill waters. He saw an upraised arm settle back into the pool and draw the swimmer towards him.

Childers' wife—enjoying her own remedy for hangovers, he surmised. But the spaceman shivered at the thought of that icy pool and was not tempted.

He took a step forward to call out and then froze, his hands stiff at his sides. A sudden enchantment had settled over the pool. It seemed to sweep up from the past —from his past—from the unquarried limbo of his youth to a time when he, too, had swum without questions in waters no different from these. Long ago—on a world called Earth, when there had been time for such pleasures and space to accommodate them. His ears filled with the tingle of forgotten sounds and sights.

Rachel stood up and waded ashore. She stood with her feet braced wide apart and raised both her hands to her neck and crushed the cold pool from out of her long dark hair. It raced down the arch of her spine and splashed around her ankles. Her brown body was beautiful in the soft morning sunlight and Marnsworth felt a sudden and intense surge of sexual de-

sire—so powerful that it caught him unprepared and made him shake so much that he had to lean against a nearby tree for support.

She had closed her eyes while she swept the water from her hair. Now she opened them and looked across at him, as though seeing him for the first time. And for the space of that drawn-out moment Marnsworth felt that all his life, all of his living, all that he had ever been and ever hoped to be, was stretched out between them like a finely strung wire. The silence was tangible.

And then she smiled, and flicked her hair with her hands, and stepped forward to pick up a towel. The violent need that had momentarily gripped Marnsworth quivered and then dissipated itself throughout his body. He opened his mouth but found that he could not speak. His heart hammered and pushed his blood at such a pace that it seemed to scour his lungs. He could not move or speak, for her smile had transfixed him. It had been an expression so complete in its friendship that he wondered how he could ever speak to her again. In a moment she had seen the clumsy betrayal of his face, had divined in that small space of time the nature of his desire and, with her smile, seemed to have suggested that, had the moment been otherwise, they might have lain together and she would have taken from him that terrible surge of passion. She had understood.

She moved about, drying herself, the swing of her broad hips casual and unself-conscious.

"Good morning, Damian," she said, brightly. "Sleep well?"

He could not answer. Instead he looked away and stared into the deepest part of the pool, as if the shadows of the overhanging trees could hide his shame.

A SUDDEN splash came from the other side of the pool. Childers' body broke the water. He swam across with slow, powerful strokes and jumped lightly ashore. He grabbed for his own towel and attacked his streaming wet body vigorously.

"Hope you slept well, Damian."

"After—a fashion," the spaceman managed. He gestured awkwardly at his survival suit. "I had to—you see."

They understood.

Rachel brushed idly at her wet hair with her towel. It was suddenly a vivid blaze of orange, the color of the shift he had first seen her in.

Childers gave her a playful pat on the belly. "How is he this morning?"

She smiled mysteriously.

"Rachel's having a child, you know," Childers explained. "Another five months and—"

But Marnsworth wasn't listening—he had recoiled in horror, his eyes fastened on the woman's

abdomen. Of course she was statuesque but he could see right away that the slight bulge at her waist was not right.

He looked like a man who had been physically struck. He stumbled a few steps backward.

"You mean—you mean she's going to have it herself?"

A cloud passed over his friend's face. Childers put his arm around his wife.

"Does that sound so strange? That my wife will have a child, from her own womb, and in her own time? That's the way she wants it, Damian—and that is the way I will be proud to accept my son—or daughter, as the case may be. You see, we won't really know until the child is born. Isn't that marvelous? For us there can't be any other way."

Marnsworth stared at them. Except for the profound and confident glow of intelligence in their eyes they looked like two naked savages. There was no longer any point in maintaining a facade of communication. Last night should have been a warning. This whole trip had been a mistake.

Without another word he spun around and marched blindly back toward his skiff. He did not know that his eyes were filled with tears —for him tears were an unaccustomed occurence. He no longer noticed the rain and he did not hear Childers' wife calling out to him. He moved in the grip of a mindless fury. There could be nothing beyond the final proof of this insanity—it was monstrous that Childers should allow his wife to risk her life giving birth to a child in such an un-Controlled and dangerous manner.

He climbed clumsily into the skiff and swung shut the canopy. But he hesitated before the controls—they had become a hazy blur to him—and that was time enough for Childers to catch up with him. Rachel ran behind her husband, the orange towel trailing like a forlorn sail.

Marnsworth shook his head but the haze would not clear. Angrily he flicked a toggle. The motor hummed into life.

Beyond the canopy he could see Childers' face upturned and could read the despair that was etched there.

"Damian," he called out. "Damian—think of us. Think of why you came here if you never have before. We need somebody to understand—somebody to bridge the gap—"

And then they were gone. The skiff accelerated sharply skyward. It hovered for a moment, rechecking coordinates, and then shot away at a steep angle, allowing Marnsworth a last glimpse of the people below.

They both seemed so small, locked together in their madness. Rachel's towel made a dark orange stain on the grass. The

image burned itself deep into his memory and he knew that he would never be able to erase it from his mind.

Damn you! *Damn you . . .*

THE skiff moved rapidly away from the estate, burrowing anxiously through the dense rain clouds at maximum acceleration. But as fast as it moved it was pursued by something faster—a nameless invisible terror that seemed to possess the shape of a great bird of prey, vengeful and demented. It spread wide its dreadful claws and fastened them into his skull and began to tear away at his gibbering mind. Darkness engulfed him, a darkness where his voice became a whimpering pale thing that could not be heard.

The auto-pilot carried him safely back to the *Barain,* where kind hands lifted his weeping, twitching body from the small craft and carried him to a private room on board the massive starship. And there he was confined with his sickness while they fired the engines for the short passage home.

And still his terror possessed him. A stranger walked the wailing corridors of his mind—someone alien and yet himself, struggling to break free. Sometimes he awoke from his tormented dreams and struck his fists against the bulkhead until they bled, or until others arrived and strapped him back into his bed. They could not understand that he had only screamed defiance at the hostile universe outside that was crowding to get in. And he dreamed of rivers and trees and sunlight and the pallid women of Earth with their mouths agape for orgasm—but their minds were divorced in time from the simple pleasure of their bodies. They were old and yet they were young and he hated them for it and the angry beast inside him struggled to get out and smash their smiling faces. He dreamed of flesh and steel, darkness and light and his small room fogged up like the world he remembered as Island One. The same moist air draped itself around him. It was like living again in the warm wet womb he had never known. He was a child of a silver cylinder—but his cells remembered.

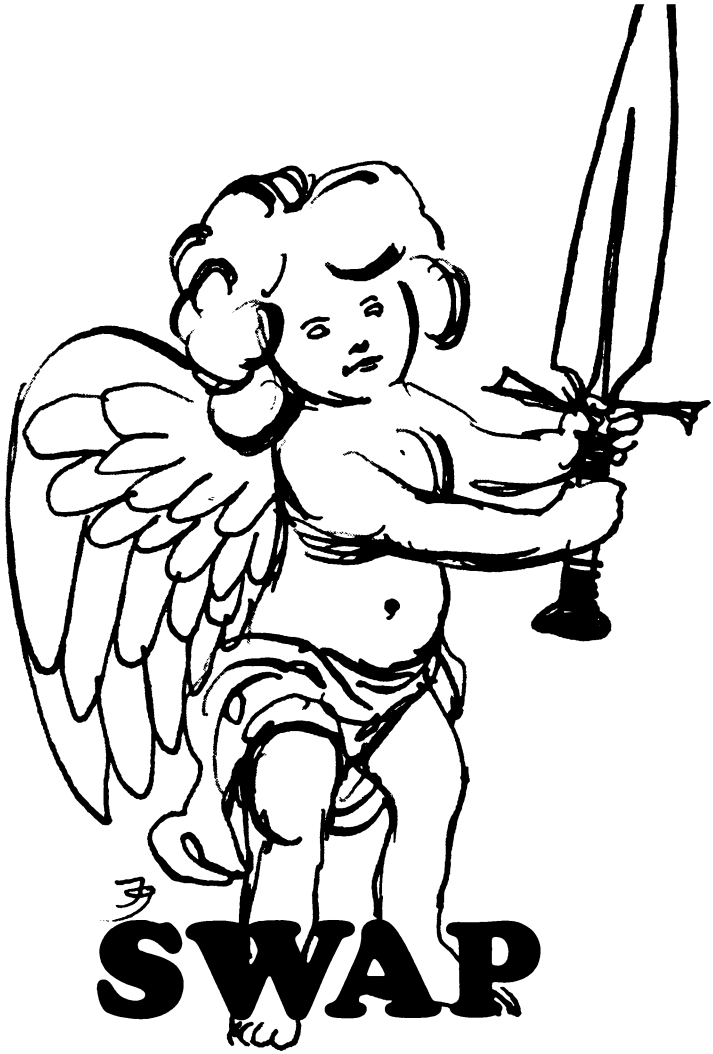
And Rachel's face would sometimes come smiling through the corruption and the terror and he would recall her nature and all the other things about the island and the memory would often make him smile in his sleep. Almost he began to understand. But it was only when his body took over the unequal task and remembered what it was that he had to remember, to survive, that he began to hope. But that came later.

When the physicians on Earth had finished with him. After they had nursed him and nurtured him

and purged the poisons from his system. After they had slain the great ugly bird and removed its talons from his soul and then, convinced that they had done all that they could to help him, released him.

To wander lonely and afraid through the crowded streets, pushing his way through the bland unsmiling multitudes of the forever young, looking for the miracle of an old and tired face.

And for himself. ●



RON GOULART

What happens when you swap love partners—and win a hot, curvy bundle of hate?

HE DIDN'T have enough change to drop into the baby-sitter. Sam Burse patted the chrome front of the robot and backed away from the front door.

"I'll get my charge tag," he said. "Come on in anyway."

"You can pay us when you get home," said the box-shaped, man-size robot. "You're one of our good customers, Mr. Samuels. You needn't pay in advance. We trust you."

"You've got my name turned around." Sam crossed the living-room pit and took his coat from a sofa chair. It's Samuel Burse."

The robot said, "We've been doing that lately." He rolled over the threshold and followed Sam across the carpeting. "Your kids are named Danny and Nancy, though, aren't they?"

"That's right."

"We're not completely absent-minded then," said the robot. He collided with a near-marble coffee table and a vase of straw flowers fell off. "Oops."

A small arm extended out of the shiny box and scooped up the fallen flowers.

Sam said, "The kids are already in their sleeping room, watching the wall. You can go look in on them and introduce yourself."

The robot arranged the flowers carefully, then rolled to one of the framed oblong view-windows.

"That's really lovely. I always enjoy sitting jobs here in Build Up Six, because of the Pacific Ocean. I'm programed to have esthetic responses. It's a big help in handling kids."

Sam put on his coat and felt in its pouches. "This was all the ocean under here before they filled it in back in, back in nineteen eighty-nine."

The robot rolled again toward the coffee table.

"We notice you have a bowl of carrots here next to your flowers. Is that something new in the way of decor?"

"No, it's my work." Sam found the charge tag and tossed it to the robot. "We'll be quite late. So charge us the maximum now."

The polished robot put the dogtag into a slot in his left side.

"Fifteen, even. Right you are." He returned the charge tag. "You're in the produce business?"

"No, I'm with a company called Conglomerated Food West and I'm in charge of new names."

Sam was not particularly satisfied at CFW. He'd been thinking of looking, maybe after the first of the year, for something new.

"Isn't carrots a good enough name any more?"

"People don't seem to like to

buy just carrots all the time," said Sam. "Even though carrots, being a real vegetable, are a prestige item. So we have to come up with new ways to package them, to serve them. Each new use calls for a new name."

The robot asked, "What was it you wanted us to do?"

"Look in on the kids and introduce yourself."

"Oh, yes, I remember now." The baby-sitter was at the doorway when Sam's tall pretty wife came in. "Good evening, Mrs. Anita."

After the robot had rolled down the ramp into the children's room area, Anita said, "We ought to think, Sam, about dealing with a new company. These people have sent us too many forgetful machines lately."

"We could stay home tonight," He'd wanted to suggest that, earlier, while Anita had been dialing dinner.

She touched absently at her long dark hair, frowning.

"Not on our swap night. No." She walked nearer to him. "You're not enjoying this much any more, are you?"

Sam hesitated. This didn't seem like the best time, with a strange machine in the house, to get into a discussion.

"No, it's okay. You like it. It's fun."

"After a long week with all your dumb vegetables you should welcome Friday," she told him.

"Yes, thank God it's Friday." He turned to watch the same stretch of dark ocean the robot had admired.

"Well," said his wife, "I still enjoy our swap nights. I might even say I look forward to them. But if you don't—"

"Nobody's complaining," said Sam. "We'll go ahead."

"Grudgingly," she said. "Oh, darn, Sam, I finally thought we found a shared activity we both enjoyed. Now, after three or four months of it you're gloomy."

Sam faced his slim, pretty wife and smiled.

"I'm not gloomy."

"You're smiling grudgingly."

From the children's bedroom double laughter came.

"They both like him" said Sam.

"They're sympathetic toward incompetence," said Anita. "Probably inherited."

Sam nodded and said, "Let's go.

In the children's area the robot was calling the children by the wrong names and their laughter continued.

THE swap unit was housed at the Taplins' place. Their house was also on Build Up Six, five blocks from the Burses'. You could drive there without bothering to hook onto the speedways. Sam drove because Anita only

had a slot license. This sector of Greater Los Angeles was so secure and well patrolled you could even walk on the sidewalks if you cared to.

Don Tapplin was seated in front of the swap unit when they got there. He was a small, round-shouldered thirty-two-year-old and he was reading a paper tape that was unreeling out of Spinner # 146-92.

"Hi, Sam. Hi, Anita," Don said over his shoulder. "That's interesting."

Maggie Taplin was sitting in a vaguely yogi position on the thermal rug, her slim back touching the view window.

"What is?"

"It says there are now two hundred participants in our swap group." He tore the tape free of the machine and waved it in the air as though drying it. "Meaning a hundred couples. So what are the possibilities, Sam?"

Sam answered, "Considerable, I'd say."

"Sam saves his brain for thinking about vegetables," said Anita. She went and stood near the machine. "He's got no time for mathematics."

Don Taplin handed her the strip of paper. He put his palms on the top of Spinner # 146-92.

"Well, whatever the exact number of different combinations is, it sounds like more fun. I've gotten the same Chinese girl over in Build Up Nine twice in the last month."

"Always belittling," said the swap unit. It had a round, mouth-sized speaker grid on its top. Next to the bank of dials.

Don flung up his hands.

"I didn't know it could talk."

"What do you think the speaker grid is for?" asked his wife.

"Does he talk to you?" asked Don.

"Oh, sure," said Maggie. "When you're at the office he recites love poems to me."

Spinner # 146-92 said, "Once in a while I like to speak up. Hello, everybody."

"What kind of love poems?"

"Your wife is spoofing you, Don," said the swap unit.

"What do you recite if it isn't love poetry?"

"Nothing, Don," said Maggie. "Nothing."

"I joined this swap group because we get programed promiscuity," said Don. "Fun and in the open. Nothing secretive. Now I find you've been having some kind of strange relationship with this machine."

"Is everybody in our unit present now?" asked the machine.

"Yes," said Maggie, rishing. "The Verbecks are sick tonight. Flu."

"I think I have a touch of that myself," said the machine. "Say, Mr. Burse, would you feel down

behind me and see if I'm all flush around my synchronizing device."

"Wait," said Sam. "Are you on the blink or what? Don, where's the manual for this thing?"

"Look, it's almost time to start the spin," said Don. "If we get off schedule we might lose our turn. I'm anxious to see what some of the new recruits are like."

"I'm fit as a fiddle," said the spinner. "Now each of you must drop a name card into my left side, being sure to include absent cards for the Verbecks. Then follow with the standard release card, which absolves the Greater Los Angeles Mate-Swapping Co-op System of any liability or responsibility in case of mismatching, physical injury or—heaven forbid it should happen in this day and age—infectious disease."

"We ought to check the repair manual," said Sam. He considered suggesting they call off tonight's session, decided not to mention it.

Anita stepped around him, took the proper cards from the grill basket on the table next to the swap unit. She inserted them in the machine.

"There."

Don went next, then Maggie. And, last, Sam.

A small green plastic cone on top of the machine flared with light and the machine gave a ratcheting sound.

"Round and roun she goes and where she stops nobody knows."

"I liked things better when he didn't talk," said Anita.

In succession, clockwise, the dials began to spin. A plume of sooty smoke rose from some place within Spinner # 146-92.

"We ought to call the damn GLA swap people," suggested Sam.

"Relax," said his wife.

"Bingo," said the machine. A white card sprang from a big square hole in its front. "Mrs. Anita Burse, there's your swap mate for tonight. You're to wait back at your home until he arrives."

Anita caught the card off the rug.

"What an interesting name."

"Who?" asked Sam.

Anita put the card face down on her palm. "Remember the rules. We don't talk about it until afterward."

A card for Don came out next. He looked at it, then made a fist around the card.

"I should have taken out the manual."

"The Chinese girl again?" said Maggie. "Actually he's very fond of her. I suspect he's probably tried to tamper with the machine so he can get her every time."

"I haven't. There'd be no sense participating in this swap group if we didn't all play fair. That's the real fun of a wide-scale system like this. We have access to two hundred carefully screened people from all of the better sectors of Greater Los Angeles. Much more fun than the simple old-fashioned neighborhood mate-swapping. Some primitive thing where you all throw keys in a ring. This is technological."

Maggie had her card by this time.

"I'm to stay home tonight, too."

"Well, folks, bon voyage," said Spinner # 146-92.

"What about Sam?" asked his wife.

"Who?"

"Sam. Him."

She tapped her husband with the hand that didn't hold the card.

"Oh, yes. Oh, yes." The swap unit made a grunting sound and its ratcheting grew harsher. "There, it's coming along now. There." A large pale blue punch card snapped into the air, spun like a paddle wheel down to the rug. "Also this for you."

A spinning slip of lined yellow paper followed.

Sam took up the two pieces of paper.

"What's this all? I'm supposed to get a card with a name, address and instructions."

"You can't beat us for infinite variety," said the machine. "We don't like to cloy the appetities we feed."

The yellow slip had 107 scrawled on it in pencil. The card was a preprogram for a speedway cab.

"What? I give this speedway route to a cab and go to this address to meet my swap for tonight?"

"Must be," said Don. "That sounds like real fun. Want to trade with me, Sam?"

"Against the rules," put in the machine. "I'd have to report anything like that."

"Let's," said Anita, "get on with this. Come on, Sam. Drop me at the house and then drive yourself to a cab station."

"Maybe we ought—" Sam began, then shook his head. "Okay."

"Have fun," called Don as they left.

THE automatic cab detached itself from the speedway and headed down an off-ramp, its electric motor clicking on. Sam narrowed his eyes, his face close to the window.

"Where exactly are we?"

"Right where your trip slip ordered," replied the car. It rolled onto a pot-holed street and stopped next to a canal. "Venice, California. This is your stop."

"The Venice sector?" Sam had his hand on the door release.

It didn't seem likely anyone in this part of Greater Los Angeles would belong to this swap plan.

"That'll be five dollars."

"Charge it to my cab card. The number is 59/92/12622/6. Except—"

"You must disembark now," the cab told him. "I'm logged to pick up a fare down in Manhattan Beach."

"Maybe you ought to just take me back."

The swap group prospectus had said nothing about drawing on the ghetto sectors.

"I'd like to but it's not up to me, sir. I'm already slotted for Manhattan Beach. You'll have to get out of the cab now or I'm obliged to eject you."

"No need," said Sam. "I'll go scout another cab."

The cab said, "Nice meeting you—" and drove off quietly.

Sam glanced at the slip of paper in his hand, then looked down the street. He saw low houses, old and faced with peach-colored stucco. Beyond them was a scatter of dusky brick warehouses. Sam walked toward a street lamp at the far corner. Mist was thickening around him, fuzzy and cold.

There was a 107 on this block, a stucco and red tile cottage with wooden shutters and lighted windows glowing warm. He hesitated, stopped on the cracked flagstones and wild grass fronting the place. Well, since he was here, he'd try it. He went up to the door and knocked below the gilt 107.

"God bless you, whoever you are," said the bent black man who opened the door. "Whatever brings you to my door on this dismal night, I expect the good lord had a hand in it."

"I—" said Sam. "Well, I don't suppose you've heard of the Greater Los Angeles Mate-Swapping Co-op System?"

The man sent two fingers up toward his eyes, which were masked by wrap-around green glass.

"Oh, yes, I've heard of them, sir."

"You're not—that is, nobody in this area is participating?"

The black man laughed. "Nobody lives in this old house but me, sir. Only me, Blind Frank Holes. No, it's not likely anyone around here would belong to something as fancy as the Greater Los Angeles Mate-Swapping Co-op System." He made a groping reach for Sam's hand. "I tell you, though, I bet I know what happened. Listen, I've got to trot over to my place of business. You give me a helping hand and I'll give you the benefit of what I think."

"Well, okay."

"Just excuse me a second. I've got to turn off a few things in my old house." In less than three minutes Blind Frank stepped out on

his narrow cement porch, closed his door. He took a good grip on Sam's arm. "We only got to get down to one-o-one at the corner, sir."

"Sure," said Sam. "So what's your theory?"

"Well, sir, I've heard this swap outfit of yours uses second-hand, second-rate equipment. I hear those routing machines make lots of mistakes but the company hushes all that up."

"Sounds doubtful."

"Still, you're here and not someplace else." They were at the door to a warehouse. "Would you help out and put my key in the padlock, sir? This fog makes my poor fingers stiff. Of course, the good Lord, he's got his reasons for making me blind and crippled."

Sam got the metal door open and gave it an inward shove.

"I'll go get to a cab stand now. Good night."

Blind Frank kept a hand on Sam. "Would you guide me to my workbench? Oh, you better turn on the lights for yourself. I don't need them but you will. Switch right inside on your left, sir."

Sam stepped inside and found the switch. Six overhead light strips, pale yellow and coated with dust flared on. The domed, cold room was full, cluttered and jammed with old robots, androids, servomechanisms, automatic chefs, soft-drink dispensers.

"I'm in the electronics business," explained Blind Frank. Even though the good Lord took away my sight and bitched up my hands, I still do repairs."

Sam said, "That your workbench under the windows?"

"Yes, right next to the electric evangelist."

"Is that a street-corner preaching unit?"

"Yes, sir," said Blind Frank. "I bought him in an auction after a food riot in the Glendale sector. Somebody swiped his right arm. Ripped it clean off. So they decided the figure wasn't worth much without his blessing arm. Me, I figured I can fix him up with parts of a taco chef I got last month down in Tijuana. Govenment was controlling some students and they messed up a whole block of ethnic restaurants."

"In times like these," said the blond humanoid evangelist, "in times like these we hear a good deal of talk about loss of faith. Now I'm here to say we all better have faith because there's judgment coming. Judgment and hellsmoke, not to mention earthquakes, mudslides and the usual brush fires. Everybody who wants to get salvation, raise your right hand. Just like me."

"That's why he's going to need a new arm," said Blind Frank.

The robot evangelist was waving the empty sleeve of a smudged white suit.

"Best arm I can give him," said

Blind Frank, "has got a spatula built into it."

Sam said, "I'll be leaving."

A new voice broke in.

"You got one for us? Is that why—you know—you called?"

A young girl was leaning in the open doorway. She was twenty-two, small and frail, wearing a man's one-piece suit.

"I think maybe yes."

Blind Frank snapped off his glasses and picked up a heavy wrench from the workbench.

Sam said, "Wait, now."

The girl adjusted her floppy hat and came into the warehouse, closing the door gently. She had small sharp breasts and almost white blond hair.

"He looks, you know, usable."

"He surely does," said Blind Frank.

Sam watched the frail girl approach.

"You're signed up with the Greater Los Angeles Mate—"

"Curtain time is less than an hour away," she cut in. "Lonn's, you know, growing really anxious. We're sold out. If you hadn't called I would have had to use the street corners again." She focused on Sam. "Down here, mister, everything's a swap. But we don't always swap mates for mates."

"I'm going to leave now," Sam told them. "Whatever it is you're up to, forget it."

"This here is Miss Mary Glidden," explained Blind Frank. "She's in partnership with Lonn DeSoto. You surely have heard of him."

Sam frowned as the girl reached out and touched him.

"The name, yes," Sam said. "I've heard it but I'm not certain—"

"Those fires of hell," said the robot preacher, "are going to burn through all eternity, friends. You know what eternity is? It's a long time—"

"The police," said Sam, remembering, "are looking for Lonn DeSoto. He's the guy who puts on plays where people are supposed to get killed."

"Yes, Lonn is, you know, the founder and director of the Theater of Murder," said Mary Glidden. She rubbed slender fingers under Sam's chin. "And you are going to be, you know, tonight's star."

Blind Frank swung out suddenly with the wrench and knocked Sam to the floor.

" . . . are quite meaningless. The whole Western tradition of theater has now and for all time deadended," the girl's voice was telling Sam. "Words, as either symbols or modes of communication, are passé. You must live for action, mister, or you wouldn't be here. All that fits these, you know, brutal times we live in is a brutal theater. We've been working toward a more physical form of drama for

a decade now and Lonn, the messiah of completely realized brutal theater, has had the courage to explore the extremes. The, you know, ultimate performance. I'm happy to be a part of his Theater of Murder." She had a pistol in her slender hand and she jabbed it at his stomach. "So now do you understand your part?"

Sam said, "I'm sorry. I must have been unconscious."

The pistol barrel dug into him again. "Well, pay attention, won't you? You have no—you know—feel for show business. Lonn says we've got a hundred people down there in the audience tonight. There's even a vidtape talent scout."

Sam breathed in air through his mouth. He widened his eyes and tried to see clearly again. Yellow rings danced in the thick air of the little dressing room he was in. He blinked and the rings faded. There were clothes racks against two of the walls. Sam noticed a small window.

"You really mean to kill me?"

"I'm not famous for, you know, kidding around," said Mary Glidden.

Sam found he was in his underwear. "My clothes—"

"You must really be dizzier than you look." She scratched at her sharp left breast with the barrel of the hand gun. "I already explained you are to play Indian—Lonn's getting into his Kit Carson costume. Hurry up and, you know, get your costume on."

Sam noticed a feathered headress and a blanket at his feet. He and Mary Glidden were alone in the tiny room.

She said, "Curtain going up in ten minutes."

Sam picked up the feathers and the blanket. "This makes you some kind of accessory."

"We're beyond—you know—silly considerations like that by now."

Sam lunged with the blanket and dropped it over the girl. The pistol fired through it but missed him. He swung a hard fist at where he guess Mary's chin was. She sighed and sank down. His clothes were sprawled in a wing chair. He grabbed most of them and went to the window. He tugged it open and hopped to the ledge. He hesitated, then jumped.

THE phone screen in the battered booth throbbed green and a throaty voice with a faint Irish accent said, "That number is not at the moment in service."

Sam said, "Okay, okay."

He clicked off and stayed in the booth. He had tried to call his wife, Anita. He wanted to reach her. She was probably okay but he worried. Even if she turned out to be all right, this business had to stop. Something could go wrong again—anything—and hurt Anita. He would have to talk to her, even

if it meant an argument. Sighing, he dialed the police and waited.

A high keening grew outside, a red whooping. Sam looked out. A mobile police station, two white glass balls on its front cab, was coming up the street. Sam stepped out.

"Hands up," ordered a voice from the side of the long green trailer. "Don't move and don't say anything incriminating."

Sam eased closer to the mobile station.

"Officer—"

"Hands up."

Sam put up his hands.

"I was going to report something to the police—"

A door in the green trailer slid open and a tall man leaned out.

"Step inside," he said. "I'm Sergeant Plumb, Venice Division, Greater Los Angeles Police."

"I'm Sam Burse. Samuel L. Burse, from Build Up Six."

He climbed up a three-rung iron ladder and into a gray metal room.

Sergeant Plumb got behind a synthetic wood desk and pulled an audiotypewriter in front of him.

"Let's have your statement. First—why are you lurking around in such an unkempt manner and without any shoes?"

"We're members of the GLA Mate Swapping Co-op System," said Sam. "Our local spinner is sort of on the fritz. It sent me to the wrong place."

"Yeah, we get reports on slip-

ups like that from time to time. Is that going to be your story?"

"Yes, part of it. I ran into a fellow named Blind Frank Holes and he turned me over to Lonn DeSoto, who was going to kill me."

Plumb activated his typewriter.

"You're an associate of Lonn DeSoto, are you?"

"No, more a victim. He was going to kill me as part of his show. I can show you where they planned to put on one of their murder plays."

"What I'd like is a statement on why you're running around in the shape you're in."

"Aren't you interested in Lonn DeSoto? He's murdering people."

"Around here we pick up lots of people who claim they can give us tips," said the sergeant.

In a dark corner of the room an old man in a black suit rattled to his feet, yawned.

"Has he confessed yet, sarge?"

"No, Judge Littony."

The judge stepped into the light.

"What does R&I say about his fingerprints, sarge?"

Sergeant Plumb grabbed Sam's hand, shoved it into a slot in the desk. A red light flashed next to the slot and a gray card popped out.

Plumb looked at it.

"This really is Burse, Samuel L. of Build Up Six. No criminal record. B-plus credit rating. Want us to hold him?"

Judge Littony shook his head. "With a credit rating like his? Get a statement from him and let him off at the next cab stand."

The judge returned to the shadows.

SAM's house was quiet. The living room area was faintly lit. Sam ran from the cab to his front door, opened it. Three steps inside he stopped.

Anita, in a pale blue night robe, was sitting on a near-leather chair. A cup of still steaming cocoa rested on her bare knee.

"I decided to wait up," she said. "Nearly dawn, isn't it?"

Sam came further into his house. "Must be," he said. "How are you?"

She smiled.

"Fine," she said. "He left a couple of hours ago. A pleasant man, though a bit plump, from the Beverly Glen sector. I enjoyed myself."

Sam watched her, then wandered to the view window. The sky was paling to gray over the quiet ocean. He thought again of what he had planned to say.

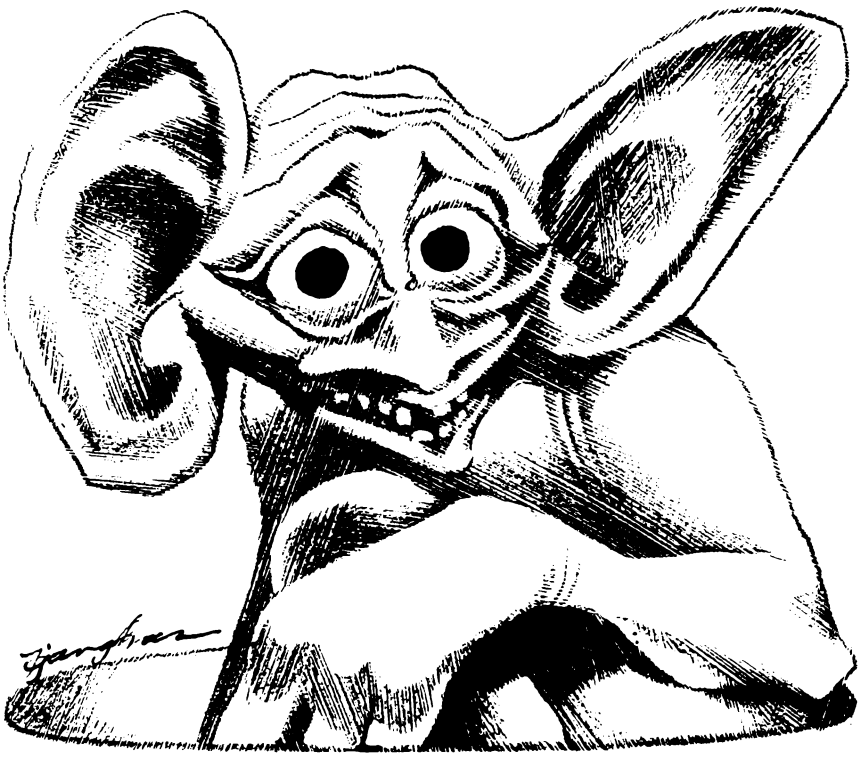
"That's good," he said finally.

A single gull seemed asleep at the water's edge.

"What about you?" asked Anita.

The gull arose and went walking away, skirting the sea. Sam kept watching it.

"Oh, I can't complain," he said. ●



RIDE A TIN CAN

R. A. LAFFERTY

How we learned to serve the Shelni and also Holly Harkel!

THESE are my notes on a very sticky business. They are not in the form of a protest, which would be useless. Holly is gone and the Shelni will all be gone in the next day or two, if indeed there are any of them left now. This is for the record only.

Holly Harkel and myself, Vincent Vanhoosier, received funds and permission to record the lore of the Shelni through the intercession of that old correlator, John Holmberg. This was unexpected. All lorists have counted John as their worst enemy.

I remember his words.

After all, we have been at great expense to record the minutiae of pig grunts and the sound of earthworms and we have records of squeakings of hundreds of species of orbital rodents. We have veritable libraries of the song and cackle of all birds and pseudo-ornins. Well, let us add the Shelni to our list. I do not believe that their thumping on tree roots or blowing into jug gourds is music. I do not believe that their singsong is speech any more than the squeaking of doors is speech. We have recorded, by the way, the sound of more than thirty thousand squeaking doors. And we have had worse. Let us have the Shelni, then, if your hearts are set on it. You'll have to hurry. They're about gone.

And let me say in all compassion that anyone who looks like Miss Holly Harkel deserves her heart's desire. That is no more than simple justice. Besides, the bill will be footed by the Singing Pig Breakfast Food Company. These companies are bitten by the small flea of remorse every now and then and they want to pitch a few coins into some fund for luck. It's never many coins that they want to pitch—the remorse bug that bites them is not a very large one. You may be able to stretch it to cover your project though, Vanhoosier . . .

So we had our appropriation and our travel, Miss Holly and myself.

Holly Harkel had often been in disrepute for her claims to understand the languages of various creatures. There was special outrage to her claim that she would be able to understand the Shelni. Now that was odd. No disrepute attached to Captain Charbonnett for his claim to understand the planetary simians, and if there was ever a phony claim it was this. No disrepute attached to Meyrowitz for his claim of finding esoteric meanings in the patterns of vole droppings. But there seemed something incredible in the claim of the goblin-faced Holly Harkel that not only would she be able to understand the Shelni instantly and completely but that they were not low scavenger beasts at all, that they were genuine goblin people who played goblin music and sang goblin songs.

Holly Harkel had a heart and soul too big for her dwarfish body and a brain too big for her curious little head. That, I suppose, is what made her so lumpy everywhere. She was entirely compounded of love and concern and laughter and much of it bulged out from her narrow form. Her ugliness was one of the unusual things and I believe that she enjoyed giving it to the worlds. She had loved snakes and toads, she had loved monkeys and misbegottens. She had come to look weirdly like them when we studied them. She was a snake when we studied them; she was a toad when they were our subject. She studied every creature from the inside of it. And here there was an uncommon similarity, even for her.

Holly loved the Shelni instantly. She became a Shelni and she hadn't far to go. She moved and scooted and climbed like a Shelni. She came down trees head first like a Shelni or a squirrel. She had always seemed to me to be a little other than human. And now she was avid to record the Shelni things "—before they be gone."

AS FOR the Shelni themselves, some scientists have called them humanoid and then braced themselves for the blow and the howl. If they were humanoid they were certainly the lowest and oddest humanoids ever. But we folklorists knew intuitively what they were. They were goblins pure and simple—I do not use the adjectives here as cliché's. The tallest of them were less than three feet tall; the oldest were less than seven years old. They were, perhaps, the ugliest creatures in the universe—and yet of a pleasant ugliness. There was no evil in them at all. Scientists who have tested them have insisted that there was no intelligence in them either. They were friendly and open. Too friendly, too open, as it happened, for they were fascinated by all human things and to their harm. But they were no more human than a fairy or an ogre is human. Less, less, less than a monkey.

"Here is a den of them," Holly divined that first day (it was the day before yesterday). "There will be a whole coven of them down under here and the door is down through the roots of this tree. When I got my doctorate in primitive music I never imagined that I would be visiting brownies down under tree roots. I should say that I never so much as hoped that I would be. There was so much that they didn't teach us. There was even one period in my life when I ceased to believe in goblins."

The latter I do not believe.

Suddenly Holly was into a hole in the ground head first, like a gopher, like a ground squirrel, like a Shelni. I followed her, letting myself down carefully and not head first. I myself would have to

study the Shelni from the outside. I myself would never be able to crawl inside their green goblin skins, never be able to croak or carol with their frog tongues, never feel what made their popeyes pop. I myself would not even have been able to sense out their dens.

And at the bottom of the hole, at the entrance of the den itself, was an encounter which I disbelieved at the time I was seeing and hearing it. There occurred a conversation which I heard with my own ears, they having become transcendent for the moment. It was in the frog-croak Shelni talk between Holly Harkel and the five-year-old Ancient who guarded the coven, and yet it was in a sort of English and I understood it.

"Knockle, knockle." (This from Holly.)

"Crows in cockle." (This from the guard.)

"Wogs and wollie.

"Who you?" "Holly."

"What's a dinning?"

"Coming inning."

So they let us in. But if you think you can enter a Shelni coven without first riming with the five-year-old Ancient who guards it, then it's plain that you've never been in one of the places. And though the philologists say that the speech of the Shelni is meaningless croaking, yet it was never meaningless to Holly and in flashes it was not meaningless to me. The secret guess of Holly was so.

Holly had insisted that the Shelni spoke English within the limits of their vocal apparatus. And they told her at this very first session that they never had had any language of their own "because no one had ever made one for us—" so they used English as soon as they came to hear it. "We would pay you for the use of it if we had anything to pay you with," they said. It is frog-croak English but only the pure of ear can understand it.

I started the recorder and Holly started the Shelni. Quite soon she had them playing on those jug-shaped flutes of theirs. Frog music. Ineffably sad *sionnach* skirries. Rook, crow, and daw squabbling melody. They were pleasant, weird little pieces of music that sounded as though they were played under water. It would be hard to imagine them not played under the ground at least.

The tunes were short, as all tunes of children are short. There was no real orchestration, though that should have been possible with the seven flutes differently jugged and tuned. Yet there was true melody in these: short, complete, closed melody, dwarfed perfection. They were underground fugues full of worms' blood and cool as root cider. They were locust and chaffer and cricket din.

Then Holly got one of the most ancient of the Shelni to tell stories while the jug-flutes chortled. Here

are the two of them that we recorded that first day. Others who listen to them today say that there is nothing to them but croaking. But I heard them with Holly Harkel, she helped interpret them to me, so I can hear and understand them perfectly in frog-croak English.

Take them, Grisly Posterity! I am not sure that you deserve even this much of the Shelni.

THE SHELNI WHO LOST HIS BURIAL TOOTH

It is told this way.

There was a Shelni who lost his burial tooth before he died. Every Shelni begins life with six teeth, and he loses one every year. Then, when he is very old and has only one tooth left, he dies. He must give the last tooth to the Skokie burial-person to pay for his burial. But this Shelni had either lost two teeth in one year or else he had lived to too great an age.

He died. And he had no tooth left to pay with.

"I will not bury you if you have no tooth left to pay me with," said the Skokie burial person. "Should I work for nothing?"

"Then I will bury myself," said the dead Shelni.

"You don't know how," said the Skokie burial-person. "You don't know the places that are left. You will find that all the places are full. I have an agreement that everybody should tell everybody all the places are full, so only the burial-person may bury. That is my job."

Nevertheless, the dead Shelni went to find a place to bury himself. He dug a little hole in the meadow but wherever he dug he found that it was already full of dead Shelnis or Skokies or frogs. And they always made him put all the dirt back that he had dug.

He dug holes in the valley and it was the same thing. He dug holes on the hill, and they told him that the hill was full, too. So he went away crying, for he could find no place to lie down.

He asked the *Eanlaith* whether he could stay in their tree. And they said no, he could not. They would not let any dead folks live in their tree.

He asked the *Eise* if he could stay in their pond. And they said no, he could not. They would not allow any dead folks in their pond.

He asked the *Sionnach* if he could sleep in their den. And they said no, he could

not. They liked him when he was alive but a dead person has hardly any friends at all.

So the poor dead Shelni wanders yet and can find no place to rest his head. He will wander forever unless he can find another burial tooth to pay with.

They used to tell it so.

ONE comment on this burial story—the Shelni do have careful burial. But the burial crypts are plainly dug, not by the six-fingered Shelni but by the seven-clawed Skokie. There must be substance to the Skokie burial-person. Moreover, the Skokie, though higher on the very low scale than the Shelni, do not bury their own.

Furthermore, there are no Shelni remains going back more than about thirty equivalent years. There are no random-lying or fossil Shelni at all.

The second story (of the first day).

THE SHELNI WHO TURNED INTO A TREE

This is how they tell it.

There was a woman who was neither Shelni nor Skokie nor frog. She was Sky Woman. One day she came with her child and sat down under a Shelni tree. When she got up to go she left her own child who was asleep and picked up a Shelni child by mistake. Then the Shelni woman came to get her own child and she looked at it. She did not know what was wrong but it was a Sky People child.

"Oh, it has pink skin and flat eyes! How can that be?" the Shelni woman asked. But she took it home with her and it still lives with the Shelni and everyone has forgotten the difference.

Nobody knows what the Sky woman thought when she got the Shelni child home and looked at it. Nevertheless she kept it and it grew and was more handsome than any of them.

But when the second year came and the young Shelni was grown it walked in the woods and said, "I do not feel like a Sky people. But if I am not a Sky people, then what am I? I am not a duck. I am not a frog. And if I am a bird, what kind of bird am I? There is nothing left. It must be that I am a tree." There was reason for this. We Shelni do look a little bit like trees.

So the Shelni put down roots and grew bark and worked hard at being a tree. He underwent all the hardships that are the life of a tree. He was gnawed by

goats and gobniu. He was rough-tongued by cattle and crom. He was infested by slugs and befouled by the nameless animal. Moreover, parts of him were cut away for firewood.

But he kept feeling the jug-music creeping up all the way from his undertoes to his hair and he knew that this music was what he had always been looking for. It was the same jug and tine music that you hear even now.

Then a bird told the Shelni that he was not really a tree but that it was too late for him to leave off growing like a tree. He had brothers and sisters and kindred living in the hole down under his roots, the bird said, and they would have no home if he stopped being a tree.

This is the tree that is the roof of our den where we are even now. This tree is our brother who was lost and who forgot that he was a Shelni.

This is the way it has always been told.

On the second day it was remarkable how much Holly had come to look like a Shelni. And she was hardly taller than they were. I had never realized that she was so small. Ah, well, she has come to look like every sort of creature we have ever studied together. Holly insists that the Shelni have intelligence and I half agree with her. But the paragraph in the basic manual of this world is against us:

—a tendency to attribute to the Shelni an intelligence which they do not possess, perhaps due to their fancied human resemblance. In maze-running they are definitely inferior to the rodents. In the manipulation of latches and stops they are less adept than the Earth raccoons or the asteroid rojon. In tool handling and true mimicry they are far from equal to the simians. In simple foraging and the instinct for survival they are far below the hog or the harzl. In mneme, the necessary prelude to intelligence, they are about on par with the turtles. Their "speech" lacks the verisimilitude of the talking birds, and their "music" is below that of the insects. They make poor watch-dogs and inadequate scarecrows. It appears that the move to ban shelniphagi, though perhaps sincere, is ill-advised. After all, as an early spaceman put it: "What else are they good for?"

Well, we have to admit that the Shelni are not as intelligent as rats or hogs or harzls. Yet I, surely due to the influence of Holly, feel a stronger affinity to them than to rats or hogs or coons or crows or whatever. But no creature is so helpless as the Shelni.

How do they even get together?

The Shelni have many sorts of songs but they do not have any romantic songs in our sense. After all, they are small children till they die of old age. Their sexual relationship seems distinguished either by total unawareness or by extreme bashfulness.

"I don't see how they bring it off at all, Vincent," Holly said the second day (which was yesterday). "They are here, so they must have been born. But how do these bashful and scatterbrained three-year-olds ever get together to bring it off? I can't find anything at all in their legends or acting patterns, can you? In their legends all their children are foundlings. They are born or discovered under a blueberry bush (my translation of *spionam*). Or alternately—and in other cycles—they are found under a quicken tree or in a cucumber patch. In common sense we must assume that the Shelni are placental and viviparous. But should we apply common sense to goblin folk? They also have legend that they are fungoid and spring out of the ground at night like mushrooms. And that if a Shelni woman wishes a child she must buy a fungoid slip from a Skokie and plant it into the ground. Then she will have her child ready the next morning."

But Holly was depressed yesterday morning. She had seen some copy by our sponsor, The Singing Pig Breakfast Food Company, and it disturbed her!

"Singing Pig! The Children love it! Nourishing Novelty! Nursery Rhyme Characters in a can for your convenience! Real Meat from Real Goblins! No fat, no bones. If your can has a lucky number tab you can receive free a facsimile Shelni jug-flute. Be the first on your block to serve Singing Pig, the meat from real Goblins. Cornstarch and natural flavor added."

Oh, well, it was only an advertisement that they used back on World. We had our recording to do.

"Vincent, I don't know how they got here," Holly said, "but I know they won't be here very long. Hurry, hurry, we have to get it down! I will make them remembered somehow."

Holly got them to play on the tines that second day (which was yesterday). There had been an impediment the day before, she said. The tines may not be played for one until the second day of acquaintance. The Shelni do not have stringed instruments. Their place is taken by the tines, the vibrating, singing forks. They play these many-pronged, tuned forks like harps and in playing them they use the tree roots for sounding boards so that even the leaves in the air above partake a little of the music. The tines, the forks are themselves of wood, of a certain very hard but light wood that is

sharp with chert and lime dust. They are wood, I believe, in an early stage of petrifaction. The tine music usually follows the jug-flute music and the ballads that are sung to it have a dreamlike sadness of tone that belies the childish simplicity of the texts.

Here are two more of those ballad stories that we recorded on the second day (which was yesterday).

THE SKOKIE WHO LOST HIS WIFE

This is the way they tell it.

A Skokie heard a Shelni jug-flute jugging one night.

"That is the voice of my wife," the Skokie said. "I'd know it anywhere."

The Skokie came over the moors to find his wife. He went down into the hole in the ground that his wife's voice was coming from. But all he found there was a Shelni playing a jug-flute.

"I am looking for my poor lost wife," the Skokie said. "I have heard her voice just now coming out of this hole. Where is she?"

"There is nobody here but myself," the Shelni said. "I am sitting here alone, playing my flute to the moons whose light runs down the walls of my hole."

"But I heard her here," said the Skokie, "and I want her back."

"How did she sound?" asked the Shelni. "Like this?" And he jugged some jug music on his flute.

"Yes, that is my wife," said the Skokie. "Where have you hidden her? That is her very voice."

"That is nobody's wife," the Shelni told the Skokie. "That is just a little tune that I made up."

"You play with my wife's voice, so you must have swallowed my wife," the Skokie said. "I will have to take you apart and see."

"If I swallowed anybody's wife, I'm sorry," said the Shelni. "Go ahead then."

So the Skokie took the Shelni apart and scattered the pieces all over the hole and some of them on the grass outside. But he could not find any part of his wife.

"I have made a mistake," said the Skokie. "Who would have thought that one who had not swallowed my wife could make her voice on the flute!"

"It is all right," said the Shelni, "as long as you put me together again. I remember part of the way I go. If you remember the rest of the way, you can put me together again."

But neither of them remembered very well the way

the Shelni was before he was taken apart. The Skokie put him together all wrong.

There were not enough pieces for some parts and too many for others.

"Let me help," said a frog who was there. "I remember where some of the parts go. Besides, I believe it was my own wife he swallowed. That was her voice on the flute. It was not a Skokie voice."

The frog helped and they all remembered what they could but it did not work. Parts of the Shelni could not be found again and some of the parts would not go into him at all. When they had him finished the Shelni was in great pain and could hardly move and he didn't look much like a Shelni.

"I've done all I can," the Skokie said. "That's the way you'll have to be. Where is frog?"

"I'm inside," said frog.

"That's where you will have to stay," the Skokie said. "I've had enough of both of you. Enough—and these pieces left over. I will just take them with me. Maybe I can make someone else out of them."

That is the way the Shelni still is, put together all wrong. In his wrong form he walks the country by night, being ashamed to go by day. Some folks are startled when they meet him, not knowing this story. He still plays his jug-flute with the lost Skokie wife's voice and with frog's voice. Listen, you can hear it now! The Shelni goes in sorrow and pain because nobody knows how to put him together right.

The Skokie never did find his lost wife.

This is how it is told.

AND then there was the story that we recorded yesterday—the last story, though we did not know it then, that we would record of the Shelni:

THE SINGING PIGS

This is how they say it.

We have the ancient story of the singing pigs who sing so loud that they fly up into the sky on the tail of their own singing. Now we ourselves, if we can sing loud enough, if we can jug the flutes strong enough, if we can tang the tines deep enough, will get to be the Singing Pigs of our own story. Many already have gone away as Singing Pigs.

There come certain bellmen with music carts. They play rangle-dangle Sky music. They come for love of

us. And if we can hurry fast enough when they come we can go with them, we can ride a tin can over the sky.

Bong, bong, that is the bell-man with the music cart now! All the Shelni hurry! This is the day you may get to go. Come all you Shelni from the valley and the stream and jump on the cart for the free ride. Come all the Shelni from the meadow and the woods. Come up from the tree roots and the holes under ground. The Skokie don't get to go, the frogs don't get to go, only the Shelni get to go.

Cry if the cart is too full and you don't get to go today but don't cry too long. The bell-men say that they will come back tomorrow and every day till there are no Shelni left at all.

"Come all you little Singing-Pig-Shelni," a bell-man shouts. "Come get your free rides in the tin cans all the way to Earth! Hey, Ben, what other animal jumps onto the slaughter wagon when you only ring a bell? Come along little Shelni-Pigs, room for ten more on this wagon. That's all, that's all. We'll have lots more wagons going tomorrow. We'll take all of you, all of you! Hey, Ben, did you ever see

little pigs cry when there's no more room for them on the slaughter wagon?" These are the high kind words that a bell-man speaks for love of us.

Not even have to give a burial tooth or other tooth to pay for the ride. Frogs can't go, Skokies can't go, only the Shelni get to go!

Here are the wonderful things! From the wagon the Shelni get to go to one room where all their bones are taken out. This does never happen to Shelni before. In another room the Shelni are boiled down to only half their size, little as little-boy Shelni. Then they all get to play the game and crawl into the tin cans. And then they get their free ride in the tin cans all the way to Earth. Ride a tin can!

Wipe off your sticky tears, you who miss the music cart today. Go to sleep early tonight and rise early tomorrow. Sing your loudest tomorrow so the bell-men will know where to come. Jug the flutes very strong tomorrow, tang the tines deep, say whoop whoop here we are, bell-men.

All laugh when they go with the bell-men in the music cart. But there is story that someday a Shelni woman will cry instead of laugh when they take her. What can be the matter with this woman that she will cry? She will cry out "Damn you, it's murder! They're almost people! You can't take them! They're as much people as I am. Double damn you, you can't take me! I'm human. I know I look as funny as they do but I'm human. Oh, oh, oh!" This is the funniest thing of the story, the prophecy thing part.

"Oh, oh, oh," the woman will say. *Oh, oh, oh,* the jug-flutes will echo. What will be the matter with the Shelni woman who cries instead of laughs.

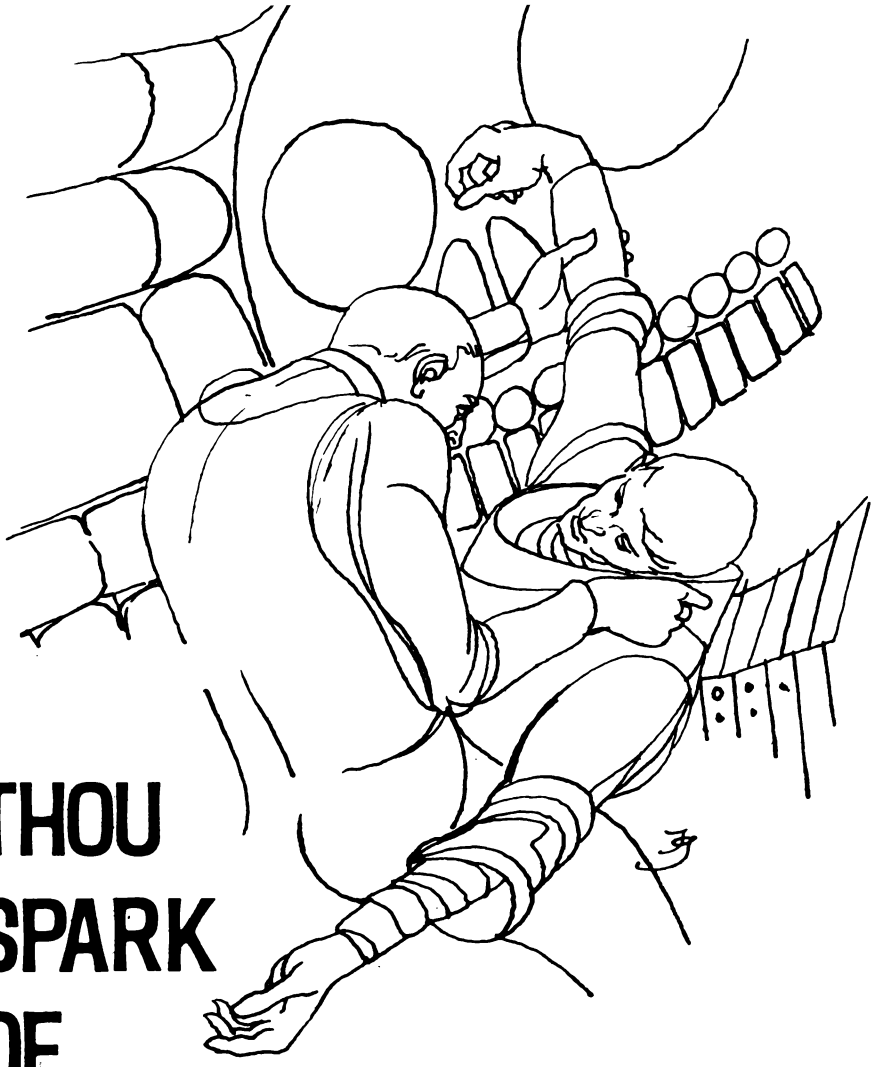
This is our last story, wherever it is told. When it is told for the last time, then there will be no more stories here, there will be no more Shelni. Who needs stories and jug-flute music who can ride a tin can?

That is how it has been said.

Then we went out (for the last time, as it happened) from the Shelni burrow. And, as always, there was the rhyming with the five-year-old Ancient who guarded the place!

"What to crowing?"

(Please turn to page 156)



THOU SPARK OF BLOOD

A puzzle for angels: How many humans can survive each other in infinity?

GENE WOLFE

WHEN GIBSON awoke Lorenz was asleep and Cappio, whose acceleration couch was between theirs, was dead. Cappio's throat was cut and, lying back as he was, the edges of the cut were drawn slightly apart as though Cappio had evolved, in the deep of space, a gill just under his chin. The blood had spurted far in the weak gravity, splattering the instrument panel and the observation port and filling Cappio's lap with a pool which was now darkening and coagulating. Gibson looked at Lorenz, still asleep. There were—had been—only the three of them between Earth and Mars. It was the easiest murder mystery in the universe to solve.

It occured to him that now, while Lorenz was still asleep, was the time to do something. To protect himself, to bind or if necessary even kill Lorenz. Briefly he pictured himself confronting Dr. Mann, the chief psychologist at Moonbase.

Well, what do I do now, Doctor, outward bound with a corpse and a murderer?

Then Lorenz's eyes were open and it was too late.

For a second Lorenz was blank and unfocused. Then full consciousness came and he saw Cappio. He jerked erect.

The old bitterness, the hatred Gibson had built up for Lorenz and Cappio too during the endless months in the capsule, came rushing back. Whatever happened he was glad that Lorenz had done this, glad Lorenz would be condemned if they ever got back, glad Cappio was dead.

Lorenz reached over and touched Cappio's dead cheek very gently with the tips of his fingers.

He said, "Why did you do it, Gib?"

For a moment Gibson felt almost like laughing. Lorenz was going to dodge and trim to the last.

He said, "Commander, you stink."

"We all stink, bottled up in here—but that was no reason to kill Major Cappio."

"I mean you stink morally."

Gibson's pressure suit was hanging behind him and he reached as quickly as he could for the utility knife in the tool belt. He saw the fear in Lorenz's eyes then and knew he could kill Lorenz if he wished. But Lorenz had his own knife out, threatening him across Cappio's body.

"Why?" Lorenz asked. "Why did you do it, Gib?"

"It's no use blaming me, Lorenz. When they get us back they'll give you drugs and a lie-detector test. You're going to spend the rest of your life in prison."

"You're saying I killed him?"

"I know you did. For God's sake, Lorenz, there are only the two of us."

"Look." Lorenz suddenly ex-

tended his knife to Gibson. "Look at the blade. It's clean, isn't it?"

Gibson nodded reluctantly.

"Now let me see yours."

"You really think I'm going to give it to you so that you can kill me too?"

"Just hold it up where I can see it."

Gibson held his knife up, keeping it well away from Lorenz. The blade was as clean as Lorenz's had been.

"What does this prove," he asked Lorenz, "except that you were smart enough to wipe your knife afterward?"

"I could say the same thing to you."

"But you won't, because you did it."

"No. You did it, Gib. You've been cracking up for the last six weeks at least—but I'm trying to find out whether or not you remember the act. Putting it another way, whether or not I dare let you continue functioning as a member of the crew. The fact that you let me live suggests I might. The fact that you cleaned your knife—well," Lorenz paused and shrugged, "I was going to say it suggested a conscious and sane premeditation but perhaps I'm wrong. That kind of neatness could be symptomatic, I guess. Dr. Mann would know."

"If the radio worked—"

"If the radio worked this probably wouldn't have happened."

"Or if the deodorizer hadn't gone out," Gibson finished for him. "Or any of the other things hadn't gone wrong. We're not going to make it, are we, Commander? So what does it matter, your killing Cappio? Cappio was an S. O.B. anyway—he hated us both and we're all going to die out here in space. We just can't make it."

"Certainly we're going to make it," Lorenz said. "Nothing that's happened so far will prevent us from making a good landing on Mars—and Cappio was a nice enough guy back on Earth, as I remember, and even on the moon."

"With no radio they won't even know we made it." They had argued this a dozen times since the radio went out and Gibson suddenly realized that already, even with Cappio lying dead between them, they were falling back into the old pattern. To wrench them away from that deep groove he asked, "What are we going to do with the body?"

LORENZ had opened a packet of cleaner and was swabbing Cappio's blood from the observation port. Because the capsule was kept spinning to give them a gentle pseudogravitational effect the stars made bright, concentric circles of light in the port. When they had begun the mission Mars itself had circled as well since they were aimed toward the point were it would be, rather than to what

had been its present location. Now they were close enough for the spin to be almost unnoticeable when Gibson looked only at Mars, a hard-edged, red dot in the center of the port.

"Do you suppose that made you do it?" he asked Lorenz.

"What?" Lorenz threw the packet of cleaner into the disposer and looked at him. "What are you talking about, Gib?"

"Suppose the astrologers were right—Mars breeds strife. 'Thou spark of blood, thou eye of death look'd down, Thou wanderer image of a burning town.' "

"Nuts."

"According to you I never know what I'm talking about, do I, Lorenz?"

"Gib, things are bad enough without our fighting."

Gibson laughed.

"You cut Cappio's throat and now you tell me we shouldn't fight."

"We'll have to throw his body out the hatch, I guess."

"Out the hatch?"

"We can't leave it in here. Come on, let's suit up."

Gibson put on his pressure suit carefully, watching Lorenz, but Lorenz had put his knife back into his belt and made no sudden motion toward him.

At last Gibson called, "Ready?"

"Ready," Lorenz said.

His voice was tinny over the suit radio.

The hatch was on Gibson's side but he did not want to turn his back on Lorenz to open it. He stood sideways instead to pull at the big operating wheel. It would not move.

Lorenz asked, "What's the matter?"

Gibson tugged again. "It won't budge. It's stuck."

Lorenz stepped across Cappio's body to help him but the lock was jammed.

"My God," Lorenz said, "if we can't get it open we won't be able to use it when we get to Mars."

"We can detonate the explosive bolts—emergency procedure."

"Sure, but you only open it that way once. After that we've lost our seal. We won't be able to keep a terrestrial atmosphere in the capsule."

Gibson seated himself on his couch again and opened the face shield of his helmet. "Maybe we can fix it when we land."

"Maybe. Aren't you going to take off your suit?"

The suit was as good as armor, Gibson thought. It would protect him from Lorenz's knife.

"Not now. I'm too tired."

Lorenz snorted. "We haven't done anything for weeks except snap at each other. Why should you be tired?" He was stripping off his own suit.

Why should he worry? He knows I didn't kill Cappio—he hasn't anything to be afraid of . . .

Aloud he said, "What are we going to do with the body?"

"Put it through the disposer. What else can we do? We'll have to cut it up."

"You," Gibson said.

"You won't help?"

Gibson shook his head and Lorenz shrugged.

"Somebody's got to."

HE TOOK the knife from his suit belt again and looked at Cappio, trying to decide where to start. Gibson watched him. After a moment Lorenz decided on the arm nearest him. He laid it on the armrest and cut off the hand, working his blade through the small bones in the wrist. As Gibson watched he picked up the hand by the index finger and dropped it into the disposer, then bent over Cappio again to unjoint the elbow. Gibson drove his knife into the back of his neck then and Lorenz fell face down into Cappio's lap.

For a long time after that Gibson sat staring out the observation port at the red dot of Mars. The hi-fi had broken when they were two weeks out but he tried it again anyway. It still didn't work, so he read the descriptions on the tapes instead, trying to remember what they should sound like.

After a while he picked up the microphone of the dead radio and pushed the dead transmit button and said, "This is Gibson. I have killed Commander Lorenz because he murdered Major Cappio and I am sure that he was going to kill me. I intend to continue the mission but I am not going to return. The State Department may, if it likes, claim Mars on the grounds that it has a permanent American resident. Send unmanned supply rockets. I require airlock parts, radio repair—"

He put down the microphone.

The disposer broke when he tried to put Cappio's femur through it. That left about two-thirds of Cappio's body and all of Lorenz's still in the cabin.

Gibson did the best he could. He sprinkled all the salt from the ration packets over them and put them in their pressure suits. The suits, being airtight, he thought should at least prevent the odor of the decaying bodies from fouling the air of the cabin. The calendar clock on the instrument panel showed that it was the hundred and thirty-fifth day of the flight. By the hundred and thirty-eighth Gibson knew he had been wrong. The suits leaked.

He examined them carefully, inch by inch. Cappio's was sound but Lorenz's had been sabotaged at the back of one knee joint where something like a screwdriver or a utility knife blade had been driven in to destroy the seal of the delicately fitted parts. The same thing had been done to his own suit and

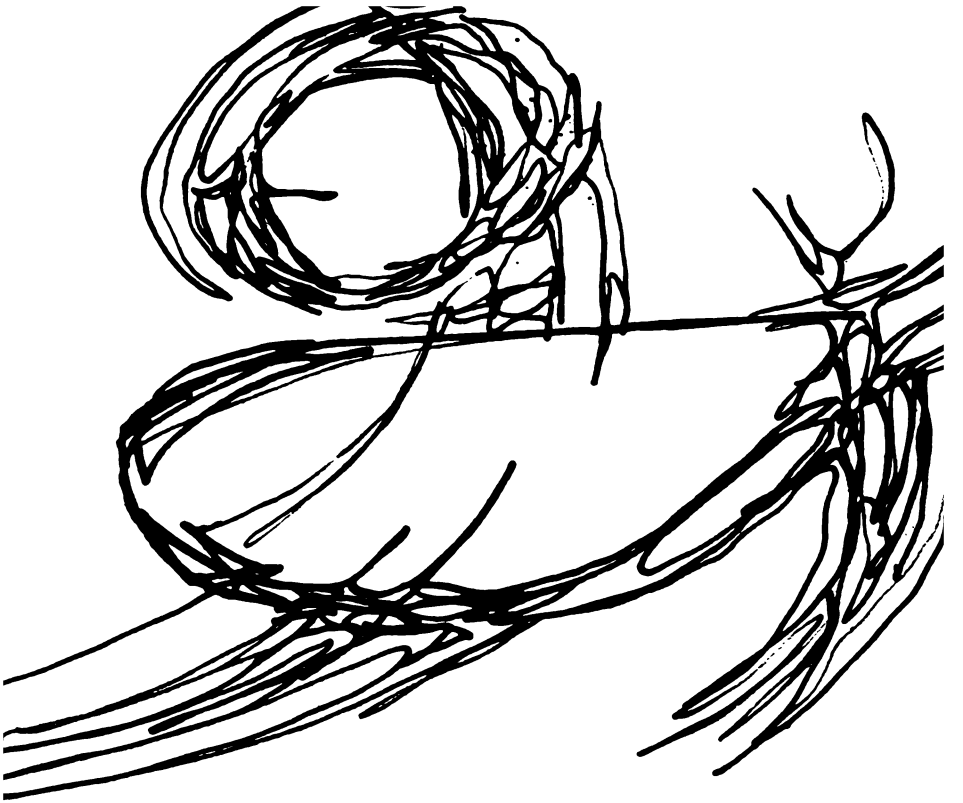
(Please turn to page 157)

WHIPPING

WHAT HAS GONE BEFORE

Jorj X. McKie, Saboteur Extraordinary of the Bureau of Sabotage of the Confederated Sentients, is called to the planet of Cordiality on an urgent mission—a Caleban Beachball has been sighted on the planet.

McKie arrives on Cordiality via a jumpdoor—an instantaneous space-travel medium controlled by the mysterious Calebans—and is briefed on the emergency by fellow BuSab agent, Alicheno Furuneo. Calebans, sentient members of the Con-Sentients, have lately been disappearing, with disastrous effects on humans and other sen-



STAR

Frank Herbert

CONCLUSION

tients around them. It is thought that Mlis Abnethe, an enormously wealthy and beautiful but unscrupulous human woman is somehow involved in the disappearances.

No one has ever seen a Caleban and few have successfully communicated with one. McKie forces an entry into the Beachball stranded on Cordiality and confronts the Caleban domiciled in it. He succeeds in establishing communication with the Caleban, a pure sentient, who communicates from mind to mind and tells him that Mlis Abnethe is indeed involved in the inexplicable goings on. Mlis is a flagellator, who has acquired a contractual right to have the Caleban whipped for her pleasure—in

return she has promised certain educational advantages for Calebans. McKie witnesses and interrupts one of the flagellations, discovers that the Caleban, who has assumed the name Fanny Mae, has fallen in love with him.

McKie, a veteran of fifty-four unsuccessful marriages, is unimpressed, but utilizes the fact that the universality of love permits Fanny Mae to violate her contract with Mliss Abnethe and send him on her trail via a jumpdoor.

The chase takes him to an unfamiliar planet, apparently in an earlier time. Inhabitants are Earth aborigines and apparently Abnethe's subjects. They try to kill him but he is rescued by Fanny Mae, brought back to his own time.

When all attempts to decipher the location of Abnethe's hideout planets fail, McKie volunteers as bait. He returns to Fanny Mae's Beachball. There two attempts to kill him as Furuneo had been slain are foiled but neither Abnethe nor her Pan Spechi lover and aide, Cheo, betray their whereabouts.

Meantime the Sentient laboratory where possible clues to Abnethe and Cheo are under study is turned into a shambles via a jumpdoor attack. McKie rushes over.

In the lab he feels a constant threat while he and the Sentient scientists are trying discern a readable pattern behind Abnethe's activities.

As they are beginning to approach a reasonable answer, McKie once again is attacked through a jumpdoor. The attack is foiled.

XI

IT WAS midafternoon on Central before Tuluk sent for McKie to return to the lab. Two squads of enforcers accompanied McKie. There were enforcers all around in augmented force. They watched the air, the walls, the floors. They watched each other and the space around their alternate numbers. Every sentient carried a raygen at the ready.

McKie, having spent two hours with Hanaman and five of her aides in Legal, was ready for down-to-dirt facts. Legal was moving to search every Abnethe property, to seize every record they could find—but it was all off there somewhere in the rarefied atmosphere of symbols. Perhaps something would come of it, though. They had a Telecourt order, reproduced thousands of times, giving the Bureau's enforcement arm sufficient authority for search on most worlds outside the Gowachin pale. Gowachin officials were moving in their own way to cooperate—exonerating sufficient enforcers, clearing the names of appropriate police agencies.

Crime-One police on Central and elsewhere were assisting. They had provided enforcers, opened files normally not privileged to BuSab, linked their identification and modus computers temporarily to BuSab's core.

It was action, of course, but it struck McKie as too circuitous, too abstract. They needed another kind of line to Abnethe, something connected to her that could be reeled in despite her attempts to escape.

Eight enforcers had crowded into the small lab with Tuluk. They were being self-effacing, apologetic—evidence that Tuluk had protested in that bitingly sarcastic way Wreaves had.

Tuluk glanced up at McKie's entrance, returned to examining a metal sliver held in stasis by a subtron field beneath a bank of multicolored lights on his bench.

"Fascinating stuff, this steel," he said, lowering his head to permit one of his shorter and more delicate mandibular extensors to get a better grip on a probe with which he was tapping the metal.

"So it's steel," McKie said, watching the operation.

Each time Tuluk tapped the metal it gave off a shimmering spray of purple sparks. They reminded McKie of something just at the edge of memory. He couldn't quite place the association. A shower of sparks. He shook his head.

"There's a chart down the bench," Tuluk said. "You might have a look at it while I finish here."

McKie glanced to his right, saw an oblong of chalf paper with writing on it. He moved the necessary two steps to reach the paper, picked it up, studied it. The writing was in Tuluk's neat script.

> Substance: steel, an iron-base alloy. Sample contains small am'ts manganese, carbon, sulfur, phosphorus and silicon, some nickel, zirconium and tungsten with admixture chromium, molybdenum and vanadium.
>
> Source comparison: matches Second-Age steel used by human political subunit Japan in making of swords for Samurai Revival.
>
> Tempering: sample hard-quenched on cutting edge only; back of sword remains soft.
>
> Estimated length of original artifact: 1.01 meter.
>
> Handle: linen cord wrapped over bone and lacquered. (See lacquer, bone and cord analyses: attached.)

McKie glanced at the attached sheet: bone from a sea mammal's tooth, reworked after use on some other artifact, nature unknown but containing bronze.

The linen cord's analysis was interesting. It was of relatively recent manufacture and it displayed the same submolecular characteristics as the earlier samples of rawhide.

THE lacquer was even more interesting. It was based in an evaporative solvent which was identified as a coal tar derivative—but the purified sap was from an ancient Coccus Lacca insect extinct for millennia.

"You get to the part about the lacquer yet?" Tuluk asked, glancing up and twisting his face slit aside to look at McKie.

"Yes."

"What do you think of my theory now?"

"I'll believe anything that works," McKie growled.

Tuluk returned to his examination of the metal.

"How're your wounds?"

"I'll recover." McKie touched the omniflesh patch at his temple. "What's that you're doing now?"

"This material was fashioned by hammering," Tuluk said, not looking up. "I'm reconstructing the pattern of the blows that shaped it."

He shut off the stasis field, caught the metal deftly in an extended mandible.

"Why?"

Tuluk tossed the metal onto the bench, racked the probe, faced McKie.

"Manufacture of swords such as this was a jealously guarded craft," he said. "It was handed down in families, father to son, for centuries. The irregularity of the hammer blows used by each artisan followed characteristic patterns to an extent that the maker can be identified without question by sampling that pattern. Collectors developed the method to verify authenticity. It's as definite as an eye print, more positive than any skin-print anomaly."

"So what did you find out?"

"I ran the test twice," Tuluk said, "to be certain. Despite the fact that cell revivification tests on lacquer and cord attachments show this sword to have been manufactured no more than eighty years ago, the steel was fashioned by an artisan dead more thousands of years than I care to contemplate. His name was Kinemura and I can give you the index referents to verify this. There's no doubt who made that sword."

The interphone above Tuluk's bench chimed twice and the face of Hanaman from Legal appeared on it.

"Oh, there you are, McKie," she said, peering past Tuluk.

"What now?" McKie asked, his mind still dazed by Tuluk's statement.

"We've managed to get those injunctions," she said. "They lock up Abnethe's wealth and production on every sentient world except the Gowachin."

"But what about the warrants?"

"Of course—those, too," Hanaman said. "That's why I'm calling. You asked to be notified immediately."

"Are the Gowachin cooper-

ating?" McKie asked thoughtfully.

"They've agreed to declaration of a ConSent emergency in their jurisdiction. That allows all Federation police and BuSab agencies to act there for apprehension of suspects."

"Fine," McKie said. "Now, if you could only tell me when to find her I think we can pick her up."

Hanaman looked from the screen with a puzzled frown.

"When?"

"Yeah," McKie snarled. "When."

THE report on the Palenki Phyllum pattern was waiting for McKie when he returned to Bildoon's office for their strategy conference. The conference had been scheduled earlier and postponed twice that day. It was almost midnight but most of the Bureau's people remained on duty, especially the enforcers. *Sta-lert* capsules had been issued along with the *angeret* by the medical staff. The enforcer squad accompanying McKie walked with that edgy abruptness this mixture of chemicals always exacted as payment.

Bildoon's chairdog had lifted a footrest and was ripple-massaging the Bureau Chief's back when McKie entered the office. Opening one jeweled eye, Bildoon said, "We got the report on the Palenki —the shell pattern you holoscanned." He closed his eye, sighed. "It's on my desk there."

McKie patted a chairdog into place, said, "I'm tired of reading. What's it say?"

"Shipsong Phyllum," Bildoon said. "Positive identification. "Ahhh, friend—I'm tired, too."

"So?"

McKie was tempted to signal for a massage from his chairdog. Bildoon was obviously enjoying it. But McKie knew a massage might put him to sleep. The enforcers moving restlessly around the room must be as tired as he was. They'd be sure to resent it if he popped off for a nap.

"We got warrants and picked up the Shipsong Phyllum's leader," Bildoon said. "It claims every phyllum associate is accounted for."

"True?"

"We're trying to check it but how can you be sure? They keep no written records. It's just a Palenki's word, whatever that's worth."

"Sworn by its arm, too, no doubt," McKie said.

"Of course." Bildoon stopped the chairdog massage, sat up. "It's true that phyllum identification patterns can be used illegitimately."

"It takes a Palenki three or four weeks to regrow an arm."

"What's that signify?"

"She must have several dozen Palenkis in reserve."

"She could have a million of 'em for all we know."

"Did this Phyllum Leader resent its pattern being used by an unauthorized Palenki?"

"Not that we could see."

"It was lying," McKie said.

"How do you know?"

"According to the Gowachin Juris-dictum, Phyllum Forgery is one of the eight Palenki capital offenses. And the Gowachin should know because they were assigned to educate the Palenkis in Acceptable Law when R&R brought those one-armed turtles into the ConSent fold."

Bildoon asked, "How come Legal didn't know that? I've had them researching this from the beginning."

"Privileged legal datum," McKie said. "Inter-species courtesy and all that. You know how the Gowachin are about individual dignity, privacy, that sort of thing."

"You'll be read out of their Court when they find out you spilled this," Bildoon said.

"No. They'll just appoint me prosecutor for the next ten or so capital cases in their jurisdiction. If the prosecutor accepts a case and fails to get a conviction, he's the one they execute, you know."

"And if you decline the cases?"

"Depends on the case. I could draw anything from a one-to-twenty sentence for some of them."

"One-to—you mean Standard Years?"

"I don't mean minutes," McKie growled.

"Then why'd you tell me?"

"I want you to let me break this Phyllum Leader."

"Break him? How?"

"Have you any idea of how important the mystique of the arm is to the Palenki?"

"Some idea. Why?"

"Some idea," McKie muttered. "Back in the primitive days Palenkis made criminals eat their arms, then inhibited regrowth. Much loss of face—but even greater injury to something very deep and emotional for the Palenkis."

"You're not seriously suggesting—"

"Of course not."

"Bildoon shuddered. "You humans have a basically bloodthirsty nature. Sometimes I think we don't understand you."

"Where's this Palenki?" McKie asked.

"What are you going to do?"

"Question him. What did you think?"

"After what you just said I wasn't sure."

"Come off that, Bildoon. Hey, you." McKie gestured to a Wreave enforcer lieutenant. "Bring the Palenki in here."

The enforcer glanced at Bildoon.

"Do as he says," Bildoon said.

The enforcer looped his mandibles uncertainly, but turned and

left the room, signaling half a squad to attend him.

TEN minutes later the Palenki Phyllum Leader was herded into Bildoon's office. McKie recognized the snake-weaving pattern on the Palenki's carapace, nodded to himself: Shipsong Phyllum, all right. Now that he saw it, he made the identification himself.

The Palenki's multiple legs winked to a stop in front of McKie. The turtle face turned toward him expectantly.

"Will you truly make me eat my arm?" it asked.

McKie glanced accusingly at the Wreave lieutenant.

"It asked what kind of human you were," the Wreave explained.

"I'm glad you rendered such an accurate description," McKie said. He faced the Palenki. "What do you think?"

"I think not possible, Ser McKie. Sentients no longer permit such barbarities."

The turtle mouth rendered the words without emotion but the arm dangling to the right from its head-top juncture writhed with uncertainty.

"I may do something worse," McKie said.

"What is worse?" the Palenki asked.

"We'll see, won't we? Now. You can account for every member of your Phyllum, is that what you claim?"

"That is correct."

"You're lying," McKie said, voice flat.

"No."

"What's your Phyllum name?" McKie asked.

"I give that only to Phyllum brothers."

"Or to the Gowachin," McKie said.

"You are not Gowachin."

In a flat splatting of Gowachin grunts, McKie began describing the Palenki's probable unsavory ancestry, its evil habits, possible punishments for its behavior. He concluded with the Gowachin identification-burst, the unique emotion/word pattern by which he was required to identify himself before the Gowachin Bar.

Presently the Palenki said, "You are the human they admitted to their Legal Concourse. I've heard about you."

"What's your Phyllum name?" McKie demanded.

"I am called Biredch of Ank," the Palenki said resignedly.

"Well, Biredch of Ank, you're a liar."

The arm writhed.

"No."

There was terror in the Palenki's manner now. It was a brand of fear McKie had been trained to recognize in his dealings through the Gowachin. He possessed the Palenki's privileged name—he

could demand the arm.

"You have compounded a capital offense," McKie said.

"No—no—no—"

"What the other sentients in this room don't realize," McKie said, "is that phyllum brothers accept gene surgery to affix the identity pattern on their carapaces. The index marks are grown into the shell. Isn't this true?"

The Palenki remained silent.

"It's true," McKie said. He noted that the enforcers had moved into a close ring around them, fascinated by this encounter. "You," McKie said, snapping an arm toward the Wreave lieutenant. "Get your men on their toes."

"Toes?"

"They should be watching every corner of this room," McKie said. "You want Abnethe to kill our witness?"

Abashed, the lieutenant turned, barked orders to his squad. The enforcers already were at their shifty, turning, eye-darting inspection of the room. The Wreave lieutenant shook a mandible angrily, fell silent.

McKie returned his attention to the Palenki. "Now, Biredch of Ank, I'm going to ask you some special questions. I already know the answers to some of them. If I catch you in one lie I'll consider a reversion to barbarism. Too much is at stake here. Do you understand me?"

"Ser, you cannot believe that—"

"Which of your Phyllum mates did you sell into slave service with Mliss Abnethe?" McKie demanded.

"Slaving is a capital offense," the Palenki breathed.

"I've already said you were implicated in a capital offense," McKie said. "Answer the question."

"You ask me to condemn myself?"

"How much did she pay you?"

"Who pay me what?"

"How much did Abnethe pay you?"

"For what?"

"For your phyllum mates?"

"What phyllum mates?"

"That's the question," McKie said. "I want to know how many you sold, how much you were paid and where Abnethe took them."

"You cannot be serious."

"I'm recording this conversation," McKie said. "I'm going to call your United Phyllums Council presently, play the recording for them and suggest they deal with you."

"They will laugh at you. What evidence could you—"

"I've your own guilty voice," McKie said. "We'll get a voicecorder analysis of everything you've said and submit it with the recording to your Council."

"Voicecorder? What is this?"

"It's a device that analyzes the subtle pitch and intonation of the voice to determine which state-

ments are true and which are false."

"I have never heard of it."

"Damn few sentients know all the devices BuSab agents use," McKie said. "Now, I'm giving you one more chance. How many of your mates did you sell?"

"WHY are you doing this to me? What is so important about Abnethe that you should ignore every inter-species courtesy, deny me the rights of—"

"I'm trying to save your life," McKie said.

"Now who is lying?"

"Unless we find and stop Abnethe," McKie said, "damn near every sentient in our universe except a few newly hatched chicks will die. And they'll stand almost no chance without adult protection. You've my oath on it."

"Is that a solemn oath?"

"By the egg of my arm," McKie said.

The Palenki moaned. "You know even this of the egg?"

"I'm going to invoke your name and force you to swear by your most solemn oath in just one moment," McKie said.

"I have sworn by my arm."

"Not by the egg of your arm," McKie said.

The Palenki lowered its head. The single arm writhed.

"How many did you sell?" McKie asked.

"Only forty-five."

"Only forty-five?"

"That's all—I swear it." Glistening fear oils began oozing from the Palenki's eyes. "She offered so much and the chosen ones accepted freely. She promised unlimited eggs."

"No breeding limit?" McKie asked. "How could that be?"

The Palenki glanced fearfully at Bildoon, who sat hunched across the desk, face grim.

"She would not explain other than to say she had found new worlds beyond the ConSent jurisdiction."

"Where are those worlds?" McKie asked.

"I don't know. This I swear by the egg of my arm—I don't know."

"How was the deal set up?"

"There was a Pan Spechi."

"What did he do?"

"He offered my phyllum the profits from twenty worlds for one hundred standard years."

Someone behind McKie whistled.

"When and where did this transaction take place?" McKie asked.

"In the home of my eggs only a year ago."

"A hundred years' profits," McKie muttered. "A safe deal. You and your phyllum won't be around even a fraction that long if she succeeds in what she's planning."

"I didn't know. I swear I didn't know. What is she doing?"

McKie ignored the question.

"Have you any clue at all as to where her worlds may be?"

"I swear not," the Palenki said. "Bring your voicecorder. It will prove I speak the truth."

"There's no such thing as a voicecorder for your species," McKie said.

The Palenki stared at him a moment. Then: "May your eggs rot?"

"Describe the Pan Spechi."

"I withdraw my cooperation."

"You're in too far now," McKie said, "and my deal's the only one in town."

"Deal?"

"If you cooperate, everyone in this room will forget your admissions of guilt."

"More trickery—"

McKie looked at Bildoon.

"I think we'd better call in the Palenki Council and give them the full report."

"I think so," Bildoon agreed.

"Wait," the Palenki said. "How do I know I can trust you?"

"You don't," McKie said.

"But I have no choice, is that what you say?"

"That's what I say."

"May your eggs rot if you betray me."

"Every one of them," McKie agreed. "Describe your Pan Spechi."

"He was ego-frozen," the Palenki said. "I saw the scars and he bragged of it to show that I could trust him."

"Describe him."

"One Pan Spechi looks much like another. I don't know—but the scars were purple. I remember that."

"Did he have a name?"

"He was called Cheo."

McKie glanced again at Bildoon.

"The name signifies new meanings for old ideas," Bildoon said. "It's in one of our ancient dialects. Obviously an alias."

McKie returned his attention to the Palenki. "What kind of agreement did he give you?"

"Agreement?"

"Contract—surety. How did he insure the payoff?"

"Oh. He appointed phyllum mates of my selection as managers on the chosen worlds."

"Neat," McKie said. "Simple hiring agreements. Who could fault a deal like that or prove anything by it?"

McKie brought out his toolkit, removed the holoscan, set it for projection and dialed the record he wanted. Presently the scan the Wreave enforcer had captured through the jumpdoor danced in the air near the Palenki. McKie turned the projection slowly full circle, giving the Palenki a chance to see the face from every angle.

"Is that Cheo?" he asked.

"The scars present the identical pattern. It is the same one."

"That's a valid identification," McKie told Bildoon. "Palenkis

can identify random line patterns better than any other species in the universe."

"Our phyllum patterns are extremely complex," the Palenki boasted.

"We know," McKie said.

"What good does this do us?" Bildoon asked.

"I wish I knew," McKie said.

XII

MCKIE and Tuluk were arguing about the Time-regeneration theory, ignoring the squad of enforcers guarding them, although it was obvious their companions found the argument interesting.

The theory was all over the Bureau by this time—about six hours after the session with Biredch of Ank. It had about as many scoffers as it had supporters.

At McKie's insistence they had taken over one of the inter-species training rooms, set up a datascan console and were trying to square Tuluk's theory with the subatomic alignment phenomenon discovered in the rawhide and other organic materials captured from Abnethe.

Tuluk's thought was that the alignment might point toward some spatial vector, giving a clue to Abnethe's hideout. There must be some vector of focus in our dimension," Tuluk insisted.

"Even if that's true—what good would it do us?" McKie asked. "She's not in our dimension. I say we go back to the Caleban's—"

"You heard Bildoon. You don't go anywhere. We leave the Beachball to enforcers while we concentrate on—"

"But Fanny Mae's our only source of new data."

"Fanny—oh, yes, the Caleban."

Tuluk was a pacer. He had staked out an oval route near the room's instruction focus, tucked his mandibles neatly into the lower fold of his facial slit and left only his eyes and breathing/speech orifice exposed. The flexing bifurcation that served him as legs carried him around a chairdog occupied by McKie, thence to a point near a Laclac enforcer at one extreme of the instruction focus, thence back along a mixed line of enforcers who milled at a floattable on which McKie was doodling, thence around behind McKie and back over the same route.

Bildoon entered, waved the pacing Wreave to a halt.

"There's a mob of newspeople outside," he growled. "I don't know where they got the story but it's a good one. It can be described in a simple sentence: 'Calebans linked to threatened end of universe!' McKie, did you have anything to do with this?"

"Abenethe," McKie said, not looking up from a complicated chalf doodle he was completing.

"That's crazy."

"I never said she was sane. You know how many news services, 'caster systems and other media she controls?"

"Well—certainly. But—"

"Is anybody linking her to this threat?"

"No."

"You don't find that strange?"

"How could any of these people know she—"

"How could they not know about Abnethe's corner on Calebans?" McKie demanded. "Especially after talking to you."

He stood up, hurled his chalf scribe to the floor, started up an aisle between rows of enforcers.

"Wait," Bildoon snapped. "Where are you going?"

"To tell them about Abnethe."

"Are you out of your mind? That's all she needs to tie us up—a slander and libel case."

"We can demand her appearance as accuser," McKie said. "Should have thought about this earlier. We're not thinking straight. Perfect defense—truth of accusation."

Bildoon caught up with him and they moved up the aisle in a protective cordon of enforcers. Tuluk brought up the rear.

"McKie," Tuluk called, "you observe an inhibition of thought processes?"

"Wait'll I check your idea with Legal," Bildoon said. "You may have something—"

"Save it," McKie snapped. He stopped, turned to Bildoon. "How much more time do you figure we have?"

"Who knows?"

"Five minutes, maybe?"

"Longer than that, surely."

"But you don't know."

"I have enforcers at the Caleban's—well, they're keeping Abnethe's attacks to a min—"

"You don't want anything left to chance, right?"

"Naturally."

"Well, I'm going to tell those newsies out there the—"

"McKie, that female has her tentacles into unsuspected areas of government," Bildoon cautioned. "You've no idea. We've enough data to keep us busy for—"

"Some really important powers are in with her, eh?"

"There's no doubt of it."

"And that's why it's time we took the wraps off."

"You'll create a panic."

"We need a panic. A panic will set all sorts of sentients to trying to contact her—friends, associates, enemies, lunatics. We'll be flooded with information. And we must develop new data."

"What if these illegitimates—" Bildoon nodded toward the outer door— "refuse to believe you? They've heard you spout some pretty strange tales, McKie. What if they make fun of you?"

MCKIE hesitated. He'd never before seen such ineffectual

maundering in Bildoon, a sentient noted for wit, brilliant insight, analytical adroitness. Was Bildoon one of those Abnethe had bought? Impossible. But the presence of an ego-frozen Pan Spechi in this situation must have set up enormous traumatic shock waves among that species. And Bildoon was due for ego-collapse soon. What really happened in the Pan Spechi psyche as the moment neared for them to revert to the mindless creche-breeder form? Did it ignite an emotional frenzy of rejection? Did it inhibit thought?

In a voice pitched only for Bildoon's ears McKie asked: "Are you ready to step down as Chief of Bureau?"

"Of course not."

"We've known each other for a long time," McKie whispered. "I think we understand and respect each other. You wouldn't be in the king seat if I'd challenged you. You know that. Now—one friend to another: Are you functioning as well as you should in this crisis?"

Angry contortions fled across Bildoon's face, were replaced by a thoughtful frown.

McKie waited. When it came the ego-shift would send Bildoon into shambling collapse. A new personality would step forth from Bildoon's creche, a sentient knowing everything Bildoon knew but profoundly different in emotional outlook. Had this present shock precipitated the crisis? McKie hoped not. He was genuinely fond of Bildoon.

"What are you trying to do?"

"I'm not trying to expose you to ridicule or speed up any—natural process," McKie said. "But our present situation is too urgent. I'll challenge you for the Bureau directorship and throw everything into an uproar if you don't answer truthfully."

"Am I functioning well?" Bildoon mused. He shook his head. "You know the answer to that as well as I do. But you've a few lapses to explain as well, McKie."

"Haven't we all?"

"That's it," Tuluk said, stepping close to them. He glanced from Bildoon to McKie. "Forgive me—but we Wreaves have extremely acute hearing. I listened. But I must comment: The shock waves —or whatever we wish to call them —which accompanied the departure of the Calebans and left behind such death and insanity that we must buffer ourselves with *angeret* and other—"

"So our thought processes are mucked up," Bildoon said.

"More than that," Tuluk said. "These vast occurrences have left reverberations. The news media will not laugh at McKie. All sentients grasp at answers to the strange unrest we sense. 'Periodic Sentient Madness,' it's called and explanations are being sought every—"

"We're wasting time," McKie said.

"What would you have us do?" Bildoon asked.

"Several things," McKie said. "First, I want Steadyon quarantined, no access to the Beautybarbers of any kind, no movement on or off the planet."

"That's madness. What reason could we give?"

"When does BuSab have to give reasons?" McKie asked. "We have a duty to slow the processes of government."

"You know what a delicate line we walk, McKie."

"The second thing," McKie said, unperturbed, "will be to invoke our emergency clause with the Taprisiots, get notification of every call made by every suspected friend or associate of Abnethe's."

"THEY'LL say we're trying to take over," Bildoon breathed. "If this gets out there'll be rebellion, physical violence. You know how jealously most sentients guard their privacy. Besides, the emergency clause wasn't designed for this. It's an identification and delay procedure within normal—"

"If we don't do this we'll die—and the Taprisiots with us," McKie said. "That should be made clear to them. We need their willing cooperation."

"I don't know if I can convince them," Bildoon protested.

"You'll have to try."

"But what good will these actions do us?"

"Taprisiots and Beautybarbers all operate in some way similar to the Calebans but without as much —power," McKie said. "I'm convinced of that. They're all tapping the same power source with varying effectiveness."

"Then what happens when we shut down the Beautybarbers?"

"Abnethe won't go very long without them."

"She probably has her own platoons of Beautybarbers."

"But Steadyon is their touchstone. Quarantine it and I think Beautybarber activity will stop everywhere."

Bildoon looked at Tuluk.

"Taprisiots understand more than they've indicated about connectives," Tuluk said. "I think they will listen to you if you point out that our last remaining Caleban is about to enter ultimate discontinuity. I think they'll realize the significance of this."

"Explain the significance to me, if you don't mind. If Taprisiots can use these—these— They must know how to avoid the disaster."

"Has anybody asked them?"

"Beautybarbers. Taprisiots," Bildoon muttered. "What else do you have in mind?"

"I'm going back to the Beachball," McKie said.

"We can't protect you as well there."

"I know."

"That room's too small. If the Caleban would come to—"

"She won't move. I've asked."

Bildoon sighed as a human might have. The Pan Spechi had absorbed more than shape when they had decided to copy the human pattern. The differences, though, were profound, and McKie reminded himself of this. Humans could only see dimly into Pan Spechi thoughts. With creche-reversion imminent for this proud sentient—what was he truly thinking? A creche mate would come forth presently, a new personality with all the Bildoon creche's millennial accumulation of data.

McKie pursed his lips, inhaled, blew out.

How did Pan Spechi transfer that data from one unit to another? They were always linked, they said, ego holder and creche mates, dormant and active, slavering flesheater and thinking esthete. Linked? How?

"Do you understand connectives?" McKie asked, staring into Bildoon's faceted eyes.

"I see the way your thoughts wander."

"Well?"

"Perhaps we Pan Spechi share this power," Bildoon said. "But if so, the sharing is entirely unconscious. I will say no more. You come close to invasion of creche privacy."

McKie nodded. Creche privacy was the ultimate defensive citadel of Pan Spechi existence. They would kill to defend it. No logic or reason could prevent the automatic reaction once it was ignited. Bildoon had displayed great friendship in issuing his warning.

"We're desperate," McKie said.

"I agree," Bildoon said, overtones of profound dignity in his voice. "You may proceed as you've indicated."

"Thanks," McKie said.

"It's on your head, McKie," Bildoon added.

"Provided I can keep my head," McKie said. He opened the outer door onto a clamor of newspeople. They were being held back by a harried line of enforcers and it occurred to McKie, grasping this scene in its first impact, that all those involved in this turmoil were vulnerable.

CROWDS already were forming on the morning-lighted palisades above the Beachball when McKie arrived.

News traveled fast, he thought.

Extra squads of enforcers, called in anticipation of this mob scene, held back sentients trying to get to the cliff's edge, barred access to the lava shelf. Aircraft of many kinds were being blocked by a screen of BuSab fliers.

McKie, standing near the Beachball, looked up at the hectic activity. The morning wind carried

a fine mist of sea spray against his cheek. He had taken a jumpdoor to Furuneo's headquarters, left instructions there and used a Bureau flier for the short trip to the lava shelf.

The Beachball's port remained open, he noted. Mixed squads of enforcers milled about in a confused pattern around the Ball, alert to every quarter of their surroundings. Picked enforcers watched through the port where others shared their uneasy guardianship.

It was quite early in Cordiality's day here but real-time relationships confused such arbitrary time systems. It was night at Central's headqurters, evening at the Taprisiot Council Building where Bildoon must still be arguing—and only Immutable Space knew what time it was where Abnethe had her base of operations.

Later than any of them think . . .

McKie shouldered his way through the enforcers, got a boost up through the port and surveyed the familiar purple gloom inside the Beachball. It was noticeably warmer in here out of the wind and spray but not as warm as McKie remembered the place.

"Has the Caleban been talking?" McKie asked a Laclac, one of the enforcers guarding the interior.

"I don't call it talking but the answer is—not recently."

"Fanny Mae," McKie said.

Silence.

"You still there, Fanny Mae?" McKie asked.

McKie? You invoke presence, McKie?

McKie felt he'd registered the words on his eyeballs and relayed them to his hearing centers. The communication was definitely weaker than he remembered.

"How many floggings has she undergone in the past day?" McKie asked the Laclac.

"Local day?" the Laclac asked.

"What difference does it make?"

"I presumed you were asking for accurate data."

"I'm trying to find out if she's been under attack recently," McKie said. "She sounds weaker than when I was here before." He stared toward the giant spoon where the Caleban maintained her unpresence.

"Attacks have been intermittent and sporadic but not very successful," the Laclac said. "We've collected more whips and Palenki arms, although I understand they're not being successfully transmitted to the lab."

McKie invokes presence of Caleban self called Fanny Mae? the Caleban asked.

"I greet you, Fanny Mae," McKie said.

You possess new connective entanglements, McKie, but the pattern of you retains recognition. I greet you, McKie.

"Does your contract with Abnethe still lead us all toward ulti-

mate discontinuity?" McKie asked.

Intensity of nearness, the Caleban said. *My employer wishes speech with you.*

"Abnethe? She wants to talk to me?"

Correct.

"She could have called me any time," McKie said.

Abnethe conveys request through self of me. She asks relay along anticipated connective. This connective you perceive under label of "Now." You hang this?"

"I hang it," McKie growled. "So let her talk."

Abnethe requires you send companions from presence.

McKie demanded, "What makes her think I'd do such a thing?"

It was getting hotter in the Beachball. He wiped perspiration from his upper lip.

Abnethe speaks of sentient motive called curiosity.

"I've my own conditions for a conference," McKie said. "Tell her I won't agree unless I'm assured she'll make no attack on you or on me during our talk."

I give such assurance.

"You give it?"

Probability in Abnethe assurance appears incomplete. Approximate descriptive. Assurance by self runs intense, strong. Direct? Perhaps.

"Why do you give this assurance?"

Employer Abnethe indicates strong desire for talk. Contract covers such—catering? Very close term. Catering.

"You guarantee our safety, is that it?"

Intense assurance, no more.

"No attack during our talk," McKie insisted.

Thus propels connective, the Caleban said.

Behind McKie the Laclac enforcer grunted, said, "Do you understand that gibberish?"

"Take your squad and get out of here," McKie said.

"Ser, my orders—"

"Deface your orders! I'm acting under the cartouche of Saboteur Extraordinary with full discretion from the Bureau Chief himself. Get out."

"Ser," the Laclac said, "during the most recent flogging nine enforcers went mad here despite ingestion of *angeret* and various other chemicals we believed would protect us. I cannot be responsible for—"

"You'll be responsible for a tide station on the nearest desert planet if you don't obey me at once," McKie said. "I will see you packed off to boredom after an official trial."

"I will not heed your threats, Ser," the Laclac said. "However, I will consult Bildoon himself if you so order."

"Consult then, and hurry it. There's a Taprisiot outside."

"Very well." The Laclac saluted, crawled out. His companions in the Beachball continued their restive watch.

They were brave sentients, all of them, McKie thought, to continue this duty in face of the known peril.

Presently, the Laclac reappeared in the port, said. "Ser, I am instructed to obey your orders but to remain outside in visual contact with you, returning to this place at the first sign of trouble."

"If that's the best we can do, that's it," McKie said. "Get moving."

IN A moment McKie found himself alone with the Caleban. The sense that every place in this room lay behind him persisted. His spine itched. He felt increasingly that he was taking too much of a risk.

But there was the desperation of their position.

"Where's Abnethe?" McKie asked. "I thought she wanted to talk."

A jumpdoor opened abruptly to the left of the Caleban's spoon. Abnethe's head and shoulders appeared in it, all subtly pink-hazed by the slowdown of energy within that portal. The light was sufficient, though, for McKie to see subtle changes in Abnethe's appearance. He was gratified to note a harried look to her. Wisps of hair escaped her tight coiffure. Bloodshot veins could be detected in her eyes. Her forehead was wrinkled.

She needed her Beautybarbers.

"Are you ready to give yourself up?" McKie asked.

"That's a stupid question," she said. "You're alone at my command."

"Not quite alone," McKie said.

A sly smile formed on Abnethe's lips.

"You'll note that Fanny Mae has closed the exterior port of her residence."

McKie shot a glance to his left, saw that the port was closed. Treachery?

"Fanny Mae, you promised—"

No attack, the Caleban said. *Privacy.*

McKie imagined the consternation in the enforcers outside right now. But they would never be able to break into the Beachball. He saved his protests, swallowed. The room remained utterly still.

"Privacy, then," he agreed.

"That's better," Abnethe said. "We must reach agreement, McKie. You're becoming somewhat of a nuisance."

"Oh, more than a nuisance, certainly."

"Perhaps."

"Your Palenki, the one who was going to chop me up—I found him a nuisance, too. Maybe even more than a nuisance. Now that I think about it, I recall that I suffered."

Abnethe shuddered.

"By the way," McKie said, "we

know where you are."

"You lie—"

"Not really. You see, you're not where you think you are, Mliss. You think you've gone back in Time. You haven't."

"You lie, I say!"

"I have it pretty well figured out. The place where you are was constructed from your connectives —your memories, dreams, wishes —perhaps even from things you expressly described."

"What nonsense—"

"You asked for a place that would be safe from the apocalypse," McKie said. "Fanny Mae warned you about ultimate discontinuity, of course. She probably demonstrated some of her powers, showed you various places available to you along the connectives of you and your associates. That's when you got your big idea."

"You're guessing," Abnethe said.

Her face was grim. McKie smiled.

"You could stand a little session with your Beautybarbers," he said. "You're looking a bit seedy, Mliss."

She scowled.

"Are they refusing to work for you?" McKie persisted.

"They'll come around."

"When?"

"When they see they've no alternative."

"Perhaps."

"We're wasting time, McKie."

"That's true. What was it you wanted to say to me?"

"We must make an agreement, McKie. Just the two of us."

"You'll marry me, is that it?"

"That's your price?"

"I'm not sure," McKie said. "What about Cheo?"

"Cheo begins to bore me."

"That worries me," McKie said. "I ask myself—how long before I bore you?"

"I realize you're not being sincere," she said, "that you're stalling. I think, however, we can reach agreement."

"What makes you think so?"

"Fanny Mae suggested it."

McKie peered at the shimmering unpresence of the Caleban.

"Fanny Mae suggested it?" he murmured.

And he thought: *Fanny Mae determines her own brand of reality from what she sees of these mysterious connectives. Refined differences — connectives — tangled connectives—a special perception tailored to her particular energy consumption . . .*

SWEAT dripped from his forehead. He rocked forward, sensing that he stood on the brink of a revelation.

"Do you still love me, Fanny Mae?" he asked.

Abnethe's eyes went wide with surprise.

"What?"

Affinity awareness, the Caleban said. *Love equates with this coherence I possess of you, McKie.*

"How do you savor my single-track existence?" McKie asked.

Intense affinity, the Caleban said. *Product of sincerity of attempts at communication. I-self-Caleban love you human-person, McKie.*

Abnethe glared at McKie. "I came here to discuss a mutual problem, McKie," she flared. "I did not anticipate standing aside for a gibberish session between you and this stupid Caleban."

Self not in stupor, the Caleban said.

"McKie." Abnethe's voice was low. "I came to suggest a proposition of mutual benefit. Join me. I don't care what capacity you choose. The rewards will be more than you could possibly—"

"You don't even suspect what's happened to you," McKie said. "That's the strange thing."

"Damn you, I could make an emperor out of you."

"Don't you realize where Fanny Mae has hidden you?" McKie asked. "Don't you recognize this safe—"

"Mliss!"

An angry voice came from somewhere behind Abnethe. The speaker was not visible to McKie.

"Is that you, Cheo?" McKie called. "Do you know where you are, Cheo? A Pan Spechi must suspect the truth."

A hand came into view, yanked Abnethe aside. The ego-frozen Pan Spechi took her place in the jumpdoor opening.

"You're much too clever, McKie," Cheo said.

"How dare you, Cheo!" Abnethe screamed.

Cheo whirled, swung an arm. There was the sound of flesh hitting flesh, a stifled scream, another blow. Cheo bent away from the opening, came back into view.

"You've been in that place before, haven't you, Cheo?" McKie asked. "Weren't you a mewling, empty-minded female in the creche at one period of your existence?"

"Much too clever," Cheo snarled.

"You'll have to kill her, you know," McKie said. "If you don't, it'll all be for nothing. She'll digest you. She'll take over your ego. She'll be you."

"I didn't know this happened with humans," Cheo said.

"Oh, it happens," McKie said. "That's her world, isn't it, Cheo?"

"Her world," Cheo agreed. "But you're mistaken about one thing, McKie. I can control Mliss. So it's my world, isn't it? And another thing—I can control you."

The jumpdoor's vortal tube suddenly grew smaller, darted at McKie.

McKie dodged aside, shouted, "Fanny Mae—"

New connectives, the Caleban said.

McKie executed a sprawling dive across the room as the jumpdoor appeared beside him. It nipped into existence and out like a ravening mouth, narrowly missing McKie. He twisted, leaped—dodged panting through the Beachball's purple gloom, rolled finally under the giant spoon, peered right and left. He shuddered. He hadn't realized a jumpdoor could be moved around so rapidly.

"Fanny Mae," he rasped, "shut off the S'eye, close it down. You promised—no attack!"

No response.

McKie glimpsed an edge of the vortal tube hovering just beyond the spoon bowl.

"McKie." Cheo's voice. "They'll call you long distance in a minute. When they do, I'll have you."

McKie stilled a fit of trembling.

They would call him. Bildoon probably had summoned a Taprisiot already. They would be worrying about him—and he would be helpless in the grip of the call.

"Fanny Mae," McKie yelled. "Close that damn' S'eye."

The vortal tube glittered, shifted up and around to come at him from the side. Cursing, McKie rolled into a ball, kicked backward and over onto his knees, leaped to his feet and flung himself across the spoon handle, scrambled back under it.

The searching tube moved away.

A low crackling came, deepened to thunder. He glanced right, left, back over his head. There was no sign of the deadly opening.

Something snapped sharply above the spoon bowl. A shower of green sparks cascaded around McKie. He rolled, brought up his raygen. A Palenki arm and whip had been thrust through the jumpdoor's opening. It was raised to deliver another blow against the Caleban.

McKie sprayed the raygen's beam across the arm as the whip moved. Arm and whip grazed the far edge of the spoon, brought another shower of sparks.

The jumpdoor winked out of existence.

MCKIE crouched, the after image of the sparks still dancing on his retinas. Now he recalled what he had been trying to remember since watching Tuluk's experiment with the steel.

S'eye removed, Fanny Mae said.

Fanny Mae's voice fell on McKie's forehead, seemed to seep inward to his speech centers. She sounded weak.

Slowly McKie lifted himself to his feet. The Palenki arm and whip lay on the floor. He ignored them.

Shower of sparks . . .

McKie felt strange emotions washing through him, around him. He felt happily angry, satiated with frustrations, words and phrases tumbling through his mind like pinwheels.

That perverted offspring of an indecent union. . .

Shower of sparks—shower of sparks. . .

He knew he had to hold that thought and his sanity no matter what the surging waves of emotion from Fanny Mae did to him.

Shower of—shower—

Was Fanny Mae dying?

"Fanny Mae?"

The Caleban remained silent but the emotional onslaught eased.

McKie knew there was something he had to remember. It concerned Tuluk. He had to tell Tuluk.

Shower of sparks. . .

He had it then.

The pattern that identifies the maker—a shower of sparks. . .

He felt he'd been running for hours, that his nerves were bruised and tangled. His mind was a bowl of jelly. Thoughts quivered through it. His brain was going to melt and run away like a stream of colored fluid. It would spray out of him in a shower.

Shower of—of—sparks. . .

He called, "Fanny Mae?"

A peculiar silence rippled through the Beachball. It was an emotionless silence, something shut off, removed. It made McKie's skin prickle.

"Answer me, Fanny Mae," he said.

S'eye absents itself, the Caleban said.

McKie felt shame, a deep and

possessive sense of guilt. It flowed over him and through him, filled every cell—dirty, muddy, sinful, shameful.

He shook his head. Why should he feel guilt?

Ah. Realization came over him. The emotion came from outside him—from Fanny Mae.

"Fanny Mae," he said, "I understand you could not prevent that attack. I don't blame you. I understand."

Surprise connectives, the Caleban said. *You overstand.*

"I understand."

Overstand? Term for intensity of knowledge? Realization?

"Realization, yes."

Calmness returned to McKie. It was the calmness of something being withdrawn.

Again he reminded himself that he had a vital message for Tuluk.

Shower of sparks.

But first he had to be certain that mad Pan Spechi was not going to return momentarily.

"Fanny Mae," he said, "can you prevent their from using the S'eye?"

Obstructive, not preventive, the Caleban said.

"You mean you can slow them down?"

Explain slow.

"Oh, no," McKie moaned. He cast around in his mind for a Caleban way to phrase his question. How would Fanny Mae say it?

"The next attack, will it be on a short connective or long one?"

Attack series breaks here. You inquire of duration by your time sense. I overstand this. Long line across attack nodes—this equates with more intense duration for your time sense.

"Intense duration," McKie muttered. "Yeah."

Shower of sparks. . .

You signify employment of S'eye by Cheo, the Caleban said. *Spacing extends at this place. Cheo goes farther down your track. I overstand intensely for McKie. Yes?*

Farther down my track, McKie thought. He gulped as realization hit him. What had Fanny Mae said earlier?

See us to the door! I am S'eye!

He breathed softly lest sudden motion dislodge this brutal clarity of understanding.

Overstanding.

He thought of energy requirements. Enormous. *I am S'eye!* and: *Self energy—by being stellar mass!* To do what they did in this dimension Caleban's required the energy of a stellar mass. She inhaled the whip. She said it herself they sought energy here. The Calebans fed in this dimension.

McKie considered the refined discrimination Fanny Mae must possess even to attempt communication with him. It would be as though he immersed his mouth in water and tried to talk to a single micro-organism there.

"We have to go right back to the beginning," he said.

Many beginnings exist for each entity, the Caleban said.

McKie sighed.

Sighing, he was seized by a Taprisiot contact.

Bildoon.

"I'm glad you waited," McKie said, cutting off Bildoon's first, anxious inquiries. "Here's what I want you to—"

"McKie, what's going on there?" Bildoon insisted. "There are dead enforcers all around you, madmen, a riot—"

"I seem to be immune," McKie said, "or else Fanny Mae is protecting me some way. Now listen to me. We don't have much time. Get Tuluk. He has a device for identifying the patterns that originate in the stress of creation. He's to bring that device here—right here to the Beachball. And fast."

XIII

IN THE hushed stillness within the Beachball McKie leaned against a curved wall, sipped icewater from a thermocup. He watched Tuluk set up the needed instruments.

"What's to prevent our being attacked while we work?" Tuluk asked. He rolled a glowing loop on a squat stand into position near the Caleban's unpresence. "You should have let Bildoon send in some guards."

"Like those who were foaming at the mouth outside?"

"There's a fresh crew outside there now."

Tuluk did something that made the glowing loop double its diameter.

"They'd only get in the way," McKie said. "Besides, Fanny Mae says the spacing isn't right for Abnethe." He sipped ice water. The Ball had achieved something approaching sauna temperature but without the humidity.

"Spacing," Tuluk said. "Is that why Abnethe keeps missing you?" He produced a black wand from his instrument case. The wand was about a meter long. He adjusted a knob on its handle and the glowing loop contracted. The squat stand beneath the loop began to hum—an itch-producing middle-C.

"They miss me because I have a loving protector," McKie said. "It isn't every sentient who can say a Caleban loves him."

"What is that you're drinking?" Tuluk asked. "Is that one of your mind disrupters?"

"You're very funny," McKie said. "How much longer are you going to fiddle with that gear?"

"I am not fiddling. Don't you realize this isn't portable equipment? It must be adjusted."

"So adjust."

"The high temperature in here complicates my readings," Tuluk complained. "Why can't we have the port open?"

"For the same reason I didn't let any guards in here. I'll take my chances without having them complicated by a mob of insane sentients getting in my way."

"But must it be this hot?"

"Can't be helped," McKie said. "Fanny Mae and I have been talking, working things out."

"Talking?"

"Hot air," McKie said.

"Ah, you make a joke."

"It can happen to anyone," McKie said. "I keep asking myself if what we see as a star is all of a Caleban or just part of one. I opt for part."

He drank deeply of the ice water, discovered there was no more ice in it. Tuluk was right. It was damnably hot in here.

"That's a strange theory," Tuluk said.

He silenced the humming of his instrument case. In the abrupt stillness, something else in the case could be heard ticking. It was not a peaceful sound. It had the feeling of a timing device affixed to a bomb. It counted moments in a deadly race.

"There," Tuluk said.

"You ready?" McKie asked.

"I will be ready presently. Why does the Caleban not speak?"

"Because I asked her to save her strength."

"What does she say of your theory?"

"She thinks I have achieved truth."

Tuluk took a small helix from his instrument case, inserted it into a receptacle at the base of the glowing ring.

"Come on, come on," McKie jittered.

"Your urgings will not reduce the necessary time for this task," Tuluk said. "For example, I am hungry. I came without stopping to break my daily fast. This does not press me to a speed that might produce errors, nor does it arouse me to complaint."

"Aren't you complaining?" McKie asked. "You want some of my water?"

"I had water two days ago," Tuluk said.

"And we wouldn't want to rush you into another drink."

"I do not understand what pattern you hope to identify," Tuluk said. "We have no records of artisans for a comparison of—"

"This is something God made," McKie said.

"You should not jest about deities," Tuluk said.

"Are you a believer or just playing safe?" McKie asked.

"I was chiding you for an act that might offend some sentients," Tuluk said. "We have a hard enough time bridging the sentient barriers without raising religious issues."

"Well, we've been spying on God—or whatever—for a long time," McKie said. "That's why we're going to get a spectroscopic

record of this. How much longer you going to be at this fiddling?"

"Patience, patience," Tuluk muttered.

He reactivated the wand, waved it near the glowing ring. Again, the instrument began humming, a higher note this time. It grated on McKie's nerves. He felt it in his teeth and along the skin of his shoulders. It itched inside him where he couldn't scratch.

"Damn this heat!" Tuluk said. "Why will you not have the Caleban open a door to the outside?"

"I told you why."

"Well, it doesn't make this task any easier!"

"You know," McKie said, "when you called me and saved my skin from that Palenki chopper—the first time, remember? Right afterward you said you'd been tangled with Fanny Mae and you said a very odd thing.

"Oh?" Tuluk had extended a small mandible and was making delicate adjustments to a knob on the case below the glowing ring.

"You said something about not knowing that was where you lived. Remember that?"

"I will never forget it." Tuluk bent his tubular body across the glowing ring, stared back through it while passing the wand back and forth in front of the ring's opening.

"Where was that?" McKie asked.

"Where was what?"

"Where you lived."

"That? There are no words to describe it."

"Try."

Tuluk straightened, glanced at McKie. "It was a bit like being a mote in a vast sea and experiencing the warmth, the friendship of a benign giant."

"That giant the Caleban?"

"Of course."

"That's what I thought."

"I will not answer for inaccuracies in this device," Tuluk said. "But I don't believe I can adjust it any closer. Given a few days, some shielding—there's an odd radiation pattern from that wall behind you—and projection dampers, I might, I just might achieve a fair degree of accuracy. Now? I cannot be responsible."

"And you'll be able to get a spectroscopic record?"

"Oh, yes."

"Then maybe we're in time," McKie said.

"For what?"

"For the right spacing."

"Ah, you mean the flogging and the subsequent shower of sparks?"

"That's what I mean."

"You could not flog her yourself, gently?"

"Fanny Mae says that wouldn't work. It has to be done with violence—and the intent to *create intensity of anti-love* or it won't work."

"Oh. How odd. You know, McKie, I believe I could use some

of your water after all. It's the heat in here."

THERE was a popping sound, a stopper being pulled from a bottle. Air pressure dropped slightly in the Beachball and McKie experienced the panic notion that Abnethe had somehow opened them onto a vacuum that would drain away their air and kill them. The physicists said this couldn't be done, that the gas flow, impeded by the adjustment barrier within the jumpdoor, would block the opening with its own collision breakdown. McKie suspected, though, that the physicists did not know everything they pretended to know about S'eye phenomena.

He missed the jumpdoor's vortal tube at first. Its plane was horizontal and directly above the Caleban's spoon bowl.

A Palenki arm and whip shot through the opening, delivered a lashing blow to the area occupied by the Caleban's unpresence. Green sparks showered the air.

Tuluk, bending over his instruments, muttered excitedly.

The Palenki arm drew back, hesitated.

"Again—again."

The voice through the jumpdoor was unmistakably that of Cheo.

The Palenki delivered another blow and another.

McKie lifted his raygen, dividing his attention between Tuluk and that punishing whip. Did Tuluk have his readings? No telling how much more of this the Caleban could survive.

Again the whip lashed. Green sparks glimmered and fell.

"Tuluk, do you have enough data?" McKie demanded.

Arm and whip jerked back through the jumpdoor.

A curious silence settled over the room.

"Tuluk?" McKie hissed.

"I believe I have it," Tuluk said. "It's a good recording. I will not vouch for comparison and identification, however."

McKie grew aware that the room wasn't really silent. The thrumming of Tuluk's instruments formed a background for a murmur of voices coming through the jumpdoor.

"Abnethe?" McKie called.

The opening tipped, gave him a three-quarter view of Abnethe's face. There was a purple bruise from her left temple down across her cheek. A silver noose held her throat, its end firmly in the grip of a Pan Spechi hand.

Abnethe, McKie saw, was trying to control a rage which threatened to burst her veins. Her face was alternately pale and flushed. She held her mouth tight, lips in a thin line. Compressed violence radiated from every pore.

She saw McKie.

"See what you've done?" she shrieked.

McKie pushed himself away

from the wall, fascinated. He approached the jumpdoor.

"What I did? That looks more like Cheo's handiwork."

"It's all your fault."

"Oh? That was clever of me."

"I tried to be reasonable," she rasped. "I tried to help you, save you. But no—you treated me like a criminal. This is the thanks I got from you."

She gestured at the noose around her throat.

"What did I do to deserve this?"

"Cheo's voice came from a point beyond the arm gripping the noose.

"Tell him, Mliss."

Tuluk, who had been ignoring the exchange, busying himself with his instruments, turned to McKie.

"Remarkable," he said. "Truly remarkable."

"Tell him." Cheo insisted as Abnethe held a stubborn silence.

Both Abnethe and Tuluk began talking at once. It came through to McKie as a mixed jumble of noises.

"Youinterstellfrederhydrowithgenlawmassfulexecufrom—"

"Shut up!" McKie shouted.

Abnethe jerked back, shocked to silence, but Tuluk went right on: "—and that makes it quite certain there's no mistaking the spectral absorption pattern. It's a star, all right. Nothing else would give us the same picture."

"But which star?" McKie asked.

"Ahh, that's the question," Tuluk said.

Cheo pushed Abnethe aside, took her place in the jumpdoor. He glanced at Tuluk, at the instruments. "What's all this, McKie? Another way to interfere with our Palenkis? Or did you come back for a new game of ring around your neck?"

"We've discovered something you might like to know," McKie said.

"What could you discover that would possibly interest me?"

"Tell him, Tuluk," McKie said.

"Fanny Mae exists somehow in intimate association with a stellar mass," Tuluk said. "She may even be a stellar mass—at least as far as our dimension is concerned."

Not dimension, the Caleban said. *Wave.*

HER voice barely reached McKie's awareness but the words were accompanied by a rolling surge of misery that rocked him and set Tuluk to shuddering.

"Wha-wha-what w-w-was th-th-that?" Tuluk managed.

"Easy, easy," McKie cautioned. He saw that Cheo had not been touched by that sea of emotion. At least, the Pan Spechi remained impassive.

"We'll have Fanny Mae identified shortly," McKie said.

Identity, the Caleban said, her communication coming through with more strength but with an icy withdrawal for emotion, *refers to unique self-understanding quality*

as it deals with self-label, self-abode and self-manifestations. You not me hang yet, McKie. You hang term yet? Self-I overstand your Time node.

"Hang?" Cheo asked, jerking the noose around Abnethe's neck.

"A simple old-fashioned idiom," McKie said. "I imagine Mliss gets the hang of it."

"What are you talking about?" Cheo asked.

Tuluk took the question as having been directed to him.

"In some way," he said, "Calebans manifest themselves in our universe as stars. Every star has a pulse, a certain unique rhythm, a never-duplicated identity. We have Fanny Mae's pattern recorded now. We're going to run a tracer on that pattern and try to identify her as a star."

"A stupid theory like that is supposed to interest me?" Cheo demanded.

"It had better interest you," McKie said. "It's more than a theory now. You think you're sitting in a safe hidey-hole. All you have to do is eliminate Fanny Mae—that's supposed to eliminate our universe and leave you out there the only sentients anywhere? Is that it?"

"Calebans don't lie," Cheo snarled.

"But I think they can make mistakes," McKie said.

Proliferation of single-tracks, the Caleban said.

McKie shuddered at the icy wave that accompanied the words.

"If we discontinue, will Abnethe and her friends still exist?" he asked.

Different patterns with short limit on extended connectives, the Caleban said.

McKie felt the ice invade his stomach. He saw that Tuluk was trembling, facial slit opening and closing.

"That was plain enough, wasn't it?" McKie asked. "You'll change somehow and you won't live very long after us."

No branchings, the Caleban said.

"No offspring," McKie translated.

"This is a trick," Cheo snarled. "She's lying."

"Caleban's don't lie," McKie reminded him.

"But they can make mistakes."

"The right kind of mistake could ruin everything for you," McKie said.

"I'll take my chances," Cheo said. "And you can take—"

The jumpdoor winked out of existence.

"S'eye alignment difficult, the Caleban said. *You hang difficult? More intense energy requirement reference. You hang?*

"I understand," McKie said.

He mopped his forehead with a sleeve.

Tuluk extended his long mandible, waved it agitatedly.

"Cold," he said. "Cold-cold-cold-cold."

"I think she's holding on by a thin thread," McKie said.

Tuluk's torso rippled as he inhaled deeply into his outer trio of lungs.

"Shall we take our records back to the lab?" he asked.

"A stellar mass," McKie muttered. "Imagine it. And all we see here is this—this bit of nothing."

Not put something here, the Caleban said. *Self-I put something here and uncreate you. McKie discontinues in presence of I-self.*

"Do you hang that, Tuluk?" McKie asked.

"Hang? Oh, yes. She seems to be saying that she can't make herself visible to us because that'd kill us."

"That's the way I read it," McKie said. "Let's get back and start that comparison search."

You expend substance without purpose, the Caleban said.

"What now?" McKie asked.

Flogging approaches and I-self discontinue.

McKie put down a fit of trembling.

"How far away, Fanny Mae?"

Time reference by single-track difficult, McKie. Your term—soon.

"Right away?" McKie asked and held his breath.

Ask you of intensity immediate?

"Probably," McKie whispered.

Probability, the Caleban said. *Energy necessity of self-I extends alignment. Flogging not—immediate.*

"Soon, but not right away," Tuluk said.

"She's telling us she can take one more flogging and that's the last one," McKie said. "Let's move. Fanny Mae, is there a jump-door available to us?"

"Available, McKie. Go with love."

One more flogging, McKie thought as he helped Tuluk gather up the instruments. Buy why was a flogging so deadly to the Caleban? Why a flogging when other energy forms apparently didn't touch them?

XIV

AT SOME indeterminate moment—and that soon—the Caleban was going to be lashed by a whip and it would die. The half-mad possibility was about to become apocalyptic reality and the sentient universe would end.

McKie stood disconsolately in Tuluk's personal lab, intensely aware of the mob of enforcer guards around them.

Go with love.

The computer console above Tuluk's position at the bench flickered and chittered.

Even if Tuluk identified Fanny Mae's star—what could be done with the new knowledge?

"Is it possible," Tuluk asked,

"that the Calebans created this universe? Is this their garden patch? I keep remembering Fanny Mae saying it would uncreate us to be in her presence."

He leaned against his bench, mandibles withdrawn, face slit open just enough to permit him to speak.

"Why's the damn computer taking so long?" McKie demanded.

"The pulse problem's very complicated, McKie. The comparison required special programing. You haven't answered my question."

"I don't have an answer. I hope those numbies we left in the Beachball know what to do."

"They'll do what you told them to do," Tuluk chided. "You're a strange sentient, McKie. I'm told you've been married more than fifty times. Is it a breach of good manners to discuss this?"

"I never found a woman who could put up with a Saboteur Extraordinary," McKie muttered. "We're hard creatures to love."

"Yet the Caleban loves you."

"She doesn't know what we mean by love." He shook his head. "I should've stayed at the Beachball."

"Our people will interpose their own bodies between the Caleban and any attack," Tuluk said. "Would you call that love?"

"That's self-preservation," McKie snarled.

"It's a Wreave belief that all love is a form of self-preservation," Tuluk said. "Perhaps this is what our Caleban understands."

"Hah!"

"It's a probability, McKie, that you've never been overly concerned about self-preservation, thus have never really loved."

"Look—would you stop trying to distract me with your babbling nonsense?"

"Patience, McKie. Patience."

"Patience, he says." McKie jerked himself into motion, paced the length of the lab, the guardian enforcers dodging out of his way. He returned to Tuluk, stopped. "What do stars feed on?"

"Stars? Stars don't feed."

"She inhales something here and she feeds here," McKie muttered. He nodded. "Hydrogen."

"What's this?"

"Hydrogen," McKie repeated. "If we opened a big enough jumpdoor— Where's Bildoon?"

"He's conferring with the ConSent representatives over our high-handed actions in quarantining the Beautybarbers. It's also a distinct possibility that our dealings with the Taprisiots have leaked out. Governments do not like this sort of action, McKie. Bildoon is trying to save your skin and his own."

"But there's plenty of hydrogen," McKie said.

"What is this of jumpdoors and hydrogen?"

"Feed a cold and starve a fever," McKie said.

"You are not making sense,

McKie. Did you take your *angeret* and normalizers?"

"I took them."

The computer's readout chamber made a chewing sound, spewed forth a quadruple line of glowing characters that danced in the chamber and resolved themselves into legible arrangements. McKie read the message.

"Thyone," Tuluk said, reading over his shoulder.

"A star in the Pleiades," McKie said.

"We call it Drnlle," Tuluk said. "See the Wreave characters in the third row? Drnlle."

"Any doubt of this identification?"

"You joke."

"Bildoon," McKie hissed. "We have to try it."

He spun around, pounded out of the lab, dodged through Tuluk's assistants in the outer area. Tuluk darted in his wake, drawing their enforcer guardians into a thin line close behind.

"McKie," Tuluk called. "Where are you going?"

"To Bildoon—then back to Fanny Mae."

NOTHING could stop him now, Cheo told himself.

Mliss would die in a few minutes, deprived of air in the Beauty-barber tank where he had confined her. The others on their refuge world would then have to follow him. He would control the S'eye and the threads of power.

Cheo stood in his quarters, the S'eye controls near at hand. It was night outside but all things remained relative, he reminded himself. Dawn would be breaking soon where the Caleban's Beachball rested above the surf on Cordiality.

The Caleban's ultimate dawn—the dawn of ultimate discontinuity. That dawn would slip into eternal night on all the planets that shared a universe with the doomed Caleban.

In just a few minutes, this planet-of-the-past where he stood would reach its point of proper connectives with Cordiality. And the Palenki waiting across the room there would do what it had been commanded to do.

Cheo rubbed the scars on his forehead.

There would be no more Pan Spechi to point accusing fingers at him, to call him with ghostly voices. Never again would there be a threat to the ego he had secured to himself.

No one could stop him.

Mliss could never come back from death to stop him. She must be gasping in the sealed tank by now, straining for oxygen that did not exist.

And McKie. The Saboteur Extraordinary had proved to be elusive and annoying but no way remained for him to stop the apocalypse.

Just a few more minutes now.

Cheo looked at the reference dials on the S'eye controls. They moved so slowly it was difficult to detect any change while you kept your eyes on them. But they moved.

He crossed to the doors opening to the balcony, drew a questioning stare from the Palenki and stepped outside. There was no moon but many stars shone in patterns alien to a Pan Spechi. Mliss had ordered a strange world here with its bits of ancient history from her Terran past, its odds and ends of esoterica culled from the ages.

Those stars, now. The Caleban had assured them no other planets existed here—yet there were stars. If those were stars. Perhaps they were only bits of glowing gas arranged in patterns Mliss had requested.

This would be a lonely place after the other universe was gone, Cheo realized. And there would be no escaping those starry patterns, reminders of Mliss.

But he would be safe here from pursuit—because there would be no pursuers.

He glanced back into the lighted room.

How patiently the Palenki waited, eyes lidded, motionless. The whip dangled limply from its single hand. Crazy anachronism of a weapon—but it worked. Without that wild conjunction of Mliss and her kinky desires they would never have discovered the thing about the weapon, never have found this world and the way to isolate it forever.

Cheo savored the thought of forever. That was a very long time. Too long, perhaps. The thought disturbed him. Loneliness forever.

He cut off these thoughts, looked once more at the S'eye dials. The pointers had moved a hair closer to the curtained moment. They would coincide presently.

Not looking at the pointers, not looking anywhere, really, Cheo waited. Night on the balcony was full of the odors Mliss had gathered—exotic blooms, scents and musks of rare life forms, exhalations of myriad species she had brought to share her Ark.

Ark. That was an odd name she'd given this place. Perhaps he would change that—later. Creche? No. The word carried painful reminders.

Why were there no other planets? Surely the Caleban could have provided other planets. But Mliss had not ordered them created.

Only the thinnest of lines separated the pointers on the S'eye dials.

Cheo went back into the room, called the Palenki.

The squat turtle shape stirred itself to action, came to Cheo's side. The thing looked eager. Palenkis enjoyed violence.

Cheo felt suddenly empty but there was no turning back. He put his hands to the controls—humanoid hands. They, too, would remind him of Mliss. He turned a knob. It felt oddly alien to his touch but he stifled all uneasiness, all regrets, concentrated on the pointers.

They flowed into each other and he opened the jumpdoor.

"Now," he commanded.

MCKIE heard the Pan Spechi's shouted command as the jumpdoor's vortal tube leaped into existence within the Beachball. The opening dominated the room, filled the purple gloom with bright light. The light came from behind two figures revealed by the opening—a Palenki and the Pan Spechi, Cheo.

The vortal tube began swelling to dangerous dimensions within the confined room. Wild energies around its rim hurled enforcer guardians aside. Before they could recover, the Palenki arm thrust into the room, lashed out with its whip.

McKie gasped at the shower of green and golden sparks around the Caleban. Golden! Again the whip struck. More sparks glittered, fell, shimmered into nothingness.

"Hold!" McKie shouted as the enforcers recovered and moved to attack. He wanted no more casualties from a closing jumpdoor. The enforcers hesitated.

Once more the Palenki lashed out with its whip.

Sparks glowed, fell.

"Fanny Mae," McKie called.

I reply, the Caleban said.

McKie felt the abrupt rise in temperature but the emotion accompanying the words was calm, soothing—and powerful.

The enforcers jittered, their attention darting from McKie to the area where the Palenki arm continued its vicious play with the whip. Each stroke sent a shower of golden sparks into the room.

"Tell me of your substance, Fanny Mae," McKie said.

My substance grows, the Caleban said. *You bring me energy and goodness. I return love for love and love for hate. You give me strength for this, McKie.*

"Tell me of discontinuity," McKie said.

Discontinuity withdraws! A definite elation was in the Caleban's words. *I do not see node of connectives for discontinuity. My companions shall return in love.*

McKie inhaled a deep breath. It was working. But each new flow of Caleban words brought its blast from the furnace. That, too, spoke of success. He mopped his forehead.

The whip continued to rise and fall.

"Give up, Cheo," McKie called.

"You've lost." He peered up through the jumpdoor. "We're feeding her faster than you can rob her of substance."

Cheo barked an order to the Palenki. Arm and whip withdrew.

"Fanny Mae," the Pan Spechi called.

There was no answer but McKie sensed a wave of pity.

Did she pity Cheo?

"I command you to answer me, Caleban," Cheo called "Your contract orders you to obey."

I obey holder of contract only, the Caleban said. *You share no connectives with holder of contract.*

"She ordered you to obey me."

McKie held his breath, watch-

ing, waiting for his moment to act. It must be done with precision. The Caleban had been lucidly clear about that—for once. There could be little doubt of the communication.

Abnethe gathers lines of her world into herself.

That was what Fanny Mae had said and the meaning seemed clear. When Fanny Mae summoned Abnethe a sacrifice must be made. Abnethe had to die and her world would die with her.

"Your contract," Cheo insisted.

Contract declines of intensity, the Caleban said. *On this new track you must address me as Thyone. Name of love I receive from McKie—Thyone.*

"McKie, what have you done?" Cheo demanded. He poised his fingers over the S'eye controls. "Why doesn't she respond to the whipping?"

"She never really did respond to a whipping," McKie said. "She responded to the violence and the hate that went with it. And that took a lot of energy. She's almost pure emotion, you know. That's how the universe goes, Cheo."

Where was Abnethe?

Cheo motioned to the Palenki, hesitated as McKie said, "It's no use, Cheo. We're feeding her faster than you can drain her."

"Feeding her?" Cheo bent his scarred head forward to peer at McKie.

"We've opened a giant jumpdoor in space," McKie said. "It's gathering free hydrogen and feeding it directly into Thyone."

"What is this—this Thyone?" Cheo demanded.

"The star that is a Caleban," McKie said.

"What are you talking about?"

"Haven't you guessed?"

He gave a subtle hand signal to the enforcers. Abnethe still had not shown up. Perhaps Cheo had confined her somewhere. That changed things to the contingency plan. They were going to have to try getting a sentient through the jumpdoor.

The enforcers, responding to his signal, began moving closer to the opening. Each held a raygen.

"Guessed what?" Cheo asked.

I have to keep him distracted, McKie thought.

"Calebans manifest themselves in our universe several ways," he said. "They're stars, suns—which may really be feeding orifices. They created these Beachballs—which are probably intended as much to protect us as they are to house the speaking manifestation. Even with the Beachball's damping force they can't hold back all the radiant energy of their speech. That's why it gets so hot in here."

McKie glanced at his ring of enforcers. They were moving closer and closer to the jumpdoor.

"Stars?" Cheo asked.

"This particular Caleban has been identified," McKie said. "She's Thyone in the Pleiades."

"But—the S'eye effect—"

"Star-eyes," McKie said. "At least, that's how I interpret it. I'm probably only partly right, but Thyone here admits she and her kind suspected the truth during their first attempts at communication."

Cheo moved his head slowly from side to side.

"The jumpdoors—"

"Star-powered," McKie said. "We've known from the first they required stellar energies to breach space that way. The Taprisiots gave us a clue when they spoke of imbedments and crossing Caleban connectives to—"

"You talk nonsense," Cheo

growled. "Is it not nonsense?"

"Undoubtedly," McKie agreed. "But it's a nonsense that moves reality in our universe."

"You think you'll distract me while your companions prepare to attack," Cheo said. "I will now show you another reality in your universe."

He twisted the jumpdoor controls.

"Thyone," McKie shouted.

The jumpdoor's opening began moving toward McKie.

I reply to McKie, the Caleban said. *Cheo discontinues connectives.*

The jumpdoor continued moving toward McKie but he saw that Cheo appeared to be having trouble with the controls. McKie moved aside as the opening passed through the space where he had been.

"Stop him," McKie called.

Cheo stops himself, the Caleban said.

McKie sensed a definite wave of compassion with the words.

The jumpdoor opening turned on its axis, advanced once more on McKie. It moved a bit faster this time.

McKie dodged aside, scattering enforcers. Why weren't the damned fools trying to get through the opening? Afraid of being cut up? He steeled himself to dive through the opening on the next pass. Cheo had been conditioned to the thought of fear now. He wouldn't expect attack from someone who feared him. McKie swallowed in a dry throat. He knew what would happen to him. The molasses delay in the vortal tube would give Cheo just enough time. McKie would lose both legs—at the very least. He'd get through with a raygen, though, and Cheo would die. Given any luck, Abnethe could be found—and she would die, too.

Again the jumpdoor plunged toward McKie.

He leaped, collided with an enforcer who had chosen the same instant to attack. They sprawled on hands and knees as the vortal tube slipped over them.

McKie saw Cheo's gloating face, the hand jerking at the controls. He saw a control arm snap over, heard a distant crackling as the jumpdoor ceased to exist.

Someone screamed.

McKie felt himself considerably surprised to be still on hands and knees in the purple gloom of the Beachball's interior. He held his position, allowed his memory to replay that last glimpse of Cheo. It'd been a ghostly vision, smoky substance visible through the Pan Spechi's body—and the visible substance had been that of the Beachball's interior.

Discontinuity dissolves contract, the Caleban said.

McKie climbed slowly to his feet. "What does that mean, Thyone?"

Statement of fact with meaning intensity-truth only for Cheo and companions, the Caleban said. *Self cannot give meaning to McKie for substance of another.*

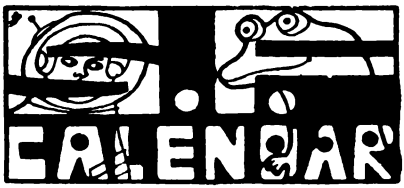
McKie nodded.

"That universe of Abnethe's was her own creation," he murmured. "A figment of her imagination."

Explain figment, the Caleban said.

CHEO experienced the instant of Abnethe's death as a gradual dissolution of substance around and within him. Walls, floor, S'eye controls, ceiling, world—everything faded into nonbeing. He felt all the haste of his existence swollen into one sterile instant. And he found himself for a transitory moment sharing with the shadows of the nearby Palenki and other more distant islands of movement a place of existence which the mystics of his own species had never contemplated. It was, however, a place which an ancient Hindu or a Buddhist might have recognized—a place of Maya, illusion, a formless void possessed of no qualities.

The moment passed abruptly and Cheo ceased to exist. Or it could be said that he discontinued in becoming one with the void-illusion. One cannot, after all, breathe an illusion or a void. ●



March 27-29, 1970. BOSKONE. At the Statler Hilton, Boston. For information: Anthony Lewis, 33 Unity Avenue, Belmont, Mass. 02178.

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March 27-29, 1970. SFCon '70. At Hilton Inn, San Francisco Airport, California. Pro Guests of Honor: Miriam Allen de Ford and L. Hoffman Price. Fan Guest of Honor: Felice Rolfe. Memberships: $3.00 now, $4.00 after January 1st, $5.00 at the door. For information: Quinn Yarbro, 369 Colusa # 5, Berkeley, Calif. 94707.

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April 3-5, 1969. MINICON 3. At Hotel Dyckman, Minneapolis. Speakers: Clifford D. Simak, Gordon R. Dickson, Charles DeVet, Lin Carter. Membership: $2.00. For information: Steve Popper, 2816 Glenhurst Avenue, St. Louis Park, Minnesota 55416.

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April 10-12, 1970. LUNACON/LASTFRCON. At the Hotel McAlpin, Herald Square, New York City. Advance registration: $2.00. For information and registration Devra

Langsam, 250 Crown Street, Brooklyn, New York 11225.

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May 15-17, 1970. DISCLAVE. At the Skyline Inn, South Capitol and "Eye" Streets, S.W. Washington, D.C. 20024. Guest-of-honor: Will (Murray Leinster) Jenkins. For information: Jay Haldeman, 1244 Woodbourne Avenue, Baltimore, Md.

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June 18-21, 1970. MULTICON-70. At the Skirvin Hotel, Oklahoma City, Oklahoma. Guests: Jim Harmon, R.A. Lafferty. Membership: $3.50. For information: David Smith, 133 Mercer Street, Ponca City, Oklahoma 74601.

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June 29-*August* 7, 1970. CLARION WRITERS' WORKSHOP IN SCIENCE FICTION AND FANTASY. Visiting lecturers: Samuel R. Delany, Harlan Ellison, Damon Knight, Fritz Leiber, Kate Wilhelm. Participants may register for two, four or six weeks. For information: Robin Scott Wilson, English Department, Clarion State College, Clarion, Pa.

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July 3-5, 1970. WESTERCON XXIII. Will be held in Santa Barbara, California. Guest of Honor: Jack Williamson; Fan Guest of Honor: Rick Sneary. Memberships: $3.00 through June 22; $5.00 at the door. For information: Westercon XXIII. Box 4456, Downey, California 90241.

July 17-19, 1970. PhLANGE. At the Chatham Center Motor Lodge, Center Avenue, Pittsburgh, Pennsylvania Guest-of-Honor: Harlan Ellison; GoH Emeritus: Robert Silverberg. Features: Panels, parties, movies, banquet. Membership: $2.00 in advance; $2.50 at the door. For information: Suzanne Tompkins, 5830 Bartlett Street, Pittsburgh, Pennsylvania 15213.

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August 14-16, 1970. AGACON 70. Memberships: Supporting, $1.50; Attending $2.50. For information: AGACON 70, Box 10885, Atlanta, Georgia 30310.

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August 21-23, 1970. TORONTO FAN FAIR. At the King Edward Sheraton Hotel, Toronto, Canada. Guests-of-Honor: Anne McCalffrey, Isaac Asimov. Membership: $2.00 in advance. For information: Peter Gill, 18 Glen Manor Drive, Toronto, Ontario, Canada.

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August 21-24, 1970. 28th WORLD SCIENCE FICTION CONVENTION: HELICON INTERNATIONAL. In Heidelberg, West Germany. The accent of this con will be an international one, with fans and pros coming from all over the world. Guests-of Honor: Robert Silverberg (USA), Ted Tubb (England) and Dr. Herbert W. Franke (Germany). Toastmaster: Lester del Rey. For information: HELICON 70, 6272 Niedernhausen, West Germany.

(Continued from page 2)

tury. It's a huge book, huge enough to justify the price of $12.50. And to anyone except the most incurable completist, it should serve as an excellent sampling.

There are 1122 daily strips included, as well as a full-color section with 64 of the Sunday episodes. This represents almost four years of daily reading and a year and a quarter of the Sunday features. In addition, there is a spate of supplemental material. The editor, Robert C. Dille, tells how his father suggested the idea of the comic strip to writer Phil Nowlan and brought Dick Calkins in as illustrator. Ray Bradbury adds further history, along with a nostalgic appreciation. And to make everything clear, Nowlan and Calkins give a summary of everything they conceived for the 25th Century. At the end of the book, the first script for the radio serial is presented, together with promotional material.

Quite properly, the early years receive the most attention in the book. Almost all the strips from the first year are included, together with all major episodes through 1931. Then there is a 1938 transition piece, followed by samples of the work from 1942 on, after the death of Nowlan; these are both written and drawn by Calkins. The full-color section (awkwardly stuck in the middle of the first year of daily strips) shows the art of Rick Yager, first with Nowlan's writing and then with his own.

And what does it all add up to?

This is a difficult question. I suspect part of the answer depends on how much the reader remembers of the strip and of the period. In any event, response is sure to vary from fascination to shocked annoyance. It's a mixed bag, and by no means what my memory of it made me expect.

Of course, it's totally unfair to read a comic strip in book format. It was plotted and drawn to be read with each tiny section separated by a full day from the next. Cramming a year of strips in a few hours inevitably exaggerates any faults and ruins the pacing. Episodes that use the same trick situation—such as some band of cowboys, Indians or gangsters left over into the 25th Century—become boringly repetitive on quick reading, though I cannot remember noticing this when the strip and I were both young. And the off-again-on-again love story was really not so silly when spread over months of reading, I'm sure.

It may also seem unfair to approach the work with a mind attuned to a world forty years beyond the publishing traditions of its creation. But on this, I feel time may actually aid critical insight, and the later reading may well be the genuinely fair one.

Some of the crudities in the strip can never be forgiven. They prob-

ably reflect an attitude common among readers in 1929—so common as to be taken for granted without question—but the attitude was still wrong. Here the book serves as a valuable historical reminder of how we got into some of our current men, but hardly as a beacon to guide our steps out of the errors of our past.

This is an American WASP's vision of the future. The Mongols are the villains originally. They are simply evil and vile, while Americans are mostly brave and noble (aside from Killer Kane, who sold out to the Mongols). Buck, as a man from the pure 1929 American tradition, is naturally even more of a good guy than anyone else, but all native white Americans tend to pretty noble. And later, when we meet races from other worlds, we find that they also lack the nobility inherent in being American and White and Two-Fisted and Pure beyond any shred of self-doubt. In fact, most are so dratted pure that there is hardly a touch of individual character to them.

One can only wonder how much influence such work might have had on the jingoism that led us to intern our Japanese during World War II. And how many of our soldiers in Korea looked at the men they chose to call "Gooks" with attitudes colored by such anti-oriental feeling as one finds here? It may be that the attitude was already thoroughly imbued, and the comic strips were only a symptom; but certainly reinforcing such ideas could not have helped any.

In some ways the art shows this distortion even more than the story material. The Asiatics are presented as stereotypes of the Yellow Menace. Every face must sneer, all canines must be too long, most faces must be adorned with long drooping mustaches (this was at a time when facial hair wasn't worn by upright and noble WASPs). Even in the later strips, the Martians are recognizably evil. They are pock-marked, have faces pitted with acne, or show some other such unfailing sign of evil.

The art, incidentally, does improve as time goes on. At the beginning, it was crude even for the period. The pictures of Buck and Wilma, Black Barney and Doctor Huer that we have in our mind must be from the Sunday features drawn by Rick Yager, which gradually influence the daily strip; certainly the early black-and-whites show little resemblance to the characters I thought I remembered.

All of this explains the shocked annoyance I mentioned. Yet there is also the undeniable fascination, though it is harder to understand. There is a flow of inventiveness in the earlier strips that makes up for much of the crudity. The devices shown for later science still seem fairly convincing (though the ideas of rocket speeds and orbits were

ridiculous even in 1931).

And there's a curious pleasure in watching the earliest crudeness smooth out gradually into a well-oiled machine with set characters and a reliable set of plot devices, familiar yet still fun.

It's a hard book to put down, and one well worth the price. Yet it has nothing to do with the history of science fiction. Once upon a time it took off from a common background of travel to the future and then travel through space. But from the earliest days, its character was not at all that which science fiction was developing.

Buck Rogers was exactly what it was meant to be—a comic strip. It was only science fiction in the sense that Jungle Jim was adventure fiction or Mandrake was fantasy. Flash Gordon's adventures were far closer to science fiction, and even Ally Oop often came much closer to our field.

To see how far from real science fiction the strip was, we must go back to its origin as Philip Francis Nowlan conceived it. This, of course, occurred in a novelette published in *Amazing Stories* for 1928 and entitled "The Airlords of Han"—illustrated by Frank R. Paul.

Fortunately, we can make the comparison. Nowlan's story and its sequel are again available in soft-cover edition—*Armageddon 2419* (Ace, 60c). If you are planning to buy or borrow the Chelsea House book, by all means invest in the Ace volume as well.

Here things are alike only at the very beginning. Donald Wollheim indicates in a brief introduction that the plot of the strip follows the plot of Nowlan's original novelettes fairly closely during the first two years, but I suspect it is his memory rather than his research speaking; my memory indicated the same until I had a chance to reread the comic strips.

In the novelettes the name of the character is Anthony Rogers, but otherwise the initial situation is the same as the strip, including the meeting with Wilma Deering. In other respects, however, there is only the most vague and general similarity. The book is primitive science fiction, but it is unmistakably science fiction.

Nowlan as a writer immediately began to build a world. Here are none of the stereotype groups—the cowboys and Indians who have stayed the same, but more so, for five hundred years. Instead he sets up a complex social system of rule among small organizations designed to make survival possible in a world overrun by the Han—a seemingly Mongol people who have conquered the world and now exist in great cities, with the rural sections left to the survivors of the original population. He also sets up an extensive technology and social system for the Hans.

Much of the handling is crude.

Characters are wooden and not always believable—as the Boss who voluntarily steps down with a cheer so Rogers can take over. There is a regrettable tendency for important action to occur while Tony Rogers is off-stage or for it to be merely summarized. And our old friend the Yellow Menace is apparent in the Han Empire.

However, in this original Nowlan version, the Yellow Menace is not nearly so pat. The Han Emperor, in fact, must be considered a highly civilized and cultured man. He keeps Tony prisoner but without needless cruelty. In fact, he is probably the best drawn and most likable character in the book. It is made clear that the Han are a special mutation that occurred in one tiny section of Mongolia, not typical of Asiatics; and it is even hinted that they may not be Earth humans at all.

At the end, Nowlan must have been aware of the trap he had worked himself into, since he tries to throw out the racial implications. This fails to overcome the racial bias of the book. But it's at least a token gesture, marking the road that science fiction was just starting to travel and which led to the realization that to be alien or different was *not* inherently to be evil. Science fiction eventually moved further away than any other body of literature from the concept that it is wrong to be different. Unfortunately, the change never occurred in the comic strip, underlying the lack of tie between it and genuine science fiction.

Pavanne, by Keith Roberts (Ace Special, 95c), also is a book made from novelettes previously published. But that is the only point of similarity between it and Nowlan's book.

This is perhaps the most completely sophisticated book of science fiction I have read. In fact, I was not sure it was science fiction until I reached the last few pages. It was difficult at first to be sure it was not pure fantasy--then it seemed to be speculative fiction about a what-if world—and then it really did not matter.

The basic idea is a world somewhat like ours but in which the history has gone differently. Elizabeth I was assassinated in 1588, and the results changed all history, most particularly that of the Church of Rome. This is covered succinctly in a page of prologue, but it takes the whole book to make those changes fully apparent.

To round out the picture, we are led through a strange love affair to the circles of civil power, of castled lords and ladies, where a woman who seems to tie everything together must make her gallant battle against the darker forces slowly emerging into our view in this world. We learn with her to despair of things as they are here and to strive for an otherwise we cannot have.

And in the end, everything is stood on its head, turned upside down, and handed back to us with the key to the whole pictured world. It is as marvelously subtle an explanation as I've yet seen in any piece of writing. Every element is there, and yet it demands the utmost of the reader to rebuild the world he thought he had come to know into what and why it is.

And, of course, in the end it is science fiction—because it has used every ethic and resource of science fiction and most of the background science-fictioneers have spent decades developing.

Still, there remains one episode that simply cannot be made to fit. There is a story—the second "chapter" in the book—of one of the signalers. By itself, it is one of the best bits to be found in the whole structure. Yet there is no way of accounting for it except to call it pure fantasy.

As fantasy, it's fine. But the end of the book with its implications about the girl involved with the signaler simply do not fit with the end of the story.

I suspect that this episode was written as a magazine piece before the final shape of Roberts' world had grown clear in his mind.

As it stands, the book demands two mutually conflicting abilities on the part of the reader. He must be able to read this isolated episode with a careless mind, letting the general picture soak in but most of the details vanish. For the rest of the book, and particularly for the final episodes, he must be willing to give his most painstaking attention to the writer, skip nothing and think things through precisely.

If you want to try putting yourself through such a tricky course, this is a splendid book. If not, at least watch for more by Keith Roberts, who is writer of extraordinary promise. ●

RIDE A TIN CAN

(Continued from page 104)

"Got to going."
"Jinx on jolly,
Golly, Holly!"
"Were it other,
Bug, my brother!"
"Holly crying.
Sing her flying,
Jugging, shouting."
"Going outing."

Now this was remarkable. Holly Harkel was crying when we came out of that burrow for the (as it happened) last time. She was crying great goblin tears. I almost expected them to be green.

TODAY I keep thinking how amazingly the late Holly Harkel had come to look like the Shelni finally. She was a Shelni.

"It is all the same with me now," she said this morning. "Would it be love if they should go and I should stay?"

It is a sticky business. I tried to complain but those people were still ringing that bell and chanting, "All you little Pig-Shelni-Singers come jump on the cart. Ride a tin can to Earth! Hey, Ben, look at them jump on the slaughter wagon!"

"It was inexcusable," I said. "Surely you could tell a human from a Shelni."

"Not that one," said a bell-ringer. "I tell you they all jumped on the wagon willingly, even the funny-looking one who was crying. Sure, you can have her bones, if you can tell which ones they are."

I have Holly's bones. That is all. There was never a creature like her. And now it is over with.

But it is not over!

Singing Pig Breakfast Food Company, beware! There will be vengeance!

It has been told. ●

THOU SPARK OF BLOOD

(Continued from page 109)

by then he knew. He found Cappio's blood-smeared utility knife in a crevice of Cappio's acceleration couch. Had Cappio possessed the iron resolve necessary to thrust it there in the few seconds before he bled to death? Or had it merely been a lucky break for him? Now there was no way of knowing. If it hadn't been for the hatch, Gibson thought, it would have worked. He'd have taken us with him. As it was, it half worked.

Dead Cappio could not have the one good suit. Gibson would need it himself on Mars. He took Cappio out of it and put him into his own suit, sealing the leak as well as he could with tape from the aid kit.

The odor persisted somehow, perhaps from the jammed disposer. Gibson used the auxiliary chemical toilet for his own wastes but it was too small to be of use in disposing of the bodies. As Mars grew huge in the observation port he cleaned every crevice of the couches and checked and rechecked the joints of the suits, using his nose as well as his eyes and trying not to look through the transparent face shields at Lorenz and Cappio.

The landing was smooth, much smoother than Gibson had anticipated, and the rotation of the capsule had matched the Martian gravity so well that he found it difficult to detect any change. A pull of the emergency lever opened the hatch with a sharp detonation. Stiffly he climbed out and saw walking toward him the Moonbase psychologist.

Dr. Mann spread his palms and said, "When I clap you will remember that this flight is only a simulation."

Then he smelled Gibson. ●

Readers write—and wrong!

Dear Mr. Jakobsson:

I am sorry that Mr. M.B. Tepper in his letter to Worlds of If *was not serious enough to understand my article about K.E. Tsiolkovsky (K.E.T.) and I am asking you kindly to publish the following elucidations.*

1. K.E.T. did not owe any of his philosophy to the Communist Revolution in Russia. He was born on Sept. 17, 1857, in a provincial family of an overly modest, patriarchal character and at the time of Revolution (1917) he was already 60 years old.

2. Because of the idealistic character of his philosophy, many of his works were officially forbidden, and after the publication of his Monism of the Universe *his secretary was fired by Soviet Government. K.E.T. was himself arrested once and put into a Moscow prison for a short time—he did not like to mention the episode in his conversations and correspondence.*

3. It needs to be understood that, in Russia especially, there exist usually two kinds of emigrants: *the* outer (exo-) emigrants *who left Russia for other countries, and the* inner (endo-) emigrants *who remain in their fatherland and did not go abroad. As most of intellectuals,* K.E.T. was a typical endo-emigrant. *The endo-emigrants are usually the most silent people in relation to the internal governmental policy. Stalin was especially suspicious of taciturn people. Some "silent people," for safety's sake, occasionally praised governmental enactments in order to appear to the authorities as "non-Party Bolsheviks." Tsiolkovsky never did this—also he never was a member of the Communist Party. He never praised communism and nothing of that ideology exists in his writings.*

4. Mr. Tepper says in his letter that K.E.T. had an inferiority complex. This is also wrong. K.E.T. was deaf, however, and said that his deafness helped him to concentrate. In his famous, now classical work, Exploration of Space by Means of Reactive Apparatus, *he says frankly that he was the first man who gave the complete theory of rockets and who proved the possibility of their use in the space flights. This is not the claim of a man suffering from an inferiority complex.*

5. To the end of his life K.E.T. won some popularity, not because of any special sympathy from the government but because the time itself was already ripe for the astronautic investigations. Most works by K.E.T. before 1930 were printed in Kaluga, as author's editions, in a provincial typography where the typesettings for higher mathmatics were absent.

6. Certainly many points about the multitude of inhabited worlds in K.E.T.'s Monism of the Universe *seem now obvious. However, he wrote them at a time when the works of de Fontenelle, C. Flammarion and those of other astronomers and philosophers were forgotten, at a time when J. Jeans even wrote that the presence of humanity on the Earth is an unique fact in the whole Universe.*

A. Tsvetikov
PaloAlto, Cal.

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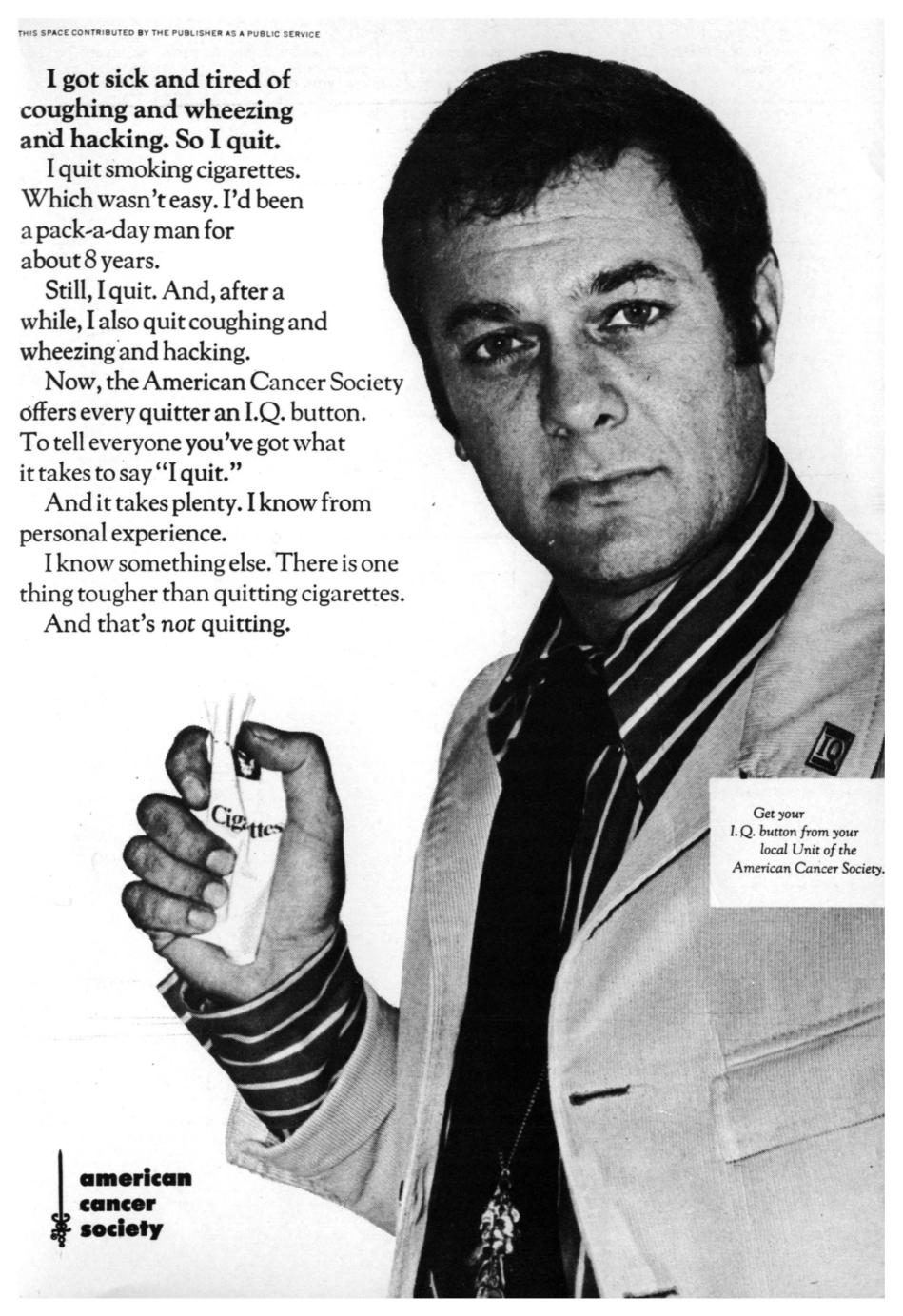

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