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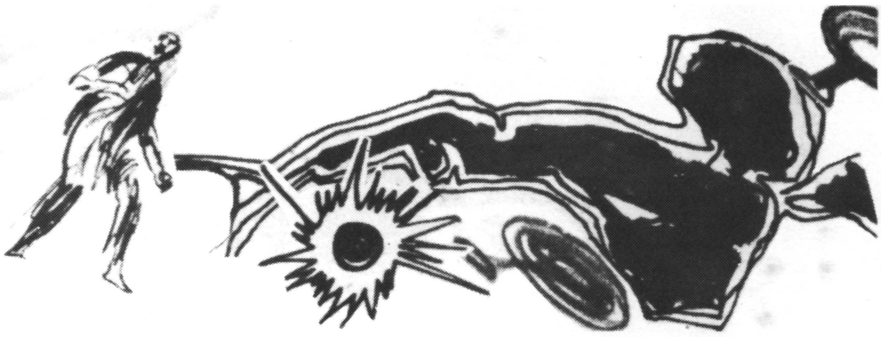

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WORLDS OF IF SCIENCE FICTION

September-October 1970
Vol. 20, No. 7
Issue 150

ALL NEW STORIES

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Cover by GAUGHAN, suggested by FIMBULSOMMER

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IF is published bimonthly by UPD Publishing Corporation, a subsidiary of Universal Publishing & Distributing Corporation, Arnold E. Abramson, President. Main offices: 235 East 45 Street, New York, N.Y. 10017. 75¢ per copy. 12-issue subscription: $7.50 in the United States, elsewhere $8.50. Second class postage paid at New York, N.Y. and additional mailing offices. Copyright© 1970 by UPD Publishing Corporation under International, Universal and Pan American Copyright Conventions. All rights reserved. The publisher assumes no responsibility for unsolicited material. All stories printed in this magazine are fiction and any similarity between characters and actual persons is coincidental. Title registered U.S. Patent Office. Printed in U.S.A. The company also publishes Award Boods, Nova Books, Tandem Books (United Kingdom), Vocational Guidance Manuals, Golf Magazine, Golfdom, Ski, Ski Business, Ski Area Management, Home Garden, The Family Handyman.

Readers write—and wrong!

I hope some day to meet the Porguens, Mr. and Mrs., Victor. The last *Hue And Cry* carried a letter from Mrs. Porguen, a well-stated and certainly reasonable presentation of her views on the February issue of *Galaxy* —to which I replied. Now Mr. Porguen has taken up the debate in another excellent letter.

My reply in the last issue still stands —I might add that stories must evolve in form and content as does everything else—including magazines.

Now, Mr. Porguen:

Dear Mr. Jakobsson:

The question of meanings is still bothering us. The July-August "Hue and Cry" brings us Mr. Corwin's comments on "The Last Night of the Festival", heavily emphasizing the graphic layout values of the story. It also contains your clarification that the story described "a race of humans, survivors of mutual abuse, who had evolved into creatures capable of existing only in festival atmosphere—. . ."

Now, the graphic layout was *a fresh visual experience, though I don't relish the possibility of having every SF story so adorned. Spices are best in minute amounts. But the story itself—*

To make certain I hadn't missed its true value by giving up reading it too soon, I made it a point this time of going past the 8th. page, all the way to the 28th. The darn thing turns out to be worse than I thought.

Plachta starts with what appears to be some sort of mystic poetry, giving us a bellyful of images, some delicate and beautiful, some cruel and shocking and some plainly hysterical and stupid. They describe the movement of a couple towards a crowd, across a lawn, to the edge of a forest, under the Gate of Blood, to the Final Grotto, past the Wisdom Trees but not (Oh, no!) into the Tunnel of No Return, then to play a game called "The Spider and the Fly", kiss each other, proceed to the Lazy Lagoon and finally enjoy walking hand in hand under the Surprise Shower. Honest to God.

When the verborrhea is over, they start explaining to each other what it's all about, 23 pages too late and 5 before the end. They talk about it for 2 pages and then Plachta gives us . . . more of the same! Aagghhh!

Mr. Jakobsson, "The Last Night of the Festival" is *fantasy, very definitely fantasy and not awfully good fantasy at that. Obscure imagery has never been the mark of a good writer.*

Plachta must be somewhat aware of this, as he finally feels the need to include a plain-language explanation, by means of a dialogue near the end of the story.

You speak of underlying realities. But eight rhymed one-sentence condemnations of Nazi Germany do not a story make, Mr. Jakobsson. And, in any case, the whole thing had absolutely no business in a science-fiction magazine.

Please, no more Plachta, unless he becomes a writer of SF stories.

Take "Slow Sculpture," for ex-

(Continued on page 190)

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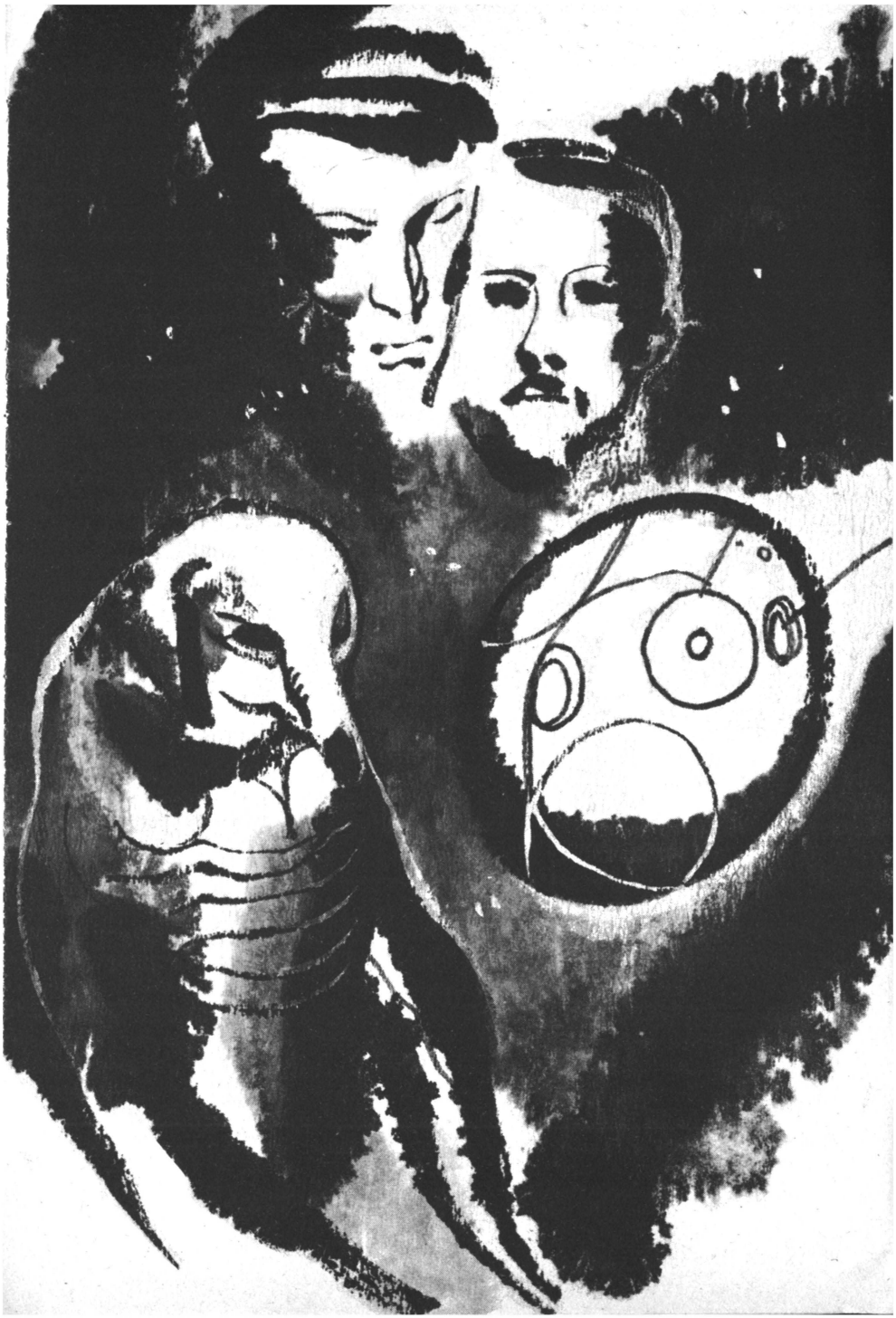

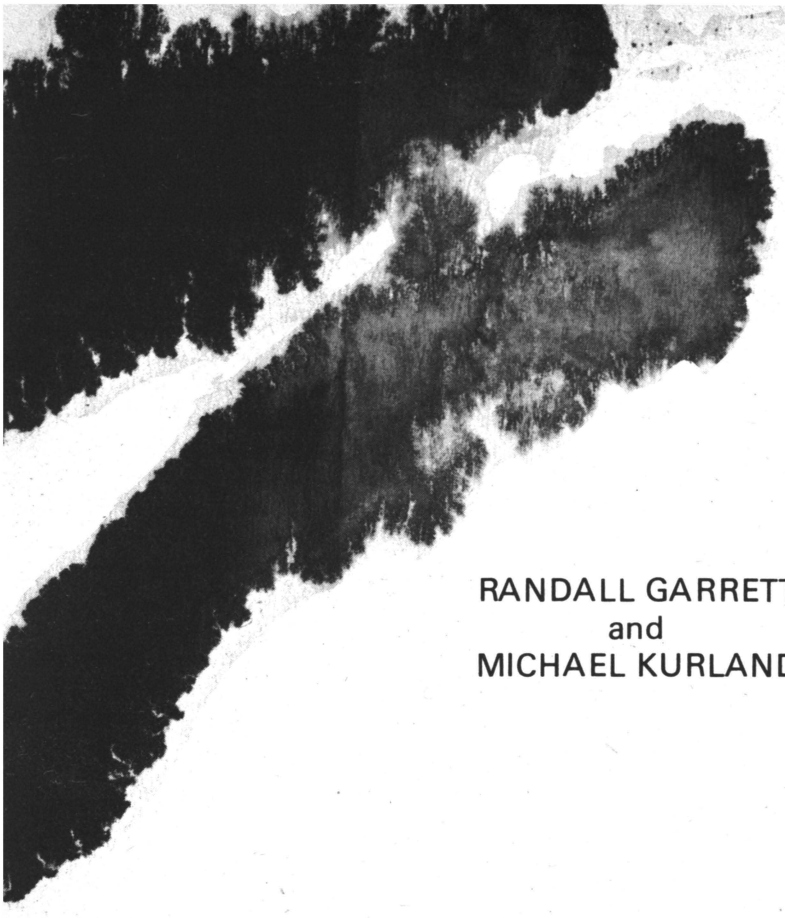

RANDALL GARRETT
and
MICHAEL KURLAND

FIMBULSOMMER

To: Falkynberg, Oxbo &
Associates
comex code FOX
Regis Center, Proxit 212 3 727

Sirs:

Information re Quindar desperately needed. Your standard contract being drawn with fifty percent override. Preliminary expenses ruaranteed until contract accepted. Take what action you can immediate. Known data follows. Please comex acceptance.

Lloyds
by T. Bruber

I

MIKKO FALKYNBERG estimated his chances of geting out of the window two and a half meters to his left and knew that, as of now, they were small. one move, and the Peacemen of the Brothers of God would jump him and either beat him to death with their peace wands or toss him in the contemplation cell and drop the key into a glacier crevasse.

The former was by far the more likely. The contemplation cell, which Mikko had once been shown, was an iron-barred stone prison, a single, big, unheated chamber with some piles of straw in it and a stream of water running through it. Sinning members of the Brotherhood found themselves "sequestered for contemplation" and given one meal a day until they were either forgiven by the Table of Elders or died of exposure and malnutrition—whichever occurred first.

The Peacemen had a use for that cell and apparently no use whatever for Mikko Falkynberg.

On the other hand, while the Holy Guardians of Peace, like the other members of the Brotherhood, were forbidden to take human life, they were permitted to subdue recalcitrant sinners. They could carry no weapons, but their peace wands were of dense, hard wood, four centimeters in diameter and seventy-five centimeters long. If a sinner departed this life while being subdued, that was the Will of God and no fault of the Peaceman.

Mikko Falkynberg had no deeire either to contemplate himself to death or to be subdued to death by others.

The trouble was that some of the men surrounding him looked as if they were trying to figure out some way to do both—preferably alternately and for a long time to come.

Sitting in a chair with half a dozen of the Holy Guardians on each side of him, Mikko ignored them and faced the Table of Elders —all eight of them—with perfect aplomb.

The Patriarch Ebenezer was speaking: "You came among us as a stranger, saying you sought

the Truth. And now—" he gestured gently with a thin white hand. "And now—this."

Mikko put his hands palm-to-palm in front of his broad chest. "Venerable Patriarch, I have been among the Brotherhood and dwelt with them for many weeks. I have listened, I have learned and I have obeyed. I now know the Holy Laws, the Holy Liturgy, and the Holy History—"

Most bloody well especially the Holy History!

"—and during all this time I have been under the watchful and benevolent eye of Your Most Venerable Paternity. Tell me, most Reverenced Patriarch, have I, during that time, done anything—" He paused very slightly. "—*anything whatever*, that Your Most Venerable Paternity knows, *of your own knowledge*, could be called a sin?"

His emphases were gentle.

Silence fell in the room as old Ebenezer looked suddenly thoughtful. The Patriarch was old only physiologically; his chronological age was scarcely more than Seventy Standard Years. But the skin of his face was dark and wrinkled, and his hair and beard were white —in spite of the fact that he was a great deal younger than Falkynberg.

Falkynberg had carefully refrained from disabusing the Patriarch of the notion that he, Mikko, was no older than he looked—that is, looked according to the Brotherhood's rather parochial ideas of physiological aging. The Brotherhood was aware that prolongevity treatments were usual in other parts of the galaxy but, since such things were the work of Sathanas, thee were not acceptable emotionally and therefore did not really exist. If a man looked thirty-five, he *was* thirty-five and Patriarch Ebenezer looked upon Mikko as a youngster half his own age.

"No," said the Venerable Patriarch after a long minute. "I know of no sin upon you. But you have heard the charges of the Wife Sara."

"I have," Mikko said solemnly. "They are grave charges indeed, Venerable Patriarch. I know not how to answer them save to say that I am innocent."

THERE was an inarticulate, murmuring grumble from the Peacemen on either side of him, but Mikko ignored it.

"Do you, then, deny the accusation, my son?" Ebenezer asked in his dry, raspy whisper.

"Most emphatically, Venerable One." Mikko let his gaze move around the circle of the others at the Table. Jakob, next in line for the Patriarchy, was somewhat gaunter of face than Ebenezer, and had round, staring eyes that made him look corpselike in the flickering light from the central fireplace. Enoch and Enos, the twin brothers,

were hard of face and hard of eye, with salt-and-pepper beards and long hair. Jared was as bald as a spaceship hull, with weight and musculature to match. Zachariah had thin, wispy hair, a great hawkish nose and eyes like lasers. Ephron had curly white hair and a receding chin that made him look weaker than he really was.

And then there was Lamech.

The trouble with Lamech was that every time Mikko looked at the man, he felt as if he were looking at a distorted image of himself.

Lamech stood a hundred eighty-five centimeters tall, was heavy-set, perhaps a little too fat around the middle. Full beard, full mustache, full head of hair curling at the nape of the neck, eyebrows the same dark brown as the rest of the hair. Beneath the brows were dark, wide-spaced, beady, rather piggish eyes that showed sharp intelligence. Jaw broad and heavy. Lips thick and expressive.

Genesis 4, 23-24, Mikko thought. *Except that it ought to be: Genesis 39, 7-20.*

In spite of the fire in the fireplace the big, logwalled room was chillingly cold. Outside it was even colder and Mikko wasn't really dressed for any long exposure to that cold.

Lamech slitted his piggish little eyes and said calmly, "Are we to doubt, then, the testimony of my prime wife? Sara has said that this man—"

"We have heard the testimony, Brother Lamech," the Patriarch said in a voice that was as dry and blistering as a Valdusian wind. Lamech withered into silence.

Mikko had early recognized the reason for Sara's behavior. Take at random any woman who loves her husband. Allow them to cohabit for, say, ten years, so that the newness wears off and routine sets in. Then suddenly present her with an exotic stranger who greatly resembles her husband but is far handsomer. Present her with a man who is stronger, cleverer, wiser, more understanding, more widely traveled and far more sophisticated. Present her with a man who has all of her beloved husband's good qualities—and more—and none of his bad ones.

What would any such woman do?

Mikko Falkynberg had long ago resigned himself to the fact that this situation would come up in his life with random regularity and he had always made it a point, because of the generosity of his soul, to do his best to help such women —provided, of course, that they had the beauty, intelligence, and emotional stability that appeal to the connoisseur.

Sara had beauty and intelligence, all right, but emotionally she was as any primitive suffering under the duress of a puritanical society. He had avoided her as he would have an equivalent mass of un-

shielded Cobalt Sixty. As a result, he was now playing Joseph to Lamech's Potiphar and was under tecnical arrest by the Table of Elders.

If only Lamech—or Sara—had waited another hour!

Ebenezer murmured, "Will you take a solemn oath to that effect, my son?"

"Without the least hesitation," Mikko assured him. He raised his right hand solemnly. As he did so, he glanced at the braided cuff of his robe. A tiny telltale glinted. It might have been taken for a bit of mica or a tiny shard of broken glass gleaming in the firelight but Mikko saw it for what it was.

Tress had come over the horizon.

MIKKO kept his right hand raised and put his left palm piously on his breast, thereby activating certain mechanisms. He began to speak in the solemn tones of the dialect of Italio-Swahili spoken on Ndullah.

"Tress, hear me."

His voice was so deep and vibrant that the Elders merely blinked and stared. They dared not interrupt.

"Yes, Mikko," said a small voice in Mikko's ear.

"Highest priority. Put a Number Eight HKB with a four-second red warning right in the middle of the village square. The curfew has

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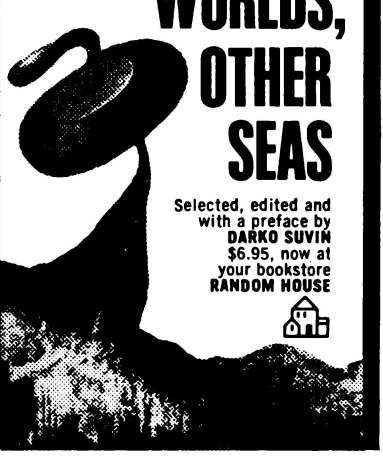

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sounded, so nobody will get hurt. Then be waiting for me as soon as possible at the rendezvous. How long will that take you?"

"Number Eight HKB will arrive in eight point seven three minutes. I will be at rendezvous in fourteen point six two minutes," Tress said.

"Amen," intoned Mikko.

After a full two seconds of silence, Patriarch Ebenezer blinked and said: "Er—we cannot accept an oath not of our tongue."

"Oh, of course," Mikko said smoothly. "In prayer it is natural to revert to one's native tongue. How would you have it worded, Venerable Patriarch? I am not, as you know, fully conversant with your Liturgy as yet."

Fetching the great, hand-lettered book in question took five minutes, and reading out the appropriate paragraphs took another three. Mikko was all prepared to go through the oath seemingly a second time when he happened to look through the window to his left.

"My word," he said mildly. "What could that be? A fire?"

A red glow was coming from the village square.

Everyone craned his neck to see. With precision timing Mikko turned his back and closed his eyes a fraction of a second before the light turned from red to blinding white.

He had judged the distance to the other window to a centimeter. He walked toward it, eyes still closed, opened it and jumped out into the snowbank below, ignoring the shouts and screams from the men in the room behind him. After five seconds the blinding white light died, leaving only a faint hissing in the melted snow of the village square.

Mikko Falkynberg opened his eyes and started moving toward the woods at the edge of the village.

He still had a long way to go but it would be several minutes before the Table regained eyesight—and several more before effective pursuit could be organized. He sprinted off through the snow toward the rendezvous.

Twenty minutes later, he was no longer sprinting, just keeping up a steady plod toward the clearing where Tress would be waiting. He could hear no sounds of pursuit to his rear, although his footprints could have been followed easily enough.

Had the flare so frightened his interlocators that they dared not follow or was the confusion still so great that they didn't yet realize what had happened?

He never did find out. A few minutes later the shadowy egg-shape of a spaceship was looming in the darkling night.

Mikko climbed aboard and said, "Let's get the hell out of here right now."

II

"HEEL, Metrak. That's the good boy."

The elegant, meticulously dressed, fashionable gentleman who spoke was Mr. Morgan Oxbo, lately come to Beedirn City and already acceptable to the upper levels of Beedirn society. He was wealthy, affable, witty without being offensive and of excellent countenance. His intimate knowledge of recent events in the More Important Centers of Galactic Power fascinated the gentlemen. The ladies were particularly taken by his small, neat beard and mustache and his wealth of curly, dark auburn hair.

The creature to whom he spoke was small and low-slung, looking as though there were both dachshund and armadillo in his ancestry —which there was not, since neither Terrestrial animal had ever been anywhere within fifty light-years of Maxaglor. Little Metrak had a glossy black hide and a round, high-domed head embellished with small, neat, close-set ears. His eyes were black, large and rather wistful and his mouth seemed to wear a plaintive smile. The ladies thought him "simply adorable" and they admired Mr. Oxbo's taste in exotic pets, but Metrak seemed shy and skittered away on six stumpy little legs when they tried to pet him. And Mr. Oxbo had warned them that he might scratch if he were teased.

Metrak, hearing Mr. Oxbo's voice, came away from his careful exploration of a Public Utility control dome at the curb and trotted back to his place at Mr. Oxbo's side.

The two of them continued their promenade down the avenue toward the spaceport entrance, Mr. Oxbo holding Metrak's leash in one elegantly gloved hand. The faint, tangy aroma of poon flowers hung on the warm breeze. Twice Mr. Oxbo tipped his hat to passing ladies while Metrak trotted along a few inches from the heel of a boot that was as polished and as black as his own glossy integument.

They strolled in through the doors of the great lobby of the huge spaceport, crossed it and surveyed the slidewalks. One, which T'd off in both directions, sported a large sign with this information:

DEEPSPACE BAR →
DEPOTIST →
← FREIGHT BONDING
← FREIGHT RECEPTION
← FREIGHT SHIPMENT
← LOCKAGE & DOWAGE
PRIVATE BERTHS →
STRANDED ALIEN LEAGUE →
← UPPAGE & DOWNAGE

Mr. Oxbo and his small friend went to the left. A few minutes later, Mr. Oxbo was standing before a desk labeled FREIGHT RECEPTION: *Inquiries*, proffer-

ing his card to a young, properly deferential clerk.

"I am looking," he said in a pleasant voice, "for a small crate —about a hundred fifty kilos— which was to have been shipped to me from Synax IV. My agents said they had not yet been notified of its arrival, so I thought I'd drop round and see."

"Of course, Mr. Oxbo," the clerk said, taking his card and the two-debit note which clung casually to the bottom. "I'll be glad to check the newly landed freight for you. Will this crate be consigned to you?"

"Either directly to me—easy, Metrak! —or to my agents, Howard and Gibbs."

"Very well, sir. Please sit down. I'll see to this myself. Only be a moment."

"Ha, hm," Mr. Oxbo said, sitting down and tapping his chin with the ivory knob handle on his onyx cane. "I shall await your return."

He picked a copy of *Intragalactic Freight Handler's Digest of Current Rules & Regulations — Southern Sector* from the desk and leafed through it. Metrak, seeing his leashholder preoccupied, slipped out of his collar and scampered after the clerk, his six paws making slight waltztime clicks on the concrete floor. The clerk failed to notice as the small creature scuttled through the inner door behind him.

A brace of signs on the wall of the inner corridor said:

← CONSIGNED FREIGHT
LOADING AND UNLOADING →

The clerk took the branch to the left. Metrak went to the right and kept moving until he reached a door which announced:

COMPUTERIZED FREIGHT HANDLERS
DANGER
AUTHORIZED PERSONNEL ONLY

A ten-centimeter space under the door allowed for air circulation. Metrak flattened himself. His cross-section, normally almost round, became more and more elliptical until he looked something like an oddly shaped doormat. His head was the most difficult part to get under but he managed it. The rest of him slid beneath the door without effort. He resumed his normal shape, stood up on his rearmost legs and surveyed the room.

This was a working section of the spaceport. With little allowance for walkways, indirect lighting or other human conveniences, the vast area was filled with large crates, small crates, long crates and skinny crates. They were being loaded and unloaded by crate-handling robots, stacked by crate-stacking robots, moved to and from ships by field cargo robots, sorted by sorting robots and

picked up for local delivery by messenger robots. Over all the darting eyes of the central cargo computer kept careful watch as its minions followed their detailed instructions. These crate-handling robots were not too bright—just smart enough to obey the orders of their master, the central cargo computer.

Metrak dropped to all sixes and *click, tickety-ticked* across the floor toward a particular field cargo robot. One of the mobile eyes examined him. Humans and sentient aliens were not permitted in the area without carrying a special badge.

Not human, the computer decided; not listed sentient alien—the computer searched for a category. Aha! The computer sent a message to *Maintenance Department, Subsection Rat & Rodent Control*, and dismissed the problem.

Metrak reached the carrier—which had just about finished loading a group of unusually shaped crates—and crawled under the low overhang between the treads. Rolling over on his back, he reached up with his six legs, hooked over a frame brace and pulled himself up until he was clamped tightly in place.

The field cargo robot got the last crate loaded firmly aboard its carrier and, chuckling softly to itself, headed out the vast double doors onto the field.

"THE only ship incoming from Synax IV in the past week downloaded yesterday," the clerk informed Mr. Oxbo. "The entire cargo was a private consignment of, ah, er, pleasure androids. For transshipment, of course."

"Of course," Mr. Oxbo agreed politely.

"So, I'm afraid your shipment just hasn't—"

"It was transshipped through Von Haagen," Mr. Oxbo said, smiling innocently at the clerk. "Would that make a difference?"

"A difference!" The clerk was amazed. "My dear sir, that means I'd—if you'd told me—"

Mr. Oxbo produced another two-debit note between fore and index fingers with the languid aplomb of a conjurer.

"Delighted, of course, to find the shipment for you in any case," the clerk continued, not noticing his right hand take the money. "I shall be but a few seconds."

"Take," Mr. Oxbo insisted, "your time."

THE ship that the field cargo robot pulled up to had the characteristic breakfast look of an Uxorian freighter. Built like three stubby sausages tied in a bundle and surmounted by a poached egg, these ships had a reputation for cheapness, large capacity, stupidity, undependability and difficulty of repair. They were also impossible to get spare parts for

and Uxor-trained machanics—of which there were few—were the only ones who would dare delve into their randomly plumbed and wired brains and bowels. The captains of Uxorian freighters were either courageous and daring or broke and desperate.

Metrak dropped off the underside of the carrier as it reached its destination and, flattening himself as much as he could against the gray concrete, scurried over to the near sausage. After waiting long enough to make sure he hadn't set off any alarms or alerted any interior sensors, he flattened himself out against the near fin, hooked his forepaws over its sloping edge and started to climb.

When he reached the top of the fin, some forty feet up, he wrapped himself around an external atmosphere engine fuel pipe and shinnied up, a black lump against the stainless steel.

A ship's officer wearing the insignia of supercargo came around to inspect the loading and Metrak froze in place. The officer puttered around for three or four minutes with Metrak thinking dark thoughts overhead. This would throw the timing off. The officer wandered off without having once looked up. Metrak allowed himself a Maxaglorian grin and continued up to the end of the pipe. He was still a good many feet short of the deepspace hydrogen scoops that were his target.

MORGAN OXBO, alone in the clerk's office, practiced his supercilious sneer. Then he practiced lifting both eyebrows in surprise. The inner door swung open and he reverted automatically to languid boredom, his most successful pose. *While I sit here out-incompetencing a clerk,* he thought, smiling vapidly as the one in question entered the office, *Mikko is plying our trade on a primitive planet. Wild parties. Native girls. He and Tress are having a fine old time . . .*

"I have succeeded in exacting the spacial coordinates in relation to the specified consignment as per your inquiry," the clerk announced.

Morgan stared at the clerk. Success seemed to have gone to his head. "How meretriciously consanguineous of you, old man," he murmured.

"We always try to meet or exceed our performance specifications, as set down in the Intragalactic Manual," the clerk assured him. He looked so pleased at having found the crate that Morgan wondered if it was the first time. There was a good chance, since the stuff was usually robot-handled right to final delivery. The crate had been located faster than Morgan had allowed for—Metrak wasn't yet back.

"Fine," he said, thinking fast. "I knew I could count on you. Will you please arrange to have

both crates shipped to my residence immediately? I would be ever in your debt."

"Ah, yes," the clerk said, fiddling with his marking pen. "Both crates, you say?"

"Of course. One isn't very much good to me without the other."

"Ah, yes. You will excuse me for a moment while I, ah, make the arrangements."

Morgan nodded pleasantly and the clerk went back through the inner door.

IT WAS good that Metrak was so high up on the hull—the climbing method he had to use now left traces. Finding a seam in the plating that went straight up to the near scoop, he inserted his powerful fingers in the crack and pinched the metal to obtain a climbing grip. He left a track of peculiar circular indentations along the edge of the seam as he climbed.

No other Maxaglorian would have dreamed of trying such a suicidally insane stunt—not on the surface of Maxaglor. Beings who have evolved on a planet with a surface gravity of five times ten to the fifth centimeters per second squared—five hundred Standard Gees—do not much care for heights. Even the incredibly tough and hard body of a Maxaglorian cannot survive a drop of more than two or three meters. And, unlike the majority of giant planets, or the supergiant in the 61 Cygni system, Maxaglor does not have an extensive atmosphere. That was ripped away hundreds of thousands of millennia ago by a nearby satellite the size of Neptune. At the surface, the atmospheric pressure is four times that of Earth's, but eighty percent of that consists of argon, neon, and helium. The five percent of oxygen means that the partial pressure of that gas is the same as it is on Earth. Thus the Maxaglorian atmosphere is shallow; climbing even a rather high hill will soon put one into the stratosphere.

"Low" gravity—less than four or five gees—gives a Maxaglorian the feeling that he is falling. Which gives him the feeling that he is within a fraction of a second of death. On Maxaglor, if you fall long enough to realize it, you *are* dead.

It had taken Metrak a long time, using stern mental discipline, to be able to climb vertically; now he did so with practiced ease.

The scoop was furled closed under an atmosphere shield and Metrak had to clench the seam with his two rear pairs of feet and pull open one edge of the scoop for a few centimeters with his short fingers. He reached in for the nearest control vane and wrenched it loose with one quick motion. Passing the vane down to a middle hand, he used his two

forehands to unstrap a thin metal sheet which had been clamped to his underside. About four centimeters thick, and shaped like a sixteen-centimeter shark's fin, it was a close approximation of the removed vane. Metrak snapped it into place over the exposed gas teat and, with the pressure of two stubby fingers, secured it in position. He then strapped the excess vane underneath him, where the counterfeit had been, and eased the scoop shut. He inspected the scoop carefully for exterior signs of tampering and found none.

Looking down, Metrak saw that the loading was finished and the carrier was preparing to depart. He snapped loose from the seam and, rolling into as tight a ball as he could manage with the vane strapped to him, dropped twenty-five meters to the concrete.

"THERE is only one crate consigned to you on the bill of lading, Mr. Oxbo," the clerk announced firmly as he came through the door.

"Really? How extraordinary," Morgan said. "Perhaps—oh, there you are, Metrak," he added as he caught sight of the short figure scurrying in behind the clerk. "You really mustn't get off your leash like that, you might get hurt." He clipped the leash back around Metrak's shiny neck. "Well, no matter. Just send along the one you've located and I'll make do."

He stood up and, tucking his cane firmly under his arm, sauntered out of the office, Metrak clicking along behind.

III

MR. MORGAN OXBO sat in the study of his flat in Beedirn City reading, for the third time, the dynafax sheet from Lloyds that had been forwarded from the planet Proxit.

Lloyds of London is one of the biggest insurance companies in this sector of the galaxy. They have, historically speaking, no connection whatever with the ancient firm of that name that had existed so many centuries before on Earth. No person named Lloyd has ever been connected with it. It was founded by three gentlemen named Pembroke, Raskalnikov and Itahu but—prompted by the fact that they had set up their corporation on the planet London—they had named it after the ancient, long-defunct firm and had fully and conscientiously lived up to the honor of that almost legendary name.

As a parallel, there is a planet named Camelot a few thousand light-years from Old Mother Earth. It only has one small continent, and early achieved a planetary government. Its chief executive is called King Arthur and his advisory council is called The Round Table. Its historical con-

nections with the original King Arthur are as direct as those of the present Lloyds of London with the old firm.

The dynafax read:

> To: Falkynberg, Oxbo & Associates
> comex code FOX
> Regis Center, Proxit 212 3 727
> Forward: Beedirn City, Beedirn 019 9 515
>
> Sirs:
> Ref: Your contract 575088
>
> Preliminary contract accepted. Registered. Debits Five hundred thousand, ($5 \cdot 10^5$ Standard Debit Units) plus expenses. We reaffirm as follows: Quindar Engineering has contracted with certain other Companies (see Ref. 12562641) to provide a planetary platform for scientific purposes, said platform guaranteed by Quindar to pass within five hundred ($5 \cdot 10^2$) light-seconds of an A-5 star for a length of time guaranteed to be sufficient for full observation of phenomena without danger to the observers. (For details, see OBQ-1272, earlier ref.)
>
> We have been asked by the group of secondary companies to provide performance and liability insurance for the observers at comprehensive group rates.
>
> The directors of Quindar Engineering refuse to supply information necessary for evaluation of risk or performance capability.
>
> Investigation shows that Quindar has not spent, in the known galaxy, anywhere near the amount our estimates assume for the cost of such a project.
>
> We have been unable to ascertain, by any normal means, the location of the star involved.
>
> You are authorized to use any prudent means to acquire this information. All lawful action will be supported by this office.
>
> Lloyds
> by T. Bruber

Morgan put the dynafax down and gnawed thoughtfully at the tip of his right thumb.

The door announcer spoke: "There is room enough—"

Metrak, who was curled up on an easy chair, fast asleep, didn't hear the coded words. Morgan shot to his feet immediately. He strode over to the chair and tipped it, so that all one hundred twenty kilos of Metrak's small, compact mass hit the floor with a resounding thud. Morgan kicked him solidly with a heavily booted foot.

"Up, Professor; he's here."

"Gmf?" said Metrak. "Who? Oh. Yes. Thank you, Morgan."

Morgan was already out of the room by then, walking rapidly down the hall toward what the upper classes of Beedirn called the receiving room. He flung open the door and went in.

The man standing in the center of the room was wearing a coral satin silon coat, a gold double-phase waistcoat, white form-fitting trousers and brilliant black polysilon boots that came almost up to his kneecaps.

He bowed to Morgan and said: "Mr. Oxbo, I believe?"

"Quite so, Mr. Falkynberg," said Morgan, returning the bow. Then, straightening: "No need to worry. The place isn't bugged."

Mikko Falkynberg put his gray hat on a nearby chair and began to remove his gray gloves. "I had assumed it wasn't. Ah! Good morning, Professor Metrak."

"Gnp," said the Maxaglorian. "Good morning, Mikko. Good to see you. Wait till I wake up."

Morgan had stepped over to the sideboard and was pouring a good quarter of a liter of Aldebaranian brandy into a dynocrystal goblet. He handed it to Metrak, who drained half of it gustily, then blinked up at Mikko. "Ahhh," he said. His highly efficient metabolism had already begun to convert the alcohol to needed energy. "You are early, Mikko," he continued. "Explain, please."

"In a moment, Professor," Mikko said. He raised an eyebrow at Morgan, but the expression was unnecessary—his partner was already handing him a brandy-and-water. With it he passed on the dynafax.

"Thank you, Morgan," Mikko said, lowering himself carefully into a chair. "God! What idiots!"

"The Brotherhood?" Morgan asked.

Mikko narrowed his eyes, glaring. "Naturally. I was accused—" He paused. "But never mind. Tress has recorded it all and you can get it later. I'll give you a resumé."

"I'm listening," Morgan said quietly.

"And am I," said Metrak, running his black tongue around his horny lips.

MIKKO rested his head against the back of his chair. "Let me "Let me read this first." He read it through, said, "Good," then placed it carefully on the table and looked off into some strange nothingness beyond the ceiling. "The Brotherhood is trying to punish itself. That's natural; it always has been. Their religion tells the Brothers that God wants them to live in a cold climate. They must suffer in order to achieve salvation."

"Why not suffer in a hot climate?" Metrak asked. "Is not one

sort of suffering as good as another?"

"No," Mikko said, his eyes still somewhere beyond the ceiling. "Hell is hot and they can't suffer in Hell because—" He stopped abruptly and looked at Metrak. "Professor, shut up. You can get the data from Tress later."

Metrak bobbed his head. "Yes. Please continue."

Mikko took a sip of his drink. "They—the Brotherhood—don't believe in history; only in the Eternal Now." He flicked a glance at Morgan. "In other words, they don't believe in reading and writing, except for their Book of Liturgy. They believe only in oral generation-to-generation transmission of history."

He put his glass down gently on the table, next to the dynafax. "We tracked them through Takkarid, right? That's the earliest trace. Eighty-three years ago. Right?"

"Right," Morgan murmured softly. Metrak said nothing.

"Very well, I am being redundant," Mikko said. He picked up the dynocrystal brandy glass, drained it and stared at it for a moment before handing it unconsciously to Morgan. "I reiterate without apology," he continued. "The tale we heard on Takkarid is accurate." He got up and walked over to the window, looking out at the city without seeing it.

Then he started pacing back and forth in front of the window.

"Back up in time. Centuries. I can't nail it down but if we say six or eight hundred years ago, we'll be in the right order of magnitude. At about that time the Brotherhood of God left Earth."

Morgan, who was running a forefinger around the edge of the brandy snifter, violining a perfect B flat from it, stopped suddenly and said: "Earth? *Earth?*"

Mikko didn't stop his pacing. "Earth. Or Alpha Centauri George. Same volume—and it doesn't matter. But I'm satisfied that it was Earth. The Brotherhood got themselves a ship and took off. They found themselves the planet they were looking for: cold, but not too cold; just enough to make them miserable without actually killing them off. They—"

Metrak's reverberating voice suddenly said: "Please, Mikko—a question."

Mikko turned away from the window and looked at the little being. "Yes, Professor?"

"Why say you it was between six and eight centuries ago?"

Mikko used his right forefinger and thumb to massage his nose. He hated being interrupted but he realized that in this case it was necessary.

"Before eight hundred years ago," he pointed out, "it would not have been possible for a small group to get hold of a spaceship.

The cost was too high, and the ships were too few."

Metrak nodded. "True. But since then?"

"They are unmutated Old Stock," Mikko said flatly.

"Certain?" Metrak asked.

"Certain," said Mikko.

"Very well. My apologies; continue."

Mikko resumed his pacing. "They found the planet they were looking for," he said. "They took off, cruised for God knows how long and accidentally found it."

"Then we don't—" Morgan began.

"Just wait," Mikko said calmly. "They found it. They settled down. They figured they were safe from the rest of humanity from then on. They could build up their own society without any trouble. They could rear their children to believe their own particular brand of religious absurdity without having to worry about any outside interference. Happy, happy idiots. Morgan what the hell are you doing?"

Morgan was wrapping a length of silver wire around the bell of the dynocrystal brandy glass. He looked up and blinked at Mikko. "What? Oh, nothing! Just fiddling. Get on with it."

Mikko flicked a fingernail against the diamonglas of the window. "Very well. The Brotherhood found a planet—somewhere back then. They liked it. They had a planet that was chilly but not deadly cold. Perfect. Just what they wanted and needed." He turned around to look at his audience again. Morgan was doing something with the glass and the wires that Mikko didn't like to look at. He closed his eyes and very carefully refrained from saying: *Morgan! Must you?*

"Then," Mikko continued, "the planet got too hot for them."

Morgan's delicate fingers suddenly stopped moving. "Literally?"

"I think so. Quite literally," Mikko said without stopping his steady pacing. "Something happened that changed the climate of the part of the planet where the Brotherhood lived. Changed it radically. The glaciers began to melt. Summers became longer and hotter. Winters became shorter and warmer. There were floods more and more often." He turned and put out a hand, palm up, to Morgan.

"What would you say: local or planet wide?"

"This happened over a period of years?" Morgan asked.

Mikko nodded.

"Then I'd say planetwide. Some local change could affect the area for a year or two but anything that drastic, over that long a period of time, would have to be planetwide as far as I can tell. Yes, Mikko, I think you've found it."

"Thank you, colleague." Again Mikko resumed his pacing. "But

this gives us two different planets, doesn't it?"

"Right," Morgan agreed.

"YOU will excuse me," Metrak said, softly scratching with one tungsten-hard claw. "How does this show there to be two planets? I apologize for my abysmal ignorance. I had understood we were looking for a cold planet that was warming up."

"That's right, Professor," Morgan said. "But if the Brotherhood was able to live on this planet before it started warming, it wasn't nearly cold enough. To be the kind of heat-sink required for the project Lloyds is interested in, the surface temperature of the planet would have to be low enough to freeze the atmosphere."

Mikko waggled a finger. "There's the further point that if the planet is on the type of cometary orbit we were hypothesizing, there wouldn't be an atmosphere any more. Previous close passes to its A-5 sun would have burned off any surface gases."

"I take it back, Morgan said. "After due thought I am forced to conclude that you haven't found it after all. Two separate planets in highly eccentric orbits around the same A-5 star is a bit much to believe in without practice."

"Ah, but you haven't heard all yet."

"Excuse my question again, please; could you tell me exactly what is this heat-sink? How do you refrigerate a planet?" Metrak asked, rolling over again and sitting up on his rearmost legs.

"Not the whole planet," Morgan said. "Just the environment unit being constructed for the scientists and observers. As a matter of fact, you use the cold of the rest of the planet to protect the observation city."

Metrak looked up at Morgan, tilting his head back. The black pupils of his eyes were indistinguishable from the black pigmentation of the rest of the surface of his eyeballs except at very close range, giving him a blank, sightless appearance.

"Please, how is that done?"

"A heat sink," Morgan said patiently, "is a place where you dump excess heat. The surface of the observation planet is going to get hot rather quickly, so the observation city itself will have to be refrigerated; the heat will have to be pulled out of it. But it will take quite a while for even an A-5 sun to heat up a planetary mass with a temperature of three or four degrees all the way to the core. So you drill down several miles and run nickel steel, or high-ytterbium copper tubes down into the planet and use the core itself as the cold end of your refrigerating system. There are other ways—but that would be the cheapest and proba-

bly the most efficient. Do you follow me?"

"I do indeed," said the Professor. "I thank you, Morgan. Pardon me, Mikko; I interrupted you. You were saying that we had not yet heard all."

"So I was," Mikko agreed. "There is one more datum. Some eighty-three years ago, the Brotherhood left the planet we are discussing and eventually established themselves on the planet where I sojourned with them for a few painful weeks. I discovered, during my study of their Holy History, that while they gave the rise in temperature of their old planet as the *moral* reason for their leaving it, there was another, rather more immediate reason for leaving. There was a planet falling on them."

Morgan looked up sharply. "Ohhhh?"

"One of the planets in their system was moving toward them, apparently," Mikko said. "They took it as a sign of collision and catastrophe, so they decided to pack up and go."

"Quindar's planet?" asked Morgan.

"No," Mikko said. "The planet would have to have been fairly bright in order for them to see it, since they have no telescopes; they don't believe God wants them to use such things. After eighty-three years it must have passed the primary and looped away again."

"It gets difficult," Morgan said.

"As my great-aunt Agatha has been known to remark, it's always darkest before the dawn," Mikko assured him.

"That's one of hers?" Morgan asked.

"Right."

"No telescopes," Morgan mused. "Fascinating. How did they manage to operate their getaway ship? How did they, come to think of it, manage to *justify* operating the ship?"

"What ship?" Mikko asked. "The reason we stumbled across the reference to them in our, ah, perusal of the personal file hidden in the private safe behind two pair of locked doors in the study of one of the directors of Quindar Engineering," he paused for a breath, "is that they didn't have a ship. At least, not one that worked any more."

"Don't sound judgmental," Morgan said. "If they weren't so secretive we wouldn't have to resort to illicit measures."

"Morgan, old friend, let's be honest. If they weren't so secretive we wouldn't have a job. If Lloyds could have gotten the information on the project without hiring us you know damn well they would have; we are very expensive. If there wasn't so much money tied up in the prospective policies, Lloyds wouldn't have bothered. Besides, it's fun."

"True," Morgan admitted,

clipping a small, black, waxy-looking tube onto the maze of silver wire in his hand. A tiny spark ran along the wire, orbiting the brandy glass in what appeared to be several directions at once.

Mikko didn't look. "Our friend the director," he explained to Metrak, "was a minor official on the planet the Brotherhood maintained contact with through their one inverse-space portal. It, you see, has no moving parts. As my great-uncle the Duke used to say, if it doesn't move, it must be very deep indeed.

"When the planet began to fall on them, the elders called for aid, and our friend was one of those who helped supply it. Shortly after that, he left his post and joined the newly formed Quindar Engineering Corporation. Suggestive?"

"Indeed," Metrak agreed. "Most suggestive."

"They went out to rescue the Brotherhood," Morgan said, seting his silver-wire wrapped brandy glass down on the nearest table, where it quietly quivered. "They found something. Something the Brotherhood didn't have the instrumentation to discover themselves. Shortly after, they start Quindar Engineering. It *must* be the same system, somehow."

"That's what I—Morgan, what the hell *is* that thing?"

"This?" Morgan innocently tapped the side of the brandy glass. The room was instantly filled with a low, mellow sound that seemed to be constantly going up in pitch, although it never arrived. "It's a Little Snifter-Operated Cascade Sounder. I plan to manufacture them and retire on the proceeds."

"Arrghugh!" Mikko said calmly.

Morgan shut the thing off, sadly regarding the slowly melting brandy glass. "It still has a few bugs. You will be pleased to know, Mikko, that we have done something useful. At least, Metrak has done something useful while I provided cover."

"I am pleased to know that," Mikko agreed. "What is it that you have done?"

"Metrak planted an inverse space portal on the cargo ship we were trying to trace. We couldn't seem to get any information any other way, so we resorted to deception."

"Great!" Mikko said. "In the name of my great-grandfather, the rightful King of Faulkenberg, I salute you. But portals aren't directional."

"Right. It's going to activate when they come out of drive and send us an analysis of local star-spectra.We should be able to figure out where it is from that."

"Very clever," Mikko approved. "How did you manage to hook it in to the ship's power supply?"

"Not necessary," Metrak told him. "One-time power only. It blows up."

"Blows up?" Mikko stared at Morgan.

"I prefer to think of it as 'explosive energization," Morgan explained.

"You go too far!" Mikko said sternly. "Really! Blowing up a perfectly innocent cargo ship just to—"

"Mikko, come off it. You know I wouldn't do that. Not the whole ship—just part of it."

"Wonder of wonders," Mikko said. "Come along, crew. Tress is waiting."

IV

INSIDE the *Umpaul Raatgarden*, an aging freighter of Uzorian design and Friedlander registry, the crew took up their breakout stations. On most ships this would have been pointless ritual, since the problems attendant to turning off the flicker drive and returning full time to normal space had been solved over a century ago. On the *Umpaul Raatgarten* it was necessity.

Heidigar van Bronk, master and one-tenth owner of the *Umpaul Raatgarten*, strapped himself into his chair. "Make for all ready," he called into the intercom. A chorus of male voices sounded "All ready!" back at him.

"Crew reports all secure," the grating voice of the ship's computer announced.

"What from you, you triple-plated imbecile?" Van Bronk asked.

"Ship and cargo all secure," the computer replied.

"Hah! Very well, Mr. Christianssen, you may proceed already."

The pilot nodded and slowly, gingerly brought the control lever back from its full-on position. The Interspace-Phase Flicker Control dial, which was marked logarithmically from 1 Khz to zero, revolved evenly around its needle to the peg.

At about 30hz an unsympathetic vibration started building up in the ship's hull: the floors vibrated, the walls shook, the light panels flickered slightly and van Bronk felt nauseated. At 20hz a low humming sound came from the ship's speakers. At 15hz it came from the walls. Then the needle pegged, all vibration stopped and a rending crash sounded from below.

"What in Kriskindom was that?" van Bronk yelled.

"An object, mass two hundred kilos, broke loose on delta deck," the computer informed him.

"Why the hell wasn't the cargo more securely lashed?" he demanded, releasing the seatweb and striding over to the master control board.

"Cargo securely lashed," the computer stated.

"Then what the hell was that?"

The computer consulted its memory banks, with a keening sound, to establish the master's

reference. "The *that* was the ship's water purifier," it said, sounding smug.

Van Bronk snapped his feltscribe in half and threw the pieces at the far wall. "Send to delta deck a repair crew," he yelled into the intercom, "and report so soon as possible."

"Why does the ship act that way when it comes out of flicker drive?" asked Mr. Christianssen, who had signed on the *Umpaul Raatgarten* after the last pilot had disappeared on Beedirn.

"You tell me, please," van Bronk said. "I have every mechanic in each post we stop go over the drive, and they say, all of them, that there is no reason why it should behave as it does. I should go to Uxor, they tell me. Then I tell them where to go. Also to Uxor should I go to have this computer overhauled. The thing is sealed, and seems to be filled with some kind of green goo. To Uxor I should go. Only with bombs do I go to Uxor. Secure, please, from flicker drive."

"Drive secure," the pilot said, flicking the appropriate switch. "Pulse gate discharged. Hull discharged. Scoops in—" There was a ripping sound and a sudden thud, as if a giant boot had just kicked the ship.

"Gott verblast!" van Bronk exclaimed.

"Trouble blinker on number two scoop," the pilot said. He consulted his board. "Apparently part of it has ripped away. Yes," he added, flicking the viewer to scan that section of the hull, "that's what happened. The outer corner has ripped loose. I can see one of the vanes drifting away from the ship."

A blinding white light filled the viewer. Van Bronk blinked and the light was gone, as was the drifting wreckage. "Double verblast!" he shouted into his pilot's ear. "Now we have exploding vanes. I would not wish my worst enemy to go to Uxor. I will go to Uxor myself and speak gently to the designers of this ship. Send a recognition call," he told the computer, "on the frequency used by this planet."

"What planet?"

Van Bronk clenched his fists. "I hate you," he told the computer. "The planet we have arrived at, you rasping moron."

"Very good," the computer said. It hummed.

The main comm-screen lit up, displaying what looked like a hand-drawn test pattern. "What ship is that?" a non-commital voice asked.

"Verblast!" van Bronk yelled, stepping in front of the viewer. "It is your own specified recognition call we are using. If you don't believe that, what good is my word? We are the *Umpaul Raatgarten*, for the fourth time. Just as we were last month and three months ago."

Four fingers appeared on the test pattern and lifted it out of the way, revealing a round-faced youth with jug ears. Don't get your bippies in an uproar, Captain," he said. "I'm only following my instructions."

"Your verdammt instructions are about on a level with everything else which already has happened today. First the water gismo breaks loose, then we have an explosion, then you. I take you with me to Uxor, maybe."

"An explosion?" the youth asked. "Wait a second." His face bobbed off the screen, which stayed blank for about three minutes, then an older, darker and thinner face replaced it.

"Good afternoon, Captain van Bronk," the new face said.

"Here it is night, ship time," van Bronk said. "Good night, Herr Richtman."

"Whatever," the head said, an arm appearing and waving afternoon/night away as unimportant. "What's this about an explosion?"

Van Bronk shrugged. "One of the vanes ripped off when we came out of flicker drive. From the scoop, you understand. Then it exploded. Poof."

"Oh. This was on the outside of the ship, then?"

"You show me a ship what has the hydrogen scoops on the inside," van Bronk challenged.

"Do you think it could have been sabotage?"

"Who would want to blow up a vane after it breaks off the ship? Maybe some conservationists? Afraid it would fall and hit a duck?"

"Do vanes usually break off scoops?" Richtman asked.

"On this ship? If something *doesn't* go wrong, then I suspect sabotage."

"Well, could it have been some sort of signal?"

"It could," van Bronk granted. "It certainly could. Right now it's propagating through space at the speed of light. Inside of three years it will reach the nearest star outside this system. In slightly more than fourteen years it will get to the nearest inhabited planet. Why should I tell you not to worry? In only fourteen years, if they're looking in exactly the right place at exactly the right tenth of a second—and have some kind of instrument that can separate that flash from the light of the sun right behind it—they'll see a flash. Worry."

The dark face nodded. "Okay, expert," he said. "Mr. Goodbit has standing instructions to check anything unusual, so I'm checking. Bring your jinx ship in and we'll get it unloaded. The landing beacon's on now." The screen went dark.

Van Bronk told the pilot to maneuver the ship into a landing orbit and sat back, quietly wondering what would go wrong next.

V

TRESPASSERS W gleamed bright silver on her sunlit side where she rested in space, sharing Beedirn's orbit around its sun. Obviously not built for commerce in either goods or passengers, she was, by deepspace standards, a small, trim ship. It was impossible to tell her function from external appearance: possibly a scout ship or courier for some interstellar navy; possibly a research vessel commissioned by a great university and carrying a complement of dedicated scientists; possibly a revenue cutter, guarding against smugglers and pirates; possibly that ultimate in rich men's toys, a luxurious space yacht.

In her fairly short existence she had been most of the above. Her hull was laid in a naval shipyard in expectation of a war which didn't break out. She had served as a pirate-chaser before being sold to the Leadlar Foundation for certain esoteric researches into the positronic flux around collapsed stars. After this five-year mission, the results of which are still being argued by learned bodies of great specialization, she was purchased by a man of great dignity and inherited wealth and refurbished from bowsprit to back plates with nothing less than the very best. The latest ship's computer was brought all the way from Proxit to replace the Navy regulation model. This worthy, on his very first short hop in his new toy, found himself having an argument with his own ship, as represented by her new, ultra-expensive computer. He returned home enraged and ordered the ship sold as scrap; which was done.

The hull, "with all appurtenances and dunnage," was sold "in as-is condition, all registered sales being regarded as final," to Mssrs. Morgan Oxbo and Mikko Falkynberg, who were agreeably surprised upon inspecting their purchase. Aside from containing several crates of unopened delicacies and fine wines, the ship had the best computer either of them had ever seen. The previous owner's problem seemed to have been composed in equal parts of his own stubbornness and some very slipshod programing done by his local experts. Since they planned to use their own carefully compounded program anyway, they merely expanded it to utilize the greater abilities of their new machine and were quite content.

After several interesting shakedown cruises they decided that the newly christened *Trespassers W* was ready for action. The four-being team: Morgan, Mikko, Metrak the Maxaglorian and *Trespassers W*, announced very discreetly, in certain select circles, that they were in business. And they had been busy ever since.

"Gentlemen," *Trespassers W*

announced in her sweetest voice, "I have received the burst we have been waiting for. Shall I print it for you?"

Morgan put down the soldering pencil he had been using and swiveled around in his chair. "We trust you, Tress," he said. "Just throw it on the screen and give us the analysis."

Mikko trotted into the lounge from the galley, mixing bowl still clutched in one pawlike hand and wooden spoon brandished baton-like in the other, and settled on the couch. Metrak looked up from his copy of *The Gracious Hostess*, one of the books Morgan had purchased for him in Beedirn City, and squatted comfortably on his middle and rear legs.

A row of wall panels on the opposite side of the lounge went black. Tress said: "The inverse-space portal lasted a full two milliseconds longer than you told me to expect, Morgan, so I have more data than I had planned on—" and put a complex, chromatic wave pattern onto the black screen. "I have projected here the full spectrum, from infrared to gamma radiation, as received. It is, of course, corrected to conform to your visual range. The actual visible-light part of the spectrum would be this." Here two black bands cut off a small section at the low red end of the pattern.

"Very good," Mikko said, thoughtfully staring at the screen while he mixed his batter. "What have we got, Tress?"

A portion of the wave pattern disconnected itself from the rest and rose to form a separate chart above. "This would seem to be a representation of the energy blast which activated the inverse-space tube, probably reflected off the hull of the ship carrying it," Tress said.

"Yes, I didn't think of that," Morgan said. "I'll try to make a gadget which blows with less radiant energy next time. Anything else?"

"The ship seems to have a very dirty hull," Tress commented, then blacked that part of the chart. "What's left," she continued, "is principally the radiation pattern of a G-3 type star, about one AU away."

"G-3?" Morgan quizzed.

"That's a problem," Mikko said, sitting forward in his chair. "What we're looking for is an A-5 type and the planet would need to be quite a bit further away."

"Now there is something very interesting, gentlemen," Tress said with unmechanical relish.

"What's that?" Mikko asked. "Don't be coy, little one."

"I notice a slight discontinuity," Tress said, quite evidently proud of her own cleverness. "Notice that if you null all the radiation pattern to be expected from a G-3 star—" here most of the bright display went black, leaving only

slight wisps of color scattered along the chart, mostly on the very-short wave end—"there is a ghost left. Upon DeFrybian analysis, this proves to be the reflection of an A-5 type star, bounced off the photosphere of the G-3."

Morgan frowned.

Mikko said, "Of course—" just as Morgan's frown cleared.

"Reflection?" asked Metrak.

"Certainly," Mikko said smugly. "That explains a great deal. The star is a binary; one hot component and one cooler one. There *are* two different planets, but they're in the same system."

"How's that?" Morgan asked. "One going around the A-5, and one around the G-3?"

"No," Mikko said. "That wouldn't be likely. That would mean that the cold one, Quindar's planet, would be in a highly eccentric orbit around the A-5, approaching its primary at just the specific moment in time that the Brotherhood's planet is warming up because the A-5 is approaching *it!* How does it compute to you, Tress?"

"Vanishingly small probability," Tress told them. "The most likely situation is that both planets revolve about the G-3: the first at one AU, plus or minus ten percent, the second much farther out. Assuming the G-3 to be stationary, the A-5's orbit would be a highly eccentric ellipse with a period of from ten to a hundred fifty thousand years. Of course, that is merely a first approximation; I would have to get further data before making any flat statement."

"You've checked your Star Catalogue?" Morgan asked.

"I have. There are eight possibilities; the data on all are both old and meager. There is also a good probability that the binary is unlisted in the Catalogue."

Mikko looked thoughtfully at the glowing overhead and stroked his beard. "It looks very much like what the Brotherhood thought was a planet falling on them eighty-three years ago was an A-5 star. It's probably a very good thing they left. Morgan, what is the probability that Quindar's engineers—or other personnel, for that matter—suspect that there was something incongruous about that explosion?"

"Small, I'd say. Look at it: The power required to energize an ordinary inverse space tube requires a hell of a lot of heavy equipment, even with superconductors in the hundred-degrees-Absolute range. I couldn't have put it in such a small space if I'd intended to stabilize it. I just overloaded the circuits and let 'em blow. Those five-millimeter silver rods flashed into plasma in six milliseconds—half again as long as I had any right to expect. The Bender fusion batteries blew, oh, maybe a millisecond later, discharged through the silver plasma. Big flash of

light, no damage. They wouldn't think of a portal operating. Since it's normally used after it's been established at both ends—and there's such a slight energy drain once it's stabilized—I doubt if they'd make the connection. The most likely explanation would be that the scoop field blew when the scoop ripped off."

Mikko nodded. "Excellent. Then it's highly unlikely that they'll be expecting us.

"Tress, taking into account the time between the takeoff of the *Umpaul Raatgarten* and the flash through the inverse space tube, and the pseudovelocity of the ship, find that binary for us."

"Computing," said Tress.

VI

"BREAKOUT, gentlemen," Tress announced. There was a slight lurch, accompanied by an audible *click* and a subtle feeling of continuous deceleration as the gravity field rephased.

The three-fourths of the team that were not built into the ship had gathered in the control room, each in the compleat designed for him. The two humans' compleats resembled overstuffed executive chairs, and Metrak's looked like a squashed trundle-bed.

Mikko hunched forward to examine the available readouts. "What does it look like?"

"Information is not yet complete," Tress answered him testily.

"When will you know if this is the system?" Morgan asked.

"The probability is point nine-nine-three that this is the system," Tress replied. Two lights appeared on an overhead screen. "This is the G-3 star. This other is the A-5." A dotted line sprang out from one light, assuming an egg-shape which circled the other light, then ran off the screen. "That's a first approximation of the orbit. I'll need about two standard days' observations to refine it." Three more lights appeared, one with a more nearly circular dotted line. "There are the observable planets. I have one orbit—no, two." A second dotted circle appeared.

"Which are the planets we're looking for?" Metrak asked.

"Here's another," Tress said, lighting another spot on the screen. "The second out from the sun would appear to be the Earthlike one. The fourth—no, fifth—" she added another dot after the second "—will be the planet that approaches the A-5 star as it reaches apasteron. The closest point will occur in slightly under two standard years. It will graph like this —" The two dots moved in their orbits until they met and appeared to merge. Then the dot representing the star pulled ahead of the planetary dot in its fall toward apasteron. "Here are the figures —" A page of formulae appeared on the screen.

"Thank you, Tress," Morgan said. "Thank you very much." He swung his compleat around to face his companions. "Well, we've found it. What now?"

"Now," said Mikko Falkynberg decisively, "we sneak into a high orbit over that inner planet and take a long look at what is going on down there. Tress, we want a nearly circular, transpolar orbit at about two diameters out, with a minimum use of power—drive muffled and as little radiation as possible."

"Computing," Tress acknowledged.

It took time. Time to fall into the prescribed orbit, time to take the careful observations of the surface, time to analyze the meanings of the recordings. During that time four ships under full operating power came, stayed and went from the planet's surface. Tress reported faithfully that each of them had come from the cold outer planet and returned there.

Morgan was asleep after grueling hours of work the previous day when Mikko said to Tress: "Let me see Eighty-four Zeta again."

"Area Zeta, Composite Eighty-four," Tress announced as she lit up a screen. On it appeared a portion of the planet's surface.

Because of the planetwide change in weather the cloud cover was dense and widespread. Each time Tress had taken a shot, she had made a probability estimate of the actual surface she could see and ignored the clouds. After eighty-four separate shots, the composite map was bare of clouds.

Mikko stared at it for several minutes, then nodded. "Yes. That's it. Up here—" he tapped the screen with his stylus— "are the big plants. Probably mining and smelting. Spacefield over here. All fine. But—" he dropped the point of his stylus a hundred and thirty kilometers to the south— "what is this? Another spaceport?"

"Possibly. It reminds me of something else," Mikko said thoughtfully. "Check this against the shots of the Brotherhood's new planet—the shots showing the village."

"Ah," Tress said after a few seconds. "You're right, Mikko. There is a definite similarity. That is most probably the village built by the Brotherhood when they lived here."

"Are there any indications that it is being used presently?"

"None."

Mikko smiled with satisfaction. "Excellent. That gives us our approach. Now, how about Quindar's communications?"

He wasn't asking about communications through an inverse space tube. An inverse space tube is not, of course, a tube, but it can be thought of as one. Two matched portals, when energized, correspond to two ends of a tube. Or, more exactly, to opposite sides

of a disk of zero thickness, no matter how distant they were from each other in "real" space. The initial energization requires tremendous power, but it can be maintained with only a trickle of current after the match is stabilized.

Early mathematical treatment of inverse space indicated that anything moving through inverse space experienced negative time. If, for instance, one end happened to be exactly one light-year from the other, anything traversing the "tube" would emerge from the portal a year earlier than it had started. That proved to involve an insoluble paradox. The fact is that the time involved is zero; two portals are opposite sides of a single mathematically two-dimensional disc. Obviously, no material particle can go through the "tube." Only particles having an intrinsic velocity of *c*—photons and neutrinos—can jump the interface.

Communication via inverse space requires only a couple of ordinary ten-milliwatt handphones, but there is no way to tap the line, for the communication does not exist in "real" space.

However, although the amount of power required to maintain the tube is small, setting it up initially requires a great deal of power, and there is no point in that at merely planetary distances. Tress could easily tap their comm lines.

"The probability is point nine-seven-three," she said, "that they are mining and smelting copper. But I do not understand the high breakdown factor of their working units. Working units should not break down that often."

"I agree," said Mikko slowly. "The trouble with their troubles is that they are apparently not troubled by them."

"I wish you wouldn't do that," said Tress in a plaintive tone. "You used the word 'trouble' in at least two and more probably three different ways. And your pronouns are vague. I do not understand."

"Neither do I," said Morgan from the control door, "but not for the same reason."

"I mean," Mikko said distinctly and somewhat testily, "that I'm bothered by the fact that the difficulties they seem to be having are apparently not disturbing them."

"Noted—filed for correlation," said Tress. "May I ask your basis?"

"Just what I was wondering," Morgan said.

"That group of messages," Mikko explained, "all say something like: 'Five working units nonfunctional. Four additional units required. Send nine units.' And back comes the reply: 'Nine units will be shipped within twelve hours.'

"Nobody ever says: 'We are running short of units.' Or: 'Those things cost money.' Or: 'Repair old units.' Morgan, if these boys

are running this enterprise on a thread—which they *must* be to make a killing on the payoff—why aren't they more careful with their investments?"

Metrak, who had been dozing quietly in his compleat for the past several hours, opened one anthricite eye. "Why do we not go down and see?"

"Thank you, Professor," Mikko said. "I was about to suggest exactly that."

SOME two hours later, the *Peccavi,* a space yacht of Beedirn registry which looked suspiciously like the *Trespassers W* if you had a nasty, suspicious mind, fell in an injured-drive-tube way into a close orbit about the planet, beaming a distress signal on all appropriate frequencies.

After two orbits, when it had become obvious to the Quindar men who were observing her that the problem ship would not go away or explode or in some other way solve the problem by herself, the ship's comscreen lit up to display a simple test pattern.

"What ship is that?" the pattern asked in a young-sounding male voice.

"*Peccavi,* out of Beedirn," Morgan replied.

"What class?"

"Private registry," Morgan said, fingering his ruffed collar with just the proper air of bored aristocracy.

Tress's voice whispered in his ear. "Photo laser pulse just ended. That's the fourth. There have been three scans with sigma search-beams and there is almost continuous radar."

"Maybe they're doing an album," Morgan murmured.

"What seems to be the trouble?" the test pattern asked.

"Don't really know," Morgan said. "Something about the tubes or some such. Something about patterns, you know."

"Depatternization of the tube cathodes?"

"That's the phrase," Morgan said gratefully. "The ship knows what's wrong. Says we can't go any farther until the tube thingies are fixed. Permission requested to land and make necessary repairs. We'll pay, of course."

A dull humming sound came through the speakers as the microphone at the other end was cut off. The people on the planet were presented with a problem. What they wanted, it was clear, was for the ship to go away as fast as possible. But under one of the few universally recognized laws, the Uniform Universal Space Calamity Act, a ship requesting aid or assistance of an inhabited planet, outpost, mining or research station had to be granted such aid. If they refused to help, they would have more—and more official—company nosing around as soon as the incident was reported.

The test pattern was replaced by a close-in teleview of a dark, triangular head, rising from pointed chin to flat-cut hair. Wide set eyes balanced over a small nose, centered above thin lips, which moved: "Greetings. I apologize for the delay. My subordinate had to inform me of your request."

I'll bet, Morgan thought.

"Of course you must land as soon as possible. We should be able to effect repairs to your yacht almost immediately. There'll be no question of payment."

"I humbly thank you, esteemed sir. We shall try not to impose on your hospitality."

"Yes," Thinlips agreed. "You have, naturally, had your quaramine vitus inoculations?"

"Our who?" Morgan asked.

"Quaramine vitus. It's a plasmoid disease indigenous to this planet."

"Never heard of it," Morgan said truthfully. "I guess we'll have to take the inoculations when we land."

Thinlips shook his head regretfully. "I am sorry, but the inoculation takes two weeks to produce the required antibodies. I must request you to remain in the ship with the airlock sealed and allow us to make the repairs. I'll see that the landing beacon is turned on now—just follow it in."

Morgan said, "I must thank you for your aid and consideration."

Thinlips nodded and blanked off.

Mikko Falkynberg leaned back and folded his arms across his heavy chest. "Well? Correct me if I was wrong."

Before Morgan could speak, Tress said: "No correction necessary. You said that they would have an apparently valid excuse to keep the three of you sealed in."

Morgan smiled far too sweetly. "And he was right. Very well, Tress, my love—execute the Falkynberg plan."

Trespassers W began dropping toward the Quindar spaceport in a neat landing orbit while the men below watched it carefully on their tracer screens.

All seemed to be well for the first few minutes.

Then the ship lurched suddenly and slid off her orbit, moving southward.

"Peccavi!" snapped one of the watchers. "What's the idea, there?"

"Not our idea, I assure you," came the cultured voice. "The drive's bucking up. We're trying to correct."

"Get back on the prescribed landing orbit—or you'll crash!"

"We know," Morgan said, suddenly harsh. "Leave us alone so we can correct."

The thin-lipped man cut off his voice pickup. And grinned. "All right," he said, "let 'em crack up. Save us a lot of trouble, and it will look right on the records."

On the screens the ship buckled and twisted, as if trying to regain control of a terribly faulty drive.

Morgan, Mikko and Metrak, couched in their compleats, still felt the surges and accelerations that assaulted them, but Tress had computed her antics to a nicety. At the last moment, she braked, swerved, settled and came down neatly to a relatively soft landing in the middle of the square in the center of the long-deserted Brotherhood village.

THE men in the Quindar spaceport hunched forward in their chairs like a group of ill-controlled marionettes, waiting. Thinlips turned from the radar screen to check an oscillocom reading. He stared at it expressionlessly for a long moment and announced: "They've landed."

"Good!" A short man in back of the room pushed away from his chair and started pacing the floor, his arms locked behind him. Thin black hair brushed neatly away from his high, domed forehead, severe, almost military clothing and a certain precision of manner gave him an air of importance that somehow made him seem even shorter—not merely a small man but the king of the midgets. "You must send someone out to inspect the wreckage. Where did they crash?"

"They didn't crash, Mister Goodbit, they landed. The seismo would have indicated a crash."

"Landed?" Goodbit stopped pacing. "What does that mean? Where? We must send an inspection team at once!"

"Yessir. As soon as I—"

The comscreen lit. "Help! Can you hear me? Send someone to help, please!" The screen showed the control room of the *Peccavi,* which was filled with billowing clouds of dense, gray smoke. Tongues of flame licked up from behind a twisted panel in the background. The image was so realistic that the watchers could almost smell the burning insulation. "Help," the coughing face in the screen pleaded, tears streaming from the corners of reddened eyes.

Richtman hit the call button. "I hear you. What happened?"

"I don't know. We hit the ground and smoke started coming out of everything and nothing works and we can't—" The screen went blank.

"They—ah—seem to be having trouble," Goodbit said with a slight smile.

"Yessir. I'll send a cargo aircar out as soon as I can get some fire-fighting equipment aboard," Richtman said, swiveling in his chair.

"Now, now, Richtman; let us not be hasty. Precipitous action is always to be avoided. We must consider the situation."

"Excuse me, Mister Goodbit, but what's to consider? If we don't

get there quickly they'll probably burn to death!"

"So?" Goodbit's eyes flashed. "You may be right. Yes, on consideration I think you *are* right. We must certainly get help to the poor, unfortunate crew of that vessel. Load the aircar—but not in haste, you understand. Set out for the wreck as soon as the car is loaded. Take along a photographer so we may record the details of the demise of the victims of this terrible crash—we must make up a full report to send to Beedirn. What a pity."

"Very good, sir," Richtman said. "All deliberate speed it is. I hope they don't send an investigation committee."

"I think it highly unlikely. Take good, clear photographs."

"Yessir."

"Now," Goodbit dismissed the wrecked spacecraft with a wave of his well-manicured hand. "What about the copper situation, Dolemort? The main shaft of the heat-sink is four days behind schedule."

Dolemort, a grossly fat man who was squeezed into one of the side chairs, laced his sausagelike fingers together nervously. "We can't use any more of the locals and expect the food supply to keep up. The present, ah, working units are getting weak. They can't work as hard."

"What?" Goodbit asked gently. "Can't?"

"Yes, sir, that's right." Dolemort quivered. "The free locals still bring food for the, ah, impressed units—but the quality has gone down. There aren't enough of them left."

"Well pick up the rest of them and put them to work. They don't have to eat well. Throw together some kind of nutritional gruel out of the stores. We'll get enough work out of them to finish the job."

"Yes, sir."

"Tell them it's punishment for the man—what's his name—that disappeared. They'll understand that. A very moral lot."

"Yes, sir."

"Get up to quota," Goodbit said, smiling calmly, "or I'll stick a shovel in your fat hands!" Nodding to the group, he walked from the room.

VII

AS TRESS eased the outer door of the airlock open just wide enough, Mikko said: "Out, Professor! Bounce!"

Metrak literally did just that—shot out of the airlock at better than two hundred kilometers per hour, curled himself into a ball in mid-flight and arched high above the low buildings that stood in decaying ruin around the central square of what had been a Brotherhood village more than eight decades before. He struck the ground far beyond the limits of

the dead village and rolled nearly half a kilometer down a rocky slope before coming to a halt. He shook himself off, flexed his incredibly tough Maxaglorian muscles and scrambled up the next slope, heading northward at an easy run, averaging eighty-five kilometers an hour over the rough ground.

Mikko and Morgan watched the screens, looking for any movement, any indication that the Professor had been observed.

"Anything, Tress?" Morgan asked softly.

"Nothing. There is no sign of radiation in the electromagnetic spectrum that indicates any form of communication nearby. The only anomaly is the relatively strong source of energy centering around the two-fifty to two-sixty gigahertz region, coming from—" a picture flashed on the screen— "that building. A small fire, apparently dying, since the radiation is decreasing."

"Look closely at the chimney," Morgan told Mikko.

A barely visible wisp of smoke was coming from the crumbling stone tube.

"Tress," Morgan asked, "are any human beings around?"

"The ambient temperature is almost exactly three hundred degrees; to detect a body radiating some ten degrees higher is easy at short range, provided insulating clothing is not being worn. Assuming normal human clothing for this temperature, and excluding the interior of that particular building, the probability is eighty-seven percent that there are no human beings within one hundred meters; sixty-five percent that there are none within five hundred meters. There is, however, a fifty-eight percent chance that there is at least one but not more than two within a thousand meters."

"Check vertical heat convection currents," Morgan said.

"I did." There was indignation in her voice. "Mikko's instruction 383P584DD-CHARDEX. Do you wish a readout?"

"No," said Morgan. He looked at Mikko, who was regarding the scene with narrowed eyes. "Any ideas?"

"Certainly," said Mikko without turning his head. "A good many. It might, for instance, be a volcanic fumarole. Tress?"

"A probability of point oh-oh-four."

Mikko was unperturbed. "The two most likely situations, as I see it are: One, that whoever built that fire is—or are—still inside, which would make them difficult to detect against the background radiation; two, that whoever built it heard us dropping down and fled precipitately to the hinterlands. Tress?"

"Indeterminable. Your guess is as good as mine," said Tress.

Mikko thinned his lips but said

nothing. Morgan had sneaked that phrase in and Mikko knew it.

"Whoever built that fire is most assuredly not part of the secretive group at Quindar's spaceport," Morgan offered. "Probability, I'd say, over ninety-five percent."

"Tress?" Mikko asked.

In a sardonic, sing-song voice, Tress said, "The computation of human motivation is beyond the capability of my programing."

"So? Well, as my great grandfather is reputed to have said before the action that won him his third Nova, there's probably nothing to it—but we'd better go take a look."

"I tip my hat to your great grandfather," Morgan said. "Let us deploy and reconnoiter. Swords and bucklers for the landing party if you please, Tress."

A concealed locker door slid open, revealing a row of sidearms: Course-Berryman handguns, with their bulbous grips and fragile-looking, translucent blue tubes; squat Delancing pistols, firing anaesthetizing darts; heavy, beautifully machined MacGregor slug-throwers; and slender Whompers. The gunbelts and holsters were neatly hanging from a line of hooks above. In the drawers below were ammunition, cleaning and repair equipment and spare parts. Shoulder-stock and heavier weapons were in the next two lockers.

"I'll take a Delancing," Morgan decided, wrapping the appropriate belt tightly around his middle.

"I'm a traditionalist," Mikko declared, buckling on the massive MacGregor.

"I'll see if I can ship you up a crossbow," said Morgan. "Let's head out by the number-three hatch, so we can circle around to the building without being seen."

"A crossbow?" Mikko considered. "I have no quarrel with that."

Tress dilated the lock as they reached it. "Goodbye," she said, contracting it behind them. "A high proportional probability of success on your venture."

"What's that?" Mikko asked.

"Good luck."

Mikko glared at Morgan, who did his best to look innocent. Neither of them spoke as they reached the nearest of the crumbling houses, long deserted by the Brotherhood, and started working their way around toward the thin wisp of smoke. No words were necessary to this pair, who had worked together for longer than either liked to admit, except in serious emergencies. Normal operations went as smoothly as though their four hands were controlled from a single brain.

They worked their way around the second corner of the square and picked carefully through the rubble toward their objective. Nothing else was moving; the smoke from the chimney, now reduced to a rising haze, was the

only sign of life they could detect. At the back of the building they flattened themselves against the wall on each side of the alleyway that led to the rear door.

"Tradesmen's entrance?" Morgan asked quietly.

"Garbage disposal," Mikko told him. "Leads to what passes for a kitchen. Me first."

"Right."

Mikko pulled the MacGregor from its holster and led the way gingerly down the narrow alley. He heard a soft *thud* behind him and turned to see Morgan pitching forward to the ground.

He sensed a flicker of motion above him—but before his eyes had a chance to focus on it a sharp pain shot through the side of his head and the ground rose up to cushion him. There was a ringing in his brain and no feeling.

VIII

PROFESSOR METRAK of Maxaglor viewed the scene in the smoking valley below with the dispassionate eyes of the scholar. His brain recorded. There was no way of communicating with Tress; the Quindar people would have every detector they had open and ready, looking for any sort of communication. An FM laser might have been fairly safe but a couple of mountains stood between Metrak and Tress, neither of which was observably transparent.

He had already seen two big transport aircars lift up high and drift southward at no great rate. They were, he was certain, "rescuers" who were, understandably enough, not in any big hurry to arrive at their destination. But they had climbed high quickly in order to be in the line of sight of the putative *Peccavi*. They probably did not really expect anything but they would be fools indeed if they failed to take every precaution.

Metrak had no fear that they would spot him from the air. A Maxaglorian's energy requirements were such that, to him the phrase "conservation of energy" referred to a biological necessity rather than a law of physics. His hide was tougher than wrought iron and harder than tungsten carbide, but its heat conductivity was a variable controlled by his nervous system. He could hold his heat as easily as he could hold his breath, and his highly efficient metabolic processes did not generate much waste heat.

As far as optical spotting was concerned, he was only another oddly shaped black boulder among many oddly shaped black boulders.

Below him the valley smoked.

With one of his hands he eased the binocular surveyor from the special pouch under his belly and, bracing himself carefully, applied

his obsidian eyes to the eyecups. His fingers manipulated the controls on either side, shifting the lined reticule which framed his field of vision.

The great open-pit mine was roughly circular and some six point four kilometers in diameter. It had obviously been worked for many years.

The smoke came from the smelters over to the north, three point one kilometers away. The air reeked of sulfur dioxide in the air.

That, Metrak told himself with satisfaction, was one way Quindar was saving money. No anti-pollution devices, a crime ranked as a felony on any settled planet.

Metrak flicked the zoom control and centered in on a long line of workers moving truckloads of ore up the spiral road from the central depths of the mine toward the upper periphery. They were large (by Metrak's standards), furry beings with thin, scale-covered legs and arms. Their heads would have reminded Metrak of an English sheepdog, had he ever had the fortune to observe a specimen of that breed, which had only a few years before been recreated after centuries of genetic abeyance.

A sudden movement caught the professor's eye. He moved his binoc a little to center the area where the action was taking place.

One of the autochthons had fallen. As Metrak watched, the bird-like extremities drew into the hair covering the body, the head pulled in until it was only a slight bulge on the nearly spherical ball. The result looked something like a large beachball made of yak hide.

The recording camera in the binoc hummed an almost inaudible D-flat as the little being watched.

The line of native orebearers stopped. Metrak heard a noise very faintly from below. One of his middle hands took out a collapsed sound pickup, expanded it and clipped it to the side of the binoc; automatically focusing the sound intensifier on the scene he was watching.

The faint sound became a high keening as Metrak clipped the button speaker over his earslot. He backed off the zoom on the binoc to take in more of the scene and went on watching and listening. The keening continued, the orebearers staying in place around their fallen comrade.

After several minutes a small observation platform, looking like a flying bridge table, skimmed over to the stopped workers and settled softly until its ground-effect cage touched the dirt. One of the two humans on it unclipped himself from his harness and climbed down, while the other stayed behind the control stick, hefting a large shock-gun and looking nervous.

"Howja figure it?" the one who

climbed down asked, his voice coming in small and clear over Metrak's button speaker. "One minute the hairball's workin' along fine, the next he's keeled over and tucked up." He bent over to examine the furry beachball.

"Just another deader," the one on the platform said. "Come on, let's get out of here."

"Don't be so nervous. Just keep that gun handy. Yah, this's a deader." He looked around at the cluster of natives. "You and you—get rid of 'im!" He waved a hand at the featureless ball of hair at his feet. "And back quick, you understan'? Back quick or we give your friends a dose!" He waved at his buddy on the platform, who brandished his shock-gun menacingly.

"Unnastan!" said one of the two chosen autochthons in a high, buzzy voice. "Bag gwig! No gill frems! Bag gwig!"

"All right! Get movin', then. Go!"

The two chosen ones moved rapidly, grabbing their fallen comrade by clutching their three-fingered talons in its hair and trotting off.

The keening stopped.

"All right! Move it!" said the human with the shock-gun. But his command was unnecessary; the orebearers had already begun to go on with their task.

Metrak followed the departing funeral procession in his binoc until he saw it vanish over the crest of a distant hill. Then he packed up his equipment and departed—stealthily at first, then gaining speed, moving circuitously after the pair of autochthons until he had them back in sight.

The natives and their burden, with Metrak a distance behind them, soon arrived at their destination. It was a narrow valley through which ran a snowmelt-swollen, swift-running river.

Without ceremony they placed their furball burden on the bank of the river, a few meters from the water's edge, then took off back the way they had come.

Metrak stayed and watched.

Some time later a large raft appeared upstream. Made up of bundles of small logs, it was roughly triangular in shape with the blunt end forward and two long sides leading to a pointed stern. Along both sides were a row of natives with thick poles, trying to keep the unwieldy craft steady in the rapid river current.

One of the autochthons spotted the body. It screeched something Metrak didn't understand and the group poled to shore. As the raft got closer to where Metrak crouched behind a convenient rock on the ridge line overlooking the river, he could see that the central area of the craft was filled with contracted autochthons like the one on the bank.

Two of the polers hopped

ashore, grabbed the body and swung it aboard. Then they jumped back themselves and resumed their places as the raft continued its perilous way downstream.

When the raft was well past him, Metrak leaped up to the ridge line and, breaking into an easy lope, began to follow it.

MORGAN OXBO reflected dimly on the fact that his back was cold. And uncomfortable. A voice was niggling at his brain.

"My dear Morgan, do yourself the favor of waking up. If you keep lying on this cold stone you will get a devil of a chill—and I am not in any condition to hold you in my arms. Besides, I just saw your eyelids flutter." A pause. Then: "Dammit, Morgan! Wake up!"

He opened his eyes. The white light of a sun seen from entirely too close seared his vision, accompanied by a thunder of pain. His eyes blinked shut but the pain did not go away. He groaned.

"That's a start, dear friend. That's a start. Open your eyes. Not that there's anything to see—but you've got to get up before your back freezes solid to the stone. Come on, now—open your eyes."

Morgan tried again. This time it was a little better. The sun seemed to have receded a bit. The pain was constant, but pain can be handled. He blinked several times and the blinding light slowly died down to a greenish blue as his irises contracted to the appropriate aperture. "Mikko?" he asked.

"In the flesh. Very much in the flesh. How do you feel?"

The blur took shape. Mikko towered over him. Something was strange. "I don't know how I—ow—feel. Is the back of my head still connected to the front?"

"As far as I can tell. You were struck by a rock about the size of your fist, judging by the bruised area. Skin broken, surface bleeding, but no deeper damage. Don't feel alone—I was similarly treated. I must have a harder head."

Morgan tried shaking his head to clear away the fuzziness but the back of his skull protested sharply. He sat up and was rewarded with a wave of nausea. After threatening his stomach a while, it passed, and his brain gave signs of starting to function. "Where are we?" He looked up at Mikko and realized what had seemed strange before. "Mikko, you're naked!"

Mikko was bouncing from foot to foot and slapping his arms across his belly to warm up. "I am. You are. It would seem to be the way of the world in our rather confined quarters."

"I am? I am! That's why I'm so cold. Where are we? And what, in the name of the Seven Aspects, happened?" He looked around. The stone floor on which he was

sitting spread out in all directions to form the base of a square room. The walls, also of stone, rose up to a height of about three meters before being capped by a domed slab ceiling. Greenish light seeped in through two vine-covered slits in the far wall. An odor of mildew pervaded the damp chill air.

Running across the room from left to right stood a row of closely spaced iron bars, anchored in floor and ceiling—they cut the room into two unequal rectangles. The only entrance to the room was on the other side of the bars—a low, iron door set into the far wall. Between the two men and the bars ran a small river.

"We," said Mikko, "are in a contemplation cell—the Brotherhood's contribution to the science of penology. The gentleman in the corner has been contemplating for quite some time now."

"Brotherhood?" Morgan rubbed his aching head and tried to focus his eyes on a dimly perceptible figure lying in fetal sleep on a mound of something in the corner. "How did *they* get into this? I mean here and now."

"They aren't here and now," said Mikko, "but this is one of their relics. I have seen their latest model. Almost ended up in it. It's designed to allow one to contemplate one's sins until one repents of them. This place is almost identical." He swung his left arm in an arc, palm upward. "This was originally a small stream. It enters through a hole some thirty centimeters on a side and originally flowed through a shallow trough of the same dimensions and on through the exit, over to your right. Drinking water to the left, sanitary facilities to the right. Simple, eh?"

"Very," said Morgan, carefully exploring the knot on the right side of his head. "You call it simple, I call it barbaric. But we agree."

"Thank you. At its best, this place was never comfortable. The ten-degree slope toward that open drain wouldn't be easy to sleep on—and the slope from left to right is fifteen to eighteen degrees."

"That flow before us is no small stream," Morgan said. "It's damn near a river. Since the Brotherhood left, the ice to the north has been melting. We have a flood here, Mikko."

"Exactly," Mikko said agreeably. "That rivulet is now over a meter deep in the center and even deeper to the right. I assume we were brought in across the left end, where it's narrower and shallower. Up there, you see, where the waters do not yet wash the bars. There's a door in the bars, if you will notice."

"You've tried it," Morgan said. A statement, not a question.

"Of course. A simple lock. You and I have extricated ourselves

from far more complicated ones. But."

"But not without tools. Right. And there are none." Morgan rubbed his hands together in a vain effort to keep them from turning blue. Stomping his bare feet against that icy stone didn't help much either.

"No tools," Mikko said. "And no tools to make tools, if you follow. No free stone, wood, or metal. I have looked."

Morgan nodded. If Mikko Falkynberg had searched the place, the job had been done as thoroughly as if Morgan himself had done it. A stray twinge of pain shot through Morgan's scalp and he winced. "How did they get us, Mikko? Tress said there was no one around. How could they have sneaked up on us? *Both* of us?"

"From the roof," Mikko growled. "They dropped rocks on us from the roof."

After a half second Morgan jerked his head around to stare at Mikko. "The *roof?* You're out of your skull! Tress would have seen anyone on the roof! She said there were no human beings within half a kilometer. She—"

"She was right," Mikko cut him off sharply. "Beings, yes; human, no. The intelligent autochtons of this planet. Their body temperature is apparently at or slightly lower than three hundred —the ambient temperature. How could she spot them? Picture a brown, fur-covered ball about a meter in diameter, with a hairy, human-sized head and lean, bird-like, squamous arms and legs—two each, bilateral symmetry. Three fingers on each hand, equally sized, equally spaced, and equally opposable. Our hosts."

"I see," Morgan said. "Intelligent autochthons. And you never mentioned them."

MIKKO Falkynberg clenched his right hand and slammed the fist into his left palm. "I confess to stupidity, my dear Morgan. The Brotherhood never mentioned any local intelligent life forms and I made the assumption that there were none. Worse, they stated that there *were no intelligent natives*—and I believed them."

"Why should they lie?" Morgan asked.

"Exactly. They didn't."

"You mean they never saw the native beings?" Morgan looked puzzledly at Mikko.

"No, the natives were seen, all right. And described to me. And that is why I am culpable. I failed to allow for the Brotherhood's blind spot. By their religious beliefs, there are no true beings except those of Terran descent. All others are animals." He glowered at the far wall. "I should have known."

"Have you actually seen the locals?" Morgan asked.

"Certainly." Mikko took a deep breath. "They brought us our lunch."

Morgan suddenly realized that the pain was not all centered in his head; part of it lay growling in his abdomen. "Food? Where? Is there any left?"

Mikko gestured toward a slate slab on the sloping floor a few feet away. "Help yourself."

Chilled to the bone, Morgan walked over to the slab and squatted down. He saw a pile of gray-green, soggy-looking lumps. Picking up one of the lumps, he bit off a small portion and chewed it. It tasted something like boiled sawdust, with a delicate dusting of sand, exquisitely spiced with epsom salts.

He spat. "How's the water?"

"Try it," Mikko said. "Carefully."

Morgan approached the edge of the water, which looked blue-green in the filtered light, and put a hand in. "Ice cold! Brrr!" He splashed some on his face, which made him feel better, then he tasted it. "A little sour and metallic, but not too bad." He rinsed his mouth with it, spat it out. "I'd hate to have to drink it for long. I—"

He was interrupted by a wordless scream.

Morgan and Mikko spun around to find their cellmate sitting up on his mound. His skinny arm was stretched out and a bony finger pointed at them. "Get out!" he screamed. "I see you there—you can't fool me again!" His skin was taut over his ribs and shoulders and his pale, gaunt face held deep-set eyes, framed by wide, black circles. "Away!" he yelled. "Leap up with whips and flay—more work today!" His voice rose to a high scream and he pitched over backwards and lay silent.

"What," Morgan demanded, "was that all about?"

"I don't know," Mikko told him. "He seemed to be lucid when I talked to him before. He had trouble staying awake long enough to talk and was obviously very sick—but not delerious."

"Nightmare," Morgan suggested. They went over to the sleeping man and looked closely at him. "I have no idea what to do for him. Do you?"

"Yes," Mikko said. "Get him out of here. Also get us out of here before we catch whatever he's got."

"What's that he's lying on?" Morgan asked, staring down at the black, lumpy surface.

"I'd say it was straw once, about eighty-five years ago before the Brotherhood left. Call it what you want to now."

"Argh!" Morgan exclaimed, rubbing his side. "It's cold in here. How do we get out?"

"You tell me," Mikko suggested. "Those wrought-iron bars have a surface coating of rust but they're still solid after all this time. If they hadn't taken all our clothes we could call Tress or the Professor."

"If they hadn't taken all our clothes I wouldn't be so cold," Morgan said. "Maybe if we yelled Tress would hear us. Do you know what part of the square this here jail is at?"

"If it's built the same way the Brotherhood built the one on their new planet, it's about five kilometers out of town. I can't yell that loud."

"Why so far?"

Mikko shrugged. "Isolation mostly. Except for the once-a-day visit by whoever brought his food, anyone in—ah—contemplation wouldn't see or talk to a soul."

Morgan waded across the narrow part of the water supply and pulled at the bars. "Solid. The Brotherhood built for the ages, unfortunately." He splashed back and sat down, then changed his mind and stood back up. "What's our mad friend doing in here?"

"He's with Quindar. Thinks we are too, so if he wakes up sane don't say him nay. The natives captured him for revenge, evidently."

"Revenge, huh? They're being mistreated?"

"Quindar's got some mines in the hills. They're fabricating equipment up there. Using the natives as slave labor in the mines and plants."

"*Yeesh*," Morgan muttered, wiping at his legs with his hands, trying to get the water off, "that is cold enough to ruin a billiard table. Slavery? Slavery isn't profitable."

"Don't be ridiculous," said Mikko. "It often has been, it can be, and in the present circumstances it is. Why do you think we aren't dead?"

The apparent change of subject

didn't faze Morgan Oxbo; he was used to Mikko's mental operations. "That had occurred to me. Why?"

"As my sainted great granduncle, the last Bishop of Domermeve said, just before his martyrdom, 'These are a gentle people.' "

"I rejoice that they are not vicious," Morgan said, gently touching his head with numb fingers. "So?"

"According to what I gleaned from our recumbent cellmate," Mikko continued, "the local gentry are a gregarious, highly socialized species. Capture a group of them and each will work to keep his friends and relatives from being harmed; furthermore, other friends and relatives will actually bring them food if permitted to do so. They are generally docile and have the approximate intelligence of a medium-grade moron."

Morgan nodded. "What a sweet setup for slavery. And I suppose they've decided to capture a few humans to force Quindar Incorporated to stop what they're doing. Make a fair trade and call everything off."

"I assume so. They're trying to take care of us, keep us healthy. They feed us regularly. They even give us a nice cool cell. To them, the weather out there must be blisteringly hot. Poor devils; when that A-5 gets in close and the incident radiation is increased by twenty percent, they're *really* going to know what a hot summer is. They—"

Mikko was cut off by the hoarse voice of the third man. "Hey. Hey, you guys. Com'ere. Please com'ere."

"Sure, fella," said Morgan as the partners walked over to the hummock of humus upon which the man lay. "Is there anything we can do?" He knew there wasn't; if there had been, Mikko would have already done it. Or still be doing it.

"Nah, nah. F'git it." His voice was weak and slurred. He retched suddenly; nothing came up. "Uhhh. Sorrry. Sick Dizzy. Headache. Gutache. Uhhh!" Again he retched dryly.

Mikko Falkynberg picked up the man's flaccid wrist and applied his fingers to the artery at the base of the thumb. "Just take it easy, my friend," he said. *Pulse: soft and weak. Respiration: shallow and rapid.* And, in spite of the chill, there was a thin film of clammy sweat over the man's skin.

In the dim light that came from the leaden skies and filtered greenish through the vine-covered slit high up in the far wall, the man looked ghastly. His half-closed eyes were obviously neither focusing nor tracking and his teeth, gums and tongue looked even a darker green than his skin.

Suddenly, with extraordinary strength, he grasped Morgan's hand. "Gotta get outa here, guys!"

There was strength and sanity in his voice despite its whispery tone and almost inaudible volume. "Those hairballs are tryin' to kill us. Already got me. Poison in the food. I held out for a while but I got so hungry I *hadda* eat. *Had to*. Understand?"

"Sure," said Morgan.

"Sure. I was, hell, starving hungry. Sick even then—cold, sick, miserable. Had to eat that slop. Got it down for a while, then—" Again he retched, more violently this time, giving more meaning to his statement than any words could.

He feebly spat out greenish saliva, swallowed dryly. For a moment his eyes swam. Then they tried to focus on Mikko's face.

"Get out. Two guys could maybe get out, somehow, someway. Tell Goodbit. Leave me here. I'll be okay. Couldn't move anyhow. But don't eat the food. *Don't—eat—the—food*!"

He closed his eyes and was silent for a moment. Then he went into weak, shuddering convulsions that lasted nearly ten minutes while Mikko and Morgan held him. Then he lay still.

Mikko checked the pulse. Nothing. He pulled a couple of hairs from the crown of his head and placed them over the man's nostrils and lips. They did not move.

After a minute Morgan said: "He's dead."

Mikko nodded. "And, all things considered, he died bravely. I wonder who he was."

IX

THE two cargo aircars landed a respectful distance from *Trespassers W*. The belly pod of one opened and disgorged a fire tractor, which ground purposefully toward the silver egg. The white-clad man riding atop the tractor stopped his machine two meters from the ship. "It don't look damaged," he called, snapping up his visor. "Where's the fire?"

Just then a small vent popped open toward the bottom of the ship, sending up a cloud of acrid smoke. Then it closed.

"Go on," the leader of the group transmitted from inside the second aircar. "See if you can find an opening."

"Yeah," the man agreed, kicking his machine into gear.

Stop where you are! *Authorized visitors only within five meters of the landing fins. Trespassers will be prosecuted. This ship is authorized to employ self-defense measures under paragraph two hundred nineteen of the Interspace Regulations.*

As the last tinny notes of the mechanical voice from the ship's speakers died away the white-clad man halted his machine.

"Go on," the group leader urged.

"Not me. I ain't going closer."

The group leader glared at the men around him. They all looked carefully in other directions. With a muttered curse he climbed down out of his perch and strode toward the ship.

Halt! No trespassing. This is your second warning.

"Is this the *Peccavi*?" the leader asked, stopping short some five meters from the nearest fin.

Yes.

"Let me speak to one of the men inside."

That is impossible.

"Why?"

They are not speaking.

The leader considered that for a moment. "Where are they?"

One is in the control room. One is in the forward cargo hold.

"What are they doing?"

They are lying on the deck. Keep back.

"We have come to help them. You must let us in."

No answer.

"Will you open the hatch?"

No.

The group leader coaxed and wheedled. The moronic robot on the *Peccavi* answered questions, but no more.

"Damn!" the leader yelled, losing his patience. "Open that hatch —that's an order!"

The computer clucked to itself for a moment, then announced in a loud voice, *I will open the hatch.*

Halfway up the hull a round hole smoothly dilated. With a grunt of satisfaction, the leader started toward the ladder.

A small, black object passed overhead with blurring speed and disappeared into the hole, which promptly closed.

A spurt of fire appeared at the leader's feet. *I have opened the hatch. Keep back.*

METRAK ping-ponged off two of the walls in the inner hatch and almost bounced down the internal ladderway before grabbing hold of a stanchion and pulling himself to a halt.

"That's an impressive way to enter a hatch," Tress commented, dogging the pressure seal.

"I misjudged," Metrak said. "Did they see me?"

"They did, but only as a black blur. Even now they are asking each other what it was that flew by."

"Very good." Metrak trotted down the ladderway, around the dead-black, one-meter sphere that was Tress's inner core, and into the control room. "I have all the data we need, complete with a tape of very incriminating pictures. Where are Mikko and Morgan?"

"Not here," Tress said. "They left shortly after you did."

"Really?" K Professor Metrak scratched his thick hide. "What for?"

"To investigate this." Tress flashed a picture of the building on the far side of the square onto

the main screen. "It was radiating in the infrared and smoke was coming from the chimney."

"And?" Metrak prompted.

"And they are not back yet."

"Strange," Metrak said. "Perhaps I should search for them. I'll give them a while longer. What's happening outside?"

"The men in the aircars have communicated with the spaceport, and a person named Goodbit is coming here. They will do nothing until he arrives."

"Oh? Tress, record this for transmitting over the inverse space connection to planet London." Professor Metrak balanced on four legs and scratched his belly thoughtfully. "To: Comex code Lloyds. We have completed our investigation. Subject Quindar Engineering is definitely uninsurable. Their reason for wanting complete secrecy is tied in with their obvious underfinancing. Subject is using local autochthons as slave labor. Mining and smelting copper and other minerals for core-tapper. Phototape follows. Inform local authorities. Sorry. Signed FOX."

"Recorded."

Metrak took the tapeclip out of his camera and slid it into the playback slot. "Send it, please."

"On line," Tress stated. "Sent. The third aircar is arriving."

MIKKO FALKYNBERG and Morgan Oxbo paced the length of their cell as though they were a pair of military recruits practicing close-order drill, except for the body-slapping and rubbing of hands that went on as they marched back and forth. They both knew that to lie down would probably mean the end. They might take a long time to die—but they'd never get up again.

"We could chew our way out," Morgan muttered.

"Shut up," Mikko said brusquely. "I'm thinking."

"About what?"

"About death. Shut up."

Morgan shut up and frowned—not in irritation but in concentration, trying to follow Mikko's thoughts. Death? Mikko was not thinking about his own or Morgan's death, that was certain. He might be worrying about how to avoid it but he wouldn't be thinking about the fact itself. Then *what* death? Obviously that of their late cellmate—but what about it? If the man had actually died of poison rather than cold. . . But why would the "hairballs" want to kill him? Or didn't they know their food was poisonous to humans?

Suddenly Mikko stopped and slapped his palms to his head with a jar that would have fractured both parietals of any ordinary man's skull.

"Of course!" he bellowed ringingly. "This damned cold has numbed my brain! I should have

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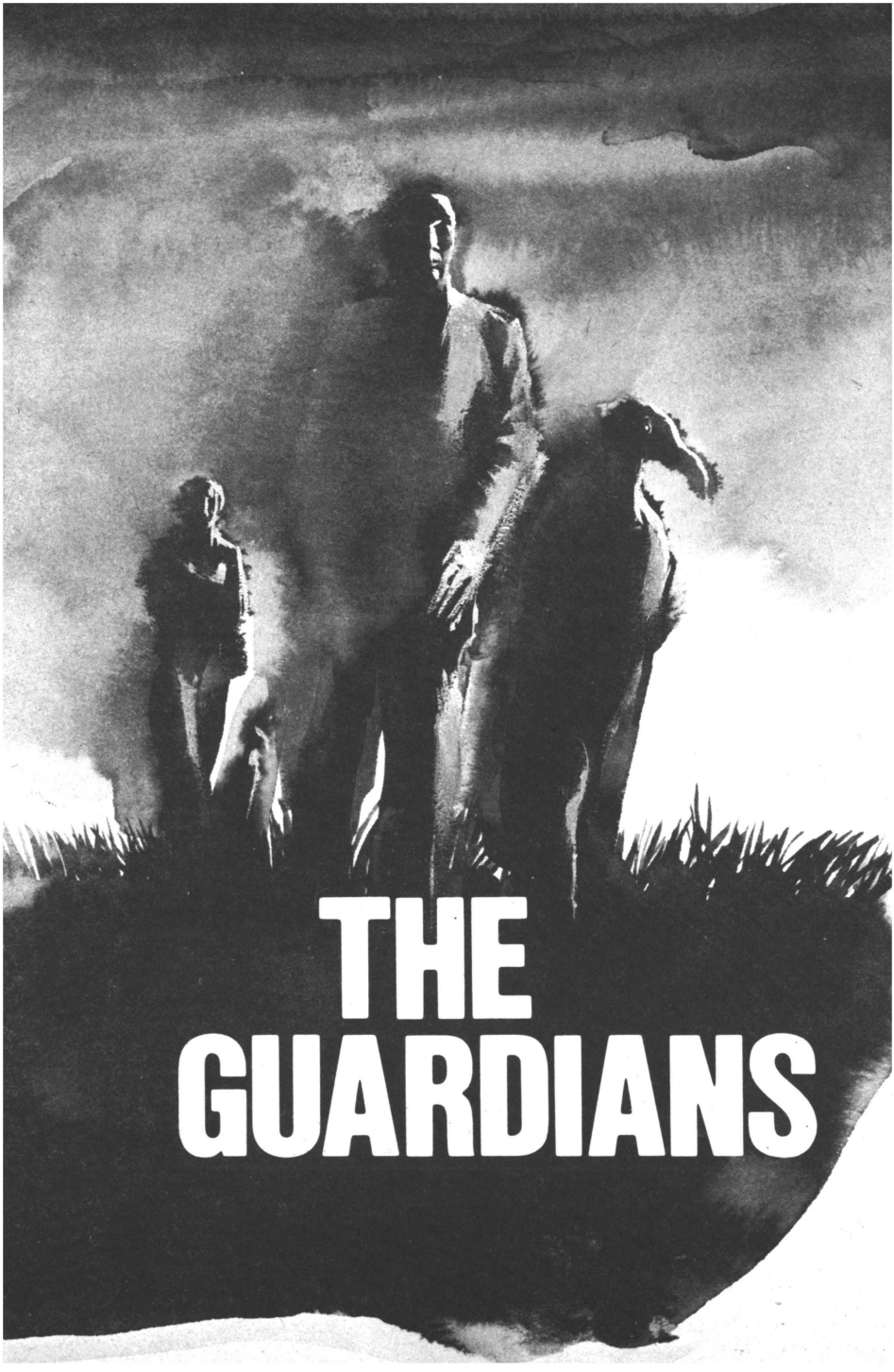
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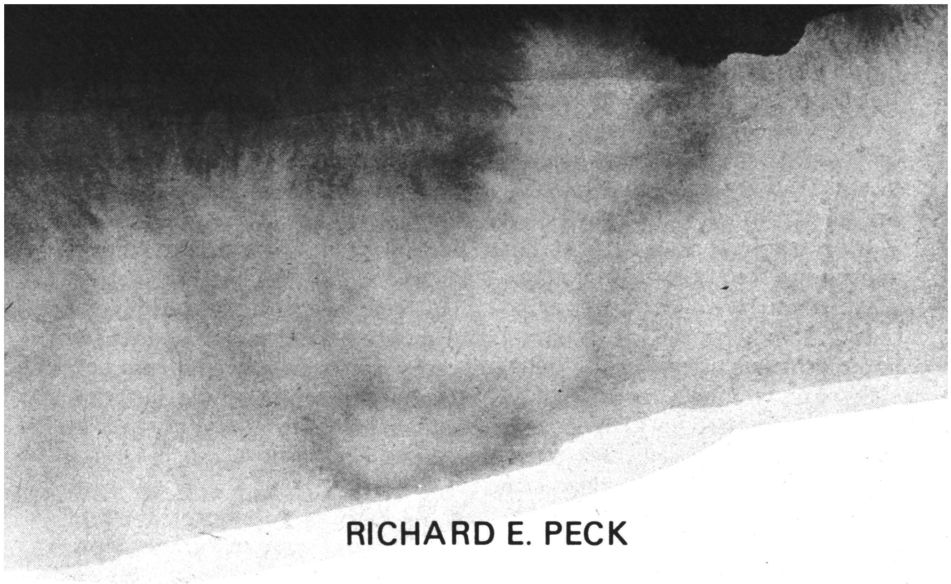


RICHARD E. PECK

WHILE sounds of the anniversary celebration wafted softly from the dark valley below, George Harmon scrambled clumsily over the crest of the ridge and cowered beside a huge boulder, gasping for breath. Scraps of shale bit into his knees and he cursed the darkness he himself had chosen for protection. Both moons lay low on the horizon of the summer sky, the nearer a mere crescent, the farther nearly full but dim in the distance. A perfect night for the test he had planned. Yet even as his eyes plumbed the darkness he sensed the circling shadow overhead. Shrinking against the lichen-crusted rocks, he waited.

The shadow came again, blotting out a patch of brilliant stars which flickered rampant in their jet background—a milkwhite blur soared above him in lazy circles.

Harmon took his bearings from the boulder and pointed himself

down the far side of the ridge toward a cave mouth he had spotted during one of his solitary walks only days before, a sanctuary. If he could reach that cave unseen, his pursuer might—for one instant—lose track of him, might become separated, George would finally sever the undefinable bond that united them. He felt little real hope but it was a chance.

Seizing a large stone in one hand, he lurched to his feet and crashed through brush that raked his face, tore at his clothes with brittle fingers, scraping and clutching at him. Heavy wings fluttered overhead but the sound only drove him faster.

The cave mouth gaped its welcome, a bit of the night sky planted darkling here among the rocks, and Harmon sprawled inside, simultaneously hurling the stone in his hand down the talus slope ahead of him. Bounding racket clattered away through the rocks, a false trail to mislead his pursuer. Then he lay panting and waited.

He swallowed nothing as the cotton in his mouth dissolved and his heaving chest slowed. Acrid sweat stung his eyes. All was quiet, except for the muted snatches of song drifting through the still night from the celebration he had left behind. That, too, was part of his plan: caught up in the excitement of the evening, the guardians might not notice his absence. A foolish hope, perhaps, but his only one.

After a long moment he risked a quick glance outside.

His guardian perched some ten yards from him, preening and white, waiting with maddening faithfulness for Harmon to emerge from the cave. Anger swelled in him, drowned at once in the wave of peace that came unbidden to wash over and surround him. He tried to fight the calming aura that bathed his every thought. It was useless. There was no escaping.

HARMON rose once more to his feet and in resignation, turned back toward the valley. A draft of cooling night air fanned his neck as the guardian launched itself to swoop low over his bowed head, then wing its way aloft to resume a silent perch on the wind.

Harmon cautiously circled the communal party on the way back to his pneumodome. The detour added thirty minutes to his trip home but he had no wish to meet any of the other colonists now, not with his guardian gleaming aberrant white in the night sky above him like a contemning signpost. He knew that none of the others would admit how radically his guardian's appearance had changed—he could not say whether they showed some mistaken sense of understanding or preferred blindness, but that didn't matter. He knew his guardian—at least by sight. It had changed.

Once the guardian plummeted low across his path to snatch up an adder that had lain in deadly ambush. Harmon pointedly ignored the service. He was long past the point of caring, certainly of thanking a creature whose every attention he detested.

His wife sat before their pneumodome, waiting. "George? Where were you? Your clothes! What happened?"

He stalked in past her. He knew, without bothering to glance behind him, that the guardian glided gently down to settle on the dome spire and wait with loving concern. During his first few months here he had several times tried to sneak away early in the pre-dawn darkness but the guardian was always alert and waiting. There was no escape.

"George? I asked if you're all right." Marian followed him inside. "I thought you might be sick when you left the party early."

He ignored her and devoted himself to the ritual of checking the compressor that kept their home erect. It was only through minor, habitual tasks like these that he was able to ignore her irritating solicitude.

"Well? Are you?"

"Who's ever sick here?" he demanded. "And if you give me any of that 'praise guardians' I swear I'll walk out again." He flopped angrily into one of the two clumsy wooden chairs which, with a small table and inflated mattress, comprised the furniture in their temporary quarters. The steady thrum of the compressor drowned out the night noises outside and soothed him in spite of himself.

"You should have stayed. After the dancing we voted to rename the colony. Eden. Isn't that beautiful? John Martin thought of it."

"Eden," George snorted. "I could have guessed. Leave it to our good Captain Martin to come up with that kind of maudlin mindlessness."

Marian merely smiled and reached back to stroke the feathered head of her guardian, perched black and docile on the back of her chair. "Pretty bird," she murmured. "Poor George isn't himself tonight."

"Damn it! Don't excuse me to one of them. And haven't I told you to leave that thing outside?"

"Sorry, dear." She nodded and her guardian fluttered softly through the susurring air current at the door and out into the night. "But he's so small. He's not really in the way."

"That's just like you, throwing its size up to me. You wander around with a crow following you while I'm stuck with that reeking albino vulture out there. But I suppose you didn't notice the color it's turning."

"It's really prettier than the others, don't you think?"

"But why do *I* get it?"

"Guardians assign themselves," Marian recited.

The phrase carried the connotation of a catechism.

George grunted his irritation and turned away to ignore what he could not refute. That fact that no one chose his guardian but was instead chosen had long since become apparent. Perhaps that was what irritated him most, his inability to change what everyone else in the colony had accepted as some sort of foreordained natural fact—mere hours after their ship had landed each colonist had found himself the object of special attention lavished on him by a guardian, not chosen but acquired.

ONE year ago to the day. One year ago they had thundered to a turf-searing landing in the broad valley stretching away to the south from the huge clearing that now contained the pneumodome village and the rich tilled fields which fed the colony. Advance scouting reports had promised them a potential paradise. Rotating on an axis parallel to that of its sun, their new world underwent only mild seasonal changes here in the temperate belt. Except for a twenty-eight-hour day and a four-hundred-day year, the colonists' new home seemed an improved replica of the overpopulated, underfed, war-ridden Earth they had all so eagerly left behind.

How far behind, none of them could say. The psychologists all thought it best if they cut the cord completely and started fresh here. Some day their developing technology would let them reestablish contact with other men, wherever their kin would be by then. For now, for the colonists, Eden was meant to be all there was.

The trip outbound from Earth had passed between sleeping and waking—long years in suspended animation. During that time the starvation and skirmishing warfare on Earth had increased unknown to the colonists, who awoke only when the ship's preset equipment sensed "destination." They awoke to new hope, to the sight of a green luxuriant world waiting to welcome them. Even George Harmon had felt, for a brief moment, not his usual cynicism but a twinge of pleasure. It soon passed. Captain Martin took command and restored Harmon's sense of irritation with his place in the new scheme.

"Families to my left, single men over here," Martin ordered. "I want sentries posted till we can inflate the first dormitory and establish security. Then we'll worry about making contact with those birds we've been hearing about."

A snicker rippled through the nervous crowd. Of the facts known to the colonists about their new home, one stood out as the most unlikely: in spite of the planet's hospitable environment, no com-

plex organism had developed sufficiently to dominate the animal life present. Only a single species of birds which traveled in large flocks showed any tendency toward social organization—but not real intelligence—a sort of silent, empathetic bond. Scouting reports described the birds as small, apparently harmless; the roboprobe scoutships had brought back to Earth hours of film, carefully recorded data—everything, in fact, except the intangibles which only a human survey crew might have noticed. But human crews were unthinkable aboard scoutships, given the duration of the journey each covered and the massive G-loads which would reduce a frail organism to jelly but troubled the automated equipment not at all. No, the probes had brought back enough data, even about the birds.

And so, during their indoctrination at Colony Central in Utahstate, the potential colonists had of course joked with one another about the hosts who awaited them in their new home. For the entire two months of their training, they had treated one another to puns about "birds of a feather," about their being the "early birds" bound to get the worm, and whatever other strained cleverness occurred to people bone-tired from days of endless psychological screening, adaptability tests and lectures on the problems of founding an agrarian society.

Harmon had avoided the horseplay—birdplay, Marian said once, only to cringe under the withering look her husband had thrown her. He had concentrated instead on satisfying the examiners, all of whom had seemed determined to dissuade him from emigrating, even though his number had come up in the monthly New Life Lottery. Besides the pap they kept muttering about his potential instability, there was the question of his occupation. In theory a legislator like Harmon, a man accustomed to guiding an organized society, should be valuable in any new colony; in practice farmers and laborers somehow proved more effective and reliable. But George had managed to pass all their tests, more often than not masking his true feelings to answer heir childishly transparent questions as he knew they expected of a "good risk." That much he could do—anything to escape the terrors of a poisoned atmosphere, of insecticide-laden milk and seawater, of the burgeoning sterility that threatened all who remained on the dying Earth.

So he and Marian had joined the other lucky ones, the groups of three hundred people who fled Earth each month to sink a new foothold for man in some distant corner of the expanding universe.

THEY had stood with the others while John Martin, elected

captain before their liftoff from Earth, apportioned land and set them to work in teams to cannibalize the ship itself for its usable equipment. With the others in the sweating crowd they cheered when the first pneumodome sagged and blossomed erect. And with the others they tensed at the sight of hundreds of birds boiling over the horizon to approach and circle the band of wary colonists.

But at first nothing happened.

The birds merely circled, until the colonists separated, each couple or work team to go its own way. Then a strange symbiosis developed between them and the birds —"guardians" they were soon called. Each colonist found himself possessing, or being possessed by, one of the delicate, aromatic gray doves. Not that any formal bond was ever made. Nor was communication between them possible. But a relationship developed nevertheless. A single bird followed each man and each woman night and day, always in sight.

A sentry walking the perimeter of the camp first described the relationship. "I was taking a shortcut through the brush over there and accidentally kicked a hornet's nest. Anyway, they looked like what I'd call hornets. They came buzzing out fit to eat me alive. This bird I'd been seeing behind me all along comes swooping down and gobbles them up so fast I almost couldn't see him work. Not one of them got close enough to sting me. First thing you know, the bird's back, flying in circles over my head. There he is. There."

His report drew echoes from the others in the communal assembly, tales of unexpected aid. The birds, some said, had saved them from snakes writhing through the underbrush. Or the birds had chattered warnings to those few who had thought to eat what appeared to be an apple, a fruit later proven to be deadly poison. Though no one understood how it worked, everyone was certain it did—the birds knew what threatened man and they protected him.

"Asking nothing in return," Martin had told them. "As far as we know, theirs is honest altruism. You've noticed that it's always the same bird trailing you, right?"

The crowd nodded assent.

"All I can say is, they're some kind of guardians."

"Nonsense!" Harmon shouted. "They must get something out of it. It's not right otherwise. In a symbiosis both partners benefit."

"Then call it parasitism, if you want, with us the parasites," Martin said.

"I still say it's suspicious."

But the others had booed George down.

Within a week the relationship had become an accepted part of their new life. No one would suffer the least slight uttered about the guardians. One young boy found

himself censured for resurrecting a meaningless but apparently clever greeting he had once heard back on Earth: "How's your bird?" His father slapped him—or began to. But he hesitated and the blow didn't land.

Nevertheless, the boy felt reprimanded.

And John Martin's designation stuck. "Guardians" the birds became.

"George?" Marian nudged him gently. "What's wrong?"

He rolled to face her. "You talk with the others more than I do. Did anyone ever escape his guardian? Or see one die? And the dogs—they whine any time a guardian gets near. Or they used to."

"Why? They're all—"

"Skip it. Let it go. I should have known better than to ask you. Of course you're content. And the others, not a brain in their heads. Your friend Martin's as stupid as those sheep he coddles all day. But *someone* must recognize how we depend on them. It's not right. It's—it's inhuman."

"We've been all through this, George, a hundred times. I thought John Martin had settled it. The crops prosper, our flocks increase, there hasn't been a quarrel—much less a fight—in the whole year we've been here. If the guardians do any more than we see, it's only to help. I admit I won't go as far as the people who almost worship them, but I can't see anything wrong."

"I'll tell you what's wrong. They're getting something from us. They *must* be. Did you ever know anyone to do all the things they do and not expect to get paid? On Earth we—"

Marian smiled. "We're not on earth, dear,"

"So? At least there a man's worth was recognized. Here we're all dirt-grubbing farmers, all except the high muckey-muck Martin. Our leader. He even stinks like his sheep."

"Please. Try to sleep. I'm sure you're worried about nothing." She kissed his cheek and turned away.

Patronizing—just like Martin. Neither of them sense enough to see the obvious...

But he had seen. The feathered parasite that followed his every step had changed radically. In the beginning they were all the same—mourning doves, he might have called them on Earth, gray and delicate, small-boned, graceful, a delight to watch circling in the sunlight as the men worked the fields or urged their flocks upslope to the high pasture lands. They seemed to exude an undefinable aroma—vaguely pleasant, like freshly laundered linen.

But then changes began to appear in the birds. Marian's guardian, for instance, was smaller now. Harmon was sure of it. Smaller

and darker, nearly black, as if some evil had worked its transformation on the bird. Harmon's own had grown gigantic, almost as large as an eagle and was turning whiter by the day. He swore he had seen it pass through shades of lighter and lighter gray: leaden, ashen, pearl. Only a few days earlier he had glanced up to see it haunting him as he walked home from the fields. On impulse he had hurled his hoe at the creature, and it flashed brilliant white in the twilight. Then the brilliance faded. As a single occurrence, the sight might have been blamed on some trick of the fading sunlight, but Harmon refused to accept that notion. He had seen the same phenomenon too often. The creature *was* whiter: now cream; then milk. He knew; everyone must have seen it.

He had even swallowed his dislike for Martin long enough to ask whether anyone had made contact with the guardians, had discovered some way of communicating with them. So many questions unanswered. *Why* did they follow the colonists? and why particular ones? Could a man trade guardians with someone else? But Martin—busy in preparation for the anniversary celebration—had ignored him. And the others, including those few who seemed to fear the guardians, however slightly, refused to understand his questions; they even denied the calming scent that seemed to follow the guardians everywhere.

It was then that Harmon had decided that he would escape his guardian, kill it if necessary. Settle things once and for all, find out what all this meant.

Tonight, with the community gathered to celebrate a year of peace and plenty, he had gone off alone to make his final test. When that proved fruitless—he sucked a scrape on his forearm and savored the memory of the pain he had felt hurtling through the brush in his futile attempt to escape—when that proved fruitless, he had known what he must do. He smiled his hatred toward the dark dome overhead and toward the bird he knew sat waiting. He would kill his guardian but in such a way that no one else would understand his intention—make the act appear spontaneous, perhaps accidental.

Harmon fell asleep smiling.

FOR the next few days he only watched. The crops had been harvested, a second planting was already underway. While the work teams sweated and labored at their appointed tasks, Harmon questioned those around him. He soon discovered a pattern: the guardians maintained their distance, usually separated a full twenty to thirty yards from the host to which each had attached itself, unless motioned nearer by the man himself. But in moments of stress, when

tempers flared or danger threatened, they dove nearer. And they brought with them peace—an intangible aura of well-being—almost as though each guardian somehow broadcast placidity and emotional calm. The sentimentalists among Harmon's coworkers called it love, to his disgust.

To test his newly formed theory, George tried provoking arguments. He jostled men working their way down the bean rows; he tripped a boy intentionally. Tempers flared, but nothing more ever came of it. In every case even a hint of anger or distrust drew the guardians nearer and the mood passed. Simultaneously the guardians paled, became for a brief moment lighter in color than they had been.

It was clear. The birds flourished on tension, on hate and fear and anger, on the swelling emotions alien to this world and unknown before man's arrival. Perhaps, Harmon theorized, a man's very body chemistry, imbalanced however slightly in moments of stress, attracted the hypersensitive guardians. As an addict might pay for narcotics, the birds returned a sense of peace and well-being for the emotions they absorbed.

That possibility even accounted for the lack of illness among the colonists, he decided. Injuries were of course rare, with guardians always present to warn of impending danger. But illness was equally rare. In some unexplained way the guardians ministered to their hosts, absorbing or drawing off flashes of anger or unpleasant physical sensations. Though many colonists feared their guardians, everyone seemed content, at peace with himself and his neighbors. Everyone but George Harmon, whose fear of the birds had become loathing. He hated his guardian more by the moment. It grew and paled noticeably, bathing George in the fragrant warmth of affection that only increased his hatred.

"Why can't you accept things?" Marian pleaded. "Sometimes I think you're sorry we came to Eden. We're all so happy. John says that if—"

"Martin again!" George slammed his wooden cup against the wall and stared in frustration as it bounced to the floor undamaged. He felt the veins throbbing in his forehead and reached for something to break or tear, but there was nothing. "If you mention him to me once—" He stopped at the sound of heavy wings at the curtain of his dome.

And then he knew. He smirked. The strongest surge of emotion he had felt in weeks had drawn the creature toward him, like a victim to a baited trap.

Martin was that bait.

He fought the pacific calm that filled the pneumodome, and plotted his next move. It would all be so simple.

IN THE morning he joined the procession moving toward the beanfield they were planting. He followed the planting team down the rows, covering each newly seeded hill with moist soil with his hoe blade. While he worked, he waited.

Shadows drifted along the tilled rows. The guardians circling overhead. Banter passed among the men, gossip about a new baby born the day before and already under the protection of a guardian.

And then Harmon's moment arrived. John Martin strode toward the workers.

"Martin! I want to see you!"

A few of the others looked curious at his tone but returned to their labors. Only the guardians overhead showed agitation.

"What is it, George?"

Harmon savored the aroma Martin carried, the ripe scent of his flocks. He let a thought blossom full and rich in his mind: *Kill him! Kill him!* The hate swelled and burned with a fiery delight. He watched Martin's gray guardian swoop low in chittering protest and dash itself against Martin's chest; but Martin only paused in bewilderment.

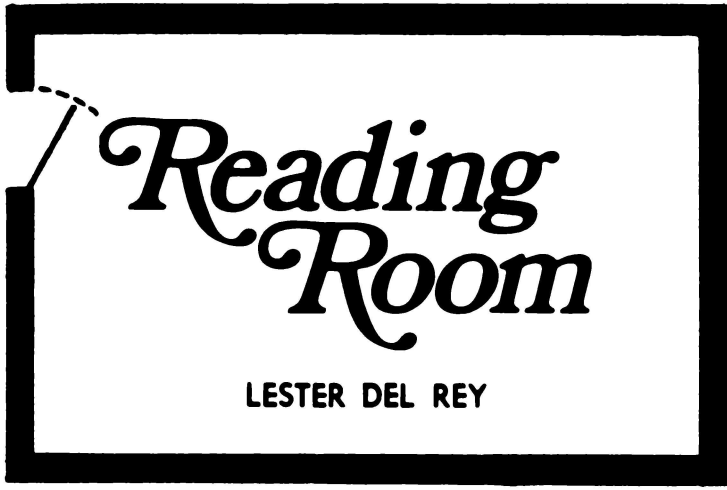
Harmon raised his hoe and lunged at Martin. Fluttering wings grazed his head as his own screeching guardian circled lower. The trap sprung, George whirled. His hoe flashed through the sunlight to chop at the mass of snowy feathers. The hoe swung and struck in frantic, staggered rhythm. A mist of gas and splattering gray droplets spewed from the bird's ruptured breast to shower over Harmon. He sagged suddenly in rapture and reached up outstretched arms to the white feathers drifting gently down through the cloud that permeated his swelling flesh. Then he *knew*, became one with, the guardian's fetid intensity—his lungs strained to bursting as he sucked in understanding from the sunlit, rainbow-streaked air.

Plaintive gull cries filled the air. The guardians dove to surround the men who stood rooted in fear at the sight of Harmon writhing on the ground in an agony of joy, bloating and swelling like a maddened cancer. A musky glow of peace and contentment laved over the watchers, tears filling their eyes to blind them.

When they saw once more, they stared bewildered at the shattered guardian, the burden of hate now lifted from its slender frame and returned to its source—that source a mass of corruption melting to fuse with the earth.

Sadly they covered the foulness at their feet and returned to work.

Soon no one in Eden remembered George Harmon, though on still summer evenings the guardians often swoop low over a single spot of sterility lying barren in that fertile soil. ●



LESTER DEL REY

SCIENCE fiction is unique in that it is essentially a literature of ideas. With only a few exceptions the general stream of fiction has been forced to depend on the emotional involvement of essentially familiar people and their interactions in basically familiar situations. That makes the use of any really different new idea so hard to weave in convincingly that few writers can succeed. On the other hand, science fiction offers a universe-wide range of possibilities. We can tell the story of a woman who marries a complete alien or a man who sees the end of the universe.

One of the results of this difference is that in science fiction the shorter length is often better than the full novel. In general fiction, length is needed to develop the complexity of interactions which must substitute for freshness of concept. In our field, simplicity can be a virtue, letting the basic idea stand forth clear and uncluttered. Nowadays, due partly to the market, some of these get padded out into spurious novels, of course; but over the decades some of the most memorable examples of science fiction have been found in stories of less than fifteen thousand words.

Maybe this is why the anthology has been so important a form of book in this field, unlike in most others. In general fiction a man who has written a whole body of excellent short work can hope to see his efforts kept in print through collections. But the writer who depends on a few great stories —even classics of their kind—is too often doomed to oblivion, except in science fiction.

In a sense, the story of the acceptance of science fiction as a publishable form began with the anthology. Back in 1946, when only a few fan publishers were trying to bring out science fiction, Random House issued *Adventures in Time and Space*, edited by Raymond J. Healy and J. Francis McComas. It was a huge book, containing 997 pages of fiction, totaling almost half a million words. There were 35 stories, culled from the virgin territory of all the science-fiction magazine work published to that date. And it sold, as I remember, for $2.95!

Whenever librarians ask me to submit a list of science-fiction books they should stock, this ancient anthology heads the list. Until very recently, at least, it was still available in the Modern Library edition (under a different title—*Famous Science Fiction*, I believe—and less a couple of stories that don't matter that much). It's a book that should still be on the shelves of every genuine fan of the field; if you don't have it, get it—new or secondhand, it's still a great bargain.

During the same year another anthology appeared—this edited by Groff Conklin and put out by Crown Publishers: *The Best of Science Fiction*. It wasn't quite the huge bargain the first was and Groff had sometimes been unable to get the stories he wanted because they were already purchased for the earlier book. But its success in the market and in sales to libraries also helped to convince publishers that there was money to be made in this crazy field.

Since then there have been hordes of anthologies. Some, like Groff Conklin's excellent later ones, were gathered with love and by means of diligent reading of the magazines. Some were put together shoddily by mining earlier anthologies. A few have been simply excuses to get stories by a clique into print. And there have been numerous anthologies of original stories, written especially for the anthologist. In the case of the Star series by Frederik Pohl, this worked out rather well. But in general, it seems to be a poor practice; writers can't turn out superb stories on order and deadlines force an editor to fill a volume with fiction no better—and sometimes worse—than can be found in any issue of a magazine, despite the name writers and a much higher price.

About the time the anthology market seemed to be exhausted for anything but annual "Bests," the collecting of stories around a theme became the chief sales gimmick. Now the trick was not so much to get the best stories but to find the ones that could be related to some single subject that would afford a catchy or controversial title for the book. Some of these were fairly good but most either

reshuffled old familiars or abandoned taste to fill the book.

Other anthologists added all kinds of extraneous matter to pad out the volumes. Serious—and rather dull—articles were stuck in between stories to show how wise or clever they were in sticking to science, or some such, rather than letting the stories stand on their own merits. In a few cases, there has been so much editorial material in explanations and blurbs and "selling" that it's hard to evaluate the fiction, because the editor's evaluation is shoved down our throats at every break. It is as if a magazine had a page of filler or editorial "Hoo-boy Wow Gosh" for every page of fiction!

There have been some excellent volumes I'm happy to have in my collection, but it has been a long time since the field has seen an anthology capable of standing tall in the shadow of the classic *Adventures*. For nearly a quarter of a century, that book has been my unfailing choice whenever I wanted to convert some friend to science fiction.

NOW, at last, it has a worthy successor. *Science Fiction Hall of Fame*, edited by Robert Silverberg (Doubleday, $7.95), is a definitive anthology of the shorter works of science fiction since the magazines began. It even lives up to its subtitle: *The Greatest Science Fiction Stories of All Times!* And without any real reservations, I'm forced to give it a rave review on its merits.

Of course, times have changed and no such bargain as the earlier volume is possible today. Now it costs $7.95 to get a quarter million words—half of what $2.95 would buy in 1946! But it's still a great bargain in the current market when a novel of 60,000 words usually sells for $4.95 and up. When you consider the quality of the words there's no comparison in value.

In a brief foreword, Silverberg gives the background and intent. (Mercifully, there's no other editorial intrusion. For your money, you get solid worth in stories, packed tight in all the numbered pages.) All the professional writers who belonged to the Science Fiction Writers of America were asked to nominate and then vote on their favorite stories before 1965. Silverberg did the work of collating their responses and the present book represents his efforts at putting together the results of the summed judgment of the professionals in the field. He did his work brilliantly and I cannot but agree with the few cases where he admitted to the need of some personal weighing of the results. Anyhow, it's all explained in the foreword, with the exact listing of the top fifteen of the twenty-six stories in order of votes.

These are supposedly the stories

that would have won the Nebula awards given by the SFWA for shorter fiction, had the Nebulas existed when they appeared.

Actually they're a lot better in my opinion than some of the stories that have won—and represent a far more balanced judgment. Apparently time and distance have removed the personal angles that must so often motivate the voting for current awards, and the result is a list of some genuine classics.

Also, twenty-five years have passed since Healy and McComas made their personal selections, and we've had time to weed and compare, as well as many more stories from which to select. Loyal as I am to the old book, I have to admit that some of the work there might better be omitted for other material today.

Even the arrangement of stories in the Silverberg anthology is a happy one. The order is strictly by date, with the first appearing in 1934 and the last in 1963. This helps to put each story in perspective as it is read and it also makes the book a very convenient source of the history of our development.

The oldest story is Stanley Weinbaum's *Martian Odyssey*—perhaps the most revolutionary story ever written. There are quaint touches which the early date helps to explain; some of it wouldn't be written that way today. But how the story stands up in its totality! The next story is John Campbell's *Twilight*, which was good enough on first reading to inspire my first fan letter to a magazine—and still good enough to make me wish more writers who try setting mood had the skill Campbell showed back in 1934. And because of the date (1938), I manage to stagger in third with *Helen O'Loy*. Curious, by happenstance I was third on the contents page in the old anthology, I see. Ah well, Silverberg couldn't be wholly original! That would violate tradition, obviously.

It's hard to pick the best Heinlein *Future History* novelette, but *The Roads Must Roll* still rolls. Then we have two stories which the authors have come to hate because readers keep coming up to them and demanding more like them. I have to agree with the majority about Theodore Sturgeon's *Microcosmic God*—it's my favorite from all his science fiction. On the other hand, I agree with Isaac Asimov that he has written better stories than *Nightfall*—but not much better and none so universally remembered.

A.E. van Vogt is represented by *The Weapon Shop*, to my surprise; I'd have guessed his very first story was more popular. Yet I agree with the majority here; it's a story so good that he didn't have to be confusing in it. It has some of his best writing and, in my opinion, all of his best characterization. The first ten years is completed

with *Mimsy Were the Borogoves*, by Lewis Padgett (Kuttner and/or Moore). This was something of a key story also, since there were a number of imitations in handling and intent to follow that.

It was a great decade and the stories assembled here to record it are stories every real reader of science fiction has to know. It was a decade that began with the slow realization that aliens were essentially human—and ended with the knowledge that humans are essentially alien.

The next decade from 1944 to 1953 seems to be more a period of consolidation, beginning with Clifford Simak's *Huddling Place* and ending with *Surface Tension* by James Blish and *The Nine Billion Names of God* by Arthur Clarke. In between came the one great innovation of the decade, I suspect—Cordwainer Smith's *Scanners Live in Vain*, which was a legend within a year because of its publication in a less-known magazine and the amazing reputation it achieved in spite of that fact. There are still plenty of writers consciously or otherwise imitating that story.

IT IS in this section that I find my own total agreement with the selection beginning to disappear. There are no stories here I can say flatly do not belong, with one possible exception; and that one is doubtful only because thalidomide came along many years later to take some of the kick out of the situation. Still, I suppose the effect remains on those who read it when it was a new and outstanding idea. Two other stories here strike me as below the quality I associate with classics—one because I seem to be prejudiced against the writer's work generally, perhaps; and the other because I never felt his best work was done in this field. But since my convictions here aren't all that strong, I'll leave it as a pleasant guessing game as to those I mean. Fill in with your own prejudices, if you like.

I suspect that during the ten years of this middle period writers were improving their techniques but still sticking to the tried-and-true for ideas. If so, it would account for the somewhat lower standard of impact here, since the ideas generally would have a lower luster than some earlier ones, even though the early handling lacked some of the later polish. People tend to remember ideas more than style or treatment, praise be!

The last decade, ending in 1963, is significantly different in attitude. There is no longer the assurance of greatness that once existed in our dreams of the future. (Even *Twilight* showed that assurance; true, the end was possibly failure, but the middle period for millions of years . . !) Jerome Bixby's *It's a* Good *Life* is negatively implied

in its title, and Tom Godwin's *Cold Equations* is a story of harsh inevitability, as logical and as bitterly unsentimental as its title indicates. And we wind up the book with the bitter-sweet of Roger Zelazny's *A Rose for Ecclesiastes*, which proved that new talent could be great talent.

I've obviously skipped some stories and many of those were ones that unquestionably had to be included and which I consider to be truly classics. I'm not trying to give the table of contents, but rather to get some meaning out of the book. And I hope others will draw their own conclusions, since the logical arrangement here begs for analysis on the part of the reader.

In sum, if I were asked for one science-fiction book to go into a time-capsule today, or for one book to represent us on the general shelves of our libraries, this is the book I would have to pick. Anyone who can put this book down with less than great satisfaction obviously has no taste at all for science fiction.

This is not a perfect book, however. Doubleday has managed as usual to come up with a dust wrapper that makes the title hard to read without study and reminds me of a rather bad circus poster with the colors faded enough to show that the circus has already left town. Then they stick their list of authors under a caption that says: Chosen by the Members of the Science Fiction Writers of America. This makes it seem that those names represent the SFWA —as could hardly be true of Weinbaum, for instance—and as if the SFWA had a total of 27 members. Ah well. Maybe somebody at Doubleday is spending more time making book than making books. Fortunately, this is the only major gripe I have and I've already macerated the horror of that dust jacket and flushed it down the drain.

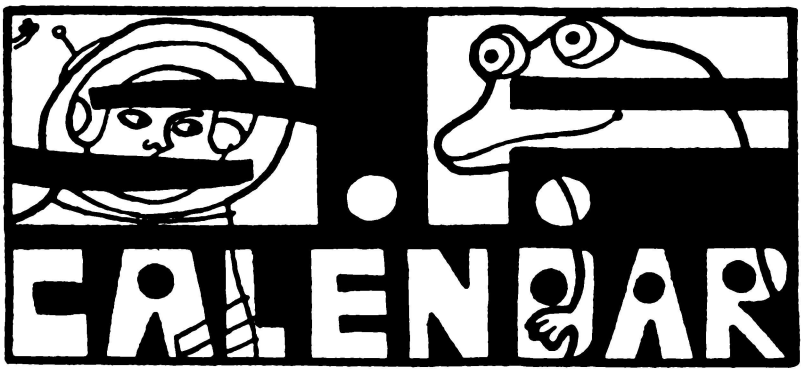
This is listed as "Volume One," incidentally. (I think that is also a horrible thing to put on a dust-jacket, since some may decide to wait for the others or decide not to buy something incomplete. Don't you like to sell books, Doubleday?) Thereby hangs a plan.

The expectation is that similar volumes representing the longer stories—more than 15,000 words but less than novel-length—and finally the novels will be issued, using the same method of selecting. I'm going to look forward to the book of novelettes, since several of the stories I consider greatest were left out of this volume because of length. And I'm going to worry a good bit about that volume of novels. With no more than five novels to fill such a book, it's going to be close to impossible to choose a representative collection of the greatest.

When the whole project is com-

pleted, however, the value of the three volumes may be far greater than could be found in any single book. Then we'll have a true library in three books—and there will therefore be no excuse for even the smallest public library not carrying enough science fiction to offer a fine example to readers.

Buy two copies—one for lending out for the next quarter of a century! •



September 3-7, 1970. TRIPLE FAN FAIR. At Howard Johnson's. Detroit, Michigan. Advance membership $3.00, $4.00 at the door. For information: Detroit Triple Fan Fair, 14845 Anne Street, Allen Park, Michigan 48101.

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September 4-7, 1970. TOLKIEN CONFERENCE III/MYTHCON I. At Claremont College, California. Guest-of-Honor: C.S. Kilby. For information: Glen Goodknight, 6117 Woodward Avenue, Maywood, California 90270.

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October 3-4, 1970. OPEN ESFA. At Robert Treat Hotel, Newark, New Jersey. Guest-of-Honor: Hans Stefan Santesoon. October 3 devoted to speeches and panel discussions. There will be an Anniversary Banquet on October 4, commemorating the First World Science Fiction Convention in New York City in 1939. Banquet tickets, $6.75. Deadline for banquet reservations, September 10. For information: Brian Burley 38 North Maine, Hackettstown, New Jersey 07840.

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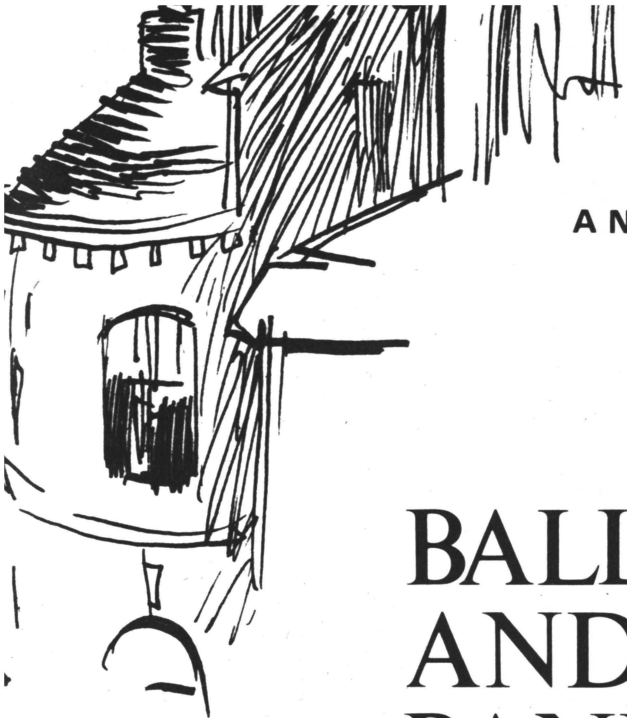
November 13-15, 1970. PHILCON. At the Sheraton Hotel, Philadelphia, Pennsylvania. Principal speaker: Larry Niven. For information: Kathy Surgenor, 3950 N. Fairhill Street. Philadelphia, Pennsylvania 19140.



A New Retief Story

BALLOT AND BANDITS

KEITH LAUMER

I

SECOND SECRETARY RETIEF of the Terran Embassy emerged from his hotel into a bunting-draped street crowded with locals: bustling, furry folk with upraised, bushy tails, like oversized chipmunks, ranging in height from a foot to a yard. A party of placard-carrying marchers, emerging from a side street, jostled their way through the press, briskly ripping down political posters attached to shop walls and replacing them with posters of their own. Their move was immediately countered by a group of leaflet distributors who set about applying mustaches, beards and crossed eyes to the new

placards. The passersby joined in cheerfully, some blacking out teeth and adding warts to the tips of button noses, others grabbing the brushes from the defacers and applying them to their former owners' faces. Fists flew; the clamor rose.

Retief felt a tug at his knee; a small Oberonian dressed in blue breeches and a spotted white apron looked up at him from wide, worried eyes.

"Prithee, fair sir," the small creature piped in a shrill voice, "come quick, ere all is lost!"

"What's the matter?" Retief inquired, noting the flour smudge on the Oberonian's cheek and the dab of pink icing on the tip of his nose. "Are the cookies burning?"

"E'en worse than that, milord—'tis the Tsuggs! The great brutes would dismantle the shop entire! But follow and observe!" The Oberonian whirled and darted away.

Retief followed along the steeply sloping cobbled alley between close-pressing houses, his head level with the second-story balconies. Through open windows he caught glimpses of doll's-houselike interiors, complete with toy tables and chairs and postage-stamp-sized TV screens. The bright-eyed inhabitants clustered at their railings, twittering like sparrows as he passed. He picked his way with care among the pedestrians crowding the way: twelve-inch Ploots and eighteen-inch Grimbles in purple and red leathers, two-foot Choobs in fringed caps and aprons, lordly three-foot-six-inch Blufs, elegant in ruffles and curled pink wigs. Ahead, he heard shrill cries, a tinkle of breaking glass, a dull thump. Rounding a sharp turn, he came on the scene of action.

Before a shop with a sign bearing a crude painting of a salami, a crowd had gathered, ringing in a group of half a dozen giant Oberonians of a type new to Retief: swaggering dandies in soiled silks, with cruelly cropped tails, scimitars slung at their waists—if creatures of the approximate shape of ten-pins can be said to have waists. One of the party held the bridles of their mounts—scaled, spike-maned brutes resembling gaily painted rhinoceroses, but for their prominent canines and long, muscular legs. Two more were busy with crowbars, levering at the lintel over the shop doorway. Another pair were briskly attacking the adjacent wall with sledge-hammers. The sixth, distinguished by a scarlet sash with a pistol thrust through it, stood with folded arms, smiling a sharp-toothed smile at the indignant mob.

" 'Tis the pastry and ale shop of Binkster Druzz, my grand uncle twice removed!" Retief's diminutive guide shrilled. "A little lighthearted destruction in the course of making one's political views clear is all very well—but these

pirates would reduce us to penury! Gramercy, milord, canst not impede the brutes?" He swarmed ahead, clearing a path through the onlookers. The red-sashed one, noticing Retief's approach unfolded his arms, letting one hand linger near the butt of the pistol—a Groaci copy of a two-hundred-year-old Concordiat sliver-gun, Retief noted.

"Close enough, off-worlder," the Tsugg said in a somewhat squeaky baritone. "What would ye here? Ye'r hutch lieth in the next street yonder."

RETIEF smiled gently at the bear-like Oberonian, who loomed over the crowd, his eyes almost on a level with Retief's own, his bulk far greater. "I want to buy a jelly doughnut," the Terran said. "Your lads seem to be blocking the doorway."

"Aroint thee, Terry; seek refreshment elsewhere. Being somewhat fatigued with campaigning, I plan to honor this low dive with my custom; my bullies must needs enlarge the door to comport with my noble dimensions."

"That won't be convenient," Retief said smoothly. "When I want a jelly doughnut I want it now." He took a step toward the door; the pistol jumped at him. The other Tsuggs were gathering around, hefting crowbars.

"Ah-ah," Retief cautioned, raising a finger—and at the same moment swung his foot in a short arc that ended just under the gun-handler's knee-joint. The victim emitted a sharp yap and leaned forward far enough for his jaw to intersect the course of Retief's left fist. Retief palmed the gun deftly as the Tsugg staggered into the arms of his companions.

"Aroint thee, lads," the giant muttered reproachfully to his supporters, shaking his head dazedly. "We've been boon drinking chums these six Lesser Moons and this is the first time ye've give me any of the food stuff . . ."

"Spread out, lads," one of the Tsuggs ordered his companions. "We'll pound this knave into a thin paste."

"Better relax, gentlemen," Retief suggested. "This gun is messy at short range."

"An' I mistake me not," one of the crowbar wielders said, eyeing Retief sourly, "ye'r one of the outworld bureaucrats, here to connive in the allocation of loot, now the Sticky-fingers have gone."

"Ambassador Clawhammer prefers to refer to his role as refereeing the elections, nothing more," Retief corrected.

"Aye," the Tsugg nodded, "that's what I said. So how is it ye're interfering with the free democratic process by coshing Dir Blash in the midst of exercising his voice in local affairs?"

"We bureaucrats are a mild lot," Retief clarified, "unless

someone gets between us and our jelly doughnuts."

Red-sash was weaving on his feet, shaking his head. " 'Tis a scurvy trick," he said blurrily, "sneaking a concealed anvil into a friendly little six-to-one crowbar affray."

"Let's go," one of the others said, "ere he produces a howitzer from his sleeve." The *banditi* mounted their wild-eyed steeds amid much snorting and tossing of fanged heads.

"But we'll not forget ye're visage, off-worlder," another promised. "I wot well we'll meet again —and next time we'll be none so lenient."

A hubbub of pleased chatter broke out among the lesser Oberonians as the party passed from sight.

"Milord has saved Great-uncle Binkster's fried fat this day," the small being who had enlisted Retief's aid cried. The Terran leaned over, hands on knees, which put his face on a level only a foot or two above that of the little fellow.

"Haven't I seen you before?" he asked.

"Certes, milord—until an hour since, I eked out a few coppers as third assistant pastry cook in the inn yonder, assigned to the cupcake division, decorative icing branch." He sighed. "My specialty was rosebuds—but no need to burden your grace with my plaint."

"You lost your job?"

"Aye, that did I—but forsooth, 'tis but a trifling circumstance, in light of what I o'erheard ere the hostler bade me hie me from the premises forthwith!"

"Let's see, your name is—"

"Prinkle, milord. Ipstitch Prinkle IX, at your service." The Twilpritt turned as a slightly plumper, grayer version of himself bustled up, bobbing his head and twitching his ears in a manner expressive of effusive gratitude. "And this, Milord, is Uncle Binkster, in the flesh."

"Your servant, sir," Uncle Binkster squeaked, mopping at his face with a large striped handkerchief. "Wouldst honor me by accepting a cooling draft of pringlizard milk and a lardy-tart?"

"In sooth, Uncle, he needs something stronger than whey," Prinkle objected. "And in sooth, *The Plump Sausage* offers fine ale—if your Grace can manage the approaches," he added, comparing Retief's six foot three with the doorway.

"I'll turn sideways," Retief reassured the Oberonian. He ducked through, was led across the crowded room by a bustling eighteen-inch tapman to a corner table, where he was able to squeeze himself onto a narrow bench against the wall.

"What'll it be, gents?" the landlord inquired.

"Under the circumstances, I'll stick to small beer," Retief said.

"Ale for me," Uncle Binkster said. " 'Tis vice, perhaps, to tipple ere lunchtime, but with Tsuggs roaming the Quarter and battering down walls, one'd best tipple while opportunity presents itself."

"A sound principle," Retief agreed. "Who are these Tsuggs, Uncle Binkster?"

"LAWLESS rogues, down from the high crags for easy pickings," the elderly baker replied with a sigh. "After you Terrans sent the Groaci packing, we thought all our troubles were over. Alas, I fear me 'tis not the case. As soon as the ruffians got the word the Five Eyes were pulling out, they came swarming down out of the hills like zing-bugs after a jam-wagon—'tis plain they mean to elect their ruffianly chief, Hoobrik the Uncouth. Bands of them roam the city, and the countryside as well, terrorizing the voters—" He broke off as the landlord placed a foaming three-inch tankard before Retief.

"Away with that thimble, Squirmkin!" he exclaimed. "Our guest requires a heartier bumper than that!"

" 'Tis an Emperor-sized mug," the landlord said, "but I allow his dimensions dwarf it. Mayhap I can knock the top out of a hogshead . . ." He hurried away.

"Pray don't mistake me, milord," Uncle Binkster resumed. "Like any patriot, I rejoiced to see the Sticky-finger go, leaving the conduct of Oberonian affairs to Oberonians. But who'd have guessed we normal-sized chaps would at once be subjected to depradations by our own oversized kith and kin exceeding anything the invaders ever practiced!"

"A student of history might have predicted it," Retief pointed out. "But I agree: being pushed around by local hoodlums is even less satisfying than being exploited from afar."

"Indeed so," Prinkle agreed. "In the case of foreigners one can always gain a certain relief by hurling descriptive epithets, mocking their outlandish ways and blaming everything on their inherent moral leprosy—an awkward technique to use on one's relatives."

The landlord returned, beaming, with a quart-sized wooden container topped by a respectable head. Retief raised it in salute and drank deep.

"And if what my nephew o'erheard be any indication," Uncle Binkster went on, wiping foam from his whiskers, "the worst is yet to come. Hast related all to our benefactor, lad?"

"Not yet, Uncle." Prinkle turned to Retief. "I was sweeping up crumbs in the VIP breakfast room, my mind on other matters, when I heard the word 'Tsugg' bandied among the company still sitting at table. I cocked an auricle, thinking to hear the scoundrels

roundly denounced, only to catch the intelligence that their chief that brawling bravo Hoobrik, representing himself to be spokesman and natural leader of all Oberon, withal, hath demanded audience of His Impressiveness, Ambassador Clawhammer! 'Twas but natural that I undertook to disabuse their Lordships of this impertinent notion, accidentally overturning a pot of chocolate in process thereof—"

"Alas, my nephew is at times too enthusiastic in his espousal of his views," Uncle Binkster put in. "Though 'tis beyond dispute, in this instance he was sorely tried."

"In sooth, so was his honor, Mr. Magnan, when the cocoa landed in his lap," Prinkle admitted. "Happily, 'twas somewhat cooled by long standing."

"A grotesque prospect," Uncle Binkster ruminated. "Those scapegrace villains, lording it over us honest folk! Perish the thought, Sir Retief! I trow I'd sooner have the Five-eyes back!"

"At least they maintained a degree of control over the ne'r-do-wells," Prinkle said, "restricting them to their hills and caves."

"As will we, lad, once the election is consummated," Uncle Binkster reminded the youth. "Naturally, we Twilpritt stand ready to assume the burden of policing the rabble, as is only right and natural, as soon as our slate is elected, by reason of our supervisor virtues—"

"Hark not to the old dodderer's maunderings, Giant," a tiny voice peeped from the next table. A miniature Oberonian, no more than nine inches tall, raised his one-ounce glass in salute. "We Chimberts, being nature's noblemen, are of course divinely appointed to a position of primacy among these lumbering brutes, saving your presence, milord—"

"Dost hear a dust-cricket chirping in the woodwork?" a medium-sized Oberonian with black circles resembling spectacles around his eyes inquired loudly from three tables away. " 'Twere plain e'en to an outworlder that we Choobs are the rightful inheritors of the mantle of superiority. Once in office we'll put an end to such public rantings."

"You in office?" Prinkle yelped. "O'er my corpse, varlet!" He leaped up, slopping beer as he cocked his arm to peg the mug at the offender.

"Stay, nephew!" Uncle Binkster restrained the youth. "Pay no heed to the wretch, doubtless he's in his cups—"

"Drunk, am I, you old sot!" the Choob yelled, overturning the table as he leaped up, grabbing for the hilt of his foot-long sword. "I'll ha' a strip o' thy wrinkled hide for that allegation—" His threat was cut off abruptly as a tankard, hurled from across the room, clipped him over the ear, sending him reeling into the next

table, whose occupants leaped up with indignant shouts and flailing fists.

"Gentlemen, time, time!" the landlord wailed, before diving behind the bar amid a barrage of pewter. Retief finished his beer in a long swallow and rose, looming over the battle raging about his knees.

"A pleasure, gentlemen," he addressed the room at large. "I hate to leave such a friendly gathering, but Staff Meeting time is here."

"Farewell, Sir Retief," Prinkle panted from under the table, where he grappled with a pale-furred local of about his own weight. "Call around any time for a drop and a bit of friendly political chat."

"Thanks," Retief said. "If things get too slow in the front line trenches I'll remember your invitation."

II

AS RETIEF entered the conference room—a converted packing room in the former warehouse temporarily housing the Terran Mission to the newly liberated planet Oberon—First Secretary Magnan gave him a sour look.

"Well—here you are at last. I'd begun to fear you'd lingered to roister with low companions in your usual manner."

"Not quite my usual manner," Retief corrected. "We'd barely started to roister when I remembered Staff Meeting. By the way, what do you know about a fellow called Hoobrik the Uncouth?"

Magnan looked startled. "Why, that name is known only to a handful of us in the inner security circle," he said in a lowered tone, glancing about. "Who leaked it to you, Retief?"

"A few hundred irate locals. They didn't seem to know it was a secret."

"Well, whatever you do, act surprised when the Ambassador mentions it," Magnan cautioned his junior as they took seats at the long table. "My," he went on as the shouts of the crowd outside the building rose to a thunderous level, "how elated the locals are, now they realize we've relieved them of the burdens of Groaci overlordship! Hear their merry cries!"

"Remarkable," Retief agreed. "They have a better command of invective than the Groaci themselves."

"Why, Wilbur," Magnan said as Colonel Saddlesore, the Military Attaché slipped into the chair beside him, avoiding his glance. "However did you get that alarming discoloration under your eye?"

"Quite simple, actually." The colonel bit off his words like bullets. "I was struck by a thrown political slogan."

Magnan sniffed. "There's no need for recourse to sarcasm."

"The slogan," Saddlesore ampli-

fied, "was inscribed on the rind of a *bham-bham* fruit of the approximate size and weight of a well-hit cricket ball."

"I saw three small riots myself on the way in to the office," the Press Attaché said in a pleased tone. "Remarkable enthusiasm these locals show for universal suffrage."

"I think it's time, however," the Counselor put in ponderously, "that someone explained to them that the term 'political machine' does not necessarily refer to a medium tank."

The chatter around the long table cut off abruptly as Ambassador Clawhammer, a small pink-faced man with an impressive paunch, entered the room, glowered at his staff as they rose, waved them to their seats as he waited for silence.

"Well, gentlemen," he looked around the table. "What progress have you to report anent the preparation of the populace for the balloting?"

A profound silence ensued.

"What about you, Chester?" Clawhammer addressed the Counselor. "I seem to recall instructing you to initiate classes in parliamentary procedure among these riffraff—that is to say, among the free citizens of Oberon."

"I tried, Mr. Ambassador. I tried," Chester said sadly. "They didn't seem to grasp the idea quite. They chose up sides and staged a pitched battle for possession of the chair."

"Ah—I can report a teentsy bit of progress in my campaign to put across the idea of one man, one vote," a slender-necked Political Officer spoke up. "They got the basic idea, all right." He paused. "The only trouble was, they immediately deduced the corollary: one *less* man, one *less* vote." He sighed, "Luckily, they were evenly matched, so no actual votes were lost."

"You might point out the corollary to the corollary," Retief suggested, "the lighter the vote, the smaller the Post Office."

"What about your assigned task of voter registration, eh, Magnan?" the Chief of Mission barked. "Are you reporting failure too?"

"Why, no indeed, sir, not exactly failure; at least not utter failure; it's too soon to announce that—"

"Oh?" The Ambassador looked ominous. "When do you think would be an appropriate time? *After* disaster strikes?"

"I'd like to propose a rule limiting the number of political parties to P minus 1, P being the number of voters," Magnan said hastily. "Otherwise we run the risk that no one gets a majority."

"No good, Magnan," the Counselor for P R Affairs spoke up. "We don't want to risk a charge of meddling. However," he added thoughtfully, "we might just up the nomination fee to a figure suf-

ficiently astronomical to keep the trash out—that is, to discourage the weakly motivated."

"I don't know, Irving," the Econ Officer ran his fingers through his thinning hair in a gesture of frustration. "What we really need is to prune the ranks of the voters more drastically. Now, far be it from me to propose strong-arm methods—but what if we tried out a modified Grandfather Rule?"

"SAY—a touch of the traditional *might* be in order at that, Oscar," the Political Officer agreed tentatively. "Just what did you have in mind?"

"Actually I haven't worked out the details—but how about limiting the franchise to those who have grandfathers? Or possibly grandchildren? Or even both?"

"Gentlemen!" Ambassador Clawhammer cut short the debate. "We must open our sights. The election promises to degenerate into a debacle of ruinous proportions, career-wise, unless we break through with a truly fresh approach." He paused impressively. "Fortunately," he continued in the modest tones of Caesar accepting the crown, "I have evolved such an approach." He raised a hand in kindly remonstrance at the chorus of congratulations that broke out at his announcement.

"It's clear, gentlemen, that what is needed is the emergence of a political force that will weld together the strands of Oberonian political coloration into a unified party capable of seating handy majorities. A force conversant with the multitudinous benefits which would stem from a sympathetic attitude toward Terran interests in the Sector."

"Yes, Chief," an alert underling from the Admin Section took his cue. "But, gosh, who could possibly produce such a miracle from the welter of divergent political creeds here on Oberon? They're practically at swords' points with each other over each and every question of policy, both foreign and domestic."

Clawhammer nodded acknowledgment. "Your question is an acute one, Dimplick. Happily, the answer is at hand. I have made contact, through confidential channels, with a native leader of vast spiritual influence, who bids fair to fulfill the role to perfection." He paused to allow the staff to voice spontaneous expressions of admiration, then raised a palm for silence.

"While 'Golly!' and 'Wow!' are perhaps less elegant effusions than one might logically expect from an assemblage of senior career diplomats," he said sternly, but with a redeeming twinkle in his small, red-rimmed eyes, "I'll overlook the lapse this time on the basis of your obvious shock at receiving such glad tidings after your own abys-

mal failures to produce any discernible progress."

"Sir, may we know the name of this messiah?" Magnan chirped. "When do we get to meet him?"

"Curious that you should employ that particular term with reference to Hoobrik," Clawhammer said complacently. "At this moment, the guru is meditating in the mountains, surrounded by his chelas, or disciples, known as Tsuggs in the local patois."

"Did you say—Hoobrik?" Magnan queried uncertainly. "Goodness, what a coincidence that he should have the same name as that ruffian of a bandit chief who had the unmitigated effrontery to send one of his strong-arm men to threaten your Excellency!"

Clawhammer's pink features deepened to a dull magenta which clashed sharply with his lime-green seersucker suit.

"I fear, Magnan," he said in a tone like a tire-iron striking flesh, "that you've absorbed a number of erroneous impressions. His Truculence, Spiritual Leader Hoobrik, dispatched an emissary, it's true, to propose certain accommodations sphere-of-influence-wise; but to proceed from that circumstance to an inference that I have yielded to undue pressures is an unwarranted speculative leap!"

"Possibly I just misinterpreted his messenger's phraseology, sir," Magnan said with a tight little smile. "It didn't seem to me that 'foreign blood-suckers' and 'craven paper-pushers' sounded all that friendly."

" 'IPBM's may fry our skins, but words will never hurt us,' eh, sir?" the Econ Officer piped brightly, netting himself a stab of the Ambassadorial eye.

"Still, it's rather strong language," Colonel Saddlesore spoke up to fill the conversational gap. "But I daresay you put the fellow in his place, eh, Mr. Ambassador?"

"Why, as to that, I've been pondering the precisely correct posture to adopt vis-a-vis the Tsuggs, protocol-wise. I confess for a few moments I toyed with the idea of a beefed-up 804-B: Massive Dignity, with overtones of Leashed Ire; but cooler counsels soon prevailed."

"How about a 764, sir?" the Econ Officer essayed. "Amused Contempt, with just a hint of Unpleasant Surprise in the Offing?"

"Too subtle," Colonel Saddlesore grunted. "What about the old standby, 26-A?"

"Oh, the old 'Threat to Break Off Talks' ploy, eh? Embellished with a side-issue of Table-Shape Dispute, I assume?"

"GENTLEMEN!" Clawhammer called the conference to heel. "You forget that the date of the elections is rushing toward us! We've no time for traditional ploys. The problem is simple: how

best to arrive at a meeting of the minds with the guru."

"Why not just call him in and offer to back him in a takeover, provided he plays ball?" the PR Chief proposed bluntly.

"I assume, Irving," Clawhammer said into the shocked silence, "that what you actually meant to suggest was that we give His Truculence assurances of Corps support in his efforts to promote Oberonian welfare—in the event of his securing the confidence of the electorate, as evinced by victory at the polls, of course."

"Yeah, something like that," Irving muttered, sliding down in his chair.

"Now," Clawhammer said, "the question remains, how best to tender my compliments to His Truculence, isolated as he is in his remote fastness—"

"Why, simple enough, sir," Magnan said. "We just send a messenger along with an invitation to tea. Something impressive in a gold-embossed, I'd suggest."

"I understand this fellow Hoobrik has ten thousand blood-thirsty cutthroats—ah, that is, wisdom-hungry students—at his beck and call," the Econ Officer contributed. "They say anybody who goes up there comes back with his tail cropped."

"Small hazard, since we Terries have no tails," Magnan said.

"I've got a funny feeling they'd figure out something else to crop," Oscar retorted sharply.

"Am I to infer, Magnan, you're volunteering to convey the bid?" Clawhammer inquired blandly.

"Me, sir?" Magnan paled visibly. "Heavens, I'd love to—except that I'm under observation for possible fourth-degree cocoa burns."

"Fourth-degree burns?" Colonel Saddlesore wondered aloud. "I'd like to see that. I've heard of first, second, and third degree, but—"

"The symptoms are invisible to lay inspection," Magnan snapped. "Additionally, my asthma is aggravated by high altitudes."

"By Gad," Colonel Saddlesore whispered to his neighbor, "*I'd* like a chance to confront these fellows—"

"Better wear your armor, Wilbur," his confidant replied. "From all reports, they weigh in at three hundred pounds and wear six-foot cutlasses with which they lay about them freely when aroused. And they say the sight of a Terry arouses them worse than anything."

"—but, as I was about to say, my duties require that I hole up in my office for the forseeable future," the colonel finished.

"Cutlasses, you say?" the Econ Officer pricked up his ears. "Hmm. Might be a market here for a few zillion up-to-date handweapons—for police use only, of course."

"Capital notion, Depew," the Political Officer nodded approvingly. "Nothing like a little firepower to bring out the natural peace-loving tendencies of the people."

"Now, gentlemen—let us avoid giving voice to any illiberal doctrines," Clawhammer said sharply. "Our only motive, let us remember, is to bring the liberated populace to terms with the political realities—in this case, the obvious need for a man on horseback—or should I say a Tsugg on Vornch-back?" The Terran envoy smiled indulgently at his whimsy.

"I have a question, Mr. Ambassador," Retief said. "Since we're here to supervise free elections, why don't we let the Oberonians work out their own political realities?"

Clawhammer looked blank.

"Just—ah—how do you mean?" the Political Officer prompted uneasily.

"Why don't we let them nominate whomever they want, vote for any candidate they like?" Retief explained.

"I suggest you forget these radical notions, young fellow," Clawhammer said sternly. "These free elections will be conducted in the way that free elections have always been conducted. And now that I've considered the matter, it occurs to me it might be valuable experience for you to pay the proposed call on His Truculence. It might serve to polish your grasp of protocol a trifle."

"But, sir," Magnan spoke up. "I need Mr. Retief to help me do the Consolidated Report of Delinquent Reports—"

"You'll have to manage alone, I fear, Magnan. And now, back to the ramparts of democracy, gentlemen! As for you, Retief—" The Ambassador fixed Retief with a sharp eye: "I suggest you comport yourself with a becoming modesty among the Tsugg. I should dislike to have report any unfortunate incident."

"I'll do my best to see that no such report reaches you, sir," Retief said cheerfully.

III

THE green morning sun of Oberon shone down warmly as Retief, mounted on a wiry Struke, a slightly smaller and more docile cousin of the fierce Vorch tamed by the Tsuggs, rode forth from the city gates. Pink and yellow borms warbled in the tree tops; the elusive sprinch darted from grass tuft to grass tuft. The rhythmic whistling of doody-bugs crying to their young supplied a somnolent backdrop to the idyl.

Retief passed through a region of small, tidy farms, where sturdy Doob peasants gaped from the furrows. The forest closed in as the path wound upward into the

foothills. In mid-afternoon he tethered the Struke and lunched beside a waterfall on paté sandwiches and sparkling Bacchus Black from a coldflask. He was just finishing off his *mousse éclaire* when a two-foot steel arrow whistled past his ear to bury itself six inches in the dense blue wood of a Nunu tree behind him.

Retief rose casually, yawned, stretched, took out a vanilla dope stick and puffed it alight, at the same time scanning the underbrush. There was a quick movement behind a clump of Foon bushes; a second bolt leaped past him, almost grazing his shoulder, to rattle away in the brush. Appearing to notice nothing, Retief took a leisurely step toward the Nunu tree, slipped suddenly behind it. With a swift motion he grasped a small, limber branch growing out at waist height on his side of the two-foot bole, bent it down and pegged the tip to the shaggy, porous bark, using the match-sized dope stick to pin it in place. Then he moved quickly away, keeping the tree between himself and the unseen archer, to the concealment of a dense patch of shrubbery.

A minute passed; a twig popped. A bulky, tattooed Tsugg appeared, a vast, dumpy figure clad in dirty silks, holding a short, thick, recurved bow clamped in one boulder-like fist, a quarrel nocked, the string drawn. The dacoit tiptoed forward, jumped suddenly around the tree. Finding his quarry fled, he turned, stood with his back to the tree peering into the undergrowth.

At that moment, the bent branch, released by the burning of the dope stick, sprang outward, ramming the astounded bowman in the seat of his baggy green velveteen trousers. The arrow smacked into the dirt at his feet as he jumped, then stood rigid.

"Don't strike, sir!" he urged in a plaintive tenor. "The older lads put me up to it—"

Retief strolled from his shelter, nodded easily to the Tsugg, plucked the bow from his nerveless grip.

"Nice workmanship," he said, inspecting the weapon. "Groaci trade goods?"

"Trade goods?" the Tsugg said with a note of indignation. "Just because yer partner has a dirk at me back's no cause to make mockery of me. I plundered it from the Five-eyes all open and aboveboard, so help me."

"Sorry," Retief said. He withdrew the arrow from the loam, fitted it to the bow experimentally.

"You're not by chance a member of Hoobrik's band, are you?" he inquired off-handedly.

"Too right it's not by chance," the Tsugg said emphatically. "I went through the Ordeal, same's the other lads."

"Lucky we met," Retief said. "I'm on my way to pay a call on

His Truculence. Can you lead me to him?"

The Tsugg straightened his two-hundred-and-ninety-pound bulk. "Tell yer crony to do his worst," he said with a small break in his voice. "Fim Gloob's not the Tsugg to play the treacher."

"It wasn't exactly treachery I had in mind," Retief demurred. "Just ordinary diplomacy."

"Yer threats will avail ye naught," Fim Gloob declared.

"I see what you mean," Retief said. "Still, there should be some way of working this out."

"No outsider goes to the camp of Hoobrik but as a prisoner." The Tsugg rolled his shiny black eyes at the Terran. "Ah, sir—would ye mind asking yer sidekick not to poke so hard? I fear me he'll rip me weskit, stole for me by me aged mums it were, a rare keepsake."

"Prisoner, eh, Fim? By the way, I don't have a sidekick."

"That being the way of it," Fim Gloob said carefully, after a short, thoughtful pause, "who'd be the villain holding the blade to me kip-glands?"

"As far as I know," Retief said candidly, "there's nobody here but you and me."

THE Tsugg turned his head cautiously, peered behind him. With a grunt of annoyance he snapped a finger at the offending bough.

"Me and me overactive imagination," he snorted. "And now—"

He turned to Retief with a scowl.

"Remember, I still have the bow," Retief said pleasantly.

"And a mort o' good it'll do ye," Fim snarled, advancing. "Only a Tsugg born and bred has the arm to draw that stave!"

"Oh?" Retief set the arrow and with an easy motion pulled until the arrowhead rested against the bow, the latter being bent into a sharp curve. Another inch—and the stout laminated wood snapped with a sharp *twang*.

"I see what you mean," Retief said. "But then the Groaci always did produce flimsy merchandise."

"You—you broke it!" Fim Gloob said in tones of deep dismay.

"Never mind—I'll steal you a new one. We have some ladies' models in the Recreation Kits that ought not to overstrain you."

"But—I'm reckoned the stoutest bowman in the band."

"Don't give it another thought, Fim. They'll love you when you bring in a live Terry, single-handed."

"Who, me?"

"Of course. After all, I'm alone and unarmed. How could I resist?"

"Aye—but still—"

"Taking me in as a prisoner

would look a lot better than having me saunter in on my own and tell Hoobrik you showed me the route."

"Wouldst do such a dirty trick?" Fim gasped.

"I wouldst—unless we start immediately," Retief assured the Tsugg.

Fim sighed. "I guess I know when I'm licked. I mean when you're licked. Let's go, prisoner. And let's hope His Truculence is in a good mood. Otherwise he'll clap ye on the rack and have the whole tale out of ye in a trice!"

IV

A FEW dozen heavyweights lazing about the communal cooking pot or sprawling in the shade under the striped awnings stretched between the trees looked up in mild interest as Retief appeared on struke-back, Fim Gloob behind him astride his Vorch, glowering ferociously as he verbally prodded the lone Terran forward.

"Ho, that's far enough," he roared. "Dismount, while I seek instruction o' His Truculence whether to h'ist ye out of hand or ha' a bit o' sport wi' ye first."

"Ha, what be this, Gloob?" a bulky outlaw boomed as Retief swung down from the saddle. "An off-worlder, I trow!"

"That he's no Oberonian, is plain," another offered. "Mayhap a two-eyed variety o' Five-eyes."

Fim yelled, "Clear the way—I've fetched this Terry here to divert the great Hoobrik wi' his saucy sayings."

"Here, what passes?" a familiar baritone cut through the clamor. A large Tsugg in a red sash pushed through the mob, which gave way grudgingly, with much muttering. The newcomer halted with a jerk when his eye fell on Retief.

"Methinks," he said, "I've seen you before, sirrah."

"We've met," Retief acknowledged.

"Though all you Terries look alike to me." Dir Blash fingered his jaw gingerly. "Meseemeth 'twas in the Street of the Sweetmakers—"

"So it was."

"Aha! I've got it!" Dir Blash clapped Retief on the shoulder. "My boon companion! Ah, bullies," he addressed his fellows, "this Terry gave me a shot of something with a kick like a Vorch—though for the life of me I can't recall the precise circumstances. How wert thou yclept again, sirrah?"

"Retief; lucky you have the kind of memory you do, Dir Blash; your compatriots were just debating the best method of putting me out of my misery."

"Say you so?" Dir Blash looked around threateningly, his hand on the hilt of his cutlass. "Nobody murders my drinking buddies but

me." He turned back to Retief. "Say, you wouldn't chance to have any more of the same, would you?"

"I'm saving it for a special occasion," Retief said.

"Well, what could be more special than a reprieve from being staked out on a zing-wasp hive, eh?"

"We'll celebrate later," Retief said. "Right now I'd appreciate a short interview with His Truculence."

"If I use my influence to get you in, wilt let me have another sample later?"

"If things work out as they usually do," Retief said, "I think you can be sure of it."

"Then come along, Dir Retief. I'll see what I can do."

HOOBRIK the Uncouth, lounging in a hammock under a vari-colored canopy, gazed indifferently at Retief as Dir Blash made the introductions. He was an immense Tsugg, above the average height of his kind, his obesity draped in voluminous beaded robes. He selected a large green berry from a dented silver bowl at his elbow, shook exotic salts over it from a heavy gold saltshaker and popped it into his mouth.

"So?" he grunted, spitting the seeds over the side. "Why disturb my meditations with trifles? Dispose of the creature in any way that amuses you, Blash—but save the head. I'll impale it on a pike and give it to the Terry chieftain—gift-wrapped, of course."

Dir Blash nodded, scratching himself under the ribs. "Well, thus doth the tart disintegrate, Retief," he said in tones of mild regret. "Let's go—"

"I don't want to be a spoilsport, your Truculence," Retief spoke up, "but Ambassador Clawhammer only allows his staff to be decapitated at Tuesday morning staff meetings."

"Staff meetings?" Hoobrik wondered aloud. "Is that anything like a barbecue?"

"Close," Retief agreed. "Quite often a diplomat or two are flayed alive and roasted over a slow fire."

"Hmm." Hoobrik looked thoughtful. "Maybe I should introduce the custom here. "My wish is to keep up with the latest trends in government."

"In that connection," Retief said, offering the stiff parchment envelope containing the invitation to the reception, "His Excellency the Terrestrial Ambassador Extraordinary and Minister Plenipotentiary presents his compliments and requests me to hand you this."

"Eh? What be this?" Hoobrik fingered the document gingerly.

"Ambassador Clawhammer requests the honor of your company at a ceremonial affair celebrating the election," Retief explained.

"Ceremonial affair?" Hoobrik

shifted uneasily, causing the hammock to sway dangerously. "What kind of ceremony?"

"Just a small semi-formal gathering of kindred souls. It gives everyone a chance to show off their clothes and exchange veiled insults face to face."

"Waugh! What kind of contest is this? Give me a good hand-to-hand disemboweling any day!"

"That comes later," Retief said. "It's known as Dropping by the Residence for a Drink. After the Party."

"IT HATH an ominous sound," Hoobrik muttered. "Is it possible you Terries are more ferocious than I'd suspected?"

"Ha!" Dir Blash put in. "I myself dispatched half a dozen of the off-worlders only this morning when they sought to impede my entrance to a grog shop in the village."

"So?" Hoobrik yawned. "Too bad. For a moment, things were begining to look interesting." He tore a corner off the gold-edged invitation and used it to poke at a bit of fruit rind wedged between his teeth. "Well, off with you, Blash—unless you want to play a featured role at my first staff meeting."

"Come, Terry," the red-sashed Tsugg growled, reaching for Retief's arm. "I just remembered the part of yesterday's carouse that had slipped my mind."

"I think," Retief said, evading the sub-chief's grab, "it's time for that jolt I promised you." He stepped in close and rammed a pair of pile-drive punches to Dir Blash's midriff, laced a hard right to the jaw as the giant doubled over and fell past him, out cold.

"Here!" Hoobrik yelled. "Is that any way to repay my hospitality?" He stared down at his fallen henchman. "Dir Blash, get up, thou malingerer, and avenge my honor!"

Dir Blash groaned. One foot twitched. He settled back with a snore.

"My apologies," Retief said, easing the Groaci pistol from inside his shirt. "Protocol has never been my strong suit. Having committed a *faux pas*, I'd best be on my way. Which route would be least likely to result in the demise of any of your alert sentries?"

"Stay, off-worlder. Wouldst spread tidings of this unflattering event abroad, to the detriment of my polling strength?"

"Word might leak out," Retief conceded. "Especially if any of your troops get in my way."

"'Tis a shame not to be borne!" Hoobrik said hoarsely. "All Oberon knoweth that only a Tsugg can smite another Tsugg senseless." He looked thoughtful. "Still, if the molehill will not come to Meyer, Meyer must to the molehill, as the

saying goeth. Since thou hast in sooth felled my liegeman, it follows you must be raised at once to Tsugghood, legitimizing the event after the fact, as it were."

"I'd be honored," Retief said amiably. "Provided, of course, that you authorize me to convey your gracious acceptance of His Excellency's invitation."

Hoobrik looked glum. "Well—we can always loot the Embassy afterward. Very well, Terry—Tsugg-to-be, that is. Done!" The chieftain heaved his bulk from the hammock, stirred Dir Blash with a booted toe, at which the latter groaned and sat up.

"Up, sluggard!" Hoobrik roared. "Summon a few varlets to robe me for a formal occasion! And my guest will require suitable robes, too." He glanced at Retief. "But don't don them yet, lest they be torn and muddied."

"The ceremony sounds rather strenuous," Retief commented.

"Not the ceremony," Hoobrik corrected. "That cometh later. First cometh the Ordeal. If you survive that I'll have my tailor fit you out as befits a sub-chief of the Tsugg."

THE Ceremonial Site for Ordeal Number One—a clearing on a forest slope with a breath-taking view of the valley below—was crowded with Tsugg tribesmen, good-naturedly quarreling, shouting taunts, offering and accepting wagers and challenges, passing wineskins from hand to grimy hand.

"All right, everybody out of the Ring of the First Trial," Dir Blash shouted, implementing his suggestion with hearty buffets left and right. "Unless ye plan to share the novitiate's hazards."

The mountaineers gave ground, leaving an open space some fifty feet in diameter, to the center of which Retief was led.

"All right, the least ye can do is give the off-worlder breathing space." Dir Blash exhorted the bystanders to edge back another yard. "Now, Retief—this is a sore trial, 'tis true, but 'twill show you the mettle of the Tsugg, that we impose so arduous a criterion on oursel's!" He broke off at a sound of crashing in the underbrush. A pair of tribesmen on the outer fringe of the audience flew into the air as if blown up by a mine, as with ferocious snorts, a wild Vorch, seven feet at the shoulder and armed with down-curving tusks, charged from the underbrush. His rush carried him through the ranks of the spectators into the inner circle, his short tail whipping, his head tossing as he sought a new target. His inflamed eye fell on Dir Blash.

"Botheration," the latter commented in mild annoyance as the beast lowered its head and charged. Leaning aside, the Tsugg raised a fist of the size and weight

of a hand-axe, brought it down with a resounding *brongg*! on the carnivore's skull. The unlucky beast folded in mid-leap, skidded chin-first to fetch up against Retief's feet.

"Nice timing," he remarked.

"Ye'd think the brute did it a-purpose, to plague a serious occasion," Dir Blash said disapprovingly. "Drag the silly creature away," he directed a pair of Tsugg. "He'll be broke to harness for his pains. And now," he turned to Retief, "if ye're ready—"

Retief smiled encouragingly.

"Right, then. The first trial is —take a deep breath and hold it for the count of ten." Dir Blash watched Retief's expression alertly for signs of dismay. Seeing none, he raised a finger disappointedly.

"Very well. Inhale."

Retief inhaled.

"Onetwothreefourfivesixseveneightnineten," Dir Blash said in a rush and stared curiously at the Terran, who stood relaxed before him. A few approving shouts rang out. Then came scattered hand-claps.

"Well," Dir Blash grunted. "You did pretty fair, I suppose, for an off-worlder. Hardly turned blue at all. You pass, I suppose."

"Hey," someone called from the front rank of the gallery. "He's not—"

"Not still—" someone else queried.

"Still holding his breath?" a third Tsugg then asked wonderingly.

"O' course not, lackwits!" Dir Blash bellowed. "How could he? E'en Grand Master Cutthroat Dirdir Hooch held out but to the count of twelve!" He looked closely at Retief. "Thou hast indeed resumed respiration?" he murmured.

"Of course," Retief reassured the Tsugg. "I was just grandstanding."

Dir Blash grunted. "In sooth, I've a feeling ye went a good thirteen, if truth were known," he muttered confidentially. "Hast made a specialty of suffocation?"

"Staff meetings, remember?" Retief prompted.

"To be sure." Dir Blash looked disgruntled. "Well, on to the Second Trial, Terry. Ye'll find this one e'en a straiter test of Tsugghood than the last!" He led the way upslope, Retief close behind, the crowd following. The path deteriorated into a rocky gully winding up between nearly vertical walls of rock. Pebbles rattled around the party from the crumbling cliffs above as members clambered toward choice vantage points. A medium-sized boulder came bounding down from a crag to whistle overhead and crash thunderously away among the trees below. The journey ended in a small natural amphitheater, the floor of which was thickly littered with stones of all sizes. Spectators

took up positions around the periphery above as pebbles continued to clatter down around the tester and testee, who stood alone at the center of the target. A head-sized rock smashed down a yard from Retief. A chunk the size of a grand piano poised directly above him gave an ominous rumble and slid downward six inches amid a shower of gravel.

"What happens if one of those scores a bull's-eye on the candidate?" Retief inquired.

"It's considered a bad omen," Dir Blash said. "Drat the pesky motes!" he added as a small fragment bounded off the back of his neck. "These annoyances detract from the solemnity of the occasion."

"On the contrary," Retief demurred politely. "I think they add a lot of interest to the situation."

"Umm. Mayhap." Dir Blash gazed absently upward, moving his head slightly to avoid being brained by a baseball-sized missile. "Now, off-worlder," he addressed Retief, "prepare for the moment of truth. Bend over—" he paused impressively—" and touch your toes!"

"Do I get to bend my knees?" Retief temporized.

"Bend whatever you like," Dir Blash said with airy contempt. "I trow this is one feat ye've not practiced at your Ordeal of the Staff Meeting!"

"True," Retief conceded. "The closest we come is lifting ourselves by our bootstraps." He assumed a serious expression, bent over and, with a smooth motion, touched his fingertips to his toes.

"He did it in one try," someone called.

"Didn't even take a bounce!" another added.

The applause was general.

"Lacking in style," Dir Blash grumbled. "But a pass, I allow. But now you face the Third Ordeal, where ye're tricks will do ye no good. Come along." They moved off. The stone piano crunched down on the spot he and Retief had just vacated.

V

THE route to the Third Site led upward through a narrow cut to emerge on a bare rock slope. Fifty feet away a flat-topped rock spire loomed up from the depths, joined to the main mass of the peak by a meandering ribbon of rock some six inches in width, except where it narrowed to a knife edge, halfway across. Dir Blash sauntered out across the narrow bridge, gazing around him at the scenery.

"A splendid prospect, eh, Retief?" he called over his shoulder. "Look on it well; it may be thy last. What comes next has broken many a strong Tsugg down into a babbling Glert."

Retief tried the footing; it held. Keeping his eyes on the platform

ahead, he walked quickly across.

"Now," Dir Blash said, "you may wish to take a moment to commune with your patron devils or whatever it is you off-worlders burn incense to."

"Thanks, I'm in good shape incantation-wise," Retief reassured him. "Only last night I joined in a toast to the auditors."

"In that case—" Dir Blash pointed impressively to a flat stone that lay across two square rocks, the top of which cleared the ground by a good twelve inches.

"Leap the obstacle in a single bound."

Retief studied the hurdle from several angles before taking up his position before it.

"I see you hesitate," Dir Blash taunted. "Dost doubt thy powers at last, Terry?"

"Last year an associate of mine jumped fifty names on the promotion list," Retief said. "Can I do less?" Standing flat-footed, he hopped over the barrier. Turning, he hopped back again.

There was a moment of stunned silence.

Suddenly pandemonium broke out Dir Blash hesitated only a moment, then joined in the glad cries.

"Congratulations, Dir Tief!" he bellowed, pounding the Terran on the shoulder. "I warrant an off-worlder of thy abilities would be an embarrassment to all hands—but in sooth thou'rt now a Tsugg of the Tsuggs, and thy attainments are an adornment to our ilk!"

"REMARKABLE," said Hoobrik the Uncouth as he stuffed a handful of sugar-coated green olives into his mouth. "According to Blash you went through the Ordeal like a Tsugg to the pavilion born. I may keep you on as bodyguard, Dir Tief, after I get the pavilion born. I may keep you on as bodyguard, Dir Tief, after I get the vote out and myself in."

"Coming from your Truculence, that's praise indeed," Retief said. "Considering your willingness to offer yourself as a candidate without a whimper."

"What's to whimper?" Hoobrik demanded. "After my lads have rounded up more voters than the opposition can muster, I'll be free to fill my pockets as best I may. 'Tis a prospect I face calmly."

"True," Retief said. "But first there are a few rituals to be gotten past. There's Whistle-stopping, Baby-kissing, Fence-sitting, and Mud-slinging, plus a considerable amount of Viewing with Alarm."

"Hmm." Hoobrik rubbed his chin thoughtfully. "Are these Ordeals the equal of our Rites of Tsugghood, Retief?"

"Possibly even worse," Retief solemnly assured the chieftain. "Especially if you wear an Indian war bonnet."

"Out upon it!" Hoobrik pounded his tankard on the table.

"A Tsugg fears neither man nor beast."

"But did you ever face a quorum of Women Voters?" Retief countered quickly.

"My stout lads will ride down all opposition," Hoobrik declared with finality. "I've already made secret arrangements with certain Five-eyed off-worlders to supply me with all the write-in ballots I need to make everything legal and proper. Once in office, I can settle down to businesslike looting in an orderly manner."

"But remember," Retief cautioned, "You'll be expected to stand on your Party Platform—at least for the first few weeks."

"W-weeks?" Hoobrik faltered. "What is this platform, Retief?"

"It's a pretty shaky structure," Retief confided. "I've never known one to last past the first Legislative Rebuff."

"What, yet another Ordeal?"

"Don't worry about it, your Truculence; it seldom goes as far as Impeachment."

"Well? Don't keep me in suspense!" Hoobrik roared. "What doth this rite entail?"

"This is where your rival politicians get even with you for winning, by charging you with High Crimes and Misdemeanors—"

"Stay!" Hoobrik yelled. "Is there no end to these torments?"

"Certainly," Retief reassured the aroused leader. "After you retire, you become a Statesman and are allowed out on alternate All Fools Days to be queried as to your views on any subject sufficiently trivial to grace the pages of the Sunday Supplements."

"Arrrhh!" Hoobrik growled and drained his mug. "See here, Retief," he said. "On pondering the matter, methinks 'twould be a gracious gesture on my part to take second place on the ticket and let a younger Tsugg assume party leadership; you, for example, Blash," he addressed the sub-chief.

"Who, me?" the latter blurted. "Nay, my liege—as I've said before, I am not now and do not intend to be a candidate."

"Who, then?" Hoobrik waved his arms in agitation. "We need a Tsugg who'll appeal to a broad spectrum of voters. A good scimitarman for beating down opposition inside the party, a handy club-wielder to bring in the Independents, a cool hand with a dirk, for committee infighting—" He paused, looking suddenly thoughtful.

"Well, I'll leave you gentlemen to look over the lists," Retief said, rising. "May I tell the Ambassador to expect you at the post-election victory reception?"

"We'll be there," Hoobrik said. "And I think I have a sure-fire Tsugg standard-bearer in mind to pull in the vote—"

IN THE varicolored glow of lights strung in the hedges ring-

ing the former miniature golf course pressed into service as Embassy grounds, the Terran diplomats stood in conversation clumps across the fairways and greens, glasses in hand, nervously eyeing the door through which Ambassador Clawhammer's entrance was expected momentarily.

Magnan said to Retief, glancing at his watch, "The first results will be in any moment."

"I think we need have no fear of the outcome," Saddlesore stated. "Guru Hoobrik's students have been particularly active in these final hours, zealously applying posters to the polling places."

"And applying knots to the heads of reluctant converts," the Political Officer added. "What I'm wondering is—after Hoobrik's inauguration, what's to prevent his applying the same techniques to foreign diplomats?"

"Tradition, my boy," the colonel said soothingly. "We may be shot as spies or deported as undesirables—but shaped up by wardheelers, no."

A stir crossed the lawn. Ambassador Clawhammer appeared, ornate in the Burgundy cutaway and puce jodpurs specified by CDT Regs for early evening ceremonial wear.

"Well? No word yet?" He stared challengingly at his underlings, accepting one of the four drinks simultaneously thrust at him by alert junior officers. "My private polls indicate an early lead for the Tsugg party, increasing to a commanding majority as the rural counties report."

"Commanding is right," Magnan muttered behind his hand. "One of the ruffians had the audacity to order me to hold his gluepot while he affixed a poster to the front door of the Embassy."

"What cheek," the Political Officer gasped. "You didn't do it?"

"Of course not. "He held the gluepot, and I affixed the placard."

Happy shouts sounded from the direction of the gate; a party of Tsugg appeared, flamboyant in pink and yellow, handing out foot-long yellow cigars. A throng of lesser Oberonians followed, all apparently in good spirits.

"A landslide victory," one called to the assembly at large. "Break out the wassail bowl!"

"Is this official, Depew?" the Ambassador demanded of his Counselor, who arrived at that moment at a trot, waving a sheaf of papers.

"I'm afraid so—that is, I'm delighted to confirm the people's choice," he panted. "It's amazing—the Tsugg candidate polled an absolute majority, even in the oppositions' strongholds. It looks like every voter on the rolls voted the straight Tsugg ticket."

"Certes, Terry," a Grimble confirmed jovially, grabbing two glasses from a passing tray. "We

know a compromise candidate when we see one."

" 'Tis a clear mandate from the people," a Tsugg declaimed. "Hoobrik will be along in a trice to help with sorting out the spoils. As for myself, I'm not greedy; a minor Cabinet post will do nicely."

"Out upon thee!" a jovial voice boomed as the Tsugg chieftain swept through the gate, flanked by an honor guard of grinning scimitar-bearers. "No undignified rooting at the trough, lads—there's plenty to go around."

"Congratulations, your Truculence," Ambassador Clawhammer cried, advancing with outstretched hand. "I'm sure that at this moment you're feeling both proud and humble as you point with pride—"

"Humble?" Hoobrik roared. "That's for losers, Terry."

"To be sure." Clawhammer conceded the point. "Now, your Truculence, I don't want to delay the victory celebration—but why don't we first just sign this little Treaty of Eternal Peace and Friendship, set up to run for five years with a renewal option—"

"You'll have to speak to the new Planetary President about that, Terry," the chieftain waved the proffered document away. "As for myself, I have some important drinking to catch up on."

"But—I was informed by a usually reliable source—" Clawhammer turned to glare at the Counselor—"that the Tsugg party had carried off all honors."

"True enough. By the way, where is he?"

"Where is who?"

"Our new Chief Executive, of course—" Hoobrik broke off, pushed past Clawhammer, rushed forward with outstretched arms, narrowly missing a small water hazard, to embrace Retief, who had just appeared on the scene.

"Stand aside, Retief," Clawhammer snapped. "I'm in the midst of a delicate negotiation—"

"Employ a more respectful tone, Terry," Hoobrik admonished the Ambassador sternly. "Consider to whom you're speaking."

"To whom I'm speak?" Clawhammer said in bewilderment. "Whom *am* I speaking to?"

"Meet Planetary President Dir Tief," Hoobrik said proudly, waving a hand at Retief. "The winner —and new champion."

"GOOD lord, Retief," Magnan was the first to recover his speech. "When? How?"

"What's the meaning of this?" Clawhammer burst out. "Am I being made sport of?"

"Apparently not, Mr. Ambassador," Retief said. "It seems they put me on the ballot as a dark horse—"

"You'll be a horse of a darker

color before I'm through with you—" Clawhammer went rigid as twin scimitars flashed, ended with their points pressed against his neck.

"But how can a Terran be elected as head of the Tsugg party?" the Political Officer asked.

"President Tief is no Terry," Hoobrik corrected. "He's a Tsugg after my own heart!"

"But—doesn't the president have to be a natural-born citizen?"

"Art suggesting our President is unnatural-born?" Hoobrik grated.

"Why, no—"

" 'Tis well. In that case, best you present your credentials at once and we can get down to business."

Clawhammer hesitated. A prod of the blade at his jugular assisted him in finding his tongue.

"Why, ah, Mr. President— will your Excellency kindly tell your thugs to put those horrible-looking knives away?"

"Certainly, Mr. Ambassador," Retief said easily. "Just as soon as we've cleared up a few points in the treaty. I think it would be a good idea if the new planetary government has a solemn CDT guarantee of noninterference in elections from now on—"

"Retief—you wouldn't dare—I mean, of course, my boy, whatever you say."

"Also, it would be a good idea to strike out those paragraphs dealing with CDT military advisors, technical experts and fifty-credit-a-day economists. We Oberonians would prefer to work out our own fate."

"Yes—yes—of course, Mr. President. And now—"

"And as to the matter of the one-sided trade agreement—why don't we just scrap that whole section and substitute a free commerce clause?"

"Why—if I agree to that they'll have my scalp, back in the Department!"

"That's better than having it tied to a pole outside my tent," Hoobrik pointed out succinctly.

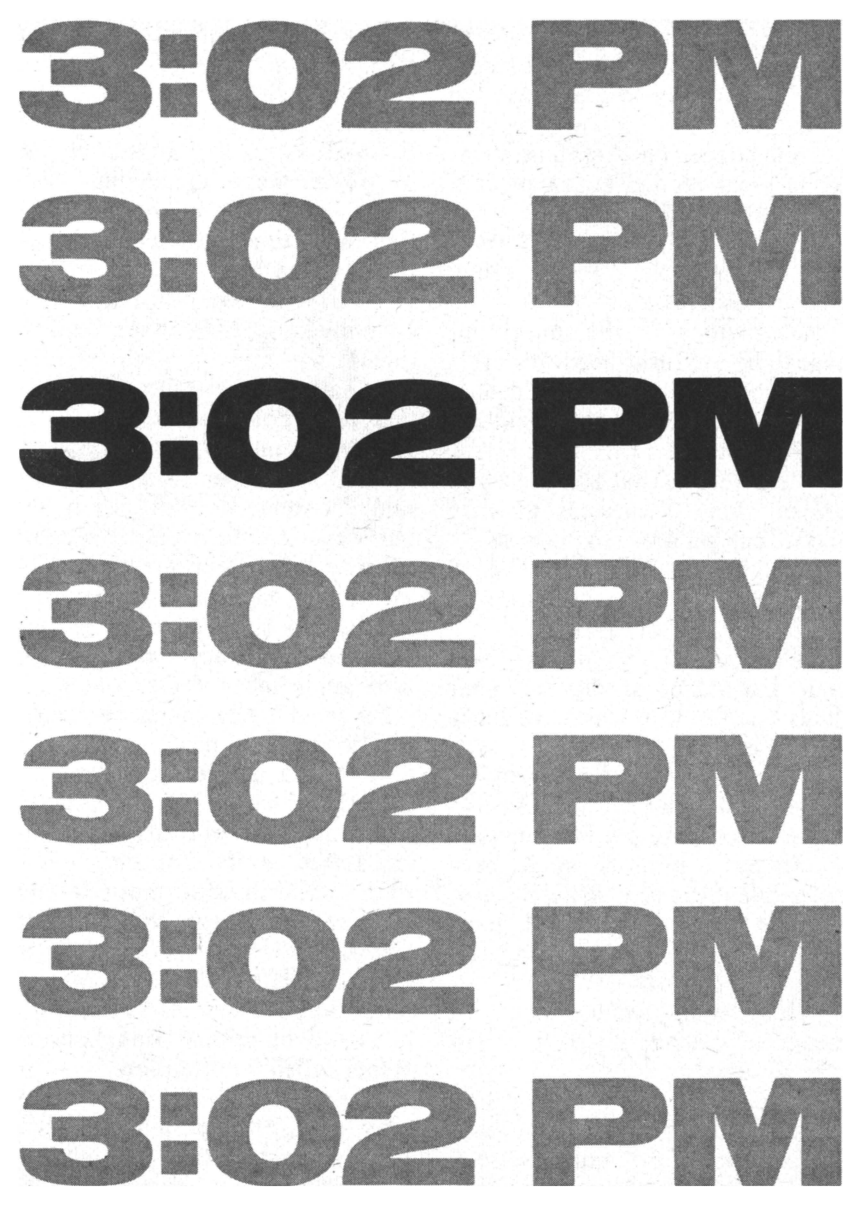
"On the other hand," Retief said, "I think we Tsuggs can see our way clear to supply a modest security force to ensure that nothing violent happens to foreign diplomats among us as long as they stick to diplomacy and leave all ordinary crime to us Oberonians."

"Agreed," Clawhammer squaked. "Where's the pen?"

It took a quarter of an hour to delete the offending paragraphs, substitute new wording and affix signatures to the imposing document establishing formal relations between the *Corps Diplomatique Terrestrienne* and the Republic of Oberon. When the last length of red tape had been affixed and the last blob of sealing wax applied, Retief called for attention.

"Now that Terran-Oberonian relations are off on a sound footing," he said, "I feel it's only ap-

(Please turn to page 189)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GREG BENFORD

OXFORD

THE view of the geometrically flattened grass in the garden quad of Skag College was a lusterous green this spring. Professor James Whyteborn watched it rather distantly through a small window. Some athletic students, the jolly-hockeysticks type, were practicing pitching a cricket ball back and forth. Insects buzzed their dutiful rounds among drowsy flowers. Whyteborn peered at the scene so intently that he did not notice the approach of William Dowles across the crowded Senior Common Room.

"Having tea?" Dowles said, questioning the obvious.

"Yes, yes," Whyteborn said distractedly. "I will only be a moment. I've just had some Founder's Port to round off my lunch and I am taking some tea to help it settle."

"You read the draft of our article that I wrote?"

"Yes, Helen brought it home with her after your dinner party." In point of fact Professor Whyteborn suspected the events of the previous evening had extended far beyond the ordinary rituals of an Oxford evening dinner and this was one of the matters which had caused him to gaze so pensively at the garden quad, athletes and insects.

"Any comments?"

"A remark on the style," Whyteborn said. "The paper is littered with the first person plural. *We* did this, *we* did that."

"There were two of us doing the experiment."

"Yes, but the 'we's' in here begin to resemble a mob. I don't like the form much, myself. Every scientific paper these days is full of them. I've always felt you shouldn't use 'we' unless you're an editor, a potentate or a man with a tapeworm."

"Well—"

"But never mind, you are at no fault. You're just a Reader in Physics at the moment—though I hope that will change quickly after publication of this paper—and haven't had to wade through a thousand manuscripts written in the same style. Ah, and speaking of style. It could be a bit clearer."

"Really?"

"I don't see why everything cannot be explained in simple, clear, one-syllable words, without obfuscating the issue."

The two men laughed quietly, so as not to disturb the Common, and Whyteborn went on. "There are a few places like that, yes, but generally I believe it's okay. The reader can quickly see that we've done a good job of ruling out other effects in our experiment, so our conclusion that we have detected tachyons is well supported. I was glad to see that you have included quite a lot of material on the correlation checks we did. We must be quite sure of this result."

"I think we've pretty well cleared things up, don't you?" Dowles' voice contained just the right blend of assertiveness and deference appropriate to a future son-in-law addressing the father of his fiancee. "Even the most ardent skeptic—"

"Don't become optimistic. Tachyons are a whole new class of particles and they are going to turn theoretical physics on its ear. There will be opposition."

The younger man worriedly rubbed a thumbnail against his lower lip. "Surely we won't be doubted too severely. The theoreticians—Feinberg, Bilaniuk, Sudarshan—were the ones who put us on the track. They'll stick by us."

WHYTEBORN nodded and went on sipping his tea. The Senior Common Room was emptying of the noon crowd, leaving blue curls of pipe smoke layered

in the air. "Yes, I believe they will. But there are going to be attacks on our work, be sure of it. I called a few people at Cambridge yesterday and they were most disinclined to accept our findings."

"Did they have any criticism of the way the experiment was set up?" Dowles said sharply.

"No, none."

"Their objections can't be serious ones. Any cretin can see—"

Whyteborn shook his head, marveling at the innocence of youth. "You don't see it. Tachyons are faster than light particles. That implies a whole string of new phenomena, not the least of which is the ability to send signals back in time. All the theoreticians agree on that point and I don't fathom any reason not to go along with them."

"I know, I know," Dowles said, biting into a scone. It tasted vaguely of cinnamon. "Causal paradoxes. All that stuff about going back in time and shooting your grandfather. I'll admit I don't know how to resolve the paradoxes. That's for the theoreticians to figure out. The fact of the matter is that tachyons do exist—we've found them."

"Right on. And soon everyone will know about it."

"How soon? Not until we get this paper touched up, I'd think."

"There's a rub about that, I'm afraid," Whyteborn said, lowering his eyes. "It seems one of the fellows down at Cambridge trotted off to the journalists about this; I may have forgotten to ask him not to. At any rate, I received a call from a man at the *Times* this morning."

"Oh."

"Don't worry, though, I put him off about it. We agreed to release nothing until we had already informed our colleagues and I intend to stand fast by that. This news is so important I don't want to overstep and get our names touted on the front page. That sort of thing will put off some of the people who are working on tachyons and do us no good."

"I'll get right back to my office, then, and work on this paper some more."

"No, don't. There's something I would like you to help me with, if you have the time. No appointment with Helen, I take it?" He tried a paternal smile which did not come off very well. Whyteborn had never felt himself to be the fatherly type and his experiments with the role had not worked out well in dealing with Dowles. The young man was his junior in the tachyon experiments and in the physics staff, and at the same time courted Helen Whyteborn.

"No, we have nothing planned."

"Good. I spent this morning making changes in our apparatus. It was not particularly difficult to alter the experiment to register tachyon reception continuously,

instead of getting detailed data on a few particles."

"Of what use is that?"

"Well, the other evening it occurred to me that this paradox business is going to cause us a lot of trouble. The pencil pushers are going to worry about it. The first thing that will come to mind is that our experiments are wrong—that conveniently shoves the problem out of sight for a while."

"Oho," Dowles said, "you want to get the jump on them."

"Right. I want to look for messages in the tachyon background we've detected."

"Just like a radio signal, you mean."

"Perhaps. I don't know what form they would take. Since tachyons are particles and radio is a wave they won't carry signals the same way. We must simply look and see."

"I think that's a good plan," Dowles said, folding his arms so that his tweed jacket wrinkled in thick folds. "It will get the jump on the doubters."

Whyteborn smiled to himself, thinking he had handled the discussion quite well. Appealing to his colleague's competitive spirit was the quickest way to get him to working again after an already grueling series of experiments. They both harbored a simmering resentment against the sort of physicist who speculated in ideas like a stock broker, and tachyon theory was rife with them. It was fashionable to deplore further work in the field because the causality paradox "clearly" ruled out their existence. To Whyteborn this was blowing a kernel of truth into a sort of intellectual puffed rice. The paradox showed that something funny was going on but he had never felt that it should be used as a proof against tachyons. And it seemed as though he and Dowles had now proved their point.

Whyteborn signed his tab and the two men left the Senior Common Room, carrying with them the odors of steak and kidney pie, that day's main course.

THEIR walk took them across the Euclidean perfection of the quad, through an ivy arch and down a small, cobbled lane. Oxford had bulged enormously over the last century but the colleges remained much the same. In fact, of late they had seemed to become even more encrusted with mannerisms and Tudor affectations, if that were possible. Undergraduates wore fashions in ruffles and lace, an Elizabethian touch—though not, Whyteborn imagined, out of historical interest, since bell-bottomed trousers played a role as well.

All this quite suited the Professor. He liked old things simply because they were old and therefore tested. If in science he was an in-

novator, in his personal life he hungered for the remnants of the Edwardian era.

Thus he felt particularly discomfited at the turn of events between Dowles and his daughter, Helen. They seemed to have fallen in love, as far as he could tell. (Which was not very far, his having little experience in such matters. His wife had died four years after Helen's birth and had been, to Whyteborn, almost unnoticable even when alive.)

He had vague feelings that he should have been more of a father to the girl and was making up for this now by trying to supervise her courtship very severely. But he was not experienced in that direction either and they seemed to be getting around him. He kept feeling that he was being outmaneuvered.

For example, a few evenings ago they had all had dinner together and Helen had been going on about her current political hobby, Women's Liberation League. This meant, as far as Whyteborn could tell, better pay and promotion for women, liberalized abortion laws and so on, all without their giving up having doors opened for them, being waited upon or being deferred to in mixed company. At that point Dowles leaned toward him and gave a gentle nudge with his elbow and said, "Helen rather enjoys standing up for her sex, I'll vouch," which sent him and Helen into storms of laughter. Whyteborn had been wondering ever since just how he had been meant to take the remark.

He and Dowles passed by one of the liberal arts colleges, nodding to the fellows they knew socially. Whyteborn had never felt entirely comfortable with the people at Oxford who patronized arts, feeling that they did the same to everyone in the scientific colleges, and he was glad to reach the gates near his laboratory. The Skag College gatekeeper was tending to fines notices at the bulletin board and the Professor took the opportunity to stop him.

"There's some chance men from the press might be by today," he told the gatekeeper. "I would appreciate it if you'd see they don't interrupt us in the labs."

The man nodded, stroking his rough chin.

"Don't put them off too strongly, though. Be suave about it."

"Yessir," the man said, "I'll try. I ain't half bloody suave, myself."

"Uh, yes," Whyteborn said, and the two men went into the laboratories of Skag College.

It took the better part of an hour to explain the changes in the apparatus to Dowles. Their earlier experiment, which discovered tachyons, had depended upon a nuclear source, cesium. Modulation of the electric fields around the cesium nuclei stimulated tachyon emission and the uncharged tachyons were

detected by the collisions they made with a sample some meters away. When a tachyon, moving much faster than the speed of light, struck one of the nuclei in the sample, the struck nucleus recoiled with an inordinately high momentum and created shock waves in the lattice of the sample. These shock waves were picked up and displayed on an oscilloscope.

Now the nuclear source had been removed. Any tachyons passing through the laboratory and striking the sample would also register on the oscilloscope. Such background tachyons had been found in the original experiment and had been ignored. Final proof that it was indeed tachyons which were being observed had depended upon correlations between the oscilloscope and the electric fields around the cesium source, which the two men had varied.

"I really don't expect to get anything out of this," Whyteborn said just before they began the new experiment. "It's definitely a long shot. I don't want to be like those chaps back in the thirties who were doing the nuclear bombardment work. For convenience they put their geiger counters on the same switch that turned off the beam of high energy particles they hit the samples with. If they hadn't, they would have found spontaneous radioactivity from the samples, after the beam was off. Missed a Nobel that way."

"Made them look rather like fools," agreed Dowles.

"Yes, and we don't want to end up in the same class."

Whyteborn connected up the final wiring and they began monitoring. The oscilloscope trace danced and juggled, a random yellow line on a green background. The two men watched it in the leaden quiet of the laboratory. In a corner a roughing pump chugged laboriously and a liquid nitrogen bath that emersed the nuclear sample added an occasional snap as ice formed on its jacket. It was 2:47 PM.

AT 3:02 the scope gave a sudden scattering of pulses. A complex waveform wavered across the scale and each man looked at the other.

"Strange," said Dowles.

"I don't—wait. Look. It's pulsing at regular intervals. One, two, then nothing, four, then again nothing—it's skipping some beats."

"Not ordinary background, I'd say."

"No. More like—"

"A code," Dowles finished.

"Yes."

It was 3:06.

"Take some of this down," Whyteborn said. "I do not see what effect could be modulating the tachyons we have coming into the laboratory."

"Perhaps some process in the

sun," Dowles said as he began to make notes. "A pulse, then a blank, another blank, and then pulse, pulse—"

"No," Whyteborn said, thinking aloud, "there is no such natural frequency related to the sun that I know of. Something else—"

He sat for a moment in silence. It was 3:11.

"You remember," he said, "I mentioned earlier that there were paradoxes in the law of cause and effect implied by tachyons. Or so some think—" His voice trailed off.

Dowles went on with his notes. In a few moments he stopped. "It's quiet right now," he said. The wave form returned on the scope. Dowles sighed and began to copy once more.

"By damn," Whyteborn said. "It's Morse. I remember it pretty well and this thing makes sense."

"It does?"

"Well, I think. Rather *outré*, perhaps—"

"What does it say?"

The Professor handed him the pad. PROTECT YOUR DAUGHTER, it said. DOWLES HAS CRIMINAL BACKGROUND. CHECK IF YOU DON'T BELIEVE US.

Dowles blinked for a moment. "It's nonsense," he said.

"Of course, yes," Whyteborn said, embarrassed. "I wonder how it—"

"Do this next one," Dowles said a little anxiously, and handed him the sheet.

As Whyteborn was decoding it another message began to come in on the oscilloscope. Dowles copied.

"DO NOT RELEASE TACHYON RESULTS," Whyteborn read after a moment. "IMPACT ON PHYSICAL SCIENCE WILL BE DELETERIOUS TO YOUR OWN WELL-BEING. REDUCTION IN SCIENCES APPROPRIATION. I say, you don't suppose this could be some sort of joke?"

"I'm taking it down just as it comes off the 'scope," Dowles said sharply, "and I certainly would not have made up any such thing as that first one."

"I suppose not," Whyteborn said. "It's eerie, though. How could anyone—"

"Here's the next," Dowles said.

The Professor did this one more quickly, since the practice was stimulating his memory of Morse. It said:

SIGNAL OF 3:23 TRUE BUT MISLEADING. DOWLES IS GUILTY OF MISDEMEANOR BUT THIS WAS ONLY TEMPORARY ABERRATION. FAR WORSE CONSEQUENCES ARISE IF HE IS NOT ALLOWED TO CONTINUE HIS RELATIONSHIP WITH HELEN.

"This is—"

"Wait, there's more," said

Dowles, who was scribbling in front of the oscilloscope. The message continued:

OTHER MESSAGES COME FROM RENEGADE INTERESTS WHO WISH TO START CAUSAL ANOMALIES BY DEFLECTING WORLD LINES IN YOUR LOCALITY. IGNORE THEM. WE—

"Where's the rest of it?"

"Something happened right then. The signal shifted a bit and a stronger one came on. I've got some of it here."

OTHER KRAKEN WANT TO DISTURB YR PRESENT STATE OF MIND. CONT AS YOU WERE BUT DESTROY APPARATUS. IT IS THREAT TO MEGACOMPLEX OF UNIULAR AXIS AS YOU SEE WITH RELATIVE INDEX. KICKER IS IN THE AFTER—

"My word," Whyteborn said.

"It's still coming in," Dowles said.

"Can't you get one of the technicians from down the hall to do that? We must see what all this means."

"Yes, right. Be back in a minute." Dowles fetched a PhD candidate from the next laboratory and set him to copying.

THE two men sat around the table at the end of the room and decoded a few more of the signals.

"I am becoming more and more confused," Dowles said at last, after the PhD candidate had brought a fresh shelf of transcriptions. "What are these? Who is sending them?"

"The form in itself is most curious," Whyteborn mused to himself, ignoring the other for the moment. "This one that begins OTHER KRAKEN seems right enough, but some of the words are not English that I recognize. The grammar is off, too."

"Not as bad as this," Dowles said and held up a long sheet he had decoded. "ANUM REPALAT TRANSEQUIUM VERATAT, COS OCTAVIRUM WOLEN, and on in that manner for more than a page."

"Here is one I think will interest you," Whyteborn said. "It beseeches me to kill you on the spot. HE IS POISONING YOUR MIND WITH CHAUVINISTIC IDEOLOGY. I will wager I know what sort of person sent that one."

"Yes," said Dowles slowly. "I wonder why so many refer to me?"

"I've been trying to work that out. The first question is why we are getting anything at all."

"Well, they're coming from somewhere—"

"More than that. Some*when*. I think the theorists were right about tachyons implying the ability to send signals into the past. Not into my *own* past, of course—I cannot send a telegram to myself last week, because that is on my world

line. But I could send one to someone else."

"Then someone is sending *us* messages? From the future?"

"Precisely. The theory I have read says anyone on Earth could not send a telegram back to us more than about a quarter of a second into the past. But perhaps in the future a way will be found around that."

"Time machines?"

"Time telegraphs, call them. It explains why we have never seen any time travelers, or gotten a message from the future."

"No one ever built a receiver before," Dowles said slowly. "And now that we have—"

"We are getting it all. In the future they will know when the tachyonic receiver was turned on. Someone is trying to signal us."

"But all these demands—" Dowles slammed a fist down on the table and stood up. "Absurd."

Whyteborn made a tent of his fingers and smiled into it, his favorite academic gesture. "Is it? This matter of a misdemeanor—"

"Uh," said Dowles. Whyteborn thought he looked like a man who had just swallowed an absinthe frappe.

"Right, nothing to be ashamed of, really. What is more interesting is the question of why it was mentioned. It seems a minor point."

There was a small silence. "You aren't going to let this influence Helen and me, are you?"

"No, I don't—wait! That must be it, surely. Those people in the future are trying to influence my judgment."

"What?" Dowles hesitated and then pawed among the sheets of paper. He fished out a half dozen and held them up. "There *are* a lot here that refer to Helen. You think—"

"Look, man, this is an important moment in history, if we're right, no? What we do about the tachyon thing could have important implications. It could be, well, a crucial point."

Dowles paced back and forth, fretting. "Crucial or no, I don't like them messing about in my affairs."

"But they are only trying to, you see. Perhaps they guessed you were made up on Helen but that I could still stop your marriage if I wanted. These messages are their way of influencing the time line to their benefit."

"Whose benefit?"

"All those in the future. There must be—"

"There are an awful lot of them," Dowles said. "Why so many? And look at this one. Not even English, or anything else I would judge. AMSNU QWEPO ALSEUD H 34ESUC, and so on. It's gibberish."

"Or some other code. But I see your point. There are more than one would expect."

They both turned and looked at

the PhD candidate, who was still copying intently from the oscilloscope. A tall stack of paper at his elbow was already covered with notes.

"Too many for the future—" Dowles said.

"For *one* future," Whyteborn said suddenly. "I'm sure of it, Dowles, that is why we have so many. They will go right on coming in, too, because it is an infinitely divisible subset—"

"What is?"

"The future! There must be an infinite number of possible ones but only one can actually happen, you see. But until I make some decision—I suppose the one about you and Helen—they all have equal chance of coming about."

"The future?" Dowles said wonderingly. "The future has some kind of ghost existence?"

"Yes, right, but only one of them will survive. They're all trying to influence us, to make their past come out right. Whatever I do will pick out one of the futures and destroy the rest."

Dowles thought for a moment. "We can test this," he said at last, "if we keep track of the messages. There may be common threads among them that will tell us what they're after."

"Perhaps," said Whyteborn, thinking.

"But we'll need more people to tend the oscilloscope." Dowles looked back at the PhD candidate, who was visibly tiring. "I'll go and find some help."

He left the laboratory quickly but Whyteborn was distracted and did not notice that he had gone. The Professor was mulling over the implications of what had happened. It would make a hell of an article for the Royal Society, he was sure.

He picked up one of the first messages. REDUCTION IN SCIENCES APPROPRIATION. How could discovery of tachyons make the government cut research funds? Still, Whyteborn thought, it might be a good idea to hold their article back for a few days, just in case.

Then he found another paper, further along. ADVISE IMMEDIATE PUBLICATION EXPERIMENTAL RESULTS. AMERICAN RESEARCH TEAM WILL DETECT TACHYONS WITHIN FOUR MONTHS.

And another: CHECK YOUR RESULTS CAREFULLY. YOUR NUCLEAR CROSS-SECTION CALCULATION MAY DISCREDIT YOUR WORK.

Whyteborn furrowed his brow. Which was right?

DOWLES entered the laboratory again and stopped by the PhD candidate to say something. In a moment the student got up

and left, closing the door after him.

"I don't believe we should publish any of this."

Whyteborn looked up. He had not noticed Dowles' return and the voice took him by surprise. It had sounded curiously high pitched.

"Why? Because of the messages?" Whyteborn said.

"Yes. There's something in this we don't understand and I think we should be cautious."

Whyteborn stared at Dowles. The man's voice was oddly shrill, quite unlike his usual resonant baritone. And what was more—

As he watched Dowles' face, it flickered ever so slightly.

Whyteborn felt a sudden chill down his scalp. The outlines of Dowles' body wavered, as a distant image would on a hot summer day. And now that he noticed, the figure was not precisely like Dowles: the hair was thinner and the jawline had gone a little soft, giving the impression of an older man.

"What's happened?" Whyteborn said.

"Happened?" the thin voice said. "Why—"

"You're not William Dowles."

"Oh." The man seemed chestfallen. "Well, we didn't think it would work on—"

"You're right, he is an impostor," said another voice. Whyteborn turned to look behind him. Another Dowles was walking toward him from a corner of the laboratory, scowling.

"An impostor?"

"Yes," the new man said, "I can't imagine why. Some sort of practical joke, I would imagine. Come on now, get out," he said,

"Out? Why? So you can have a shot at him?"

"I don't know who you are," said the second Dowles, "but I fail to see—"

"That stuff won't wash," said the other. "Look," he said, turning to Whyteborn, "he's going to try and persuade you to do something wrong. Don't listen to him."

"Wait a moment," Whyteborn said. He got up and walked around the table. Dowles #2 backed away but not quickly enough. Whyteborn reached out a hand toward the man.

It went through. There was a prickling of warmth around Whyteborn's wrist where it entered the second Dowles' body, but nothing else out of the ordinary. His hand opened and closed on air.

"What—" was all Whyteborn could stammer.

Dowles #1 said, "Well, he's found out now. If you hadn't been so pushy and come barging in I might have been able to cover."

"Cover? You? That facsimile of yours is wretched," said Dowles #2. "Your eyebrows are too high and the posture is wrong and your voice is out of synchronization

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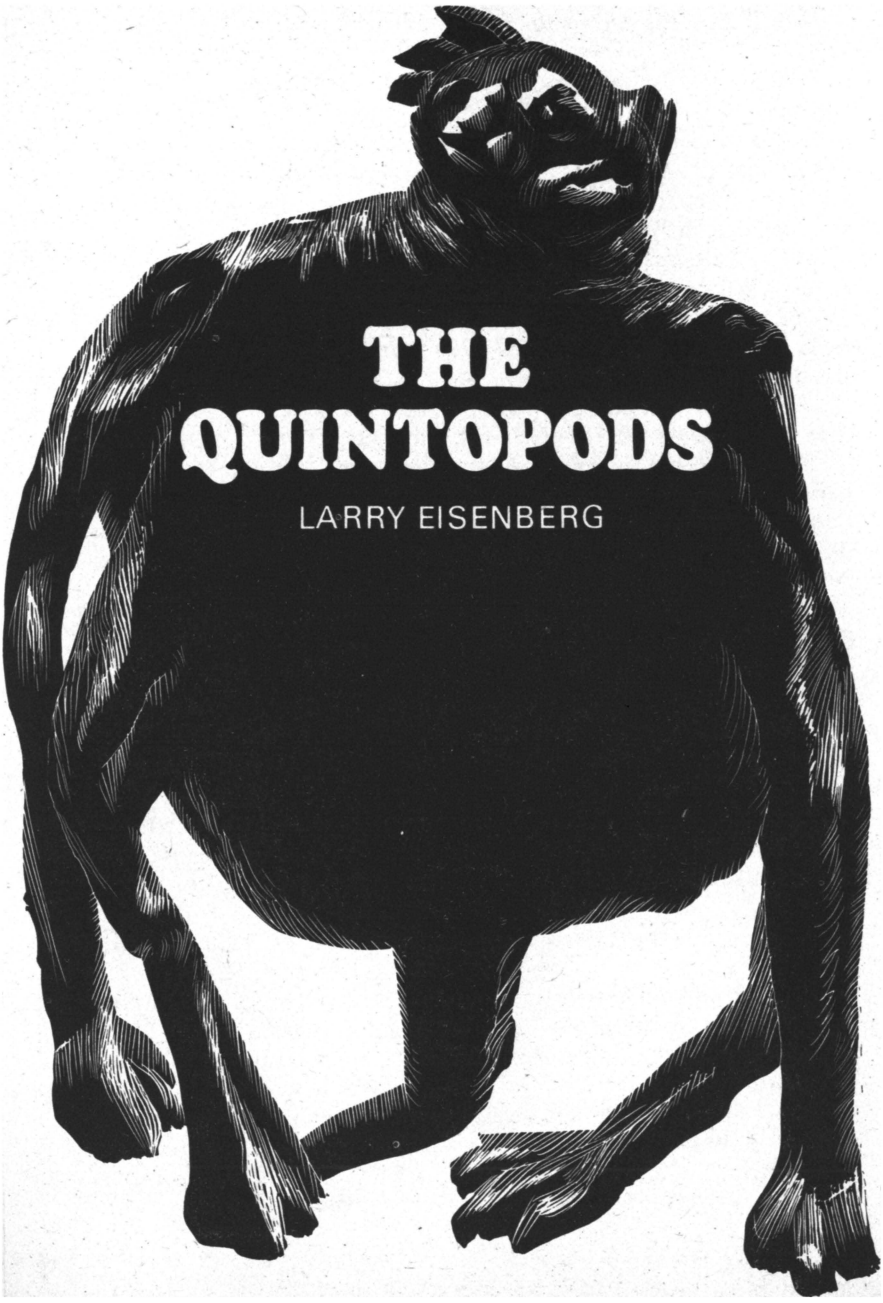

THE
QUINTOPODS
LARRY EISENBERG

HAVE you ever been to the Jungle sector of the Sentient planet? Many Terrans have. After the War, there were all sorts of package tours at reasonable rates and the sector was still wild enough to offer some exotic sightseeing. The giant plants are eye-catching purples, reds and oranges. The fauna are something, too. Particularly the Quintopods.

I know a lot about the Quintopods. Back on Terra, is a medical monograph I wrote on their anatomy and neurophysiology. As the name implies, they have five appendages, all symmetrically arranged around a disc-shaped body. The malformed head holds a tangled knot of cerebellar nerves, two compound eyes and a slash for a mouth. I've argued that the head is actually a specialized sixth limb, but none of the other so-called authorities agree with me.

The Quinto body is flexible, muscular and capable of amazing adaptations. They are great builders and the silicon towers of the jungle sector are highlighted in the tourist guides. They are reasonably intelligent, not up to the Sentients or even to Terrans, but well beyond the anthropoids.

They communicate by opening that scar of a mouth and thrusting out a slender vibrating appendage. The sounds are strange and unlike any humanoid speech I've ever heard. Some Terrans find these sounds exotic, dissonant, but I've always found them hauntingly musical. I still pride myself on my ability to interpret these vibrations, a job I worked at for many long and painful years. There aren't too many around who can understand the Quintopods.

They are proud creatures, conscious of their roles as males and females. The two sexes do not mingle socially except for procreative purposes. It is only the aged or infirm male who finds himself working alongside the women at the menial tasks. For many years the dominant Sentient culture nurtured the Quintopod communities to preserve one of the cherished subspecies of the planet.

AFTER the Sentient War I came in with the occupying Terran forces as medical officer in the Jungle sector. The war had been bloody but short. Some misdirected missiles had wiped out eighty percent of the Quintopods, so special measures were taken to assist the survivors. Our troops were bored stiff and there was little to divert them, considering the prudish attitudes of the Sentients toward prostitution. But a couple of entrepreneurs from the Terran States were licensed to come into the sector and they stirred things up.

One of them, an aggressive fellow named Matt Handman, was a

showman and an active operator. He set up a gambling and sex palace under Occupation license. He was also the first one to see what great potential the Quintopods had in the ancient sport of boxing.

Boxing was still an active sport back on Terra and very popular. And the sight of a Quintopod waving three boxing gloves was enough to excite any observer. Our troops loved it. The Quintopods were fine athletes and were readily trained to the sport. The high prestige of the gladiator was an irresistible inducement to them. I was against allowing them to fight. I've always considered the sport an abomination and I knew that, in spite of their tough skins, a tear in the cerebellar mantle of the Quintos could mean instant death.

Within a year's time a dozen Quintos had fought themselves to top boxing ratings. The Sentients were angry and presented a series of diplomatic protests decrying the "barbarization" of the Quintos. These notes were politely accepted, pushed slowly through our Army bureaucracy and allowed to fade from sight.

Huge crowds of Terran soldiers came to every bout, wagering hundreds of thousands of credits. I never went, although my baser instincts sometimes nagged at me. But I had too much affection for the Quintos and I didn't want to risk seeing a fatality. Still, I would have liked to see Pinwheel in action.

Pinwheel was champion of the Quintopods. I was told that he was a natural showman and the darling of our troops. Instead of the usual three boxing gloves he wore five, balancing himself precariously on two of the eight-ounce gloves. Although he was a very skillful boxer, he would sometimes forget finesse and slug fiercely, ready to take three or four blows just to get in one powerful hook. And the *coup de grace* would come in a rolling frenzy of leather as he spun about in an unstoppable blur of rotary motion.

Matt Handman managed Pinwheel and I detested him for that, too. He was making a fortune in credits out of the brutal Quinto fights and to me he was the lowest form of parasite. Periodically I submitted written protests to the commanding general. But I was ignored and there was nothing else I could do. Nothing, that is, until the first Quinto fatality took place.

The Quinto hadn't been badly beaten. He suffered a cerebellar tear after a seemingly light jab to the head and he died in the ring. It was my chance to intervene and I grabbed it. I pressured the Occupation Command into letting me take ultrasonograms of each fighter's brain. There was a good deal of stalling and some buck-passing but I was finally given permission to proceed.

The Quintos showed up for the physical reluctantly since their managers were openly hostile to my plan. But when I threatened to revoke the licenses of delinquents, they came right in. Two of the Quintos were clearly victims of a slight mantle tear and their licenses were immediately revoked. Everyone else seemed all right except for one doubtful ultrasonogram. Pinwheel was the question mark, although I was convinced by studying his walking motions that there were subtle indications of neurological damage. I called in his manager; Matt Handman, and told him of my findings.

"I don't believe you," he said vehemently. "Pinwheel has never looked better in his bouts. I know that you hate me and I think you'd do anything to put me out of business."

"I might," I admitted. "But I'm trying to be objective about Pinwheel's health. I think he's in grave danger of being killed. I haven't enough medical proof formally to revoke his license, so I'm asking you to get him to retire."

Handman stared at me as though I were insane and then, his arm around Pinwheel, he escorted the Quinto out of my office. I turned to Seva Tcana, Sentient medical observer who was permitted an occasional visit to my office by sufferance of the Terran High Command. Like most Sentients, he was formally correct but at the same time very hard to know.

"Handman is a toad," I said angrily. "He'd kill his own mother for a thousand credits."

"He might," said Seva. "Many Terrans are money-hungry animals."

He didn't smile but I assumed he was joking.

"To him," I said, "a fighter is a prize steer that you sell to the butcher."

Seva seemed disturbed by my remarks.

"You make me uncomfortable," he said finally. "I don't like to hear you disparage one of your own people."

I understood his reaction. The Army Guide to the Sentient planet had stressed their fierce intra-cultural loyalties.

"I'm sorry," I said. But I really wasn't.

A SONG sprang up among the Sentients, spontaneously it seemed. Translated into Terran and forgetting the poetic nuances, the lines ran roughly as follows:

Oh the Terrans are a strange but verile race,
In the War they swept along with martial pace,
And in peace they love a fight
See them gather every night
Just to see the Quintos battered in the face.

The chorus, to a very catchy tune, went:

Here's to Terran heroes,
Here's to all of those,
Who quite fearlessly
Watch others smashed by blows.

This song spread like wildfire through the Sentient planet and whenever a Terran soldier appeared in even the tiniest hamlet someone was certain to hum the chorus.

General Hinsley, head of the Occupation Command and hero of the War, was furious. A staff meeting was called at Command HQ at which I was ordered to be present. Matt Handman was there, too. The general sat at the head of a long, ornately carved conference table, knitting his brows, before he spoke.

"I'm fond of boxing. It's a manly sport and it builds the body and mind. But maybe using Quintos is wrong. It probably weakens the moral fiber of our boys to watch these freaks dance around in a ring. The doctor here keeps sending me medical reports that say they'll kill each other and that could provoke the Sentients even more."

He shuffled the papers on his desk and turned to look directly at me. His disgust was apparent, although he tried to conceal it. I nodded my agreement. Then he turned to Handman. I wondered what sort of rebuttal the promoter could offer and I soon found out. He spoke quickly but he seemed to have prepared his arguments very carefully.

"I agree with the general," he began. "I've been involved in boxing for many years back on Terra and there just is no greater sport. Two men go out into that ring alone and it's one man's skill and guts against another's. In an era when most of everything is done by some kind of machine there's something inspiring to see what men alone can do with their own brains and muscle."

The general seemed rapt.

"And," continued Handman, "those people who have criticized my Quinto fights have a point. There may be something primitive about seeing two Quintos box. But there's more. They're graceful, they're skillful and nobody really gets hurt. And it does wonders for the morale of our boys. These guys are tremendous distances from home, they're lonely, they're bored. They risked their lives for Terra. Don't we owe them a little entertainment?"

I scowled and looked at my fingers.

"The doctor says the Quintos might get killed. So far there's only been one death and that's controversial. I've seen a medical report that says the Quinto died of a viral infection. But I'm not a doctor. Maybe we do need stricter

exams before each fight. That's okay with me. But let's not take it out on our boys. And don't forget that a lot of tax money comes from the gate receipts—they help finance Occupation expenses."

The general nodded.

"But what about that song?" he said.

"Let's talk about that song," said Handman. "I'm no military man. I trust the general here in whatever he wants to do. As an ordinary civilian I resent that song. I think the Sentients are trying to demean our manhood. But we can't cut and run. I want to propose a way that will show them what kind of people we are. I'm prepared to bring in Sam Porter, the heavyweight champion of Terra, to fight the Quintopod champ, Pinwheel. Let's show the kind of stuff we're made of. Once and for all, we'll stop those remarks about how we just watch and can't do. In conclusion, I'm prepared to donate half of the receipts from this bout to the Occupation Recreational Fund."

He sat down abruptly.

The general clearly seemed impressed by Handman's arguments. He adjourned the meeting without coming to an immediate decision —but the following week he formally announced the match between Sam Porter and Pinwheel. It caused great excitement among our troops and the betting rose to fever pitch.

PINWHEEL went into a strenuous training program in preparation for the Championship bout. Although I had never seen him fight, I decided to exercise my right as medical officer and visit his camp. A regulation ring was set up in three cleared jungle acres with stands that seated perhaps fifty to one hundred spectators. I took a seat in one of the last rows and waited for the day's exhibition to begin.

Pinwheel came out wearing a protective headgear, but when he saw me in the back row he turned to Matt Handman and pointed. Handman smiled and very deliberately removed Pinwheel's headgear and tossed it to one side. I pretended to be unmoved at this provocation but inside I was boiling.

The opening round of the exhibition took place in almost total silence. It had a bizarre kind of fascination for me in spite of my revulsion at the barbaric display. Pinwheel was truly a master of the art and he had changed his tactics just to show me, I suppose. Instead of taking three blows to one as I had been told he usually did, he wove his head about, slipping all of the three-gloved blows that shot toward his head, parrying the others with a kind of easy disdain. All through the round he threw but an occasional glove as though content simply to feel out his sparring partner. I rubbed my chin in won-

der. Pinwheel's moves were certainly not those of a Quinto with damaged brain structure.

The round ended and after a short rest the exhibition resumed. Now he opened up with the famous Pinwheel spin, and a blurred sequence of heavy blows rained on his partner, staggering him. Just as he fell to the canvas, he threw a wild hook that caught Pinwheel in midflight, squarely on the head. He went down as though poleaxed but immediately pulled himself shakily erect. Handman quickly called time.

I was out of my seat instantly and down to the ring to examine both Quintos. Pinwheel was walking about to show how fine he felt but I insisted on having him carried to his dressing room where I went through a rudimentary neurological examination. The evidence was clear.

"The mantle is torn," I said tersely.

Matt Handman turned white through his Sector tan and he said nothing. I turned to examine Pinwheel's opponent and was conscious of Matt Handman, still standing at my side, staring at me.

"Bring Pinwheel to my office tomorrow," I said. "I want to give him a more thorough workup."

THE second examination confirmed what I had suspected. The beginnings of mantle tear *had* taken place and literally any kind of blow or jar might kill Pinwheel. I quietly impressed this fact on Matt Handman but his face was impassive and he showed no emotional response. Still, I thought I had frightened him until the following day when I received a letter typed on Clerk of the Sector form, requesting a formal hearing on my decision to revoke Pinwheel's license.

At Handman's request the hearing was kept private. I also agreed to allow Pinwheel to present his own appeal, although I couldn't see what difference it could make in my decision. Nevertheless, although I could interpret Quinto speech with great fluency, I delayed the proceedings by calling for an official army interpreter.

The Quinto, Pinwheel, came forward and stood quietly before my desk. His body was beautifully formed and without a single mark other than a freshly healed cut across his head. To the casual observer he seemed to be in perfect condition. When the interpreter took his place at the Quinto's side, Pinwheel began. His language was simple and as nearly as I can remember, he said:

I wish to be permitted to fight. I know the danger and I am willing to face it. I have worked hard to master my craft as boxer. I am respected by my people for my strength and skill. Your soldiers admire me, too, and cheer my victories. If you turn me away

you will take away my strength, my self-respect. Perhaps I am in danger of dying from the slightest blow. I will risk it. But if you send me back to the women you will make me something less than a dead man.

He stepped back and waited for my answer. For the moment I had none. My assurance had evaporated at his words and the decision which had seemed so obvious was now uncertain. Was I invading a private right, the right to choose one's own way to die? But if that right involved the choice of suicide, by Terran standards it was illegal, no matter what its meaning in the Quinto culture. If Pinwheel were to die in the ring it would be because *I* had permitted it to happen.

I rose to my feet.

"The appeal is rejected," I said. "As medical officer of this Sector, I hereby reaffirm my decision to revoke the boxing license of the Quintopod known as Pinwheel. Of course you can appeal to the commanding general."

It was well known that General Hinsley, as a matter of policy, had never overruled lower command decisions of a minor nature.

Pinwheel seemed stunned. He swayed, almost stumbled, uncertain of what to do or where to go. Matt Handman came quickly to his side and led him out of my office. I gathered up all the papers concerning the case and placed them into a confidential inter-office envelope. The matter was now in General Hinsley's hands.

I WAS asked to be present at the appeal, an unusual and precedent-breaking step. I found myself alone with the general and Matt Handman. We sat silently for many minutes while the general went through the record, page by page. Finally he closed the folder, removed his metal-rimmed glasses and addressed himself to me.

"You're absolutely certain of the tear?"

"Absolutely."

The general sighed.

"There are many reasons why this bout should be held. But most important to me is the one with political and psychological overtones. The Sentient population is becoming restive under the Occupation. So far there has been no armed outbreak, merely a few incidents in isolated places. Then there's that song. A humiliation of the Terran forces might spark off active resistance. For that reason, and others, I would like to see this bout held."

"I can't sanction it," I said.

The general didn't seem to hear me.

"Suppose there is a mantle tear," he said. "It might offer certain advantages to us. Although it's inconceivable that Sam Porter could lose, insurance is always welcome. And think what an enor-

mous propaganda risk we would be taking if by some freak of chance Sam Porter lost to the Quinto?"

For some time there had been latrine gossip concerning the general's political ambitions. It was said that he wanted to run for the Secretaryship of the Solar Directorate, Terra's highest office. I could see that he wanted to take no chances of anything marring his long-range plans.

"I'm sorry, sir," I said. "As a medical man I can't in true conscience go along with you. Why not substitute another Quinto for Pinwheel?"

Matt Handman shook his head.

"We can't do that," he said. "No other Quinto is in his class. They'd accuse us of fixing the result by using an inferior Quinto."

"They might say that anyway," I said. "Word may have gotten out about Pinwheel's suspension."

"Mr. Handman assures me that no one has been told by him or Pinwheel," said the general. "And your hearing was private and held under military security procedure. I agree with Handman. We've got to use Pinwheel."

I sat there in turmoil. My medical oath had been very meaningful to me and still was. I was reluctant to break it but I might bend it a little.

"Very well," I said bitterly. "I'll rescind my ban. Pinwheel may fight Porter."

The general leaned toward me.

"That's not enough," he said softly. "I want you to issue a medical statement certifying that Pinwheel is in perfect fighting trim. If you refuse—I will have the statement drawn up and issued over your name. If you make me do that I'll not only break you but I'll see that your medical license is revoked."

I tried to speak but my voice had suddenly gone hoarse and low. I struggled with my vocal chords and the words finally emerged.

"I'll do it," I said.

WHEN I came into my office, Seva Tcana was waiting to see me.

"There are whispers about that Pinwheel has been hurt," he said. "Are they true?"

"I thought so on my first examination," I said. "But it was only an artifact of the ultrasonographic test. I've just been to see General Hinsley and informed him of my findings. I plan to issue a medical statement giving Pinwheel a clear bill of health."

"I see," said Seva.

"Do you believe me?" I said abruptly.

He shrugged.

"Does it matter?"

I was tired, angry, frustrated and I lost a rather tenuous grip on my self-control.

"It could matter," I said sharply. "If Pinwheel were really in-

jured, it would be in the interest of your people if he never made it to the ring. If he has to die, at least it ought to be for a worthwhile cause." I caught myself. "That's all a theoretical supposition," I said.

Seva rose to his feet.

"I look forward to your new medical statement," he said. He bowed and left.

I SPENT the afternoon and most of the night writing and rewriting my medical report until it seemed to reach just the proper language and plausibility. I left it on my secretary's desk to be typed and printed up.

I slept all morning and afternoon. When I awoke I learned of Pinwheel's sudden and tragic death. The reports were conflicting. The first talked about an accidental slip and fall while doing roadwork. The second, with sinister overtones, hinted at an unknown Sentient striking the Quinto a blow on the head. No witnesses were to be found, although the Terran command was launching an investigation.

I stared at my report, neatly typed, the sentences and paragraphs set in easy-to-read military form. It was all ridiculous now. I would be the laughing stock of the Sentient community if it were issued. As for the general, he would have no recourse but to suspend all bouts from now on. The championship bout with Porter had become a vanished dream.

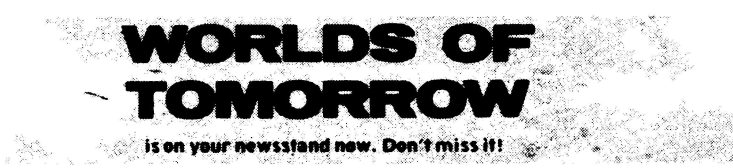
As I sat there, musing, Seva Tcana came in to my office. I put down my report and looked at him but he returned my gaze without blinking.

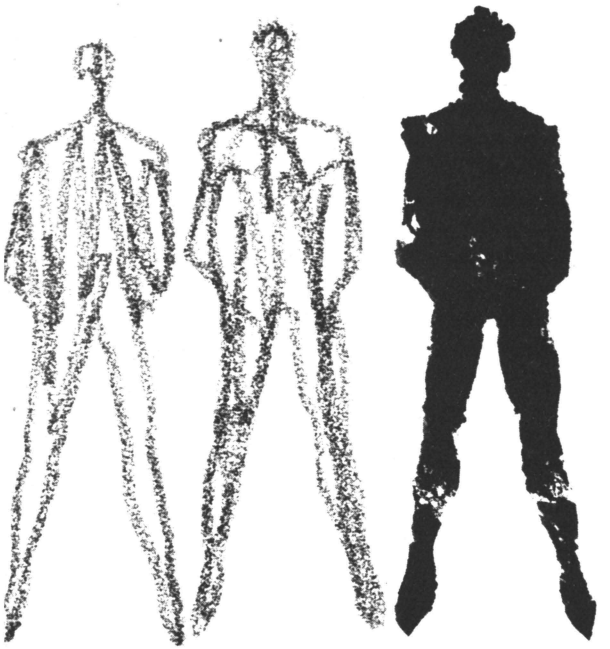
"Was Pinwheel's death an accident?" I asked.

"Do you really expect me to answer that?" he said.

No, I thought. *No matter how strongly a Sentient feels about a particular issue, he would never help an outside culture against his own people the way I did last night. . .*

I felt a slight tightening in my stomach and the roof of my mouth had suddenly gone dry. I was God knows how many millions of miles away from home and friends and suddenly, completely alone. I thought for many long moments before I framed a reply to Seva. He listened to my halting remarks but didn't seem to care what they were. •





THE SEVENTH MAN

GEORGE C. CHESBRO

NASA Quik-Ref Card File Index Of The Planets (Distributed free to public schools and other accredited institutions.)

JUPITER

Position in Solar System: Jupiter is the fifth planet from the sun. 370 million miles from earth, this planet is in that area of the system popularly referred to as "deep space." Jupiter is named after the chief god in Roman mythology and is the largest member of the sun's family.

Physical Characteristics: Jupiter is 86,800 miles in diameter. It revolves around the sun once every 12 (Earth) years. Approximately 318 times the size of Earth, Jupiter's gravitational pull is 2½ times that of our own planet (suggested classroom exercise for elementary grades: each child should weigh himself on the Health Office scales and then compute how much he/she would weigh on the planet Jupiter).

Jupiter has twelve moons. Four of them (Europa, Ganymede, Callisto, Io) are very large, almost the size of Earth.

Jupiter's atmosphere is believed to extend upward a thousand miles or more from the surface of the planet, with some variance at the poles. The atmosphere is composed of large quantities of methane, ammonia (crystals), some hydrogen and lesser amounts of other gases. It is believed that the density of the atmosphere near the surface of the planet approaches that of a liquid. This atmosphere would not support any life form that we know of.

Jupiter has nine temperature zones. Seen through a telescope, these zones appear as cloud belts of vaguely differentiated color bands. These cloud belts move across the surface of the planet at different rates of speed. This movement may be due to electron ionization within the atmosphere of the planet.

A striking feature of this planet is the dark red area of gas that moves across the surface at extremely high rates of speed. This "spot" (large as the Earth) is believed to be a dense group of gases moving beneath the surface of the outer atmosphere.

Jupiter does not conform to expected patterns of planetary radio wave emanations. This phenomenon is, as yet, unexplained.

Unmanned Space Probes: The results of twenty-two unmanned space probes have all been negative.

Manned Space Probes: The Odyssey was launched from Moon Base 17 in 1998. Radio contact was lost soon after the ship went into Jupiter orbit.

The seven crewmen are presumed dead.

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FLIGHT PERSONNEL:
ODYSSEY TWO

Bentzel, Eric F.—Logistics Supervisor. Communications Coordinator.
Chiang, Kyoto—Assistant Engineer. Log Recorder.
Oliver, Roger T.—Communications. (Alternate) Logistics Supervisor.
Raines, Melvin S.—Medical, Psychiatric Team Coordinator. Propulsion Systems.
Rhodes, James T.—Geologist and Mapmaker. Communications (Assistant).
Richter, Frederick M.—Propul sion Systems.
Takamoto, Takata.—Chief Engineer. Medical Assistant.

Commanding Officer: Raines, Melvin S.

Assistant Commanding Officer: Bentzel, Eric F.

First Alternate: Charalding, Thomas H.

Second Alternate: Perry, John E.

Third Alternate: McCarthy, John M.

TOP SECRET TOP SECRET

Mission Book Insert 194.37 (Supplemental). Excerpts from a briefing given by Dr. Roger LaTrane to flight and support personnel of Odyssey Two.
Subject: Radio wave patterns of the planet Jupiter.

There is no need for me to emphasize to you the importance of this mission, our second attempt to send men into deep space. The failure of Odyssey One is past history and I'm sure you are wondering why we choose to launch a second mission when we know virtually nothing about the disappearance of the first. I think the reason will become clear to you as my talk progresses. In the meantime, I would like to apologize on behalf of the directors for not making our intentions known at an earlier date. Quite frankly, there was a good deal of indecision. Also, there were certain public relations factors which had to be taken into account.

As far as our knowledge is concerned, Jupiter is the "black sheep" of the solar system. We know scarcely more about the planet today than we did a hundred and fifty years ago. It was this dearth of information that originally prompted us to launch Odyssey One. At that time we had reason to assume that the difficulties of the longer flight could be computed by the K factor and anticipated. We were wrong and we paid for our mistake with the lives of seven men.

After the failure of that mission the decision was made that we would not make another attempt to reach Jupiter until we had somehow gained more information about surface and atmospheric

conditions that might have caused the failure of the first mission. Unfortunately that information has not been forthcoming. Odyssey Two bears the same burden of risk as Odyssey One, with the possible exceptions of minute improvements in the exploration vehicles and the knowledge that unknown danger does most definitely exist.

Every planet, including the Earth, emits a distinct pattern of radio waves. Each pattern is unique and serves to identify a planet, much in the same way as a fingerprint will identify a man. The pattern of these waves is dependent upon the body's mass, density, composition, atmospheric conditions, surface materials and so on. The frequency distributions of these materials are constant and reliable, enabling us to determine the physical characteristics of celestial bodies by measuring the quality of the radio waves emitted from them.

Jupiter is the one planet in our system that does not conform, at least in theory. Its pattern of radio waves is not what visual observation and spectrography tell us it should be. A prime objective of Odyssey One was to discover the cause of this discrepancy.

Within the past year the pattern of Jupiter's signals has changed dramatically. Our scientists have observed the waves doubling in intensity. It is an erratic occurrence, lasting only a few milliseconds at a time. However, there is no explanation for this phenomenon. Nothing like it has ever been observed, except in the obvious case of a super nova.

Naturally, we have no way of knowing whether this new phenomenon has any connection with the disappearance of Odyssey One. Quite frankly, we doubt it. There seems no way the crew could have survived this long. Certainly, not anywhere near the planet's surface. Also, it is inconceivable that Odyssey One could have caused the effect observed here on Earth.

We have reached and colonized Mars, Venus and the twilight zone of Mercury. Development of those planets will consume the energies of our scientists for decades. In other words, our program of manned space exploration has ground to a standstill. There is the ever-present danger of stagnation. We have always believed that we have the skills and technology to penetrate deep space. We must do so if we hope someday to reach the stars. A new mystery may be the key to an old one. In any case, we have decided to try one more time. In a very real sense, the dreams and aspirations of all men are riding with you. God speed.

I

THE pain clung to him, embracing him in its sweaty arms

throughout the long journey from nothing to now. The transition from a state of coma to consciousness was a universe of tortured nerve ends and quivering muscles.

Major Eric Bentzel blinked in the darkness and tested his stiff muscles against the leather straps and cushions that held him. Bits and pieces of memory floated into the vacuum in his mind to drift like wreckage in a tidal pool. Then awareness came, making him whole once again.

Eric loosened the restraining straps and stretched his arms and legs, allowing himself a long, satisfied grunt of pleasure. He felt a sudden kinship with the men of Odyssey One; Claude Philmore, his counterpart on that first mission, had undoubtedly gotten this far and experienced these same sensations.

Satisfied that his circulation had returned to normal, Eric sat up and tested his gravity shoes against the porous strips lining the floor of the ship. He pushed the light-control lever above his head and his cubicle was bathed in the soft yellow glow of Safe Psyche illumination. Finally he detached from his body the needles and plastic tubes that had fed him through the long night and stood up.

He waited a few moments for his body to adjust to an upright stance, then pressed another lever and stepped out of his cubicle into what was the main body of the ship.

He was the first to undergo transition and was quite alone in the huge expanse of gleaming metal. The opening of his cubicle door had activated the interior lighting of the ship. At the far end of the chamber a multi-colored panel glittered in a bath of blue light. The panel housed the recording instruments and manual controls, the computers and other apparatus which had monitored the ship and crew for the past two years and which would have to be reset for the return journey to the Earth. On each side of the panel was a large green disc, the metal shielding for the quartz-alloy portal telescopes. When exposed, each optical device afforded the viewer a one hundred and eighty degree panorama of space outside the ship.

The rest of the huge chamber was bare. The remainder of the instruments were buried beneath the floor, ready to whir upwards at the touch of appropriate levers. The ship was designed to provide the maximum amount of work and living space.

A touch of his hand exposed the portal telescopes and Eric found himself staring into the black, star-spotted maw of the void; hypnotic, beautiful and ever so deadly. A mass of space matter drifted a few hundred miles away, an island in an ocean of ink.

He closed the portals and brought up the command table. He had no way of knowing how long before the others would join him. In the meantime he could do little but begin the laborious process of checking and rechecking the ship's systems.

A cursory examination of the time-lapse tapes indicated to him that the ship would reach destination within a week. She would automatically inject herself into orbit around Jupiter and then wait with the patience of a machine for her human cargo to awake from its slumber and, with that grand presumptuousness that is the human spirit, resume command of her atomic soul.

Even now the object of their voyage would be clearly visible in the portal telescopes, should he set them at the proper viewing angle. But he would wait; the first sight of Jupiter belonged to all of them together.

Together they would gaze upon the face of a killer planet that had destroyed all communication and then proceeded to swallow up an entire ship as well as a crew trained to meet any kind of conceivable emergency.

Conceivable emergency?

He wondered what answers to what questions Philmore had known before he died. Had the assistant commander of Odyssey One seen the force that killed him? Had he been able to anticipate it even for an instant? If not, what possible chance did the men of Odyssey Two have of escaping the same fate?

Eric could think of no useful purpose served by dwelling on the fate of the first mission. He returned to the task of electronically scanning the remainder of the computer tapes. He worked slowly, knowing the importance of finding tasks to fill the dangerous, yawning pockets of time. Frequently he would open his eyes to discover that he had been sleeping.

THE men stood and stared in silence. Jupiter appeared as a monstrous, suppurating wound, erupting from the black enamel hide of the universe. The white, rock-encrusted spheres that were Jupiter's moons were maggots, scurrying about the gaseous behemoth, waiting to enter the swirling red-orange pus of the wound.

Raines was the first to turn away. He moved to the command table, studied the instruments.

"Major Bentzel," Raines said, "would you check the transmission tapes again, please?"

Eric moved quickly to the computer console and, for the fifth time since the ship had gone into orbit, punched out the communications index. His fingers moved with a muscular memory of their own. He could feel the cold, almond eyes of Kyoto Chiang boring into his back. There was a me-

tallic taste in his mouth that he would have characterized, before his psychiatric realignment, as fear.

"Negative," Eric said quietly. "Our signal is still being transmitted but there is no indication that it is being received. We aren't receiving anything at all. The computer gives no indication of malfunction."

Raines nodded, absently tugging at his ear. The commander was a quiet man, almost to the point of shyness. But he showed no sign of indecision or even anxiety.

"Lieutenant?"

"I've tried voice contact," Jim Rhodes announced. "The results were negative. I have no explanation. We get nothing, not even static."

"So," Raines announced, scratching his shoulder, "it seems that we're on our own. Any suggestions?"

The faint clicking of the elapsed-time monitor was the only sound in the room. Eric's gaze swept the dials of the console, searching for some clue to the breakdown in communications between the ship and Earth. It was a half-hearted effort, more habit than any belief that the answer lay in the tens of thousands of miles of wiring within the computer and transmission systems. The answer lay somewhere on the planet beneath them.

The dials checked, Eric let his mind wander once again to the disembarkation procedures. Unless Raines decided differently standard procedures would be employed—the same as Odyssey One had used.

Standard procedure dictated that he, as second in command, would remain on board the ship, monitoring communications and assuring that there would be at least one man to guide the ship home to Earth should some unforeseen disaster befall the rest.

The six others would disembark in two teams, three men to a team, utilizing the ion-propelled Surface Excursion Vehicles, or 'scooters.'

One of the vehicles would descend to the surface and, if preliminary instrument readings were favorable, land. The second vehicle would monitor the first for up to three hours before landing. Then, if there were no indication of danger, a site would be selected and the main ship would come down on the planet's surface, providing a base of operations for the extended period of exploration that would follow.

"Major Bentzel, how do you view our situation?"

"So far," Eric said slowly, weighing each word, "we've done everything in emulation of Odyssey One. They lost contact and we've lost contact. In a sense we're flying blind. We have no explanation for the breakdown. Now, we've been around the planet six times and have seen no sign of wreckage."

"In eighteen years," Chiang said. "Odyssey One or its pieces would have fallen out of orbit."

"Why couldn't the men still be alive down on the surface?" asked Fred Richter, the youngest member of the crew.

Raines pointed to the orange blur just coming into sight in the right hand portal. Richter fell silent.

Eric cleared his throat and the other men turned their attention back to him. "In any event," he continued, "Odyssey One was destroyed. It would seem to me that we had better initiate alternate procedures."

"I've done some preliminary calculations," Raines said. "It would seem to me feasible to set up a moon base—say, on Io, since it's closest to our position—and set up an observatory. I am in absolute agreement with Major Bentzel. We cannot attempt to reach the planet's surface until we discover why we can't communicate with Earth. We can't simply turn around and go back. Therefore, using a moon base as an intermediate landing station would appear to be the only answer. To keep the ship in a stable orbit requires too much power. Any comments?"

There were none. Eric could feel an atmosphere of excitement and anticipation building in the ship, clinging to the men like static electricity. Raines' tone had become harder, and his words were clipped.

"Tack, you take Richter and Rhodes. Run an instrument check on Io. See if there is a place we can land this thing."

Colonel Takata Takamoto saluted. He motioned to Richter and Rhodes who followed him into the suiting room. Eric did some rapid figuring in his head and calculated that at top speed, the scouting mission would take just under six hours. He wished he were going. The walls of the ship seemed to be diminishing, closing in on him. Soon he would be the only one left, trapped inside the metal womb.

Eric shook his head and tried to concentrate on Raines' voice. With a little luck, he'd have ground beneath his feet in two or three days.

The bright red scooter containing Takamoto, Richter and Rhodes glided past the portal. The signal light on the computer console lit and Eric quickly pressed the lever, returning the signal. Raines exchanged a series of quips with Takamoto and then signed off. They had at least established voice communication with the scooter.

"I'm going to take the blue scooter down to the outer fringes of the atmosphere for a test probe," Raines said. "I want some samples of that atmosphere. That will save us a lot of time once we get set up on Io."

"Better take us along," Oliver

said, indicating himself and Kyoto Chiang. "You won't be able to operate all of the collecting devices and still run the scooter. It'll be easier and safer if the scooter's fully manned."

"All right," Raines said. "Let's go."

Eric followed the three men into the suiting room, helped them into their suits, went with them down to the vehicle bay.

The blue scooter was painstakingly checked out before Raines, Chiang and Oliver assumed their positions in the tiny craft. Eric went down the line of men, gripping each hand in turn. Finally he stepped into an observation chamber.

He watched as the canopy of the craft slid into place. Raines' right hand moved to the control panel of the craft and the ship's huge bay doors opened long enough to allow the blue scooter to pass out between them. Then they closed.

The assault on Jupiter was under way.

HE AWOKE with a start, straining for some sound in the impersonal silence around him. Nothing. The ship was all right.

Eric glanced at his watch. Five and a half hours had elapsed since the red and blue scooters had disembarked on their missions. They had missed four communications checks.

Or he had missed them.

He had had a headache and had decided to rest in his cubicle. He'd fallen asleep. Still, the siren attachment was designed to sound throughout the entire ship if a signal came through. But that had to be activated. Had he set it before lying down?

He sprang off the couch and hurried out of the cubicle over to the communications control panel. His gaze darted to the siren switch. It was set.

He stared at the dials for a moment, then hurriedly set them to Raines' frequency.

"Control calling Bluebird. Commander, this is Major Bentzel. Can you hear me? Control calling Bluebird. Come in, Bluebird."

No answer came. Eric left Raines' frequency open and cut in the backup system.

"Control calling Redbird! Tack, can you hear me? Control calling Redbird. Acknowledge at once."

His efforts were rewarded by a dead silence. He struggled against little ripples of panic that were welling up inside him. One more scooter was left in the bay and he knew he would use it if the time-cushion elapsed. He would have to. He knew he could not simply pilot the ship home, leaving the others to die, even if procedure dictated that he do so. Psychiatric Realignment could only do so much for a man's peace of mind.

Then the ship was filled with the shriek of the siren tearing through

the terrible silence that had preceded it. Eric reached out and shut off the switch that had been turned up to full volume. The pain in his ears was delightful.

"Control here. Tack, where the hell are you?"

"Eric, we're coming in." Takamoto's voice was strained, brittle with tension. "Look through your left portal. Tell me if you can see us."

Eric looked. The red scooter was just coming into sight, glittering in the strange, reflected glow of the planet.

"I can see you," Eric said. "Tack, what's the matter?"

"No time now. I'll tell you when we get to the ship."

Eric monitored the docking of the red scooter. In a few moments the three crewmen entered the main chamber. They had removed only their helmets.

Tack went directly to the communications panel. He quickly scanned the computer tapes.

"Eric, did you receive any signals prior to ours?"

"No," Eric said impatiently. He was anxious to learn what had happened. "Only the last one. Just before that I tried to contact you but couldn't get any signal at all. There's no word from Raines—he took the blue scooter." He hesitated a moment, trying to read the expression on the crewman's face. "What happened?"

"I don't know," Tack said slowly. "We scouted Io, found a plain and went down. Then we tried to contact you and couldn't get through."

"We thought we'd lost the ship," Rhodes said quietly.

Tack asked, "Where is Raines?"

"He and the others went down to collect samples of the atmosphere." Eric felt a stab of guilt, as if he were responsible for what now seemed to have been an exceedingly foolish decision. "They were just going into the outer perimeter."

Tack was shaking his head. "But you picked up our last signal."

"Yes."

"I could tell by our own instruments that we were getting through. But we were already in visual contact. It looks as though our radio equipment is no better than our eyesight. We might as well be using smoke signals. There must be something about the atmosphere. Ionization?"

Eric shrugged. He was grappling with the problem of the blue scooter. At least four of the crew were safe now. He must decide whether or not to leave the other three. If he did, it would be decades before the attempt would be made again, if ever. The responsibility bore down on him, threatening to crush him with its weight.

"I doubt it," Eric said softly. "Our instruments would have picked up excess ionization. Every-

thing checks out perfectly, except our communications. Damn it. There's just no explanation."

"You're in command now. Raines is out there some place. You have to make a decision," Takamoto said.

Eric waited until he was reasonably certain that his voice would not tremble.

"I won't send you to your deaths. It would make no sense."

"It doesn't make any sense to give up at this point, either. It takes only one man to bring this ship back. One or four, it makes no difference; if we fail, there won't be another mission for a hundred years. You know that."

"I know that the waste of life has no place in the exploration of space."

"But you may be wasting the others' lives," Tack said, his voice still very calm. "You don't know that Raines and the others are dead. They could be down there right now, drifting around in a crippled ship, waiting for someone to come and get them. If we left now we'd be sentencing them to death. We can't live with that for the rest of our lives."

"I'm the only one who has to live with anything. It's my decision. I will not send you down there."

Tack drew himself up to his full height, snapped to attention. His eyes locked with Eric's.

"Sir," Tack said, "I wish to volunteer to search for Commander Raines."

Richter and Rhodes stepped forward and stood at attention on either side of Takamoto. The rigidity of their bodies and the hard cast of their eyes formed an unbreachable wall between them and the new commander. Eric would have given anything to be able to step to the other side of the barrier.

"I'll give you four hours," Eric said at last. "No more. At the end of four hours I blast out of orbit."

"Not to do so would be a dereliction of duty, sir," Takamoto said, allowing the smile in his eyes to spread to his mouth. "We completely understand."

"I can only give you their last coordinates before they entered the atmosphere."

"That should be sufficient, sir. We can track with the radar."

"We will maintain constant voice communication."

"Yes, sir. May we leave now?"

"Four hours."

"Four hours."

Eric swallowed hard. "For God's sake, Tack, be careful."

In a few minutes they were gone.

II

TOP SECRET TOP SECRET

Mission Book Insert 2017.3 (Supplemental). Excerpts from a brief-

ing given by Dr. Roger LaTrane to support personnel of Odyssey Two.
Subject: Status of mission and radio wave patterns of the planet Jupiter.

Three days ago we received the first voice transmission from Odyssey Two. Major Bentzel was the first to undergo transition. He immediately informed us that all was well. He indicated that there were some problems in transition, and that we will have to further refine the F-7 series of hibernative drugs. However, the remainder of the crew underwent transition without any noticeable physical or psychological damage.

The families were notified and messages were sent and received. Needless to say, the men and their families were happy to hear each others' voices after two years of waiting.

Our telemetry monitoring devices gave every indication throughout the two-year journey that all systems were functioning perfectly. Major Bentzel's voice transmission served to increase our feelings of optimism.

Now it is my sad duty to report to you that we have completely lost communication with Odyssey Two. Telemetry ceased soon after the ship went into orbit around Jupiter.

We are continuing to emit a series of electronic probes but, as of this time, our instruments indicate the ship no longer exists.

Dr. Miller has been continuing to study the unusual radio bursts from the vicinity of the planet, the signals that led us to send out Odyssey Two. It is Dr. Miller's contention that these bursts of energy may be read as a sort of code. As incredible as this may seem, I feel we are in no position to discount any theory about the planet Jupiter.

Dr. Miller's computations and symbol reconstruction will be distributed to you in a separate memo.

Dr. Miller's work leads him to believe that the signals may be interpreted in such a manner that they spell out the following words: I-T I-S A-L-I-V-E.

TACK activated the scooter's arc beams the moment the craft penetrated the visible outer fringe of Jupiter's atmosphere. Stray wisps of gas danced over the craft's hull in brilliant, swirling rainbows of phosphorescent fire. The radar gave no indication of another craft in their vicinity. Tack flew on, down toward the planet's surface. Soon the scooter was completely enveloped in gas of a thicker density, deeper and darker in color.

Tension limited the conversation of the men to brief exchanges concerned solely with the operation of the craft and readings of the radar sweeps. They did not discuss the fact that they had lost

communication with the main ship, nor that the craft was beginning to feel sluggish, a small sliver of metal drowning in some mad artist's pallet of oils. There seemed nothing to do but go on; the skein of logic they had presented to Eric back on the main ship still seemed valid. One man could bring the ship back to Earth just as easily as four. There was a *reason* they had undertaken this journey.

The instruments continued to indicate that they were still far above the point where the atmosphere might be expected to condense or liquefy and the actual surface of the planet was thousands of miles below that. Still, something was happening in the atmosphere outside the craft. They were slowing.

Acting on impulse, Tack reached up and shut off the beacons; they were surrounded by an iridescent glow that seemed to spring from the metal itself, as if it were ablaze. Tack's gaze fixed on the instrument panel; the temperature readings were normal.

The shimmering glow changed from a deep orange to brick red, then to a deep, garish purple that glowed brighter, as if from an energy source of its own. Droplets of gas were condensing on the outside of the hull. The droplets thickened and coalesced into clumps of jelly-like matter that spread rapidly over the entire outer surface of the scooter, blocking off the vision of the men inside. Streaks of blue and silver appeared as the substance ate through the enamel and attacked the metal alloy of the scooter itself.

Tack struggled frantically with controls that did not respond. The air speed indicator showed that they were almost at a standstill, a metallic vegetable suspended in a monstrous bowl of celestial Jello. Tack thrust the emergency throttle forward. His ears told him that the engines were operating at peak capacity, screaming and tearing at the ooze that surrounded them. The scooter remained motionless.

Tack heard a choked gasp behind him. He twisted around in his seat, freezing halfway as his eyes came to rest on the tiny, white glistening drops of molten metal that dripped from the ceiling, floating free in the zero-G environment. He watched in numb, horrified fascination as one of the droplets came to rest on Chiang's arm. The fabric of the crewman's suit began to smoke. The ship was dissolving around them.

There was little time to cry, or even to scream. The entire reaction reached its peak in a matter of seconds. The scooter and its human occupants broke up and dissolved in the thick jelly, transforming their matter into gaseous elements to float for eternity above the shape of a globe they had never seen.

ERIC watched the fatal digit on the time-lapse recorder clunk into place, signaling the deaths of six men and a dream. Jupiter had defeated them. It was time to go home.

He was mildly surprised to find that he felt little emotion. He had seen death in the eyes of his men before they had left the ship, had felt and heard it in the empty silence of the radio. Now that death was a reality, Eric found that he had already been drained of sorrow and apprehension. He was the only one left, the seventh man, and it was his clear duty to bring the ship back to Earth. Still he hesitated, watching with mild interest as the digits on the clock marked the passage of time in the empty chamber. He found the concept of time suddenly void of meaning; life and death were the only markers, the only boundaries within which a man could measure the value of his existence.

An hour later Eric had still not begun the preparation of the ship for the return voyage. He found himself walking slowly down the passageway leading to the vehicle launch bay. He stopped at the end and peered through the glass window into the airlock where the last scooter sat in its concrete berth, its engines ready, if need be, to send him soaring down after the others to continue the search. His hand reached out and stroked the silver surface of the space suit hanging in an open cubicle next to the entrance to the airlock.

Once again, as he had done so many times in the past, Eric thought of Claude Philmore, his counterpart on the first mission. Certainly, Eric thought, Philmore must have been in this same situation. Perhaps he had even stood in this same spot on his own ship when the time had come for him to make his final decision. What had he done? That was the question that pounded at Eric's consciousness. It seemed obvious that the man had ignored his directives and taken the third scooter. Then what of the ship? Perhaps he had tried to bring it back and had been caught in a meteor storm. No, Eric thought; any activity like that would have been monitored back on Earth. Then what of the ship? And the signals? And the silence?

Eric turned and made his way back to the main chamber. His footsteps echoed on the metal surfaces, mocking him. He wept freely. At that moment he would have given his life for one single moment with the sea at his feet or sunlight on his upturned face.

The preparations did not take long. The ship had been designed for emergency one-man operation and it was simply a matter of reprograming the computer and resetting the various instruments that would serve to guide the huge machine back through the two year night to orbit around the

planet that hung in space like an exquisite, blue jewel, an oasis in a desert of death.

The computer set, Eric returned to his cubicle and strapped himself into his life-support couch. He inserted the intravenous feeders into the metal caps implanted in his arms, then prepared to inject the F-7 solution into his veins. The fluid, dark amber in color, floated in the vacuum inside the hypodermic needle. Eric pulled back the plunger and held the tip a fraction of an inch above the blue, distended surface of a large vein on the inside of his elbow.

He blinked. Somewhere in his mind a curtain had parted and something was shining in the darkness—a piece of a puzzle. Eric very carefully replaced the hypodermic needle in its refrigerated container, unstrapped his body, removed the plastic feeders, then hurried back to the vehicle launch chamber. From there he deactivated the blast-off controls and checked to make certain the ship would remain in orbit. Then he donned his suit and entered the pressure chamber.

He thought he had seen one piece of the puzzle. Now he must search for the remaining pieces. He was sure he knew where to look.

His fingers trembled as he checked and rechecked the scooter's instruments and energy bank. Satisfied at last that all was in order, Eric climbed in and closed the canopy above his head. He pushed the launch lever and the craft slid from its berth out into space. He allowed himself a few seconds to float free of the main ship, then touched the ignition button. The engines of the vehicle roared to life, speeding the man and his machine out into the void toward the object of his search.

PHILMORE, Eric thought. His answers had to tie in with Philmore.

If Philmore were alive and in some way responsible for the altered phenomenon puzzling Earth —where would he be? He could not be on the planet's surface. Eric was sure of that. He had to be on one of the moons.

How could he have survived all these years?

Eric knew such survival was theoretically possible in the physical sense. Food, elimination of body wastes and other physical needs were taken care of by cyclical apparatus within the environment of the scooter. Water and oxygen could be reconstituted from wastes for an indefinite period of time and the food could have come from the stores on the ship. The chemical nutrients alone could sustain one man for an indeterminate number of years.

Still, it seemed highly unlikely that any man could maintain his

sanity for any great length of time here—sufficiently to develop an apparatus capable of interfering with the signals from the planet. He would see, Eric thought. Philmore, if he were alive, would have all the answers.

Eric set his craft in a trajectory that he had calculated would take him to the first of his targets, one of the smaller moons now on the far side of the planet. He estimated it would take him months to scan the surfaces of all twelve satellites and he wondered what his own mental condition would be if, after all that searching, he found nothing. He decided it would do no good to dwell on such things. He began a detailed systems check to help the time pass.

Days passed. He scanned each square mile of the first moon's surface with skill and precision born of years of training. He had quickly developed a system; after an initial scanning flight he would prepare a detailed grid on the photographic charts and begin a new, inch-by-inch scan of that particular moon's geography. He flew at low speed and dangerously low altitude. Even then he would often be left with the haunting thought that he had somehow missed Philmore.

He would finish with one satellite, go on to the next, fighting the compulsion to go back and search again. He knew he had no time to waste—Ganymede alone would take him three or four months to scan properly. He must go on.

Once he landed and slept for fifteen hours in the cramped quarters of the scooter. Another time, on the third moon he had chosen, he had been forced to get out and search on foot through a vast hilly region, pock-marked with caves. They had been four hungry, thirst-filled days as he had been forced to trek in an ever-widening circle, farther and farther from the life-support systems of the scooter.

Soon Eric was flying the craft in a semi-stupor, unthinking, mechanically performing the flight operations as the scooter flew from one moon to the next; he listened like an automaton for the dull click of his instruments that would tell him the next satellite was near, another dead body to map and search and leave behind. He felt his soul slowly being torn apart, scattered about a few pieces at a time, strewn behind him on the moons' surfaces.

He traveled in a counter-clockwise orbit around Jupiter so that the glow from the planet was always on his left side. Once he developed fever and was forced to stop and rest. He tossed fitfully inside the scooter, his nightmares filled with gaseous, orange-red beasts that clawed at his shaking, fever-wracked body.

He reached Ganymede twenty-seven days from the time he had

left the main ship. The day after that he found it.

Fatigue and shock had taken their toll of him. He could feel hysterical, insane laughter swelling and bubbling in his throat, about to erupt in a geyser that, once released, would never stop. He experienced a sudden sensation of being a part of the scooter, a growth on its innards; he would ram the machine into the surface of the moon and at last the nightmare would end.

Below him, barely visible beneath the lip of a ledge, its chipped and tarnished surface gleaming dully in the glare of his beacons, was a green scooter identical to his own.

Eric swallowed his laughter and brought his craft back under control. He circled the area, dropping lower on each turn. Adrenalin surged through his body to the point where he felt he must scream with joy. But he dared not, for the same reason that he dared not laugh; once started, it might not stop.

A figure emerged from beneath the rock shelf, arms waving and neck craned in an effort to keep the scooter constantly in view as it circled over his head. Twice the figure stumbled and fell against the sharp rocks strewn across the surface. Eric groaned—and this time the laughter found vent and trickled from his lips. How funny it would be, Eric thought, to go through all this and then see Philmore die before his eyes.

Each time the figure rose, its suit intact, and continued its mad pursuit of the path of the descending scooter.

"Stop running, Philmore," Eric screamed. "For God's sake, stop running. I'm coming down!"

His voice echoed loudly and Eric snapped back to reason. Of course Philmore could not hear him; but the man had stopped running and was now standing motionless at the lip of a medium-sized crater, still looking upward. Eric imagined he could hear the anguished cries of joy spilling from the man's open mouth.

III

HE BROUGHT the scooter down a hundred yards from where the man was standing. Then Philmore was running again; lumbering and falling, rising and lumbering again, seemingly indifferent to the danger of tearing his suit on the rocks.

Was Philmore mad? The thought struck Eric that the man might kill them both here on Ganymede.

Philmore stopped when he was still ten yards away. Eric tensed, then relaxed; he saw, Philmore's shoulders heave with great sobs. Pale, bleached-out eyes filled with tears. Eric stepped forward and held out his gloved hand. Philmore

hesitated, then reached out and touched it with his own. A moment later they were together, hugging one another's shielded bodies.

When the first waves of emotion had passed, Eric stepped back and glanced around. His eyes came to rest on a series of letters that Philmore, in some moment of unbearable loneliness, had carved into the rock shelf above his scooter. The edges of the letters still showed the scars of radiation from Philmore's cutting torch. It was a plea—and an affirmative—to the surrounding darkness:

I SHALL LIVE IN MY MIND!

Philmore's eyes followed the direction of Eric's. Finally he looked back at Eric. His mouth creased in a sad and distant smile and he shrugged.

Philmore suddenly grabbed Eric's arm and began pulling him in the direction of the sheltered scooter. Eric's own excitement made him equally oblivious to the dangers of falling as he trotted along beside the other man. In less than a minute they were beneath the rock ledge.

Eric could see that a door had been cut into the side of the scooter and the canopy had been sealed with some kind of material that he could not immediately identify. Philmore led him through the door, then closed it behind them. There was a hissing sound and in a few moments a second door, carved at the opposite end of the scooter opened. Only then did Eric realize that the entire scooter had been transformed by Philmore into a primitive, but effective, airlock. He passed through the second door and found himself in a cave, lit by some energy source that Eric knew must come from the components of the scooter.

The walls of the cave were completely covered with the same translucent material that had been used to seal the canopy. On close inspection Eric discovered the material to be composed of some sort of wax or some glucose compound. It was fantastic, Eric thought; Philmore had found a way to alter the food compounds in the scooter's life-support system to produce what was, in effect, an airtight cocoon. The entire cave was lined with what seemed to be light, volcanic rock, easy to cut and move around.

Some pieces were striking in their resemblance to chairs, sofas and other items of furniture. Eric turned and looked at the other man with a new sense of awe; Philmore looked pleased. He was obviously proud of his handiwork.

The entire rear area of the cave was taken up by a mass of electronic gear. Some of the pieces looked as though they had been fashioned by hand. How? Eric thought. And from what?

Plaques and stone carvings decorated the cave. One picture depicted the bare outlines of a man, a woman and three children. Eric quickly looked away.

Philmore's fingers trembled as he attempted to remove his suit. Eric stepped forward and helped him, then removed his own. They stood for long moments, staring at each other.

"I'm Eric Bentzel," Eric said at last. He could think of nothing else to say.

Philmore's lips moved but no sound issued from his mouth. He put his hand to his throat and began to gag. Eric moved forward but Philmore raised a hand and Eric paused. A thin stream of saliva trickled from the edge of the other man's mouth and his face was crimson, flushed with the terrible effort of speaking. Finally, the human sounds came.

"I . . . I'm . . . Cl-Claude Philmore. My name is Claude Philmore."

"I know," Eric said quietly.

Now Philmore's words seemed to come easier. He cleared his throat and swallowed hard. "My God, Eric, I thought I'd never hear a human voice again. I used to talk to myself all the time in the beginning. Then I just stopped. Outside there, while you were circling, I was screaming. Just screaming. I thought I'd forgotten how to speak."

Both men sat and were content, for long moments, to feast in silence on the sight of each other. Then they spoke for many hours of home—the Earth and the smells of living things. Eric found himself increasingly reluctant to leave the subject, to return to the harsh reality that was the planet Jupiter and its moons. When he did question Philmore, it was in a very gentle tone that completely masked the impatience building inside him.

Philmore listened patiently to Eric's account of the signal receptions on Earth, then turned and stared at the equipment at the back of his cave.

"You managed those bursts of signals, didn't you?" Eric said.

A VACANT expression crossed Philmore's face, like that of a man struggling to remember the details of a place or event that was only dim history. At last his eyes came into focus and there was a trace of sadness in his voice; he too had found solace in their earlier talk.

"It's a very long story," Philmore said. "What I did and how I went about it is recorded in the computer bank of the scooter, although the tapes may be damaged. I had to use some of the computer components for the equipment you see back there.

"It appears that all of Jupiter's moons went through a volcanic period, much more severe than that of Earth. As a result, there

are many materials here that do not exist at home. In fact, I would guess that the entire crust of this moon and the others is composed of a substance completely alien to us, most likely formed by a combination of volcanic heat and the cold of space out here."

Philmore paused, as if waiting for Eric to make some remark. Eric remained silent, running his fingers through some of the fine dust on the floor of the cave. He noticed that it had a distinct metallic quality.

"This material tends to bend and distort radio waves," Philmore continued. "Since the moons form a virtual band about the planet itself, this accounts for the erratic radio phenomena always observed on Earth. Also, they make any kind of radio transmission within their boundaries virtually impossible. If you're very close to your target, you may get some kind of signal. Otherwise the signals are absorbed by the electromagnetic bands created by the moons' interaction with the planet."

Eric had risen to his feet and was running his hands over the equipment Philmore had assembled. He had never before seen anything like it.

"How did you manage to interfere with the signals? What is this, some kind of radio transmitter?"

Philmore was shaking his head. "It's not quite that simple," he said quietly. "I don't really know what you'd call it. And it doesn't transmit signals at all; it charges the mountain above our heads and the ground around us."

Eric turned and stared at Philmore. Philmore shook his head.

"I can't explain it all now. It took me years even to conceive of the plan—and then there were years of building and planting electrodes in the ground. Working on that was the only thing that kept me sane all these years.

"Most of that metal you see I smelted from the rocks around us. Using it, I was able to build a sort of generator that I used to hook up to the power source in the scooter. I then attached this to the electrode system I had planted—"

"You mean you were able to electrify this whole moon?!"

"Not exactly. But I was able to generate enough power to charge a large area around us. This disturbed the moon's electromagnetic field and further distorted the signals that passed by from the planet out into space. I was able to compute the relative position of the Earth by star charts. Each time I passed through what I calculated to be a vector where Ganymede was between Jupiter and the Earth, I activated the generator.

"It was an absolutely insane idea. But, you see, I had nothing else, no other hope. I didn't dream that it would actually work, but

from what—you've—said, I—"

Philmore's eyes had again grown dark and vacant. He seemed to be trying to recall something—a memory so terrible that it had been buried deep within Philmore's subconscious and was only now emerging.

"You what?" Eric prompted.

"I—it was only a few months ago," Philmore stammered. He seemed completely disoriented. "It was only a few months ago I was able to control the reaction to the point where I thought I could send some kind of message."

"Message?"

"A—code. That is, if anybody was—picking up the interference in the first place." Philmore hesitated, shaking his head back and forth. Suddenly he looked up, his eyes wild and burning with feverish intensity. His thin hand reached out and circled Eric's wrist in a viselike grip. "Your ship!" Philmore yelled. "Where did you leave your ship?! Did you land it on one of the moons?!"

"No," Eric said, confused by the sudden change in the man, "I left it in orbit. It's easier—"

He stopped. Strange sounds were coming from the other man's throat, completely different from those he had made in his first effort to speak. Philmore was rocking back and forth, chuckling grotesquely. Finally his soft laughter rose and split into peals of insane howling.

Eric hit him hard across the face. Philmore choked, then collapsed into Eric's arms, his hysteria broken. At last he stepped back and heaved a huge sigh.

"I think it's too late," Philmore said, handing Eric his pressure suit and donning his own. "I suppose we must try."

Eric was holding his helmet in his hands. "Too late for what?"

"Don't ask any questions now," Philmore said. He spoke now in clear, firm tones. "We have to hurry. Maybe there is still time. I'll try to explain on the way."

Philmore donned his helmet, masking the fine, grainy residue of fear and madness that had settled down into his eyes.

Eric followed Philmore out of the airlock, across the surface of the moon to where he had left his scooter. His nerves felt on fire. Philmore's energy and sudden determination had not masked the hopelessness lacing the tones of his voice like a floating, dissonant chord.

ERIC brought the scooter's trajectory into phase with the computed coordinates of the main ship and set the engines at full thrust. Philmore told his story in a low monotone, only occasionally interrupted by a sharp cry as one or the other pointed to a spot on the horizon that might be the ship and never was.

The crew of Odyssey One had

been totally unprepared for the disaster that befell them. Six of the men had been laughing and joking as they manned the two scooters and set off for the planet's surface, leaving Philmore behind to man the main ship. Contact with them had been lost soon after the vehicles slipped into the fog of the atmosphere.

Days passed and still Philmore had been reluctant to follow through with procedure and return the ship to Earth. He was convinced that the men were somewhere on the surface of the planet, perhaps struggling with any one of hundreds of minor mishaps that might have occurred in the course of preliminary exploration. He could not go down after them; that would have been stretching procedure too far. Besides, he had no coordinates to give him any indication where they might be. But he would not leave them behind to die. He brought the ship into a tight, powered orbit just outside the atmosphere and settled down to wait for the men to effect their repairs and return.

Philmore passed the time by running computer analyses of the gaseous components of the atmosphere. One of the first things he discovered was that the great red spot that scudded back and forth across the sphere appeared to be more than simply another, thicker layer of gases. For one thing, it appeared to be very dense, in which case it was difficult to explain why it was not pulled down to the surface by the planet's gravitational field.

The rest of his time was spent at the radio, running back and forth through the entire frequency band, then beginning again and working until his eyes grew red and his fingers numb, and he could no longer continue.

Philmore paid little attention to the flight instruments. He had computed that the ship could maintain its orbit for years, and there seemed little to gain in continuous checking. He was almost completely absorbed by the problem of contacting the men.

After more than three weeks had passed Philmore finally decided that the others would not return. But when he began preparations for the return flight he discovered that the ship had been steadily sinking deeper and deeper into the atmosphere. He opened the portals to discover that the entire ship was being coated with an orange slime that seemed to be eating away the outer hull.

His attempts to power the ship out of the atmosphere failed; the force of the engines was insignificant compared to the forces acting on the ship itself. He now knew what had happened to the two exploration vehicles and the men inside them—and knew the same thing must happen to him.

He acted instinctively, opting for any chance of survival, however slight. He boarded the green scooter, activated the engines and shot full speed out through the clinging jelly. This initial, powerful thrust had enabled Philmore to break free of the atmosphere, sending him back out into the vacuum of space.

Finally he had landed on Ganymede.

His first reaction had been one of elation and joy—he had survived. Such feelings were quickly replaced by panic and despair. It seemed to him that he had merely traded one form of death for another, and he felt he had made a bad bargain—now he must die of loneliness.

He knew that the systems in the scooter would keep him alive indefinitely, if he so desired. But there seemed no point—he would end as a vegetable, staring with blank eyes out over a bleak, lunar surface and become as bleak and lifeless as it. He would hear no sounds from the outside, for there was no air. In the heavens he would see the sun as a star shining just a bit brighter than those around it.

In the beginning he knew he would be thinking of that same sun pouring warm, yellow rays of sunlight on the green and golden meadows near his home in the country. His wife and children would feel that warmth on their faces as they looked into the sky and thought of him.

That same sun would be blazing on the Earth, sparkling in the blue-green waters of the lake where he and his wife had so often swum; it would melt Earth's snows in the springtime, hurry clear, fresh clean water into cascading torrents. Towering trees would feel the warmth of its kiss as their roots sipped water from the warm soil beneath their branches.

He would imagine all this, and he would study the dim twinkle of that blazing orb from a waterless world, mired in the powdery dust of Ganymede.

Philmore was convinced that he would end as a mindless hulk, dashing out his brains on the dark, lifeless rocks around him. Better to shut down the life-support systems in the scooter and die quickly.

He did not shut down the systems, though he did begin the process twice. Even as the tidal waves of depression had washed over him, his mind was at work, searching for physical and psychological means of survival.

HE HAD realized that his only chance for survival lay in total, relentless physical and mental activity. He had to free himself of thoughts that would destroy him.

Philmore had been the geologist as well as second in command on Odyssey One. Consequently, his

first task in his struggle for survival was a thorough, painstaking survey of the rocks, minerals, ores and conglomerates on the satellite's surface. At the end of the first year the chemicals in his kit had been depleted; but he had discovered the metallic nature of the moon's surface and went on to compute that it was this material that was responsible for the distorted radio signals received on Earth.

This task completed, there seemed little else to do. Soon Philmore no longer cared to move, even from his seat inside the scooter. Day after endless day he sat, oblivious to his own filth. He felt the shrouds of mental oblivion closing over him and he found he no longer cared.

He was uncertain as to what happened to bring him out of his trance. He thought it might have been the sight of a comet or meteor flashing across the heavens. In any event, Philmore suddenly found himself staring at and *focusing* on the radio transmitter inside the scooter. The next moment he was immersed in a task that would take him a score of years to complete.

He expanded his living quarters, creating the cocoon material by experimenting with the food synthesizer controls until he produced a sticky fluid that could be spread and that hardened in a few hours, forming an airtight seal. During this time he had no means of sustenance and almost passed out from hunger. Finally he found the cave, and brought the scooter to it. He had coated the cave with his sealer and pressurized the interior. The last step had been to transform the scooter into an airlock so that he could move back and forth between the cave and the lunar surface. He was now without any form of transportation but he had a home. He considered it a good trade.

Philmore realized that he would have to create a totally new form of communication. The germ of the idea for using the moon itself as a gigantic antenna or transmitter had already taken root, but he had no idea of how he was going to go about putting the plan into effect. He sensed that his present knowledge was virtually useless. It was the inadequacy of this knowledge, the necessity for years of continuous experimentation, that freed his mind from the tediousness and danger of idle thought.

There were no textbooks; only the transmitter and receiver in the scooter, inscrutable with the impassive coldness of a machine. Armed only with three hundred pounds of transistors, transducers, coils, wires and crystals, Philmore began the struggle to pull his mind back from the brink of madness.

It had taken Philmore eight hours completely to dismantle,

then about two years to master the communications theory that was sealed in its circuits. After that it took him three weeks to determine, beyond any doubt, that the entire frequency band of the set was inadequate to produce any kind of signal from within the electromagnetic barrier formed by Jupiter's moons.

Over the years, Philmore stripped the scooter of all components not essential to his own life support. He used these spare parts to build new circuits to add to the old ones, gradually building a machine that was entirely different from the one he had begun with. Parts not available to him he made himself by smelting the metal compound from the rocks around him with his nuclear cutting torch.

When he tired of this activity, Philmore would don his suit and venture out onto the moon's surface, drilling holes into its surface and planting electrodes which he then connected to the machine under construction back in his cave. Month after month he would make his forays out onto the surface, ranging farther each time, planting an ever-increasing number of his electronic seeds.

Eric knew the rest of the story. Years of trial and error experiments had led to the disruption of signals that had been observed on Earth two and a half years before the launching of Odyssey Two. His last efforts had produced the message that Eric now heard for the first time.

HE HALF TURNED in his seat, his face drawn into a mask of incredulity. He opened his mouth to speak but Philmore grabbed his arm and pointed to the navigational dials on the computer. Eric turned and felt his stomach contract as he glanced at the dial; they had reached the coordinates of the main ship and there was nothing in sight but the black emptiness of space and the orange glow of the planet's atmosphere outside the canopy.

"Give me the controls."

Eric impassively switched control of the scooter to Philmore's panel and sat dazedly staring out through the canopy into the void where the instruments and his reason told him the ship should be.

Philmore quickly reset the flight coordinates so that the scooter would assume a tighter, looping orbit, sweeping in closer to the planet on each revolution. He set the engines at maximum power and the color code bars on the temperature controls began their slow climb into the red danger zone. Eric ignored them. He had decided that if he must die he preferred that death to be rapid, inside the killer atmosphere. He did not think he could go through what Philmore had survived and he did not want to try.

They were rapidly reaching a point of no return, the stage of the atmosphere. In addition, it would be virtually impossible to sight the ship visually. Without that visual sighting, it would be difficult, if not impossible, to dock the scooter.

Eric was surprised to find that he was suddenly calm. He was tremendously grateful that he was not screaming at the approach of death, that he felt only a vast, suffocating weariness. He wished it already over with, and was immediately ashamed of the thought.

"Earlier you mentioned transmitting that something was alive here," Eric said. He traced his finger down the center of the canopy. Wisps of gas were beginning to collect around the scooter. "What could live in this?"

Philmore kept his eyes on the radar but his voice cut through the silence and tension like a knife blade, rising and falling in staccato rhythms. "There's nothing alive on the planet's surface. It's the atmosphere itself that's alive."

Philmore interrupted Eric's shocked reply.

"That mixture of gases is a living organism," Philmore continued. "I'm sure of it. I've been watching it for all these years, and I'm sure that I'm right. It's not so obvious at first—but if you observe it over a long period of time, you can see it pulsate in space. My guess is that it's absorbing energy from the planet beneath—and any matter that enters it.

"The organism seems to accept the moons as part of its own system but is extremely sensitive to any other body even approaching its perimeter. Our body reacts the same way, you know; when a germ enters our bloodstream, white blood cells gather to destroy it. It seems to be the same with that thing; it destroys—or perhaps consumes—anything that comes into contact with it."

"How?" Eric whispered.

"I would guess by some dissolving action. It transforms the intruding body into energy to feed itself. The color changes are related to the amount of energy it is absorbing at any one time. I've seen vast sections of atmosphere almost clear, translucent. Then a meteor shower will hit and the whole thing goes crazy, changing to all shades of red, orange and purple. And it starts to glow."

That same glow could now be seen surrounding the scooter's canopy. Eric turned away, trying to erase the image from his mind.

"How could such an organism exist?"

"That I don't know," Philmore said. "I believe the thing to be a cell."

"A cell?"

"Yes. Everything about it suggests a cell, including the way it destroys any foreign matter that enters it. That red spot that every-

one gets excited about is the cell's nucleus."

"That's impossible," Eric said, feeling foolish and not understanding why.

"Maybe," Philmore said evenly. "But when you've been alone in space as long as I have, well, the fact is driven home that the universe is, indeed, constructed on a very large scale."

"I know that," Eric said. "But a cell? How could it exist alone?"

Philmore shrugged. "On Earth cells evolved into larger organism. Here, at the birth of the solar system, it occurred all at once, on a monstrous scale. Besides, maybe it doesn't exist alone. Maybe there are countless billions more like it, scattered all through the universe. I tend to think it exists by itself—but there could be a larger organism and our entire solar system might be a part of it. Or maybe—"

Philmore's voice rose and broke off in a strangled cry. Eric turned around and saw, far away to their left and surrounded by a murky glow, the dim outline of his ship.

ERIC had resigned himself to death. Consequently he was almost sorry they had found the ship. His old drives and training were returning and that meant simply that dying would be that much harder. Even from a distance, Eric could see silver drops of condensation forming on the outer skin of the hull.

"It's too late," Philmore whispered. "God in heaven, it's too late!" Once again his eyes were clouded, and Eric could see that he was reliving the first voyage. The scooter was beginning to slow. "We have to go back." Philmore said, struggling with the controls. The scooter began to turn, a maneuver that served to slow them even more.

Eric quickly resumed control of the scooter. He knew they could not go back even if they wanted to —even if there were something more than a dead moon to return to. They were trapped in the atmosphere. The gas was growing thicker every moment and Eric knew it would not be long before the jellylike fluid that Philmore had described would be forming around the scooter. Their only hope was to reach the big ship. Eric steered the scooter in that direction. The vehicle moved slowly and sluggishly—but it moved. Eric kept his hands firmly on the controls; if they did not return, there would never be another ship, not in their lifetime.

"We have to go back—"

Philmore fought to resume control of the scooter. Eric turned and hit Philmore hard on the side of the neck with his hand. Philmore slumped in his seat.

(Please turn to page 185)

JACK SHARKEY

LIFE CYCLE

ENSIGN BOB RYDER stood back from the control panel of his beloved machine with a weary headshake. "It's no use, sir," he said. "Except for the bloodhounds aboard ship, I get no life-pulse response from the directional beam."

Lieutenant Norcriss, startlingly white-thatched in his middle thirties, sighed and looked into the green gloaming of the swamp planet. Norcriss' waiting couch and Contact helmet lay idle beside the tailfins of the ship. "That's the same result the roborocket reported," he mused uneasily. "And yet the animal has been seen, Ensign."

"A swamp is a dangerous place, sir," said Ryder. "The dog could

have been swallowed up in a morass, perhaps, or caught by one of those aquatic carnivores—"

Norcriss began to nod, still bemused. Then he straightened and flicked a glance at the technician. "Or reverted to its primitive state," he said sharply. "A dog forced to forage and kill for sustenance might not stay a *canus domesticus* for very long. Once its primal instincts are reawakened—"

"You think I might get results with a wolf-pulse tape," Ryder interpreted soberly. "It's possible, sir, of course—"

"But you have doubts?" asked Norcriss.

"Yes," Bob Ryder said, then added with a rueful grin, "and none of them logical. A change in a life-pulse is not an impossibility under certain circumstances. But it is a rarity—" His voice trailed off as he concentrated on putting a new tape onto the takeup reel.

Despite his doubts he was going ahead with the wolf-pulse check. Norcriss sat down upon the edge of the couch and watched him, marveling at the hundred and one finely calibrated adjustments the other man could make so unerringly in the complex machine without even a minor frown of tight concentration. Ryder loved and babied his device until its function was as familiar to him as his own breathing. His fingers, flickering from knurled knob to toggle-switch to lever to key, moved with sure and unfaltering steadiness.

Norcriss, constitutionally unable to allow his mind to idle over nothing in particular, presently thought back over the events that had brought them to the planet.

The Ecologists of Earth had raised the first ripples of concern about colonization of Rigel II. Preliminary exploration by roborocket had shown it eminently suited for certain human temperaments, mostly men and women of the tropic regions and especially the Seminole Indians of Florida and the many whites who had over many generations come to thrive on swamp-living along with their red-skinned neighbors. Roborockets, designed to orbit a planet until all species had had life-pulses correlated with those of known species, had found no wild life insurmountably dangerous to man on Rigel II—that is, any hazards to colonists could be met and overcome by simple vigilance and adeptness with 21st Century weaponry.

The trouble was that: "The animal life there is self-menacing," said the Ecologists' report. "A strange sort of apathy seems to prevail among two of the most ubiquitous species; there is no inbuilt instinct for self-preservation. Luckily the beasts seem to be incredibly prolific or they would long ago have died out. But putting a new factor—Man—on the planet might have decidedly disastrous re-

sults. Just a bit of imbalance in such a precarious ecology could turn the planet into a veritable graveyard. Life forms on any given planet interlock like Chinese puzzles. Destroy but one segment —or let it destroy itself—and the entire framework collapses. And there is a third species which reacts bothersomely to self-awareness. Not that a spider, for instance, knows it is a spider—but it does know enough to use its poison fangs, to spin a web, or dig a pit. But one beast on Rigel II seems to be confused as to what it is. The roborocket tapes rated the beast strictly according to its level of intelligence—its habits or life cycle remain mysteries. On these grounds—two life-apathetic species and one totally unknown type —we cannot recommend the planet for colonization until a qualified Space Zoologist has discovered more than we now know."

And perhaps not even then, Lieutenant Norcriss thought wryly. If his discoveries proved to be bad news colonization was out. He felt himself begin to shiver and fought his unease until it went away. To a Learner, a man whose survival in Contact with the mind of a subintelligent alien species was at the mercy of the creature's survival—if it died while he was in the unvarying forty-minute Contact, so did he—the notion of being enhosted in a species which didn't seem to care if it lived or died was a chilling one. And this planet boasted two such species.

THE bloodhounds had been brought by Norcriss' ship for the salient reason that a man's instincts were not always up to the hazards of swampland areas; seldom sensitive to danger unless he heard or saw something amiss, he had to rely upon the keener awareness of potential menace in the mind and senses of the animal that was, on such a planet, more truly than ever man's best friend. Three dogs had been taken along. On Rigel II they had, of course, been let outside the ship. Penned dogs grow extremely restive under any circumstances—inside a metal-walled ship, with thrust, shifting gravitational norms and warping into hyperspace to contend with, the animals had to be kept under sedation for most of the trip. But once outside the ship, something had happened. Something unexpected, something strange. After the animals' initial delirium of joy at being freed to gambol about on the coarse-grassed hummock upon which the ship had set down, they'd lain in the hot greengold sunlight, ribs in-and-outing contentedly, slack jaws huffing to draw air across the cooling system of their tongues, tails wagging in slow, lazily comfortable oscillation—until one of them had sprung to its feet, a growl buzzing deep in the folds of its rippled, sagging throat.

It had dashed into a clump of reeds at the edge of the small hummock, sniffing busily. What it found among the reeds, no one knew. But with a yelp it had sprung backward, howling terribly and flopping about on its back. Then, with a strange grunting sound and an unwontedly awkward coordination of its limbs, it had plunged without warning into the scummy waters of the swamp and slogged, splashed and paddled from sight, ignoring the shouts of the crewmen and the agitated barking of its fellows on the shore.

Subsequent checking of the reeds showed nothing to the men of Norcriss' ship. Reeds, water, scum, and nothing else. The two remaining hounds were brought to sniff at the area, but they simply whined in bewilderment and seemed to find no scent at all. A check via Ryder's life-pulse machine at the same spot evoked nothing but the faintest of pulsations, those of the reeds themselves. Unnerved more than he would admit by the incident, Norcriss had suggested that Ryder locate the missing animal so that—by a kind of proxy Contact—Norcriss might delve into its mind and memories to ascertain what the source of its odd behavior might have been. When the machine found nothing a roborocket had been sent aloft, in case some unexplained planetary field might be distorting the beam from Ryder's machine. Save for the two dogs still on hand (now kept aboard ship for safety), the roborocket's tapes showed no dog in existence upon Rigel II. And even as Ryder had been finding this out one of the crewmen had spotted the missing animal, its fur wet and clotted with scum, moving over the surface of a distant islet in the swamp. Which was impossible. Roborockets didn't make mistakes like that. Norcriss, more concerned than ever, had suggested that Ryder try the machine again, swirling the beam in the area where the dog had just been spotted. And the machine reported nothing.

"I'm sorry, sir," said Ryder, turning from his machine. "The wolf-pulse gets no reaction, either. I'm afraid we'll have to forget about the animal."

Norcriss, his tone just short of being sharp, said, "You know we can't. Even if I check out the three species in question, Ensign, we have to know what's happened to that dog. If a dog can go berserk on Rigel II we're going to have to know the reasons. What can happen to a dog can also happen to a man, Ensign."

Bob Ryder smiled, unruffled. He'd worked long enough with Norcriss to know that the latter's ungenerous mood was the outward effect of underlying fear. On Rigel II Norcriss had every reason to fear non-return from Contact, more than on most planets.

"I know, sir," Ryder said quietly. "But there's nothing we can do at the moment about the dog. Until we think up some new ideas—"

He let the statement stand unfinished. The choice was up to Norcriss. A zoologist had the option to refuse Learning a species where destruction was better than a 50/50 certainty.

Norcriss, however, nodded.

"I may as well get with it,"

He pivoted slightly on the edge of the couch and, lying back, adjusted the helmet to his head and his body to the surface it would inhabit mindlessly for the next forty minutes.

"Any time you're ready," he said and closed his eyes.

Ryder put the life-pulse tape which the primal roborocket had garnered from Rigel II on the spindle and locked it into place. Then he hesitated.

"With your permission, sir," he said, pausing until Norcriss reopened his eyes and cast him a quizzical glance, "I'll choose the worst first. I figure that if you go through the two life-apathetic species right away the third Learning might be a bit easier on you—"

"Good. I think I'd rather do it that way, myself." For a moment, his gaze locked with Ryder's. "Thanks."

He closed his eyes again. Amid the burble and rustle and plash of the swamp, he heard the technician's hands making final adjustments upon the control board of the machine. Then his mind dissolved into a flare of almost intolerable white energies and—

—*he was in Contact.*

THE creature in which he was hosted had its eyes open but for a dizzy moment Norcriss could not figure out what he was seeing or how. There seemed to be water and dull green grass everywhere, images overlapping without linking. He let his mind relax, then, let it reject its own preconceived notions of how-to-see, and allowed the "attitude" of the alien being toward sight convince his mind of the rightness of its alien method. And then he could see clearly. Directly ahead. In three different directions at once.

He was bobbing on the restless surface of the swamp among a group his host recognized as similar creatures. *Well, that's a help* . . . It was not always easy to guess at the appearance of an animal one enhosted, any more than a lone man without hands, arms or mirror could ascertain that he had purple-spotted earlobes or earlobes at all. But upon seeing the fellows of the creature he would be for forty minutes (although the time might be subjectively shorter or longer according to the host's own time-sense), he knew what he himself looked like.

Like a pale-green apple pie, a nubbly-topped swollen disc bob-

bing on the swamp surface. But a stem of sorts grew upward from the top center of the pie and curled like a garden hose in an arc that took its invisible other end somewhere below the surface of the algae-covered water. Near the base of that stem three subsidiary stalks jutted in triplicate symmetry horizontally, each terminating in a moist green globe, pea-sized, that was an eye. His initial confusion as to what he was seeing had been due to seeing in three ways at once: forward and slightly abaft of either side. But the beast itself seemed to have no notion of front or back or sideways. Anywhere it looked was its "only-direction." Its spatial sense seemed limited to "where-I-am" and "where-everything-else-is."

How large an object he was at the moment he had no idea. But if the size of the coarse marsh grass were unvarying about the planet, he was roughly the diameter of a manhole-cover, and as tall—if such a squat creature could conceive such a dimension—as an average watermelon lying on the earth beside its vine.

Vine . . . he repeated to himself, uneasily. For that was what the arcing hose-appendage reminded him most of. Yet the creature seemed to be animal, not plant.

I wonder if it's ambulant . . .

Asserting full control over the alien mind, he attempted to find out. Letting his own mind's "leg-sense" take over, he tried to move from the spot where he floated. Around him, he saw the water begin to ripple as his host's legs, or fins, or perhaps cilia, tried to move it. He found himself moving steadily along the surface of the water, while the other creatures sluggishly slid out of his path—and then lancing pain seemed to tear at his mind's "heart-sense" and he almost passed out.

Dazedly, he realized that the vine remained anchored at swamp-bottom somewhere and that its base was threatening to crack off. He groaned, managing to paddle or flit or ciliate back to the place from which he had started. *This thing has no more true ambulance than a water-lily. Just so far, and then its life is ripped away* . . .

That it fed somehow upon nutrients in the muck of the swamp-bottom he had no doubt now. Creeping unwanted into his memory came the ecologists' fear of this creature's self-destructive nature. *I wonder if a shift in the seasons or rising waters or some such stimulus makes the things deliberately snap their life-stems off.*

Resting after the short but agonizing ordeal, he once more studied the fellow-creatures of his host. They bobbed at their stalks in placid contentment, either oblivious or just bored about his brush with death. He had to admit to himself after what seemed an interminable interim of simply float-

ing in one spot: *If they're self-destructive, I don't see how. None of them seems to have the pep to go and wrench the food-tube off at the stem . . .*

He stopped his introspection as the other members of the group abruptly began to splash and twirl in growing frenzy. Distantly—as though the nubbly surface of the alien were its "ears"—he heard something sloshing through the swamp.

Hating to do it, he released most of his control upon the mind he inhabited. Until he was certain the thing was about to destroy itself it would be safer to let the alien take charge. It knew the emergency; he didn't. Instantly his host began to churn the water and to spin in circles about the end of the vine-thing to which it was attached. Norcriss could feel the torsion this continued circling made in the stem, a feeling akin to having one's flesh held between pincers and then twisted. Frightened, he grabbed control of the alien and stopped its thrashing. Alone amid its fellows his host bobbed unmoving.

NORCRISS saw the creature advancing over the murky waters. Like a large anaconda with a double row of fins running down its back in tapering heights, the thing glided through the reeds, some sort of froggish limbs near its neck and abdomen and just before the tail tip propelling it hungrily toward the cluster in which he hung, helpless, anchored to the life-giving vine. Its short, broad jaws gaped wide, exposing upper and lower rows of flat, incisor-like teeth, curved rather than pointed but apparently razor-sharp, like a scalloped edge on an aspirin-box. Not the sort of jaws that would do much damage to a human being—the teeth seemed chitinously flimsy, not likely to penetrate flesh, bone or muscle—but certainly up to biting hunks from the pulpy, soft-crusted surface of his host.

Swollen water-gray eyes saw the cluster and the beast opened its jaws even wider, hurrying its pace.

A sharp, crackle, then another, drew Norcriss' attention from the oncoming horror and let him witness another one. On the rim of the cluster, one, then two, then five, then singly and in pairs, the fellow-aliens to his host were passing beyond the torsion-limit of the food-tubes, and breaking free. The torn ends of the tubes puckered and spurted slimy yellow droplets for a dwindling moment, then fell into the water and vanished. And the attached aliens, ripped from the tubes, collapsed like riven mud-bubbles, turning from green to ashen gray and flattening until they lay almost paper-thin upon the water, the eye-stalks staring wildly until the last minute, then shriveling into knotted gray stumps.

And these deflated aliens the advancing creature ignored. It slith-

ered between their flattened corpses, heading in unrelenting serpentine movement toward Norcriss. He saw the gaping mouth, and knew that death was upon him. How much longer he could count on being enhosted he had no way of knowing. But death in that hungry mouth was a certainty, as far as its swiftness. Death by severance from the vine was slower, if only by seconds. Not letting himself think, Norcriss withdrew control, felt the host—free at last from the unaccountable immobility that had paralyzed its underlimbs—begin to backtrack in the water, tug at the vine. The vine splintered, frayed—Norcriss, in the voiceless host, gave a mental shriek of horror and incredible pain—and then he felt his host collapsing, dimly saw the severed vine spurting into the humid air. Then his eyes curled up, his mind gave a despairing sob, and his urgent prayer for that salvational flare of mental lightning heralding the completion of the Contact went unanswered. Suddenly there was nothing to see, to think, to know. Norcriss was dead.

"NO—" CRIED RYDER as the dial fell abruptly to the zero calibration. He thumped it frantically, readjusted its sensitivity, did everything he could to negate the terrible message it wrote upon the face of the machine. Norcriss had gone the way of so many zoologists before him. Trapped in an alien body when that body died, he had himself died.

Numbly Ensign Bob Ryder turned to look at the silent form upon the couch. The motionless body that was only seemingly dead a moment before was now never going to move again. Ryder had always known in his heart that it *might* happen, but a kind of blind optimism had prevented him from ever letting himself believe that it actually would, someday, although statistics on the life-expectancy of Learners was a grim warning that the odds were all stacked against Norcriss from the day he became involved in his first Contact.

One of the hovering crewmen, alerted by his despairing cry, spoke haltingly to Ryder.

"Has it happened, sir?"

Ryder, feeling too choked for a long explanation, just said, "Look for yourself," and pointed at the dial. The man looked where Ryder indicated and blinked in uncomprehension.

"But it's moving, sir," he said.

"What?" gasped Bob Ryder, spinning to look. The dial was indeed creeping upward from the zero mark, slowly but steadily reaching the point where Norcriss' mind, at whatever spot it might inhabit, would be attaining consciousness.

"I'll be damned!" said Ryder. "How the hell can he—"

A sputter and flare of electricity

interrupted him, and he saw with dismay that the tape-spool, on which the recorded life-pulse of the species under investigation lay, was doing an untoward shimmy. Ryder reached over and pulled it from the spindle before it could burst into flame. Once enhosted, Norcriss had no need of the tape, anyhow. Contact would go its immutable forty minutes and then return him to his own brain if tape, spool, machine, couch and helmet were wrecked. It was an electronically triggered power of the human mind, an extension, boosted incredibly, of any person's ability to "look at things from another's point of view." Once the tape-plus-machine-and-helmet had induced a zoologist's mind to leap into another brain, the task of electronics was over, save for recording what had occurred.

But the behavior of the tape was without precedent.

Ryder looked at the tape he held, then at the dials on the face of the machine. "This is crazy!" he said, with a short laugh of bewilderment.

"What is, sir?" asked the crewman, who had come nearer hopefully upon seeing the motion on Norcriss' own life-pulse dial.

"I put in only the *one* tape," said Ryder, scratching his head, "but Norcriss is now enhosted in the second of those self-destructive species," he murmured, vaguely pointing to a waiting spool of roborocket tape, "the one I was going to feed into the machine next!"

"How could that be, sir?" asked the man.

"At the moment," said Ryder, "nobody knows but Lieutenant Norcriss himself." He stared at the machine, shaking his head.

NORCRISS returned to consciousness slowly, as one who rises from the depths of a dark well of ink, then was—with a shudder of memory—fully alert and overwhelmed with confusion. He knew he had been dead—or at least, as dead as his host had been—but now he was alive again. The phenomenon was beyond his comprehension. Until he began looking about him.

He was lying upon the slope of a rise of land, a part of his body still trailing in the swamp. A few of his fellow-aliens lay beside him but they no longer resembled themselves as he had last seen them. The flat, ashen-gray discs had curled at opposite edges, rolled themselves up, scroll-fashion, and become salami-sized gray slugs. As in most vermiform creatures, the alimentary canal proceeded from an orifice in the forward tip to an almost-identical orifice in the tip of the tail. The hollow produced by the rolling-up of the flat gray disc was now serving as this canal, he realized. The shriveled eye-stalks, slowly bloating during

the long immersion in the water, were now studding the rim of the forward orifice, again in symmetrically arranged position. The other worm-things were munching at the muck upon the slope, and Norcriss released control upon the alien mind to allow his host to join them. No telling how much of a strain the period of "death" had occasioned in the organism; immediate feeding might be a necessity for hanging on to the slender thread of life.

What kind of metabolism does this thing have, anyhow? I've never seen anything on Earth like it . . . He checked the thought suddenly, realizing that it was untrue. Out in the swamp behind him and to both sides of where his far end still trailed in the water, he saw some of the still-flattened "corpses" starting to curl their edges slowly in the sunlight, and knew what counterpart to their behavior he *had* seen on Earth, and seen often: Bananas and tomatos. Plucked unripe from their life-source, they should die, should remain unripe until they rotted. But they didn't. Left in the sun, they continued to develop, independent of the parent-stem, the green flesh turning healthy yellow or flaming red, until ripe maturity was reached.

If a plant can do it, there's no reason why this animal I'm Learning can't, is there? I'm not surprised at the conduct of a banana or tomato, so I should have my head examined for being so shocked about this thing. At least I can give a positive report to the ecologists. This kind of species is anything but self-destructive. The roborocket just didn't recognize its new life-pulse as the metamorphic state of the old one . . .

With a hiss and flap of great wings, a large avian creature thumped to the earth at the top of the slope, its curving beak looking hungry to Norcriss' instinctively chary gaze. It made no move to approach the slug-things on the slope, but the nearest of these ceased its mucky meal and began to hump and elongate its way up the rise of slick soil to the very claws of the waiting creature. Then, to Norcriss' horror, the beaked avian bent, lifted the slug-thing in its mouth and—head tilted well back—swallowed it in a single gulp.

Oh damn, here I go again . . . At the thought of being enhosted in yet another apparently self-destroying creature, Norcriss realized that this must be at least a roborocket-indistinguishable cousin of that next alien he was to Learn.

His companions were all gone now and the creature at the top of the slope was eyeing him expectantly. This, Norcriss realized, was not the time to loose the controls of his host. He could only hope that the worm-gobbling thing was inured to cooperation of its prey

to the point where it wouldn't know what to do if one simply refrained from offering itself as the blue-plate special. But the beaked monstrosity only waited for a leeway of an apparent ten seconds before it came waddling clumsily down the slick slope, beak open and ready for tenancy. A taloned claw slipped in the muck and the avian had to use its wings furiously to keep itself from an ungracious sprawl upon its splayed-out tailfeathers.

Futilely, Norcriss tried to slither backward into the concealment of the swamp but his host didn't seem to possess a "reverse" in its neuromotor arrangement. Then the great beak was pinching the soft flesh of his enhosted alien and, with a mental groan of despair, Norcriss felt the peristaltic action of the avian's gullet pulling his temporary body toward death in its stomach—or in its crop, if its bird-resemblance went into that detail of nutrition. A bird that never dined on nuts or kernels or hard items of aliment wouldn't need a crop.

His own lackadaisically clinical attitude toward sure disaster suddenly surprised him.

I'm either too numb from the last Learning to care or my host knows something I don't that gives it a confidence great enough for my mind to share . . .

He felt no panic, no fear, only fatalistic resignation. As a welling-up of juices began to lave and prickle upon the tender flesh of his host, Norcriss sensed that his awareness was dimming in direct ratio to a sort of stiffening sensation in the flesh.

This time I am dying. I can feel nutrients from the flesh being leeched away by these juices, feel the remainder of my host growing tough and leathery, feel the tip-to-tip alimentary tube coiling into a sort of quivering nucleus . . .

His mind tried to be afraid but two sessions of complete terror in one day were beyond it.

I'm mentally anesthetized. I've 'died' already, today, and my mind is too weary to be scared now. So I'm drifting with the stream of my host's vanishing consciousness, knowing that what is happening is right and proper and not a cause for fear. Because . . .

Then he had it. Norcriss knew why the ecologists were wrong. This creature was following through magnificently in its emulation of Earth-type plant life. Its secondary form was similar in function to that of any fruit on Earth: look attractive, and thus be devoured by animals, in order that the seeds—that leather-shelled "nucleus" in his host's body—might be taken and left to take root in the carrier's droppings.

At least the tapes back at the ship will record the information for the ecologists. The two species aren't self-destructive. If anything,

they're likely to outnumber the other species on the planet, in time —or their descendents will . . .

Or would they? If one pie-thing became one worm-thing which became one seed, and that one seed grew only one pie-thing via the vine-tube, the race was static. Weakly, as his mind began to go, he gave a chuckle, realizing that the picture was complete: tulips behaved the same way. Destroy a tulip-bulb, and the world was permanently short one tulip. Or was it? Norcriss was foggily trying to reassess what he knew about the sex-life of tulips when a shattering flare of whiteness blanketed his consciousness and—

—*Contact was over.*

NORCRISS sat up on the couch and removed the helmet, brushing his thick pelt of starkly white hair from where the humidity had plastered it to his forehead. "Almost lost me that time," he remarked to Ensign Ryder. "Am I correct in assuming that I somehow went through a caterpillar-to-moth stage, Ensign?"

Ryder nodded. "You've squeezed both species into the one forty-minute period, sir. It's unprecedented."

"And damned lucky," said Norcriss. "That second species, as far as I can guess, has a life-expectancy of roughly three minutes. If I hadn't been nearly through the forty I wouldn't be here, now."

"Are you game for the last one, sir?" asked Ryder, his fingers toying with the rim of a tape-spool containing that third, and wildly incomprehensible, species that seemed to have an incredible lack of self-knowledge. Numerically, the roborocket had reported the third species as being less than a thousand, planet-wide. The Contact helmet, while not selective among a particular species—that is, one could not aim for a specific member of a species—would perforce send Norcriss' mind into the nearest of that species. For that reason it was dangerous for crewmen to attack any of the local fauna when the zoologist was Learning. As long as they did not know the appearance of the creature he might be inhabiting they dared not kill any while his body lay helpless upon the couch. Norcriss, naturally, would steer it clear of the ship when he was in control; but this would not always be possible. If, for instance, he had to flee a predator in his alien body, flight in the ship's vicinity might be unavoidable. So at Ryder's query, his nod was only half-hearted.

"Here's hoping I don't wind up in a bull-alligator-type of alien," he said, "and blunder past a trigger-happy crewman."

Ryder laughed. The crew was hand-picked not to be given to acting without thought. In the military instant and unthinking obedience was a necessity—except in the

crew of a space zoologist's craft. There only men who used their minds were welcome. It made for rather relaxed discipline, aboard ship but it brought a lot of zoologists home alive.

"All right, then, sir. The tape's in place," Ryder announced a moment later. Norcriss lay back and —as usual—was in Contact before his ears could register the click of the switch Ryder's deft fingers threw.

Damn it—damn it to hell . . .

His tactile sensations were sinking slowly into his mind and the information he was absorbing was familiar. Back in his training days, the Learning of Earth-indigenous species was part of the course, and a good zoologist never forgot a host.

I'm a dog. I know this feeling, the paw-touch on the earth, the panting, the fur, the tongue, nose, drooping ears . . .

He was on dry land but soon had trotted over to the rim of the swamp and studied his reflection in an algae-free patch of murky water.

And unless I miss my guess, I'm that hound we lost right after the landing . . .

The situation was incredible. The tape Ryder had put into the machine should have catapulted his mind into an alien body. What it was doing in this hound?

Puzzled, Norcriss withdrew control for a moment or two. Free of interference, the animal romped about a bit on the hummock, sniffed along the ground, lay down and panted in contentment, twitched its tail back and forth—in short, behaved exactly as a hound was supposed to.

I don't get it. But if Ryder or the machine has made some error I ought to take advantage of it and get this critter back to the ship . . .

A few steps around the hummock, head held high, were enough to bring to his sight the gleaming needle that was the nose of the spaceship. After a careful look around him for possible menaces to life and limb, Norcriss guided his recontrolled host into the swirling swamp waters and began to swim it through the intervening reeds toward the waiting ship. It gave him a peculiar sensation, as always, to observe his own body lying on the couch near the hatch of the ship, to see Ryder standing dutifully before the towering face of the Contact machine, keeping an alert eye on the indicators—to see the crew standing and chatting idly at the site where his body lay in comatose rigidity. Clambering up onto the shore amid the reeds, Norcriss decided once again to relinquish control, to let the animal's natural instincts take it up to romp with the crewmen it had come to know during its exercise periods aboard ship. And as he let go—

—hate, vicious, mindless hate and icy fear gripped his host. The

dog-body, no longer carefree of movement, dropped into concealment behind the reeds and Norcriss felt as though the feet were somehow bogging down into glutinous mire. The fear that his host might have blundered into quicksand made him take control once more and he strenuously tried to extricate his feet from whatever they were imbedded in. With a sucking sensation, a sort of slippery resistance, he felt one, then another, then all the feet come free.

But the hound's body had not moved.

A glance downward showed the paws precisely where they had been. And they were enmired in nothing. Just slightly dampened from the swim across the shallow swamp, the paws lay upon dry, sunlit land.

But they feel free . . .

Tentatively he wiggled a foot, wiggled all four—wiggled all six—Startled, Norcriss let go of the alien mind with his own—and the hound was suddenly gone. He was looking down upon its sprawled body, now, the tongue lolling out of the sagging mouth. He was on the surface of a crusty tree, feeling the searing heat of the sunlight as painfully as if he had been thrown into a furnace.

Of his host he could see nothing but the distorted shadow the trunk of the tree but it told him enough to let him guess the rest.

The shadow was serpentine, yet possessed of a sextet of limbs and twin ridges along the topside of the spine. He was a puny-sized version—probably a fairly newborn—of that pie-hungry creature from his first Contact. He knew now what had happened to the hound. Drawn to the reeds by the scent of an unfamiliar animal, it had been easy prey for the snake-thing, small as it was. A flip of those limbs had sent it, faster than canine reflex, into the mouth of the hound, whereat it had disported its limbs into the very nerves and arteries of the hapless creature, in effect *becoming* the creature. It was doing physically what he himself did via Contact. The young of the swamp-snake could not withstand direct sunlight. They lay hidden in the shadows, or under the water, or inside—physically inside—the brain of another creature. It was no wonder they lacked self-awareness. To spend most of one's life under a variety of other-animal forms, a species would be hard put to maintain a sense of its own ancestry. It would have no standard behavior-patterns for the roborockets sensitive instruments to record. It would come across as a cipher, like a vote of "undecided" in a national poll.

My brain is frying . . .

Taken up by his own thoughts, he hadn't noticed the slow softening of his limbs where they gripped the trunk. The flesh was growing

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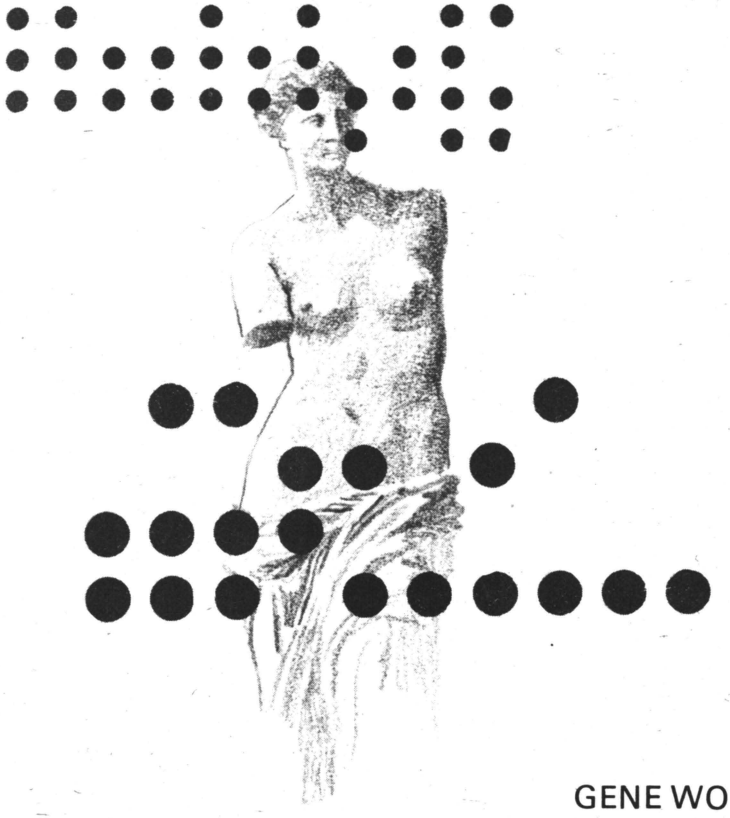

GENE WOLFE

OF RELAYS AND ROSES

"GOOD luck," everyone had said. "Good luck, good luck." He did not believe in luck and never had. He believed in hard work and the theory of probability, necessarily in that order. "Good luck—good luck, Ed."

Outside the corridors had been a bedlam. Here in the chamber everything was hushed, sedate. The Senator in the center, who chewed tobacco and called square dances when he was electioneering in his home state, believed in dignity and decorum for these hearings. Even the television technicians were quiet, going about their wire stringing like so many laboring spiders in the eaves of an old barn. The audience was funeral.

They're frightened to death of being thrown out. This is the big day of the hearings. The day I go on the stand . . .

He sat down between the company's attorneys.

One of them touched his hand lightly and said, "We'll make it, Ed."

Without thinking he said, *"Wish me luck."*

Both of them said, "Good luck —" solemnly.

The hush deepened. A red light on one of the TV cameras came on and the Senator in the center rapped his gavel for order.

"These hearings are now in session," he said.

He had a dry, colorless voice—like an old law clerk's.

"As I do at the beginning of every session, I wish to remind you that these proceedings do not constitute a trial. This is merely the Senate's means of informing itself. Although anyone appearing here may have legal counsel if he so desires, any quibbling will be disposed of in short order by my colleagues and myself.

"Most of you are doubtless aware of the subject of these hearings. We are inquiring into a practice initiated by one of this nation's largest manufacturers of digital computers—a firm which also happens to be fast becoming one of our largest vendors of computer services. Many of the witnesses who have appeared before this committee believed that the economic life of our country is gravely endangered by this company's business practices. It is no secret that many people in the news media agree with them."

The Senator on the right interrupted to say, "A great many people consider the practice immoral," and the Senator in the center nodded sagely.

"During our last session we heard from a representative of the American bar and from the presidents of the chambers of commerce of the cities of Las Vegas and Reno. Today—"

He paused to whisper to the chief counsel of the committee.

The chief counsel said, "Call Madame Felice Dubois."

A slender woman who seemed literally to shimmer with chic stood up and glided toward the witness box.

The counsel asked her, "You are Felice Dubois, a leading couturiere, with salons in Washington, New York, Los Angeles, London, and Paris—is that correct?"

She nodded almost imperceptibly. "It is."

"Do you wish to make a statement to the committee?"

The woman's laugh was a quick succession of notes struck on platinum bells.

"I should really like to make several. I would need them to tell you all that has been done."

"One statement will be sufficient," the Senator in the center said.

"Let me make an obvious one then—about wedding gowns. Our art has given these great study recently—long-skirted, short- or miniskirted, even the bare midriff and see-through. Most of all we have given thought to the succession of gowns proper in so-called serial marriages. Our economy has come to depend on people's marrying more than once. Our industry has promoted certain colors—white first, of course. For second marriages, some shade of blue—then peach or pink, then pastel green and so on. We are not quite in agreement for the fifth—but it is of little importance. By then we're willing to compete. But we've invested a great deal of money in promotion and—"

"And what has been the effect of the business practice under investigation here?"

"Disaster! Only two years ago, you comprehend, a third of all marriages ended in divorce, the cultured classes averaging higher, of course. Of those who were divorced—"

The Senator rapped with his gavel. "We heard the statistics yesterday at some length, madam." Evidently the testimony at this point was not going exactly as he had anticipated. "What has been the effect on other areas of your business?"

Madame Dubois was subdued now.

"A good deal of money spent by women in our industry has been removed from circulation. The divorcee, as a class, you know—was much interested *haute couture*—"

"I believe that will be sufficient," the Senator in the center said. "Unless my colleagues have some questions for you, you may step down."

The woman waited for a moment, then left the box, making her way gracefully back to her seat. In a whisper picked up by one of the PA microphones the Senator in the center asked the chief counsel, "It's that psychologist fellow next, isn't it?"

"Call Dr. Claude Honnicker."

HE WAS a tall, spare man in a dark suit. He wore ordinary, black-rimmed glasses but by some trick of mannerism he wore them as if they were pince-nez.

The chief counsel identified him as a specialist in industrial psychology who operated a placement agency exclusively for upper echelon executives and scientists. He was given the same invitation to speak which had been tendered Madame Dubois.

"If you don't mind," he replied in a precise voice, "I should prefer to be questioned directly. A general statement might be subject to misinterpretation."

"Very well then. In your experience is there a diminished supply of the men in whose services you deal?"

"Unquestionably. As compared to a similar period a year ago it is down seventeen per cent. As compared to two years past, twenty-two per cent. That is a very serious decrease and I have reason to believe that this—uh—this matrimonial service is largely responsible."

"And will you explain—or can you explain—how something we have all been led to believe is no more than a computerized—in your own phrase, matrimonial service—could lead to this shortage?"

"I shall try. In my opinion our own country and every other advanced country in the world is heavily dependent upon a certain type of man. This man may be an executive, a scientist, a general or a coal miner—but he is the man who works harder than there is any immediate need for him to work and harder than any of the incentives offered him by society justify. He does this because work offers him an outlet for the tensions a hostile environment have built up in him and society exploits him to its benefit."

"You make him sound like an alcoholic," the senator on the right said.

"Frankly—" Dr. Honnicker shifted in his seat—"such men fairly frequently become alcoholics. Particularly the sales managers, advertising men and other extroverted types. The introverts—scientists, for example—may tend toward paranoia eventually."

"Then you believe that the computer service we have been discussing actually benefits these people?"

"To the detriment of society as a whole—yes. The question is: How much can society stand? There are indications that it cannot take much more."

"In other words a great number of our most productive people have stopped producing."

Dr. Honnicker nodded. "In a certain sense—that is literally true."

"The Senator on the left asked, "In you opinion has this effected

labor—I mean the officers of American unions—to the same degree that it has managerial executives?"

"I cannot answer that from certain knowledge but I doubt it. Important union leaders tend to be older than the hardest hit group. The problem has struck most directly at the sort of men who have postponed marriage for reasons of career. This is the rising generation upon whom we depend. I might add that in my experience men who have already made a reasonably successful match have not tended to subscribe."

There was a long silence.

Then the Senator in the center said, "I think that will be all."

The chief counsel announced, "Call Mr. Edward Teal Smithe."

•

HE HAD been waiting for it. He put hands flat on the table in front of him to raise himself to a standing position.

"Take the stand please."

He slipped into the aisle and walked up to the witness box. It was as though he were walking through the pews in church again—the feeling came back across all the years. He had felt then that he was somehow ridiculous and that the people were snickering as he passed. Wanting to turn back and see, he did not. The witness chair was of hard oak, like a school chair.

"You are the vice president in charge of your company's operations? Did I understand your title correctly?"

The first part, the formalities, had flitted past while he had been in a sort of waking dream. Mentally he shook himself, tried to believe that this was no more frightening than a board meeting.

"Yes. Operations as differentiated, for example, from sales or research."

"It is your department that offers the public the service to which we have been alluding?"

"Yes."

"But I believe you have stated to the press that you yourself did not originate the concept of such a service."

Tom Larkin had come into his office. Tom was tall and intense and wore a shop coat, often, when he lunched with the Old Man—an unheard-of thing. He had thrown himself into one of the free-form chairs and announced, "I've got something." Tom was in the Caribbean somewhere now, damn him.

Ed had not said, *Executive's Itch*? as Tom himself might have under reversed circumstances. He had not felt up to it.

He had merely grunted, "Oh?"

"Something that will

make this company ten fortunes."

"We need it. We just lost a government contract."

"I'm aware of that. What's the greatest strength of our Mark XX digital?"

Ed had sighed. "Data storage capacity. With the ability to read an alteration in a single molecule as a binary digit the Mark XX can put more information in a hockey puck than most other machines can in a memory bank as big as Long Island. You worked it out. You don't need lessons from me."

The Senator in the center asked, "Aren't you going to reply, Mr. Smithe?"

"I wasn't aware that your statement required answer. No, I did not originate the concept. You were also correct in stating that I have so declared in the past."

"Would you explain to this committee just how your service operates, please?"

"From the viewpoint of the customer? A person wishes to make an ideal matrimonial liaison with another. Computers have been used for this in the past, usually on college campuses or by semi-serious entrepreneurs with inadequate machines and facilities."

"Your program is different?"

"Our company has evolved a computer capable of absorbing a truly vast number of facts and a program which permits us to enter almost anything as datum with the assurance that irrelevancies will be canceled out and that we will be notified of any discrepancies. We put this at our client's disposal."

"And from this hodgepodge the machine can select a suitable wife for a man or a husband for a woman? Unerringly? I find that incredible."

"So did I at one time. As for our percentage of error—we seem to have attracted attention by not erring."

He had read his morning paper, as he always did, in the coffee shop of the residential hotel in which he lived. The story was on the front page, unmissable. Being a thorough man he read it from beginning to end before he finished breakfast and also the editorial it had inspired. Then he had taken a taxi to the plant and, without stopping to hang up his hat in his own suite had gone to Tom's office.

Tom had said, "You've seen it. Wild, isn't it?"

"It's absurd and fantastic. According to this you told some young man that he would find his beloved—that's what it says—in an obscure village in Ethiopia. He sold everything he had, bought a ticket on a jet and

he and the girl are now married and ecstatically happy."

"The story was wrong. He didn't sell anything. If we could give him all that free computer time under the tryout program I saw no reason not to give him a plane ride, too—it was far less expensive. Round trip for him to Ethiopia, one way for the girl back. It increased his confidence."

"MR. SMITHE," the Senator on the right said, "don't you feel that you are treating your computer as an oracle?"

"No, I don't. Laymen often do so, I admit. We've done everything in our power to counter that impression. Do you remember the man who went to Ethiopia? It was the first case that was played up by the news media and it did a lot to confuse things."

The Senator in the center said, "I remember the case well. It did a lot to confuse things."

The Senator in the center said, "I remember the case well. It seemed almost miraculous."

"The man in question was an intelligent young Negro. He had volunteered for the service while we were still trying to get it out of the egg, so to speak. We gave him extensive psychological tests, fed the results to the computer and then gave the new tests it recommended. A fantastic number of hours of machine time were required then, but Tom Larkin, who is our vice president for research and the real instigator of the service, had faith in it."

"And what, in the opinion of the computer, did the tests show?"

"Well, for one thing, the young man was intensely interested in Coptic Christianity. The Mark XX felt someone of his own faith would make the best partner for him. It also found that since he had spent his early childhood in a rural area and reacted unfavorably to urban life when his family moved to the city, a girl from a semi-rural, rather isolated locale would suit him best. In this country there are very few Coptic Christians in isolated areas. In Ethiopia Coptic Christianity is the state religion and there are a great many. This is simplified, naturally—but you see the approach. Thousands of other correlations like this were made before the specific girl was selected."

"The newspapers make your Mark XX sound like a pythoness but now you're making it sound as if it's only someone's wise old tin grandmother, Mr. Smithe."

"It's neither. It is a machine for manipulating data. Senator, may I say something that's been on my mind for a long time?"

"Please do. That's what we're here for."

"As I've said, all of us in the computer industry have fought the public desire to make something supernatural of our machines. But

there is one way in which the public's misconception is useful. It often makes people do the logical thing when the logical thing is something that would be called silly if it were suggested from another source. If a town stood on the slope of a dormant volcano and the volcano started to rumble and smoke, a lot of the people might not want to leave. Because, after all, the volcano had never erupted before—at least as far as their knowledge went. But if a computer told them it was prudent to move they probably would. It may be that the man in the street is right to be a bit awed. If awe impels a man to follow a logical course of action—then awe has its uses. I've noticed that the comman man is often most right when he seems most wrong."

"That was quite a speech, Mr. Smithe," the Senator said dryly. "My impression is today that the man in the street believes his country's going to the dogs, and I understand from some of the testimony we heard yesterday that the company you represent has offered your marriage-broking service—I think I can call it that—to more than a hundred thousand Americans without fee. Do you have any comment on the last?"

FROM the first word he had known a sick and sinking feeling. There had been a ring in the Senator's voice that suggested he stood tried and condemned—of what? Something sneaky and perhaps un-American? "You see, Senator," he began, "when Mr. Larkin persuaded our president to put the service on the market—"

The service hadn't been much of a success. Oh, it succeeded in satisfying customers—it became better and better and processing required less time with every new client. But there hadn't been enough clients. Not nearly enough.

They had all been called into the Old Man's conference room that day and there wasn't a one of them—himself from Operations, Larkin from Research, representatives from Sales, Advertising, and Manufacturing—who hadn't know what was coming.

The president, the Old Man, never tore into anyone; that was part of his charm and his effectiveness. He always spoke logically and fairly and when he could give the man on the carpet the benefit of the doubt he gave it. But he always had the facts.

"Mr. Larkin," he had said slowly, "I know you remember the meeting at which it was decided to put this experiment of yours on a com-

mercial basis. I had almost said, 'it was voted,' but you will also recall, I think, that only you and I voted in favor. So we did it anyway."

Tom had said he would never forget that.

"But we are losing money on it. The sales curve for —what do you call it?"

"Program Roses."

"For Program Roses has been nearly flat and recently, in fact, has started slanting downward. Roses is in the red and I'll tell you frankly that if the rest of our business were not experiencing a goodish upturn we wouldn't have been able to carry it this long. Can you give me any reason why Program Roses should not be terminated?"

The Senator interrupted. "From all you've said, Mr. Smithe, it seems to me your company should have sent Mr. Larkin to testify before this committee instead of yourself."

"We wanted to," Ed said, "but he couldn't be reached."

"Couldn't be reached?"

"You see, he himself eventually subscribed. He and his bride are taking a six-month honeymoon in a sloop. Tom's always been quite a sailor in his spare time, and as it turned out the girl Roses picked for him is, too."

"Did you say six months?" The Senator sounded incredulous.

"With pay. Our president didn't want to let him have more than three but Tom threatened to quit."

"It would seem—" the Senator was smiling coldly—"that you have been victimized by your own cleverness."

"We don't think so. You see—"

Tom had waited until the Old Man was finished before he exploded his bombshell. Until he was finished and there been a long, pregnant pause. Then he hadn't addressed the president directly; he appeared to speak to Sales: "I don't want Roses discontinued—it's the best thing we've got. I want to give it away."

No one had spoken. Ed remembered that he himself had known a sick realization that Tom had cracked up at last.

"Roses," Tom had announced, "has already brought us three million in new contracts and accounts. You don't charge people to read your advertising, do you? They might be willing to pay—some who are interested enough—but you make more money when it's free."

Sales had said slowly, "He's right. He and I have combed through the new accounts one by one, and in ninety per cent of the cases we've found that the decision to swing the business to us was either made or strongly influenced by someone who'd be a client for Roses."

The Senator in the center cleared his throat. "You mean to sit there and tell us that Roses is just a sales gimmick for the rest of your business?"

"A gimmick," Ed Smithe said, "is when you give away a plastic bathtub toy with a box of breakfast cereal. And that brings us to something else Tom made us realize. Roses not only made these key people familiar with our machines and impressed with them—it also made the Mark XX a permanent part of their lives. The competition has found that it can talk a long time and not erase that."

"And so you have actually offered the service free."

"To people who we feel will be in a position to specify computers or computer services as part of their careers—yes."

THERE was a stir in the chamber. The Senator said heavily, "You seem to be destroying the fabric of society as a sort of side effect."

"Not really." Ed drew a deep breath. "Senator, who's the better farmer, the man who hitches up his tractor and runs it until it breaks or the man who oils and services it and lets it cool off if the engine overheats? And who gets more plowing down in the long run? These men and women who have lived half their lives in loneliness are often thrown off balance temporarily when they finally find someone with whom they can relate, I admit. Sometimes they just want to quit—to be with their new partner every hour. But eventually they come back—and when they do they're working *for* something, not just to get away from something. Right now we're in the trough—the service has been building rapidly and a majority of our clients are still in the honeymoon stage. But the earlier ones are coming back stronger than ever and I can prove it."

He did. The charts and slides helped but the facts really spoke for themselves. Numbers of theses written, numbers of patents granted, earnings of firms whose executive ranks were heavy with early clients. He was no salesman but he could feel the whole chamber swinging over; it thrilled him.

When he finished he was wrung out. His shirt was sticking to his chest and his legs felt weak. But

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seen it immediately!" He swung around and looked at the icy river that coursed through the cell. "The symptoms are obvious! Copper or zinc! And it wasn't zinc that poisoned him. Come along, Morgan."

And with that, he strode ponderously into the stream, pushing his way through the icy water with the determination of a destroyer.

Morgan, just stared until the water had reached Mikko's chest, then he said: "Are you crazy, Mikko? You'll freeze your—"

"Come along!" Mikko roared. "Do you think I'm enjoying this?"

Morgan paused, took a deep breath, and waded resolutely into the icy stream. After three gasps he finally got his voice back. "Wha—what am I missing?"

"Copper," Mikko said grimly, forging ahead. "That man died of copper poisoning. From the food? Hardly likely. He was ill before he ate any of that nauseating concoction. He drank water. This water."

Morgan would have slapped his own head if he'd been less busy. "Oh, hell, yes," he said bitterly. "I bow to a superior brain. Copper sulfate. Iron's higher in the electromotive series. I feel stupid."

"I feel cold," Mikko said, reaching out one hand to grasp the grill of iron bars. The water was just above his navel. "Let's test our hypothesis."

He stooped down, grasped one of the bars with a powerful hand and pulled. It snapped off some centimeters below the water line.

The bars had lost their iron. In the decades that they had been washed by the copper sulfate solution. Elementary chemistry: Metallic iron plus copper sulfate yields metallic copper plus iron sulfate. But the copper that replaces the iron is porous, spongy, and weak.

Morgan grasped another bar and jerked it loose, trying to ignore the frigid chill of the water and the fact that both of them would have to duck completely under to get through the opening they were making.

"Just think," he growled, "that poor mother died of copper poisoning when there was a way out all the time."

Mikko grunted. "He didn't die of copper poisoning; he died of ignorance."

MR. GOODBIT stepped out of his aircar and stood, hands clasped in the small of his back, staring at the *Peccavi*. "Most suspicious," he decided after a minute's contemplation. "Notice the craft doesn't seem to be insured in the slightest."

Richtman nodded his agreement, hopping nervously from foot to foot. "They said a cloud of smoke came up from the ship shortly after they got here but it didn't do

any damage. I think it's a trick."

"Possible, certainly possible. Although it is unclear exactly what sort of trick. Where is this hole you say appeared in the hull?"

The group leader pointed. "About there. Midway up the side. You can just make out the outline with an optical scanner."

"Very good. Break out a high explosive grenade and load it into the launcher. Put it on automatic, so if that port opens again it will lob the missile inside."

"Do you think they're on to us?" Richtman asked.

Goodbit shrugged. "Why take any chances? They seem to be snooping. That is something we cannot afford."

"You think they've found anything out yet?"

Something moved next to Goodbit's foot. Without taking his eyes off the ship, he squashed it under his heel. "Perhaps they have. They couldn't have completed their snooping or the ship wouldn't be sitting here. We must stop it from leaving."

"Yes, but what do you think that black thing that flew in the hatch was? Some sort of spy device?"

Goodbit glared at his minion. "You're beginning to babble. Don't get nervous. Whatever it is, it's something that high explosive will destroy. That hatch will open again. When it does, it won't close."

THE outer door of the long-deserted contemplation cell was not locked. It had been smashed long before, its primitive mechanism broken. Morgan Oxbo, using one finger, eased it open.

There might—just might—be one of the locals on the other side of it.

But there wasn't. A set of stone steps led upward to the surface. Obiously, the vine-covered light slits were at ground level, with most of the contemplation cell underground. At the top of the stairs were the remnants of what had once been a wooden, iron-bound door. It, too, had been smashed long ago and had been decaying ever since.

A gust of warm air swept down as Morgan swung the door wide. Except for plant life, no living thing was in sight.

Two chilled, wet men crept cautiously up the stairway.

Morgan peered over the broken, rotting boards, took a long look around, then glared back down at Mikko.

"I thought you said this place was five kilometers out of the village," he whispered.

"No," Mikko corrected. "I said that on the planet now inhabited by the Brotherhood the contemplation cell was five kilos away. I am not responsible for changes in design. I take it that we are within the village?"

"Apparently. Take a look."

"Indeed," said Mikko after a full minute of observation. "If my memory of our survey serves me —and it does—we are approximately seven hundred and fifty meters from the village square. I suggest we proceed with the utmost caution."

"Agreed," Morgan said. He stepped into the alleyway, which was cobblestoned and covered with a mosslike overgrowth. "Frankly," he muttered, "I feel naked without my instruments."

"You look it," Mikko growled.

"Well, you aren't the prettiest nude *I've* ever seen, either."

"May I say that your figure also would be clearly enhanced by elegant clothing—or any other method of concealing it. Shall we go?"

The street was overgrown with purple-green vegetation that reached, in places, up to their waists. Morgan avoided the thick patches with innate distaste, while Mikko plunged straight forward with a disdain for anything merely vegetable. They both moved silently and stayed beneath the overhang of the aging stone walls as much as possible, keeping vigilant eyes on the roofs. The buildings at the edge of town were spaced well apart, and the two men darted from house to house like a pair of pink mice in a bakery.

"Drop," Mikko barked, falling flat and rolling into a thicket of leafy bushes. Morgan dived for the shadow of a time-twisted board fence. They lay motionless while an aircar hissed by some hundred meters to their left and fifty meters over the village.

After a minute Morgan eased himself to a kneeling position, staring over the houses beyond which the aircar had disappeared. "Landed in the square, apparently. Fun and games at the ship. I hope Metrak is back."

"Damn!" Mikko snarled viciously.

"Trouble?"

"This bush is full of thorns." Mikko rose gingerly and stepped away from the offending flora. "I'm as full of pricks as a pudding."

"Are you all right?" Morgan asked with quick concern.

"Unless they were tipped with cyanide, I am," Mikko said.

"I've had my shots."

"Can you walk?"

"Walk, run, or wrestle autochthons," said Mikko. "Pain is merely the entrance fee to a higher level of understanding. Let us proceed."

On the block next to the square the houses were pressed close together, separated only by narrow alleys. At that point they left the street and crept through a building to the back lot. Keeping well apart, they headed for the buildings fronting the square.

Mikko checked several back doorways until he found one with an open door. The rusty hinges of

the closed ones would have screamed their presence. He stepped inside the building and rapidly checked to make sure it was completely deserted, then signaled Morgan.

Morgan peered around the musty ground-floor room. "What a mess," he whispered. "And it's damn cold out of the sun. This planet might be warming up but I think there's still a layer of permafrost."

"Before we go through to the front," Mikko said, "notice anything peculiar?"

Morgan looked more closely. "Someone seems to have ripped off most of the wallboard and even pieces of flooring."

"Right," Mikko agreed. "And they've burned them in the fireplace."

"Natives trying to keep warm?" Morgan hypothesized.

"Not likely. Remember, for them this is a hot spell. Besides, they seem to have removed the ash."

"What then? Obviously you've figured it out. Don't hoard information."

"Simple. They eat wood. That's what the natives that clobbered us were probably doing—having lunch."

"Brill—you might say—iant. Lead on."

Mikko made his way to the front of the structure, Morgan carefully covering the rear.

THE windows facing the square had lost their glass so long ago that even the shards had been blown away or buried under the cake of dried mud covering the floor under the square frames. Mikko kneeled to the side of the hole, keeping carefully out of sight, while Morgan crawled under the opening and slowly lifted his head until his eyes peered out to survey the square.

Trespassers W squatted, a silver egg shape, in the center of the field. She was surrounded by the legion of Quindar, who were keeping a respectful distance from her gleaming side.

"Tress has spotted us," Morgan whispered.

"How can you tell?"

"As soon as I stuck my head up she flashed a laser beam into my eyes. Two bright blinks."

"Good girl."

"I think I'm blind."

"Don't be silly, Tress would never be that careless."

"Well, I can't see anything. There—things are starting to come back into focus. Three aircars have landed to our right. A group of men surrounds them. The rest of the men are surrounding Tress. Must be thirty people out there."

"Weapons?" Mikko asked.

"Indeed. Take a look. We're in the shadow and no one is looking this way anyway."

Mikko stuck his head out.

"Humph! Rapid-fire slug throw-

ers. Isn't that some kind of projectile weapon by the first aircar?"

"I can't tell from here."

"Notice," Mikko said, pointing with his chin. "Over there to the left. Three men behind that wall. What do you think they're doing?"

"Sharpshooters," Morgan guessed. "They've got scopes on those guns. Must be hoping for someone to stick his head out of the hatch."

"Agreed," Mikko murmured. "They must have decided we're hostile. I wonder how long it took them to reach that conclusion. I'll wager that, with all the attention they're paying to the ship, they wouldn't notice it if two men were to sneak up behind and—ah—accost them."

"Any particular two men you have in mind?" Morgan asked. He sighed. "I'll get a rock."

"We'll have to go around two buildings before coming out—to make sure we're not seen by the rest of that bunch."

"Sneak it is, sir," Morgan agreed.

They crept back to the rear of the building and out to the alley. The back door to the building they wanted was rusted shut.

"A window?" Morgan suggested. He peered through the nearest glassless rectangle. "No, not this one. Our friendly natives have eaten the floor."

"This side alley will do," Mikko decided. He picked up a massive stone and hefted it in one large hand. Morgan settled for a smaller rock.

They went silently down the alley to the front and paused, hidden by the corner of the building. About twenty meters in front of them, kneeling behind a large chunk of granite wall, the three sharpshooters were intent on their target.

"Sneak?" Morgan asked.

"Rush. Twenty meters. Less than three seconds. Ready?"

"Ready."

They moved away from the building. Morgan noted that they were out of sight of anyone except their targets—and Tress.

"Move!"

The two naked men raced into the field, each with a stone gripped in his hand, like a pair of dinner-hunting Neanderthals.

One of the sharpshooters must have seen a flicker of motion out of the corner of his eye.

"Wha—"

A stone smashed against his head and he was silent. The second never turned. He slid down the rock to crumple on the purple-green moss.

The third swiveled around, trying to bring his weapon to bear, mouth open to shout a warning. Mikko grabbed him around the throat and squeezed, cutting off air and blood. In three seconds the man went limp and Mikko low-

ered him gently to the ground.

"Beautiful!" Morgan gasped. "But I think I'm a little out of shape. I need more exercise."

"I'll remind you that you said that," Mikko told him. "Put on those coveralls."

It was well that the stretch coveralls had plenty of give to them. Morgan found that the Quindar uniform was rather snug; Mikko found it almost impossible. He could feel the strain on the field of the magnetic seam in front.

"Never steal from midgets," Morgan whispered. "Can Tress hear us?"

"I should say so," Mikko said. "Tress? How say you?"

Inside the ship itself, Tress reported to Metrak. One of her paraboloid directional sound pickups heard their voices easily.

"Are you ready to let them in and repel boarders?" Metrak asked.

"We are on riot alert," Tress said calmly. "No weapons that can breach the hull are within detector distance. Should I increase to full battle alert?"

"No," said Metrak after a moment. "Not while Morgan and Mikko are on the outside. Stay on riot control and let them know we are ready for them."

"Complying."

Outside, fifty meters away, Goodbit listened, his eyes slitted, as he heard the ship's PA system say:

Trespassers warned! This unit prepared for any and all attempts to board.

Tress picked up Mikko's whisper. "Good girl, Tress. Now listen to what I have to say and relay to Metrak. Ready?"

Trespassers warned!

"Good. We're going to get in as close as we can with these ill-fitting uniforms. Be ready to pick us up. If we're spotted, Delta-gas the area and send Metrak down to retrieve our sleeping forms. No use taking chances."

Mikko turned to Morgan. "Ready?" he asked, picking up one of the rifles.

Morgan grabbed another. "Let's move out!"

X

GOODBIT sat on one of the steps of his aircar and glared at the ship. "Why did it say that?"

"What's that, Mister Goodbit?" Richtman asked.

"That last bit of monologue from the ship. Why did it say that?"

"I don't know sir."

"There's something wrong. Is that grenade launcher set?"

"Yes, sir," the group leader reported. "Set and on automatic."

Goodbit considered the problem. His men were all spread out around the field. Two of the sharpshooters had left the wall they were behind and were heading toward a frag-

ment of low wall closer to the ship.

The situation was altogether too static. Something had to happen; the one thing positive about stalemates was that they ended before expected. Goodbit's rule was simple: if something is going to happen, cause it! Do onto others —first. He beckoned to Richtman. "Call the base. Tell them to send out a brace of thirty-centimeter rockets. Use the codebook in case that egg is monitoring."

Richtman entered the aircar to send the message. The two sharpshooters passed the fragment of wall and closed in on the ship.

Goodbit studied the scene, running a small hand over his round, smooth-shaven chin. Something was wrong here. Very wrong. He felt that he had underestimated the situation, that an important fact was right before his eyes but somehow eluding him.

The two sharpshooters moved forward and reached the inner circle of men surrounding the ship; something sparked in Goodbit's calculating brain.

"You two! Stop where you are!" he shouted through his bullhorn. "Enders! Disarm those two men standing to your left. If they attempt resistance, shoot them!"

A sudden high, keening whistle permeated the air.

The man Enders ignored the noise coming from the spaceship and turned. And went right on turning, his knees buckling beneath him. He fell in a twisted heap on the ground. Those around him began to fall, including the two men he had been ordered to disarm.

As Goodbit saw man after man fall in an ever-widening circle that spread away from the egg-shaped craft, a thought flashed through his mind:

Delta-gas! Supersonic dispersion!

But it was too late for action. The gas had already reached him and Goodbit's brain turned in on itself and ceased to function as a thinking entity.

METRAK looked into the screen with what might have been a leer on his small, black face. "They would all seem to be out. What say you, Tress? Shall I go down and pick up Morgan and Mikko?"

"All heartbeats and breathing rates are consistant with unconsciousness," Tress decided. "The gas will have dispersed to the safe level in fifteen seconds."

"Perfect. It will take me that long to reach the lock." Metrak trotted into the corridor and leaped the flight of stairs to the airlock landing. The double sphincter dilated.

Metrak leaped forward, his intention being to drop to the ground below, haul Mikko and Morgan up the ladder and tell Tress to take off instantly. He started his leap

just as something outside went *WHACK!*

The automatic grenade-launcher had fired as soon as the airlock sphincters had dilated. In mid-air, Metrak saw the grenade coming toward him. His ultra-fast reflexes, evolved in an environment that needed them, took over. He twisted in mid-air and grabbed at the missile as it snapped past him.

But not even muscle and nerves trained at half a kilogee can be totally accurate. The grenade, bullet-fast, touched the tips of Metrak's fingers, snapped upward, bounced off the hard alloy ceiling, and dropped down the stairwell.

The explosion, a millisecond later, merely added to Metrak's velocity as he shot on out of the airlock.

"*MIKKO! Be pleased to wake up, Mikko! Mikko!*"

Something like a pair of pliers was pinching Mikko's arm, shaking him at the same time—and none too gently.

He forced his eyes open and saw double. "I am awake, Professor," he said rather hoarsely. "Control that little hand of yours, my good friend, or you'll leave bruises clear down to the bone."

"Oh! I am sorry." The pinch went away and Mikko tried to consolidate his double-image of the overhead into a single image. He didn't quite succeed.

He closed his eyes again and said, "Where are we?"

"Nearly a parsec away from our takeoff," Metrak said. "Accelerating on flicker drive. How do you feel?"

Mikko kept his eyes closed. "In the past twenty hours, I have been given a minor concussion and a dose of Delta-gas. My head hurts, and my body is still numb. I know that I shall be unable to move around for at least half an hour. How do I feel? Just great. How is Morgan?"

"Still unconscious. In spite of your greater age, you seem to recover from these things more rapidly. I gave him the antidote first, but he is still asleep."

"Any indications that we have been followed?" Mikko asked.

"None. Unless an antidote is brought from their main station, the Quindar troops will be unconscious for another hour. But—"

"Will we need to go back?" Mikko interrupted. "For evidence, I mean."

"I think not," Metrak said softly. "I hope not. But—before I say, what have you and Morgan found out?"

Mikko opened his eyes, found they still wouldn't track, closed them again. Then, groggily, he told Metrak what had happened in the contemplation cell—including what they had learned from the prisoner.

"It conjugates with the facts I have already reported by inverse

space tube," Metrak said. "It is —how did you call it? —a shoestring operation. I saw—

Mikko, his mind still rather fuzzy, interrupted again. "We didn't get any recordings. No real evidence. What did you get?"

"Good recordings, Mikko. Already sent. We have proved pollution and slavery. And attempted genocide."

Mikko's arms and legs tingled horribly as they came slowly out of their paralysis. He kept himself immobile and said, "Forced labor at what, to the natives, is a high temperature. Killing them off."

"Not exactly," Metrak said. "Though they think they are."

Mikko turned his head to look at Metrak and wished he hadn't. He clamped his eyes shut again. "What do you mean?" he asked weakly.

"The local people suffer of the heat, that is so," Metrak said, "and they appear to die. They are taken away to a—a disposal place. Some of them die. Most do not. Those who do not are removed by their kinsmen to a cave—a series of caves—in the mountains. They are taken down deep, where the temperature is constant, and they are tenderly placed with others on soft moss. They sleep. They—how do you say?"

Mikko sighed and relaxed, "Estivate, my dear Professor, estivate. They sleep through the hot summer that comes but once in a hundred millennia—or whatever it is. Lloyds will be glad to hear that; it takes them off the hook."

"How so?" Metrak asked, blinking anthracite eyes.

"The autochthons would have to be rescued if this near pass of the A-5 would kill them. But it won't. They're used to it—it's part of their racial cycle. Probably a very old race, you see. Slow mutation rate. Does the A-5 passing encourage mutation or does estivation keep them back? Does—" Mikko brought himself up short, clamping his lips. "Excuse me, Professor; I'm babbling nonsense. Can you—"

"*Uhhh* . . ." The sound came from Morgan's compleat.

"Our friend seems to be coming around, Professor. How do you feel, Morgan?"

"Mizzabul," Morgan said thickly. "Where are we?"

"Well away from the scene, I assure you." Mikko paused. "Where are we headed, by the way, Professor?"

"Toward Proxit. I assume."

"What do you mean; you assume? Tress, where are we headed?" Mikko opened his eyes. There was no answer. He jumped to his feet and fought down a wave of dizziness. He realized that Tress had said no word since he had awakened. And Tress should have answered his question about position in the first place.

Metrak folded his two foremost

limbs over his belly and looked up into Mikko's eyes. "The lady is dead."

Mikko turned and stared at the control and instrument console. The battle control computer, normally just another I/O device for Tress, had taken over. It was fleeing the scene of battle, as ordered.

Morgan lifted his head weakly. "Tress dead? What do you mean?"

"It is all my fault," said Metrak. "I take full blame. The hostiles had a missile-thrower aimed at the hatch. It went off automatically when the hatch dilated, even though the man operating it was unconscious. I attempted to deflect the missile as it passed me and only succeeded in knocking it downward. It detonated against the globe of Tress's consciousness. What you call the main processing unit. It was penetrated and destroyed. Tress is no longer operational."

Morgan, still weak and dizzy, tried to rise from his compleat, but Mikko shoved him back down with a palm.

"Stay here. I'll look." he pounded down the spiral to the deck below.

"Well?" Morgan asked after a minute.

"She's a mess, all right," came Mikko's voice. "Metrak was right. The MPU is junk. So is all her online memory. That bomb quite literally blew her brains out."

Morgan sat upright again. Most of the dizziness had worn off by now. "How about the records?"

"I'm checking," Mikko said.

Morgan looked carefully at his control panel, then tapped several keys in sequence. A screen lit up, displaying tightly packed orange symbols against a blue background.

"You hit the ACTIVATE key, Metrak?" he asked.

"Yes," the little being said. "It was blinking green and you have told me what to do. Did I do wrong?"

"No. You did just exactly right. The battle computer was programed to take off and head for Proxit as soon as you hit that key. Very good."

"Is there, then, another brain aboard?"

"In a way. It's nothing like as complicated and complex as Tress and normally Tress uses it as an input-output device. But it can—and does—control the ship under combat conditions. It's rather small and it's hidden under heavy armor. Only a Navy ship would normally have such a thing—and the *Trespassers W* used to be just that."

"But how would it know what to do?" Metrak asked, puzzled.

"It wouldn't unless Tress told it." He waved at the bright orange-and-blue display. "She saw that grenade coming in and had nearly three-quarters of a second to react.

Just before the explosion, she fed all the takeoff data to battle control and programed it to act as soon as the ACTIVATE key was pressed."

"Her dying act," Metrak said softly. "She set things up so that we might live."

"You might put it that way."

Mikko came up the spiral. "Records all okay. All off-line datasets okay except one, which seems to have a slight hairline crack in the crystal. We won't know whether we've lost any important bits until we feed it into another computer on Proxit."

"Yes," said Metrak, squeezing his small hands together, "we must get another computer, of course. But there will never be another like Tress. She was a good friend and I loved her."

Mikko and Morgan looked at him strangely—but neither said a word. ●

OF RELAYS AND ROSES

(Continued from page 169)

at least he had convinced them.

The Senator on the left said, "You give the service to—"

"People in private industry, government, or nonprofit institutions who in our judgment may eventually be in a position to give us business. Others are charged a minimal fee. I'm happy to say we've gotten that down quite a bit."

The Senator in the center smiled suddenly. It was the charming, slightly lopsided smile he had used on a thousand campaign posters.

"If I'm not being impertinent, Mr. Smithe," he asked, "could you tell us your own marital status?"

"I have been a widower for almost twenty years."

"You haven't used the Roses service yourself?"

In a voice that was barely audible he said, "To tell the truth, Senator, I've had to postpone my trip to England because of these hearings. You see, our president wanted to make certain I'd be here to testify. Marcia—that's her name; she's a librarian in Liverpool—Marcia and I have written and talked by long-distance telephone but we've not yet been able to meet."

"I hope you will be able to soon," the Senator in the center said. "You may step down, Mr. Smithe."

He began the long walk back to his seat, glad he hadn't been forced to tell them that it was Marcia who had requested Roses from the company's British subsidiary. That she had found him. It would have sounded too silly. ●

(Continued from page 107)

with your lip movements. He spotted it first thing."

"Well, I thought I could change my story a little," Dowles #1 said somewhat hesitantly, "make myself out to be a cousin of Dowles or something."

"Hopeless," Dowles #2 said. "We saw what you were doing and timed our entry when we thought you'd be leaving. It was you who gave it away."

Whyteborn was still standing transfixed, staring at the spot where his hand went through Dowles #2. "I don't think your treatment is very much better," he said calmly to the image in front of him. "Your right arm is shorter than the left. Not to mention this." He gestured with the hand that was submerged in the other's stomach.

#2 looked ruefully down at the hand. "That is unavoidable, I'm afraid. This is—"

"You could have moved away from him faster," said #1.

"As I was saying, this is merely a projection, not a real object. The light comes from atoms in the air, which we excite by absorption of tachyons. It gives us a way to transmit pictures directly into the past—your present, of course—by using your apparatus."

"This picture is from the future?"

"Yes, but not the sound. For that we must use the nuclear source you assembled here in your laboratory. We modulate the tachyon emissions from the nuclei to produce the effect of a human voice in the room."

"Never mind that," said Dowles #1. "Professor Whyteborn, you must stop your experiments. Their effect upon the gold reserves in the Soviet Union in 1987 will be disastrous, leading to—"

"Wait." A third voice broke in, lower than the first two. Another Dowles was forming and rippling slightly on the other side of the table. "Don't listen to them. The British government—"

"It's time you knew the truth," a fourth voice said. A stocky, slightly blue Dowles had appeared by the oscilloscope and was bearing down on Whyteborn. "These others are liars—"

"Stop a moment," Whyteborn said, irritated. "You are all liars, if you'll only stop and think. If you are from the future you must realize there are alternate futures and each of you is from a different one."

"Yes," said several of them. Two more Dowles appeared and were hushed by the others. Whyteborn ignored them and went on.

"When I began to realize there were too many of those telegraph messages for me to know which to believe, you stepped in with these television pictures or what-

ever it is that you call them."

"We had to," Dowles #1 squeaked. "If you keep on with your research you will destroy our past, the past in which tachyons were not discovered. My present will disappear—and I with it."

THE rest began to shout protests and Whyteborn waved his hands for them to stop. More Dowleses were flickering into being around the laboratory. The room was becoming crowded.

"Quiet!" Whyteborn shouted. This served to calm the laboratory slightly. "You must understand—"

"You don't see what tachyons will lead to, Whyteborn!" yelled a new apparition. This most recent edition of Dowles opened his mouth to continue and then saw the other images standing about the laboratory. He turned, looking at all of them, and suddenly looked very surprised. He vanished without ever closing his mouth.

"There went one of you who realized the implications of what's happening," Whyteborn said sarcastically.

A deformed Dowles with three feet and webbed hands appeared at Whyteborn's elbow. "Thruk! Asram pluddex!" it said.

"Have you all forgotten that messages sent into the past can cause paradoxes? Contradictions of cause and effect?" Whyteborn asked.

Dowles #2 shrugged. The others simply stared.

"Practically speaking—if you people had taken the time to think about it—a message contains information only if the receiver can believe it."

"Believe me! I tell the truth!" three Dowleses said together. They stopped and looked at each other.

"Listen, you dunce," one of the nearer Dowleses said, "I don't have the power reserves to send this picture back to you much longer and I don't have time to listen to another of your lectures. Do as I say and—"

"As you say?" Whyteborn said. "I've already had years of your shallow thinking. I put up with it because of Helen. Just—"

"Shallow! You—"

"Look at this, it's a mob," Whyteborn said, shouting louder. "How could I trust you? I don't know which of you will be my future—you're all equally possible. I don't know your motives—"

"Chauvinist!" cried one of the Dowleses. "Enemy of the workers—"

"There's no use trying to confuse me with these false Dowleses, either," Whyteborn said hotly. "I can't be tricked into stopping *or* continuing my experiments."

"He'll kill us all!" screamed Dowles #1.

"Murderer!" another cried. "Helen will—"

"Quat thrunk!"

The shimmering images moved toward Whyteborn angrily, gesturing. Even though he knew they were only projections, Whyteborn stepped back.

The nearest figure raised his fist as if to strike. Whyteborn instinctively threw up an arm to ward off the blow and ducked to the side.

He slipped.

His head struck the edge of the table. There was a solid snapping noise. His body went completely limp before it hit the floor.

The images leaped back, startled.

"But this didn't happen in my —" said one, and vanished.

"Whyteborn *can't* die—"

The remaining images looked at each other in surprise. More winked out of existence. Dowles #2 started to say something, then shrugged and disappeared. Within a moment they were all gone.

A short time later the original and now only Dowles returned to the laboratory with the two graduate students he had gone to find. He discovered Whyteborn's body. The university physician, who was called immediately, stated that Whyteborn had died instantly of a broken neck and severe damage to the spinal cord. No one could be quite sure just how it had happened.

The funeral was held two days later. Whyteborn's daughter, Helen, was considerably distraught. William Dowles was gentle and considerate; he handled most of the details and was of great comfort to her.

The paper presenting their discovery of tachyons was soon ready for publication. The death of Whyteborn had left a vacancy in the staff. Dowles soon moved up and acquired a more solid position in the physics department of Skag College. Some time later he became more involved with teaching and ceased to do active research. Some slight trace of caution restrained him, however, and the paper he had written with James Whyteborn was never published. •

THE SEVENTH MAN

(Continued from page 145)

Inch by precious inch the scooter was moving toward the ship. There was the sound of a faint click and he knew he had made contact—the instruments indicated a successful docking. He activated the lock control and waited an eternity of ten slow, sticky seconds for the air pressure to equalize. Then the bay doors opened and the scooter slowly slipped into the dark, inviting interior of the ship. The bay doors closed behind him.

Eric opened the canopy and dragged Philmore out into the air chamber, taking care to avoid the

clumps of jelly that the vehicle had carried into the ship with them. The substance was bubbling with a soft, popping sound as it began to eat away the soft, metal alloy of the chamber's interior

Eric placed Philmore in one corner of the chamber and dashed out of the airlock, down the long corridor leading to the main storage area.

A plan caught up with his instincts at the moment he stepped into the storage room. He tore into the stacks of boxed tools and supplies. Finally he found what he was looking for: a large box on which the word EXPLOSIVES had been carefully stenciled.

He removed the crate from its fastenings and pushed it ahead of him back down the corridor, racing as fast as he could in the zero-G environment, scuffling his feet along the rough gravity pads on the floor. His lungs were throbbing painfully and he felt a scalding sensation in his arms and legs.

Philmore had said the thing outside was a cell, Eric thought. The ship was an irritant and all of the organism's destructive power was focused on her. He had to somehow divert its energies away from the ship long enought to break free.

The jelly in the airlock had changed to the color of stagnant mud and was no longer active. Eric guessed that the material had died upon exposure to oxygen. Outside, seen through a tiny observation portal, the ooze had transformed itself to a deep, red color, laced with streaks of green and purple. Eric knew he did not have much time.

Quickly, he opened the canopy of the scooter and placed the explosives in its interior, set the ignition timer on the crate for ninety seconds, then activated the engines of the scooter, setting them at full thrust. Finally he pressed the launch lever and closed the canopy.

Eric managed to drag Philmore out through the lock. The door closed, just as the portals opened and the scooter surged forward and disappeared into the surrounding jelly.

Eric turned to find Philmore standing beside him.

"I'm sorry," Philmore said quietly, "I—"

"I know," Eric said quickly. "Follow me. We have to hurry."

Seventy-five seconds.

Philmore shuffled down the corridor behind Eric, straining to hear the explanation shouted over the other man's shoulder. Then they were in the central chamber and Eric was at the main control panel.

Eric glanced at his watch. They had forty seconds.

The computers set for the return voyage, both men raced to a cubicle and strapped themselves into the life-support couches. Eric inserted the hypodermic needle into

his flesh and waited for the numbing sensation to creep through his body.

Fifteen seconds.

Eric knew he had to time the injection just right; the blast mechanism on the ship was set for manual control. If he was not awake to press the manual launch button, they would disintegrate in the atmosphere. His vision was going out of focus now and he had to feel for the button with his fingers.

Then he felt the shock wave from the scooter as it exploded somewhere outside the ship. Eric pressed the launch button, and he could feel the engines inside the ship throb to life. The shock waves from the explosion crashed against the side of the ship, and the metal shuddered. Outside the portals the atmosphere changed suddenly to a brilliant, scintillating green that gradually shifted to a dull, yellowish brown.

Eric's last sensation was that of motion. The force of the scooter's explosion had momentarily freed them from the grip of the atmosphere. The thrust of the engines was carrying them home, to the Earth.

A series of images engulfed Claude Philmore as he too slipped into his drug-induced coma. Green trees, bathed in warm sunlight, waved flowing branches.

A mountain of clouds drifted by in the distance. ●

LIFE CYCLE

(Continued from page 160)

waxy, almost molten.

I've got to get back . . .

He sprang down to the body of the dog. But a frantic fumbling with his living "vehicle" proved futile. Apparently a dead creature could not be taken over. Or his heat-seared limbs were beyond proper function.

He was just desperately giving the creature its own control once more, hoping its instincts would save the two of them, when he heard a voice. The alien's mind received the sounds as gibberish but his own mind caught the fleeting memory of the sounds and was able to translate them as the voice of one of the crewmen, saying, "There it is—the hound is right over here, on the shore—"

Norcriss felt the alien tense its limbs and knew what the fate of that approaching crew member would be in another instant.

Grabbing control once more, he forced himself to scuttle on blistered limbs down the slope and into the waters of the swamp. He swam rapidly away. The animal seemed to have no gills, so he had to keep its head above the surface, where the reflected sunlight was striking the fragile skull of the beast. There was a shadowy area ahead, a dark cave between overhanging, twisted marsh grasses. He managed to get into it, then

could only cling weakly to the ragged stem at the deepest part of the gap, hoping he hadn't pushed his host beyond its physical endurance. He was weak, sick and probably dying. He could only cling and hope that Contact would end before the creature did. It seemed hours before that welcome flash of silent lightning released his mind from the dessicated body of the snake-thing, but eventually it came—

—and he was safely back upon the couch.

"WELL, sir?" asked Ryder curiously as Norcriss rose from the couch, wearily removing the helmet from his skull.

"The ecologists were right, but for the wrong reasons, Ensign. The two species they worried about are harmless. The third is a deadly version of a marine creature of Earth. A soft-bodied animal that relies for protection on the cast-off shells of mollusks or even crustaceans on the ocean bottom. But in one respect, it's mortally different: it uses living shells to inhabit it."

By the time he had finished telling Ryder about the snake-creature, the crewmen had gathered up the paraphernalia of the zoologist, stored it back aboard the ship and one of them took upon himself the task of burying the dead hound. When the ship blasted off from Rigel II, Norcriss wrote up his report to his superiors back on Earth with an odd feeling of elation. For the first time in his career as a Learner he found his sympathies lying with the would-be colonists, instead of the animals those colonists must destroy to establish themselves upon a new planet.

His recommendation of Rigel II was conditional to someone's developing a competent anti-swamp-snake mask for the colonists to wear. Eventually, a poison, a weapon, or a predator would be developed that would wipe every trace of the animal from the face of the planet. Loss of the snakes might result, in turn, in loss of the proper stimulus for the pie-things to tear loose, which would mean no slug-things for the avians to dine upon, which might mean the end of the avians, too.

But Norcriss could not bring himself to regret a single extinction. There was something unwholesome about swampland, something that made the natural fauna just as unwholesome to the zoologist. He found he was glad to be instrumental in even a minor destruction of the creatures in such a place.

He was still shivery after his period of death and darkness in that initial Contact.

An eye for an eye, he told himself, *is hardly a scientific attitude, Norcriss.*

But he signed the recommendation with a flourish. •

propriate that I step down, leaving the field clear for a new election. Accordingly, gentlemen, I hereby resign the office of President in favor of my vice president, Hoobrik."

Amid the clamor that broke out, Clawhammer made his way to confront Retief.

"You blundered at last, sir," he murmured in a voice aquiver with rage. "You should have clung to your spurious position long enough to have gotten a head start for the Galactic periphery! I'll see you thrown into a dungeon so deep that your food will have to be lowered to you in pressurized containers! I'll—"

"You'll be on hand to dedicate the statue to our first Ex-President, I ween?" President Hoobrik addressed the Terran envoy. "I think a hundred-foot monument will be appropriate to express the esteem in which we hold our Tsugg emeritus, Dir Tief, eh?"

"Why, ah—"

"We'll appreciate your accrediting him as permanent Political Advisor to Oberon," Hoobrik continued. "We'll need him handy to pose."

"To be sure," Clawhammer gulped.

"Now I think it's time we betook ourselves off to more private surroundings, Dir Tief," the President said. "We need to plot party strategy for the by-election."

"You're all invited to sample the hospitality of the *Plump Sausage*," Binkster Druzz spoke up. "Provided I have your promises there'll be no breeching of walls."

"Done!" Hoobrik cried heartily. "And by the way, Dir Druzz—What wouldst think of the idea of a coalition, eh?"

"Hmm—Twilprit sagacity linked with Tsugg bulk might indeed present a formidable ticket," Binkster concurred.

"Well, Retief," Magnan said as the party streamed toward the gate, "yours was surely the shortest administration in the annals of representational government. Tell me confidentially—how in the world did you induce that band of thugs to accept you as their nominee?"

"I'm afraid that will have to remain a secret for now," Retief said. "But just wait until I write my memoirs." ●

REMEMBER New subscriptions and changes of address require 5 weeks to process!

(Continued from page 2)

ample. It's marvelous prose. It's full of meaningful images, strung on a fascinating plot. It has its measure of poetry, and its underlying realities are quite patent, but never dull. Above all, it's definitely SF.

Somehow, I feel there must be two Jakobssons: the one who grabbed (eagerly, I hope) Sturgeon's "Sculpture" and the other one who passed (reluctantly, I hope) Plachta's "Festival".

As far as Bode's strip is concerned, well. . . it's not a matter of how much sex there's in it, or how much violence. It's a matter of "redeeming literary value," to paraphrase you know who. After scanning Bodès Bump (pun intended) my Redeem-o-meter registers a cold Zero. Yes, he can draw. The question is, what is he going to do with his talent?

No one belongs under a camel's foot, least of all our Editor. And, while I have never tried it, I imagine it must be quite a task attempting to balance a magazine's contents so that it satisfies and appeals to a majority of readers. I just don't happen to think that either Plachta or Bodè are essential to that task.

Cordially,
Victor Porguen
Stamford, Connecticut

Dear Mr. Jakobsson;

Like a knife in the chest; the pain unbearable. What has been done to our magazine? What has happened to our WORLDS OF IF?

No, not BIMONTHLY! Not after all the years of success and three grand Hugos. Why? How could the world's best science-fiction magazine be lowered to such a position? Is there no reconsideration, no control, no possibility of bringing our magazine back twelve times a year?

Is this the price we readers pay to see the likes of the new WORLDS OF TOMORROW? Is it worth losing six issues of the great IF a year? I wonder. . .

Sincerely,
Thomas R. Harper
Murfreesboro, Tennessee

Dear Mr. Jakobsson,

I just received my May-June IF in the mail and I noticed that you have gone bi-monthly. Why? The only answer that I can supply to this question is that the resurrection of WORLDS OF FANTASY and WORLDS OF TOMORROW has cost so much money that IF will have to go bi-monthly (I certainly hope GALAXY can stay monthly). If this is true then you should have at least told the readers of your magazine about it, or better yet, have asked us whether or not we would rather have two monthly magazines or 3(?) bi-monthly ones. I would have said two bi-monthly mags. Again, you should have told the readers about the change in format. Or do the readers matter so little to you? GALAXY and IF are now the best SF magazines published why not stay with a winner? I will not threaten to discontinue subscribing to and reading your magazines because I like reading Science Fiction too much for that. Also the loss of money would not help you go monthly.

Secondly, I ask you please tell us something about this change in format. How long will IF be bi-monthly? Will

GALAXY continue to be published monthly? Will a bi-monthly IF be larger? There are many question which I hope that you will answer in the next issue.

Sincerely,
Bill Andresen
Malibu, California

WOF and *WOT* had nothing to do with *IF*'s going bimonthly. We're increasing the size of all four publications and experimenting on methods of putting together the best possible magazines—this has to do with availability of top material, editorially. Both *If* and *Galaxy* are on the upswing in sales since the change of ownership a little more than a year ago and may soon again go monthly.

Dear Mr. Jakobosson:

The "new Silverberg" continues to amaze me. "The Reality Trip" is a long inward look into the characters and the times.

Good to see Avram Davidson back in the sf magazines with "Zon" (and "Timeserver" in May GALAXY). "Zon" has a strength and beauty unmatched in all the other stories in the May-June IF.

I enjoy Jack Gaughan's work in both your publications, but I feel it's high time you let other good exceptinal artists in.

Peace,
Bill Wolfenbarger
Neosho, Missouri

Dear Mr. Jakobsson:

"Zon" impressed me as being the first five chapters of a tight, well-structured novel. I must confess ignorance as to Mr. Davidson's previous accomplishments, but I do recognize the blend of skill and imagination required of a good science-fiction writer. It is unfortunate that "Zon" is destined to remain unfinished, the potential is there.

I am glad you chose to publish these few chapters, for they stand well alone on their own merit.

Grant Moyer
Burlington, Vermont

We were particularly pleased to have Avram Davidson in GALAXY and IF after a too-many-year absence. "Zon," as you have guessed is part of a larger work in progress. We hope to be able to bring you the rest of it.

Dear Sir:

As this is the first time I have written to you, I would like to say that IF is the best magazine going, and it should have won the Hugo award hands down. One complaint, though (just a small one), I would like to see more stories by the worlds best sf writer Arthur C. Clarke, as you have not had one of his stories for ages. "By the Falls," by Harry Harrison was one of the best stories I have read.

Yours faithfully,
Malcolm Wall
Lancaster, England

We, too, would like to see more stories from Arthur C. Clarke (you did catch his "Neutron Tide," in the May GALAXY, didn't you?) and we keep hounding him to write. Trouble is for the last five years he has been busy with *2001*, first writing it and more recently promoting the film around the world. Last time we saw Arthur, he was talking about getting back to his first love—sf. So, let's hope . . . .

Dear Mr. Jakobsson:

The best single thing you've done since becoming editor was establishing Jack Gaughan as an assistant director. Galaxy *and* If *have never looked better, and the illustrations are Gaughan at his best. Many would disagree, but I think that you should use his illustrations almost exclusively, as you have been doing. Besides providing the best of art, it gives the magazines a distinctive style. Will that be your policy from now on?*

Best of luck.

Robert E. Tiefenwerth
Baltimore, Md.

Dear Mr. Jakobsson:

I have to write to protest the lack of quality in some of the stories in your magazine. The worst issue the January, 1970, issue with two sickeningly soupy stories on the same subject: "If a Man Answers," by Richard Wilson and "This One," by James Sallis. No wonder your rating fell; I wonder how you got the prize twice in a row anyway. Only Frank Herbert's "great" (as you say) serial and "O Kind Master" (even with it's unlikely ending) partly saved the day.

Hopefully yours,
Edwin Todd
Richmond, Virginia

For the record, *If* received the Hugo three years in succession.

Dear Mr. Jakobsson:

IF #148 was not one of your better issues: "Reality Trip"—one of the good stories—was an interesting weirdy; "Piecemakers"—I like Laumer, but I'm sick of Retief; "Zon"—okay till the end, which was quite poor unless this is the first of a series; "Misspelled Magician"—very funny and very good so far; "Troubleshooter"—interesting idea, poor story; "Human Element"—pure cliche; "Night-blooming Saurian"—ditto cliche. The cover was one of the few bits of Gaughan artwork I liked. I prefer the styles of Barr and Fabian.

Sincerely,
Kenneth Scher
Far Rockaway, New York

Dear Mr. Jakobsson:

Mr. Hval's letter (May-June, 1970) caught my interest for two reasons: Canadian readers of SF have up until now been as scarce as moon rocks, and his request opens the possibility of experimentation.

In answer (?) to his questions I suggest the following ideas. First, large meetings can be unwieldy and can get hung up in organizational problems. Thus I suggest setting up small discussion groups which have a less formal atmosphere and lend to freer discussion. The goal of such groups would be to produce a "think-tank" mood where the ideas presented in SF could be discussed, on the basis of feasibility and desirability. While these ideas are being discussed the question could be posed as to whether or not anything can be done to encourage or prevent such events happening.

If the members of a group or groups decide they can do something on their own or with the entire organization the transition from "think-tank" to "DO-tank" could offer not only an excuse for such an organization, but a valid reason by getting people involved in making Science Fiction an actual Fact.

Sincerely,
Brian Carroll
Winnipeg, Manitoba

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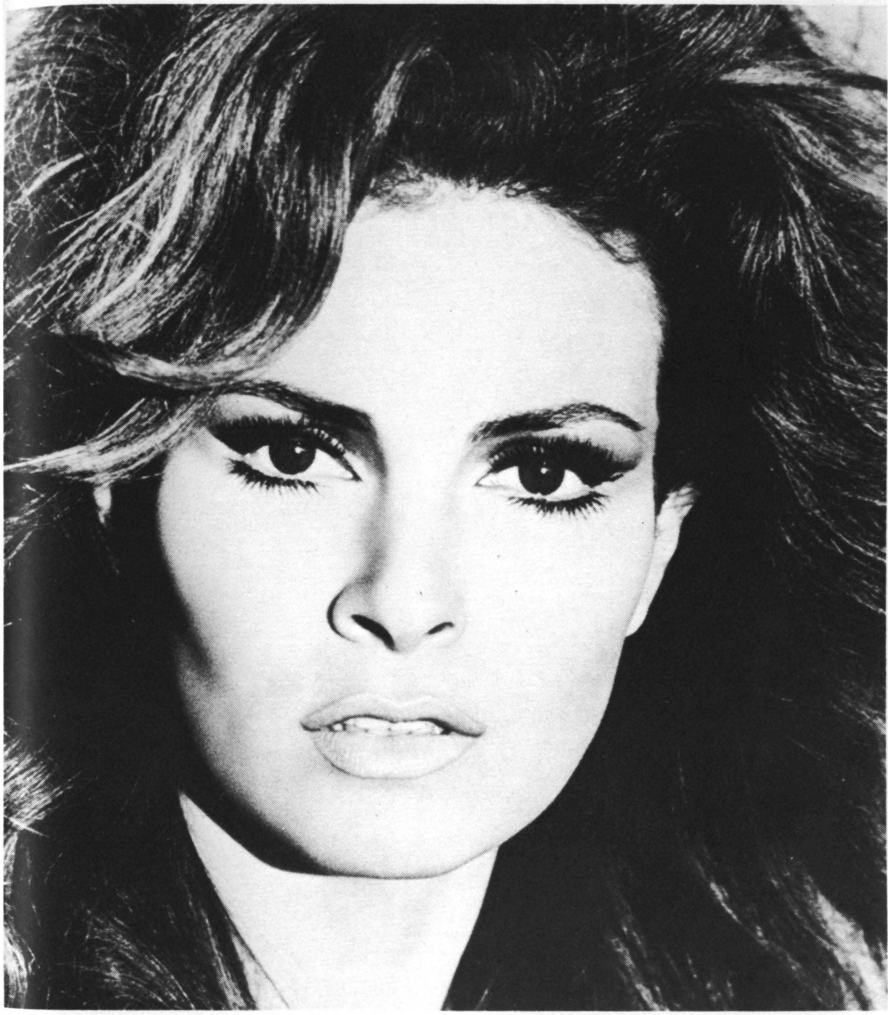

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Miss Raquel Welch

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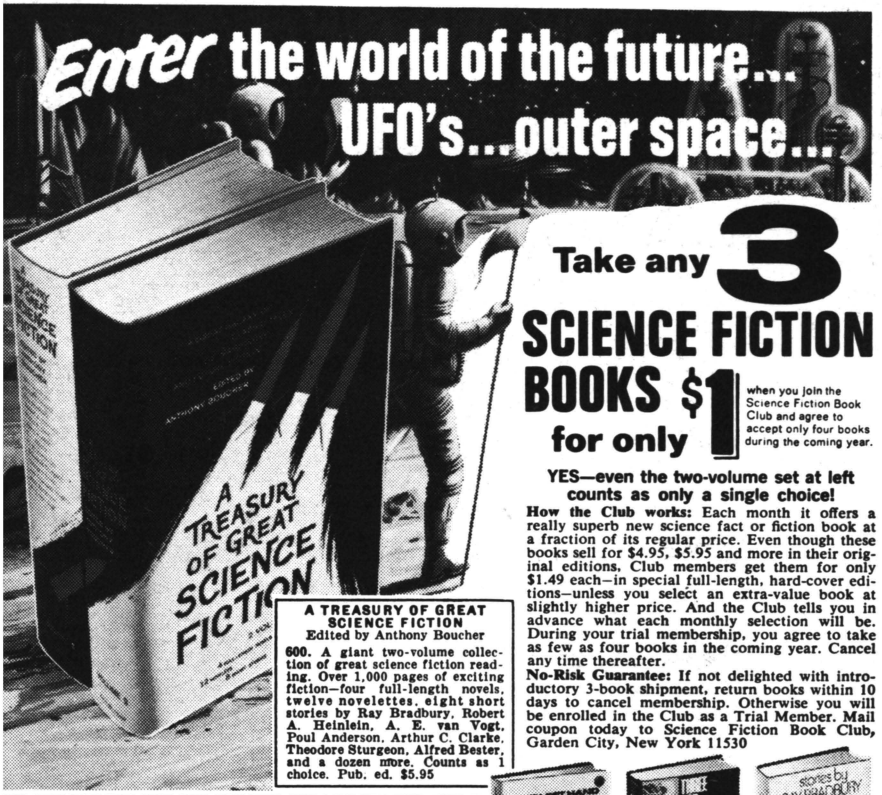

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