
WORLDS OF
IF
SCIENCE FICTION
combined with
WORLDS OF TOMORROW
JUNE 1968
60c
ROGUE STAR
by Jack Williamson
and Frederik Pohl
THE BIRD-BRAINED NAVIGATOR
by A. Bertram Chandler
CAGE OF BRASS
by Samuel R. Delany
and many more!

WORLDS OF IF SCIENCE FICTION

JUNE, 1968
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ALL NEW STORIES

Cover by BODÉ from CAGE OF BRASS

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TOMORROWS TO ORDER

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If you read our sister magazine, *Galaxy*, and in particular if you've read the June issue, you already know everything we're going to say in these two pages and so you can get right on with the stories, Hue & Cry, etc.

If not — well, first take a look at the full-page advertisements that ornament this section.

You will find that two of them are unusual in that they are prepared and paid for by the science-fiction writers themselves. They place the body of science-fiction writers squarely on record on the question of Vietnam. (Only trouble is that there are about as many in favor of picking up our marbles and leaving as there in favor of banging on, no matter what.)

The third is also unusual in that it is an appeal to *you* to do something about the problem suggested by the other two: That is, we are trying to get the highly intelligent, sophisticated, alert and well informed science-fiction community (at least, that's the way we always describe ourselves, isn't it?) to turn away from taking *positions* on the Vietnamese problem, and begin the much more demanding task of trying to *solve* it.

Is this a reasonable hope? Is there any chance at all that we science-fiction types, readers and writers alike, will be able to contribute anything very useful to a problem that has nearly destroyed one country and caused enormous physical or social damage to two others? — bearing in mind that every politician, columnist and Big Thinker on five continents has already had his own

What Would YOU Do About Vietnam?

Assume you are being asked for advice. Assume the people who ask you are the President of the United States, the Congress, the State Department, the Joint Chiefs of Staff — anyone and/or everyone who has any decision-making authority concerning American involvement in Vietnam. Assume they want one suggestion from you . . . and assume they will follow it.

What would you tell them to do?

Don't tell them. Tell us. We will take the most provocative and seemingly productive suggestions received, submit them to problem-solving analysis, and present the results in a forthcoming issue of *Galaxy*.

The Rules

1. Anyone is eligible to enter, and may submit as many entries as he likes. Each entry must be on a separate sheet of paper, one side only, and include your name and address. All entries will become the property of Galaxy Publishing Corporation. Please limit yourself to a maximum of 100 words for each entry, preferably in the form of (a) your suggestion, (b) followed, if you wish, by a statement of why you think it worth doing.

2. Suggestions may be on any area of American involvement in Vietnam — ways of winning the war, ways of bringing about a peaceful settlement, whatever you think would be of value.

3. Five prizes of $100 each will be awarded to those entries which, in the opinion of the judges, best deserve them. In the event of duplicate suggestions, the first entries received will get the prize. Judges will consist of, or be appointed by, the Editors of Galaxy Publishing Corporation. Winners will be notified by mail, and their names will be published in a forthcoming issue of this magazine.

4. Send your entries to: "What Would You Do About Vietnam?", Galaxy Publishing Corporation, 421 Hudson Street, New York, N.Y. 10014. Entries must be received by July 4th, 1968, to be eligible for prizes.

say on what everyone concerned ought to do next?

The way we look at it, if there is no such chance it's up to us to invent one. Certainly the world's leaders have accomplished very little.

And maybe — just maybe, to be sure — we of the free imaginations and untrammeled creative instincts may be able to find some new paths to walk that might ultimately lead us out of the manmade jungle that is threatening to wreck our society faster than technology can put it together again.

At any rate, we think it's worth a try.

So play the game with us, please. Put yourself in the position of the President of the United States, the Senate, the Combined Chiefs of Staff — of any power figure or group that you think can do anything constructive about either winning the war, or finding a way to stop it, or substituting some other mechanism for the pointless slaughter and despoilation that is apparently our present method of choice.

How you solve it all, of course, is up to you. If we had the solutions we clearly wouldn't need the contest. But it seems apparent that there are some parameters. A military solution would only be acceptable if it carried with it some fail-safe measure that would safeguard us against reprisal from China or the U.S.S.R. An injunction for the South Vietnamese to take over more of the fighting and carry out its programs of pacification, cleaning up corruption and so on is no good unless you can tell us how to make these measures feasible. And so on.

But don't, on the other hand, be deterred from making a good, specific suggestion merely because it would be hard to put into practice. Because that's Step Two in our program.

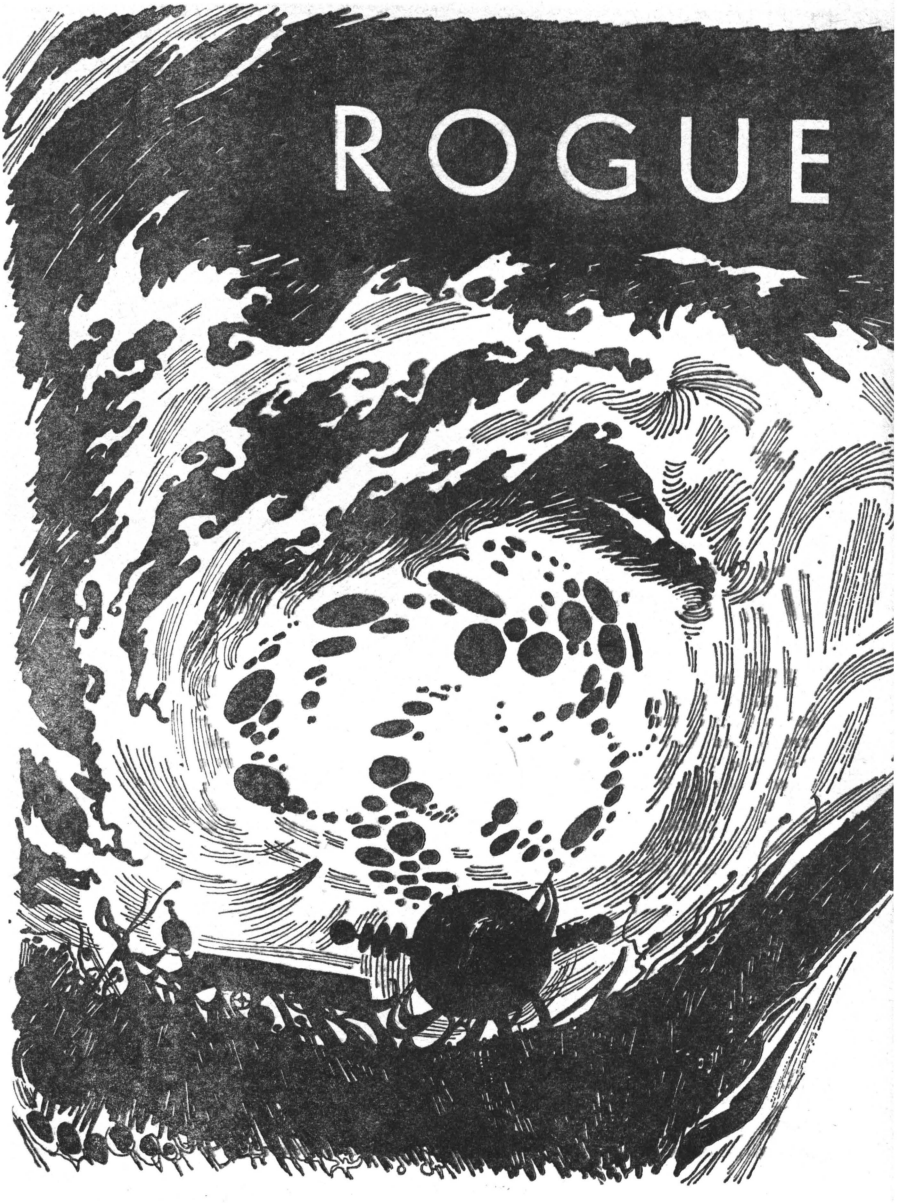
You see, once we get a sizeable number of interesting ideas we plan to submit them all to the judgments of as competent a panel of experts as we can obtain. The panel will be asked to evaluate them in terms of desirability, feasibility and effectiveness . . . and to suggest ways of improving them in all those terms.

If you've been reading *If* and *Galaxy* for very long it will be no surprise to you that we think society's only hope of solving the problems our technology has created for us lies in employing technology's own problem-solving techniques on them. And that's what we are planning to do. The results, whatever they may be, will be reported in these magazines as they happen.

Will it all work?

We don't know. We can offer hopes, but no guarantees. But does anyone have any *better* ideas?

— Frederik Pohl


ROGUE

STAR

by FREDERIK POHL and JACK WILLIAMSON

Illustrated by Vaughan

In a universe where stars and men were joined as brothers, something new — and dangerous! — was born

I

His name was Andreas Quamodian, short, stout, self-important. Waiting his turn to enter the luminous iris of the transflex cube, that would whisk him across the interstellar gulfs between star and star, he looked out of place. He didn't look like the sort of man who would be engaged in business important enough to justify the use of the

transflex cube. But he didn't look like the sort of man on whom the lives of countless billions of beings might depend; and, curiously, he was both those things.

The control dome flashed a signal to him as he entered the ramp. "Identification, sir?"

"Ridiculous," muttered Andy Quamodian. "Silly red tape!" But he let his flyer hover while he sorted out the documents of his interstellar citizenship. The dome extended a long, nimble finger of pale plasma to scan his passport.

The passport bore his ident number, an endless row of binary digits. Below it another line translated the numbers into the universal language:

Name: Andreas Quamodian.

Race: Human.

Birthplace: New Europe, Planet 5, Star 4894, Sector B-311-C, Galaxy 1.

Organization: Companions of the Star.

Status: Monitor.

Priority: —

But the last line was blank. "Hurry up, will you?" Quamodian barked. "Can't you see I'm in a hurry?"

The tendril of plasma turned the passport disk about, catching in it a reflection of his dark, round face. "Destination, sir?" the control dome inquired.

"Earth. That's — confound it, let me see — yes, that's Planet 3, Star 7718, Sector Z-989-Q, Galaxy 5. Route me through the Wisdom Creek station, Octant 5."

The plasma tendril winked out. Quamodian caught the passport disk as it dropped and stowed it away, then resumed his inching crawl toward the cube. A long silver tank, no doubt filled with a liquid citizen, was vanishing through the closing gate. Behind it a multiple creature followed a horde of small, bright, black things, hopping and tumbling inside a communal cloud of luminous blue mist. A gray-scaled dragon shuffled just ahead of Quamodian, burdened with a bright metal turret on its back that probably housed unseen symbiotes. Winking crystal ports in the turret peeked at Quamodian.

As Quamodian inched after the dragon a flashing signal halted him. "Sir," said the control dome, "we have no record of your priority for this trip."

"Oh, great stars," cried Quamodian, "can't you see I'm in a hurry?" But grumbling, he held up a scrap of yellow transfac film for the plasma sensor to scan. The plasma hesitated and recoiled.

"Sir, that document is not in the universal language."

"Of course not!" Quamodian snapped. "It's in English. Read it!"

"I have no equivalence data for 'English,' sir."

"Well, then I'll translate it. It's transmitted from Earth — that's the mother planet of my race, you know. The sender is a girl — I mean, a youthful female human creature — named Molly Zaldivar. Her message is addressed to me. It is of great importance, and — "

"Sir." Ahead the multiple creature had already disappeared into the transflex cube and the dragon was lumbering forward. "You are delay-

ing transshipment. I ask for your priority authorization now."

"I'm *giving* it to you! Listen to what she says: 'Dear Andy, please forgive me for leaving you so rudely. If you can, come to Earth at once. The local Companions have never heard of rogue stars; they won't pay any attention to my warnings. But — Andy, dear Andy, I'm frightened! Rogue men are in contact with rogue stars right now, and I have no hope but you!'"

"Sir, that is not an acceptable priority. Please leave the ramp!"

"Confound you," shouted Quamodian, "don't you understand? That's priority enough for anything! That's a threat to the whole human race!"

"Sir. The human race is identified in my files as an insignificant little breed of barbarians, just recently admitted to provisional citizenship. No human being is authorized to issue a priority for interstellar travel."

"But they may be in grave danger of — "

"Sir, please leave the ramp. You may apply through official channels for authorization for your trip."

"There's no time! The danger is urgent!" The dome did not reply, but ominously the plasma tendril thickened and began to spread. "Wait!" Quamodian cried desperately. "I'm a member of the order of Companions of the Star! Surely you know of them. Our mission is to protect humanity, and other races, too."

"My indices do not show any authorization issued to you for this journey by the Companions of the Star, sir. You are holding up traffic. Please move off the ramp."

Quamodian glanced bleakly at the citizen crowding behind him: Forty tons of sentient mineral, granite-hard, jagged and black, afloat on its own invisible transflection field and impatiently extending its own passport at the tip of a blue finger of plasma. "Don't shove, Citizen!" he barked. "There's been a misunderstanding. Listen, Control. Check your records. We humans are allied to the multiple citizen named Cygnus, which is a symbiotic association of fusorians, stars and men. Its chief star is Almalik . . . or don't you care about sentient stars any more than you do about men?"

His irony was wasted on the dome. "Get out of line," its signal flashed imperatively. Then, a split-second later. "You may wait on the side of the ramp. The multiple citizen Cygnus is listed on our indices. We will call the star Almalik, in Galaxy 5.

Disgruntled, Quamodian switched his flyer out of line, giving up his place to the granite citizen, who passed him with an air of disdain. He hovered impatiently at the edge of the ramp, watching the gate ahead expand again as it swallowed the gray-scaled dragon and its turret of symbiotic fellows.

For a moment Quamodian thought of making a mad dash for the iris aperture, but there was no sense in that. However fast his flyer moved, the dome would be faster; and then he would be even longer delayed in getting to Earth.

He snatched a light-pen and scribbled hastily on his message panel: "Molly, I'm having a little trouble.

But I'm coming as fast as I can." He added the routing information and watched the hungry tongue of plasma lick away the photons in the message, storing them as spin-variances in an electron cloud. He knew that his invisible package of tagged electrons was already enroute for the transflex fields around the cube, automatically seeking out the fastest route through the shifting sub-universes of transflection to home in on Molly's distribution point.

With any luck, he would follow at the same speed, arriving almost as fast as the message. But if his luck was low . . . if the monitor dome would not permit him to pass . . .

Quamodian shuddered and stared blankly out at the horde of beings slowly moving past him on the ramp.

He shook himself. "Divert me," he said harshly.

At once a more than humanly soprano voice began to sing from somewhere inside his flyer: *"Si, mi, chiamano Mimi . . ."*

"No. Not opera."

The voice fell silent. A holograph of a chessboard appeared on the communications panel, the pieces set up for a game; White's King's Pawns slid forward two spaces and waited for his reply.

"I don't want to play chess, either. Wait a minute. Set up a probability matrix for me. Estimate the chances of the star Almalik granting me a priority."

"With running analysis, or just the predicted expectancy, Mr. Quamodian?" asked the voice of the flyer.

With analysis. Keep me amused."

"Well, sir! By gosh, there's a lot of stuff you got to consider, like — "

"Without the comedy dialect."

"Certainly, Mr. Quamodian. These are the major factors. Importance of human race in universal civilization: low. Approximately point-five trillion humans, scattered on more than a hundred stellar systems in three galaxies; but these represent only about one one-hundreth of one per cent of the total population of universal civilization, even counting multiple and group intellects as singles. Concern of star Almalik with individual human Andreas Quamodian, negligible."

What about the concern of Almalik for the Companions of the Star?" cried Quamodian angrily.

"Coming to that, Mr. Quamodian. Concern rated as well under noise level on a shared-time basis, but inserting the real-time factor makes it low but appreciable. So the critical quantity in the equation is the relevance of the term 'rogue star.' I have no way of estimating the star Almalik's reaction to that, Mr. Quamodian."

"The rogue stars are the most important phenomena in the universe," said Quamodian, staring out at the ramp.

"In that case — hum — allowing for pressure of other affairs; you haven't kept up with the news, but there have been some unpleasant events on Earth — let's see, I give it point seven probability, Mr. Quamodian. One hundred fourteen variables have been considered. They are respectively — "

"Don't bother."

"It's no bother, Mr. Quamodian," said the machine, a little sulkily. They were all moody, these companionship-oriented ship's control mechanisms; it was the price you had to pay for free conversation. Quamodian said soothingly:

"You've done well. It's just that I'm upset over the danger represented by the rogue star."

"I can understand that, Mr. Quamodian," said the machine warmly, responding at once. "A threat to one's entire race — "

"I don't give a hoot about the human race!"

"Why Mr. Quamodian! Then what — "

"It's Molly Zaldivar I care about. Make a note of this, you hear? Never forget it: The welfare of Molly Zaldivar is the most important thing in the universe to me, because I love her with all my heart. In spite of—"

Quamodian thought bleakly of Molly Zaldivar, and Cliff Hawk, and the day years before when she had told him that it was Hawk she loved.

"In spite of everything," he finished. "Now shut up. The monitor's signalling — I guess my priority was approved!"

II

Molly Zaldivar, nine years before. Molly was tall and lively, a girl who sang and accompanied herself on an Earth guitar, a girl who was loved by many a being in the university where she and Andy Quamodian met. It was easy for Quamodian to know why he loved her: the laughter in her voice, even when she sang the saddest ballads of the old mother world; the skin tones that changed from warmest ivory to tawny gold under the queer shifting light of the triple star in the university's skies. But — half the students did not "hear," at least on the audio frequency range used by human beings; many of them did not see with "visible" light. Yet all were fond of Molly Zaldivar.

There were only three hundred humans in the school. Andy Quamodian, already serious, a little pudgy, dark and slow. Molly Zaldivar, like a golden flame, her bright hair catching ruddy glints from the red giant star above them, her dark eyes flashing the violet light of the dwarf. And — Cliff Hawk.

Even after nine years, Andreas Quamodian still scowled at the thought of Cliff Hawk. He was a rogue in the society of men, a rogue in the university, brooding, angry. Tall, gaunt, restless, he had shaggy black hair and burning blue eyes. Where Molly and Quamodian had come from old Earth itself, sent to the university on linguistic fellowships to learn the myriad communications-forms of the galaxies, Cliff Hawk was a technician. His ancestors had roamed the Reefs of Space, fugitives from the old interplanetary empire called the Plan of Man. Their prideful blood still burned in his veins. He loved Molly Zaldivar — carelessly and roughly, with a certainty that she would sacrifice her own career for any of his whims. Whereas Andy Quamodian only worshipped her.

When it came time for Molly Zaldivar to choose, she really had not had a choice. Andy Quamodian could see that now — what choice between plodding little Andy Quam and the dark, dangerous man from the borderlands of space?

But he had not seen it at the time; and the moment when Molly Zaldivar sent him away still burned, nine years later . . .

"You are not paying attention, Mr. Quamodian," the flyer reprimanded him. "The control dome is signalling."

"What? — Oh, sorry." Quamodian gave orders, and the flyer swam back into the stream of traffic. A stalked horror of a citizen with members like bamboo shoots and a frond of brain tissue like a skirt around its waist had paused, was waiting for him to precede it into the transflex tube.

"Your attention, sir!" flashed the control dome. "The multiple citizen Cygnus is fully qualified to issue priorities for intergalactic travel. Almalik, spokesman star for the citizen, has granted you priority for immeditae transit to Earth. You may enter the transflex cube."

"Thanks," grumbled Quamodian, and guided his flyer into the luminous cavern of the cube.

A veteran of a good many intergalactic transits, Quamodian had never learned to enjoy them. The effects of transflection varied with the individual. Some felt nothing; a few reported pleasure or exhilaration. Most, to whom transit was unpleasant or terrifying, resorted to sleep drugs or hypnosis to make the experience pass quickly. Quamodian merely endured it.

He watched the dark diaphragm contract behind him and at once felt the flyer seem to pitch and veer. Rotated out of space and time, routed by computation through the congruent folds of a dozen or a hundred parallel universes, he felt as he always did: lost, and stunned, and queasy.

The blue walls flickered and dissolved into a darkening, grayish haze. A queer roaring came hollowly from nowhere, swelling in his ears. Numbing cold drove through him, as if every tissue of his body had somehow been plunged into the dark zero of the space between galaxies . . .

But then the careening flyer steadied. "Prepare to emerge, Mr. Quamodian," it sang in his ear, and the roaring storm of sound and sensation died away.

The shining walls were real again. But now they were greenish-gray instead of blue, and painted in bold black characters with the identifying characters of the Wisdom Creek Station on Earth. Ahead of him the exit gate expanded.

There was no traffic here, no waiting line of citizens enduring the delays that beset their important business, no bustle of intergalactic civilizations. It was quiet and pastoral.

Andy Quamodian leaned forward as the flyer glided out of the cube and looked for the first time in his adult life on the warm, broad acres that were lit by the single sun of Earth.

Twenty minutes later the charm and the nostalgia were gone, and Quamodian was snapping furiously at his flyer. "What do you mean, you can't reach Miss Zaldivar? I just sent her a message . . . "

"Your message has not been delivered, Mr. Quamodian. Her communications circuits have been blocked; she wishes to accept no calls."

"Nonsense! And the local office of the Companions of the Star . . . "

"Also blocked, Mr. Quamodian. A local custom. I have been assured that in fourteen hours, local time, they will be at your service, but until then — "

"Don't be a fool!" Quamodian shouted. "I can't wait that long! Here, I'll go to the office myself!"

"Certainly, Mr. Quamodian." The flyer began to settle toward a dusty plaza in front of the transflex tower. "Of course," it added apologetically, "you will have to go on foot. By local custom, flyers are not permitted to operate more than one hundred meters from the transflex center at this time."

"Great Almalik! Oh, very well." Fussily Quamodian collected himself and stamped out of the opening door. "Which way?"

A voice by his ear answered, as the flyer activated its external speakers: "Down this street, Mr. Quamodian. The gold building with the ensign of the Companions."

He turned and stared. Behind him, the flyer quietly rose, drifted back to the tall, tapered, black transflex tower and settled to wait at its base. Quamodian was alone on the planet of his birth.

He was ,he realized, more alone than he had expected. He knew that parts of Earth were still scarcely populated — nothing like the teeming metrapolises of the hub-worlds of the universe, nothing like even the relatively minor planets of his university training and recent practical experience.

But he had not expected Earth, even this part of Earth, to be *empty*.

Yet there was not a soul in sight. He peered back toward the transflex tower: his waiting flyer, motionless and peaceful; nothing else. He looked down a long artificial-stone boulevard: a school building a hospital, a few supply centers . . . and no one in sight. He saw a park with benches and a playground, but no one was near any of them; saw parked vehicles, seemingly abandoned, a library without readers, a fountain with no one to watch its play.

"Ridiculous," he grumbled, and walked toward the building that glinted in the sun.

Earth's single star was hot, and the full gravity of his home planet was more than Andreas Quamodian had been used to for a good many years. It was a tiring walk. But there was something pleasant about it, about the dusty smell of the hot pavement and the luminous young, green leaves of the trees that overhung the walk. Peace lay over the village, like a benediction of Almalik.

But Quamodian had not come to Earth in search of peace. He increased his stride, and chugged up the walkway, beside the flagpole that bore the standard of the Compan-

ions of the Star: the thirteen colored stars of Almalik in the dotted ellipses of their intricate orbits, against a black field of space.

The door did not open for him. Quamodian nearly ran into it; he only stopped just in time.

"What the devil's the matter here?" he demanded, more surprised than angry — at least at first. "I am Andreas Quamodian, a monitor of the Companions of the Star. Admit me at once!"

But the bright crystal panel did not move. "Good morning, Citizen Quamodian," said a recorded robot-voice. "The Wisdom Creek post of the Companions of the Star is closed today, in observance of local religious custom. It will be open as usual on Monday."

"I'll report this!" Quamodian cried. "Mark my words! I'll call the Regional Office of the Companions of the Star — "

"A public communications instrument is just to your left, Citizen Quamodian," the robot-voice said politely. "It is cleared for emergency use even on Starday."

"Emergency, eh? You bet it's an emergency!" But Quamodian had had enough of arguing with recorded voices. He stalked along the flank of the gold-colored ceramic building to the communications booth, angrily dialed the code for the Regional Office . . . and found himself talking to another recorded voice.

"Companions of the Star, Third Octant Office," it said briskly.

"Oh, confound — Never mind. Listen. I am Monitor Quamodian. I am in Wisdom Creek to investigate a reported emergency, and I find the local office closed. This lax operation is highly irregular! I demand the office be opened and — "

"Monitor Quamodian," reproved the robot voice, "this is impossible. Under our revised covenant with the Visitants, no local posts operate on Stardays so that local personnel may be free to engage in voluntary religious activities. Even Regional Offices are machine-operated during this —"

"But this is an emergency! Can't you understand?"

"Monitor Quamodian, my sensors detect no emergency situation in Wisdom Creek."

"That's what I'm here for! I — well, I don't know the exact nature of the emergency, but I require immediate assistance — "

"Our Wisdom Creek post will open promptly at midnight, local time," the voice informed him blandly. "Competent assistance will be available then."

"Midnight will be too — "

But the line clicked, buzzed and settled to a steady hum.

Muttering with anger, Quamodian tried Molly Zaldivar's code. But his flyer had been right; there was no answer.

Puffing with irritation as much as fatigue, Quamodian lowered himself to the steps of the office of the Companions and scowled at the empty street. How many hundreds of thousands of light-years had he spanned to be here, on this day, in this back wash of life? What tremendous forces had he enlisted to hurl him across the gulfs of space, to race against the

dreadful fears that Molly Zaldivar's message had conjured up

He licked dry lips and wiped perspiration from his brow. He was a hero, ready to rescue maiden, townspeople, world itself. But none of them appeared to want to be rescued.

III

Twenty-five miles southwest of Wisdom Creek, Molly Zaldivar did want to be rescued. At that moment she wanted it very badly.

Her old blue electric car had whined up the rocky mountain road, three thousand feet above the plain; below her she saw the flat, dry valley with the little town of Wisdom Creek huddled around the twin spires of the Transflex tower and the church. But now the road went no farther. It dipped, circled a spur of the mountainside, and went tumbling into the other valley beyond. From here on she would have to walk . . .

But that she could not do.

Above her she heard the restless, singing rustle of the creature Cliff Hawk called a sleeth. She could not see it. But she could imagine it there, tall as a horse but far more massive, black as space and sleek as her own hair. And she knew that at that moment she was closer to death than she had ever been before.

She tiptoed silently back to the car, eyes on the rocks over her head. The singing sound of the creature faded away and returned, faded away and came back again. Perhaps it had not detected her. But it might at any moment, and then —

Molly entered the car and closed the door gently, not latching it. Breathing heavily — partly from nerves, partly from the thin, high air around her — she picked up her communicator and whispered, "Cliff? Will you answer me, Cliff, please?"

There was no sound except for the faint sound of the sleeth, and the even fainter whisper of wind around the mountaintop.

Molly bit her lip and glanced over her shoulder. She dared not start the car's motor. It was not very loud, but the sleeth was far too close; it was a wonder it hadn't heard her coming up the trail. But the road sloped sharply away behind her. If she released the brakes the old car would roll on its out-of-date wheels; it would rattle and creak, but not at low speeds, much. Not at first. And Cliff had told her that the sleeth would not wander more than a few hundred yards from the cavemouth. She was very close now, but the car would roll out of range in not much more than a minute. . . .

But then what? Cliff did not answer. She *had* to see him — had to stop whatever he was doing, teamed with the rude, hard man who owned the sleeth. She would never be any closer than this, and what hope was there that the sleeth would be elsewhere if she tried again another time anyway?

"Oh, please, Cliff," she whispered to the communicator, "it's Molly and I've *got* to talk to you. . . . "

There was a rattle of pebbles and dust, and Molly craned her neck to look upward in sudden terror.

There was the sleeth, eyes huge as

a man's head, green as the light from a radium-dial watch. It was perched over her, the bright, broad eyes staring blindly across the valley. It was graceful as a cat, but queerly awkward as it floated in its transflection field, clutching at the rubble with claws that were meant for killing.

It did not seem to have seen her. Yet.

Molly froze, her ears tuned to the singing rustle of the sleeth. Its huge muscles worked supply under the fine-scaled skin, and the eyes slowly turned from horizon to horizon. Then it drifted idly back behind the rock, and Molly dared to breathe again. "Oh, Cliff," she whispered, but only to herself. She could not bring herself to speak even in an undertone to the communicator.

But even terror fades; the monkey-mind of a human being will not stay attuned even to the imminent threat of death. Molly became aware of her cramped position on the scarred plastic seat of the car, cautiously straightened her legs and sat up.

If only Cliff Hawk would hear her message and come.

If only the sleeth would drift over to the other side of the mountain, give her a chance to make a mad dash for the cavemouth and the men inside.

If only — she was stretching for impossibles now, she knew — if only poor Andy Quam would respond to her plea for help and come charging out of the transflex tower with weapons and wisdom and the strength to do whatever had to be done to stop Cliff from going through with this dreadful work. . . .

But they were all equally impossible. Cliff couldn't hear her, the sleeth wouldn't go away. And as for Andy Quam —

Even in her fear she couldn't help smiling. Poor old Andy, sober and serious, loving and stuffy, full of small rages and great kindnesses . . . of all the rescuing heroes a girl might imagine, surely he was the most unlikely.

The singing sound of the sleeth grew louder again, and fearfully she looked upward. But it did not appear.

Even the Reefer would be welcome now, she thought — that gaunt yellow-bearded giant who was Cliff Hawk's ally in his folly. She was afraid of the Reefer. He seemed like a throwback to a monstrous age of rage and rapine, a Vandal plundering a peaceful town, a Mau-Mau massacring sleeping children. He had always been polite enough to her, of course, but there was something about him that threatened devastation. Not that any additional threats were necessary. What Cliff was doing was bad enough in itself! Creating sentient life at the atomic level — trying to breed living, thinking tissue of the same stuff that was at the core of the sapient stars themselves. And worst of all, trying to duplicate in the laboratory the kind of life that made some stars rogues, pitted them against their fellows in a giant struggle of hurled energies and destroying bolts of matter.

She grinned suddenly, thinking again of Andy Quam: imagine pitting him against the Reefer! Why, he. . . .

Molly Zaldivar sat bolt upright.

She had just realized that the sing-

ing sound of the sleeth was gone. The only noise on the mountain was the distant, moaning wind.

She waited for a long moment, gathering her courage, then slipped quietly from the seat. She stood beside it, ready to leap back inside and flee, however useless that would be . . . but the sleeth was still out of range.

Carefully, quietly she took a step up the rock path, and another. A pebble spun and grated under her feet. She paused, heart pounding — but there was no response.

Another step . . . and another. . . .

She was at the top of the path now. To her right the cavemouth waited, rimmed with crystal, a rubble of junked laboratory equipment in front of it. No one was in sight. Not even — *especially* not — the sleeth.

Molly broke into a trot and hurried toward the cavemouth.

At that moment the sleeth appeared, rocketing over the crest of the mountain, coming down directly toward her like a thrown spear. She could see its great blind eyes staring directly into hers; it was moving at sonic velocities, hundreds of miles an hour; it would be on her in a second. *"Cliff!"* she shrieked, and flung herself toward the cavemouth.

She never reached it.

From inside the cave a great puff of black smoke came hurtling out in a perfect vortex ring. The concussion caught her and lifted her off her feet, threw her bruisingly to the ground. The sound followed a moment later and was deafening, but by then Molly was past caring; explosion, painful skin lacerations, raging sleeth, all blended together in a slow fading sensation, and she was unconscious.

What was real and what was dream? Molly opened her eyes dizzily and saw the gaunt bleeding face of Cliff Hawk staring down at her, aghast. She closed them again, and someone — someone, something, some voice — was calling to her, and she saw Someone trapped and raging, commanding her to come . . .

"Wake up! Confound you, Molly!"

"I'm awake, dearest," she said, and opened her eyes. It was Cliff. "We've got to get him out of there," she said earnestly. "He's lost and trapped — "

"Who? What are you talking about?"

She caught her head in her hands, suddenly aware of how much it hurt. "Why — " She looked up at Cliff Hawk, puzzled. "I forget."

He grimaced. "You're confused," he announced. "And a pest, besides. What are you doing here?"

"I wanted to stop you," she said dizzily. She was trying to remember what the very important thing was that Someone had said to her in her dream. If it had been a dream.

"Thought so. And look what you've done! As if I didn't have enough trouble."

Molly abandoned the fugitive memory. "There was an explosion," she said. "I got hurt."

Cliff Hawk looked suddenly less angry, more worried. Clearly Molly was telling him nothing he didn't already know. The rivulet of blood

that ran down from a scrape on his forehead divided around his nose, blurred itself in the blue stubble of beard on his cheeks and chin. It made him look like a dangerous clown. But a clown with some great fear riding his back.

"We — we had an accident. Molly, go back to Wisdom Creek."

She shook her head and then, without preamble, began to cry.

Hawk swore violently, but his touch was gentle as he reached swiftly down, caught her shoulders, helped her to her feet and into the cave. Molly let herself weep without shame, but it did not keep her from seeing that the cave was in fact a workshop, lined with glittering metal, rich with instruments and machines. A corona of pale violet hung over a humming golden globe, now soiled and dented from whatever it was that had exploded nearby. She heard the distant howl of a power tube, screaming to itself like the bass-C of a steam calliope as it sucked energy from the air. She let him find her a seat on a wobbly laboratory stool, accepted a tissue and dabbed at her nose.

"You've got to go back," Cliff Hawk told her with rough tenderness. "I'm busy."

"You're in trouble!" she corrected. "It's dangerous, Cliff. Leave the rogue stars alone! I'll go back to Wisdom Creek if you come with me."

"I can't. We've had this out before."

"But you're risking your life — the whole world — "

"Molly." Awkwardly he touched her shoulder. "I can't stop. Even if it costs me my life. Even if it destroys the world. Did you mean it when you said you loved me? Then go back and leave me alone."

IV

Andy Quam puffed around the corner and shouted: "Say, there! Wait a minute, will you?"

The three boys he had spied were ambling down the dusty road, yards away. They paused and looked around at him, politely curious. "Morning, preacher," nodded one of them. "Help you?"

"Yes. I hope so, anyway. I mean — well, where *is* everybody?"

"Starday, preacher. All off worshipping mostly. 'Cept us."

"I'm not a preacher, young man."

The boy looked him over. "Then why do you wear that funny suit?"

Quamodian blushed. "It's the uniform of the Companions of the Star. I'm Monitor Quadmodian. "I'm trying to find — "

"Gee, preacher!" The boy was showing the first real signs of interest now. "Companion of the Star? Then you go all over the galaxies, honest? And see all the funny Citizens with the green skins and the two heads and — "

"It is very impolite to make fun of a Citizen's appearance," said Andy Quam severely. "We are all equally star-shared."

"Oh, sure. Gee! Ever seen a sun go nova, preacher? Or fought ammonia creatures on a gas giant, or — "

Andy Quam said honestly, "Young man, my task has been mostly super-

visory and statistical. I have had no adventures of any kind. Except this one."

"You're having an adventure *now?*"

"Well, I'm not sure. But there's something very serious going on. I'm looking for Molly Zaldivar."

The second boy, a chubby redhead, spoke up. "Gone to the hills, preacher. Looking for her friends, I bet."

"Shut up, Rufe! They're not her friends!"

"Who are you telling to shut up, Rob? Just because you're soft on Molly Zaldivar — "

"I'm warning you, Rufe!"

"What's the secret? Everybody knows you're stuck on her. And everybody knows she likes that fellow that lives in the cave — Get your hands off me!"

Andy Quam grabbed them hastily. "Boys! If you're going to fight, please wait till I'm finished with you. Did you say you know where Molly is?"

The redhead broke free and brushed himself off, glowering at the other boy. "About thirty miles from here. Bet she is, anyway. Gone to the cave where the fellow lives with the Reefer and that animal. Kill themselves one day, my father says."

"How do I get there?" Andy Quam demanded.

"Why — No way, preacher. Not on Starday. Unless you want to walk."

"But it's very important — " Quamodian stopped himself. The boy was probably right. Still, it was already late afternoon, local time on this part of the planet, and at midnight he would be able to get things straightened out. He said, "What's a Reefer?"

"Man from the Reefs of Space, of course. Got one of those Reef animals with him. They call it a sleeth."

"Big one," the third boy said suddenly. "My brother claims it can kill you soon's look at you."

"Killed three hunting dogs already," confirmed Rufe. "I wouldn't go near it for anything," he added virtuously. "My father told me not to."

Andy Quam looked at him thoughtfully. He said, "I'll bet you can tell me how to get there, though."

"Might, preacher."

"You could even show me, if you wanted to."

"Get in trouble with my dad if I did."

"Uh-huh. Say, boys. Back in my flyer I've got some rare candies from a planet in Galaxy 5. Care to try them? — Then maybe you can tell me a little more about this cave.

The boys clamored for a ride in the flyer. The hundred-meter limitation was still in effect, but Andy Quam shepherded them all inside, closed the doors and ordered the flyer to rise to its legal limit and hover. It was the best he could do for them. And good enough, to judge from their shouts and yells as they thrust each other out of the way to see from the ports.

For that matter, Andy was interested too. Apart from his burning anxiety to find Molly Zaldivar as fast as possible, this was old Earth, home of Man.

He felt a vague disappointment as he looked from the hovering flyer. He had expected fast, fantastic ancient cities, or at least the fabulous monuments and ruins of the long human past. But there was nothing like that. The land that sloped away from Wisdom Creek was reddish-brown and empty. The village itself was a disappointment. Only the Starchurch looked striking from the air, star-shaped, five pointed wings projecting from its central dome. The roofs and columns of the wings were all a dazzling white, the dome itself black as space and transparent, with brilliant images of the thirteen component suns of Almalik swimming within it.

"That's my house there, preacher," cried Rufus. "And see that road? Goes out to the mountains. That's where Miss Zaldivar is."

Andy Quamodian leaned forward, over their heads, and peered into the distance. The village cradled in in the bend of a stream. To the south a dam across the stream made a long, narrow lake, crossed by a trestle that carried a road toward the high, hazed hills at the horizon. "That's thirty miles, you said?"

"Nearer twenty-five, preacher."

"Which hill is it?"

"Can't tell from here. Have to show you. Can't show you today, not till the Peace of Starday's over."

Quamodian looked at him sharply. The boy's tone was — what? Cynical? Merely disinterested? "How come you're not in church?" he asked.

The boy's face was impassive. "We don't cotton to the Star," he said. "My dad says the old religion's good enough for us."

"But Almalik's not opposed to any other religion, boys. It's not mystical. It's — oh, you must have been taught all this! It's a symbiotic association of stars and men and robots and fusorians, that's all."

"Course, preacher," the boy said politely. "You mentioned candy?"

Andy Quam wanted to say more, but restrained himself. As a Monitor of the Companions of the Star he had been well drilled in the basic principles of the symbiosis, but as a matter of fact, he realized, he had never heard them questioned before. In Galaxy 5, in the far worlds where most citizens were non-human and had no interest at all in his views, in school where everyone nominally, at least, shared the same services on Starday, there had been either no dissent or no interest at all. Perhaps he'd got a bit rusty.

But he hadn't thought, not for one second had anything in his experience prepared him to think, that here on the birthplace of the human race there would still be opposition to the Star! No wonder Molly Zaldivar had had to send for him for help. If these boys were representative, Earth had no interest in the wide universe outside.

While the boys were munching the candies the flyer had produced for them from its stores, transparent green jellies that pulsed warmly as they were chewed and filled the mouth with a fragrance of unearthly flowers, Andy Quam said diffidently: "But not everyboy's like you, are they? I mean, Molly Zaldivar's in the Church of the Star. And

so must others be, to justify that church over there."

"Oh, there's plenty branded cattle of the Star," Rufe said chattily, poking a bit of jelly from between his teeth with a finger. "That's what my dad calls them. But Miss Zaldivar doesn't go much. Sometimes she teaches Starday school, but not lately, far as I know."

Anyway, that Church is pretty old," said the tallest boy. "I expect it had a lot more people years ago. And besides — Sweet Almalik!" he cried. "Look there!"

The first thing Andy Quam thought was that the boy had evidently had more to do with the Church of the Star than his father really approved of, using the name of Almalik to ease his emotions. The second thing was that that didn't matter. The boy's face was suddenly stark and afraid. Quamodian whirled, to face where the boy was pointing.

And then he saw it, something that violated the sweet peace of that Starday afternoon. He saw a great rope of fire, which seemed to extend from the blinding red disk of the setting sun. He saw it coiling like a monstrous snake of fire in that serene blue sky, thrusting savagely down through the white tufts of cumulus that drifted toward the mountains.

"Preacher!" said Rufe, scared. "What it is?"

But Quamodian did not know. It looked almost like the plasma effector of some transcience intellect, except that it was too enormous, its white blaze too painfully bright.

Like a snake of fire attacking from the sky it coiled and struck, recoiled and struck again, recoiled and struck three times into those low, far hills. Then it withdrew, sucked back into the setting sun.

A thin column of dark smoke rose from the shallow gap where it had struck. Presently an immense dull booming, like far thunder, rumbled out of the sky. The vast deep sound rolled away, leaving the valley bathed again in the sunlight of the serene Starday afternoon.

"Preacher, what was it?" demanded one of the boys, but Andy Quamodian could only shake his head. Then his eyes widened, his jaw dropped.

"Those hills!" he cried. "Isn't that what you said — "

"Yes, preacher," whispered the boy. "That's where the cave is. where Molly Zaldivar is right now."

V

That distant voice was still whispering to Molly, though she couldn't quite hear it, couldn't quite make out what it said or who it was that spoke. But it was a terribly *pained* voice, the sound of a mind in rage and agony.

Cliff Hawk kept talking to her, demanding that she leave, harsh, even threatening, warning her that there was danger here. "Of course there's danger," she cried suddenly. "Why do you think I came? I want you to stop!"

He sighed and looked at her. His face was terribly lined, she saw. Young, strong, quick, he had come in the last few weeks to look old.

"You want me to stop, and you don't even know what I'm doing," he said.

"You can remedy that."

He looked away. After a moment he turned to the violet-lighted globe and studied it, still not speaking. Then he said:

"We're searching for intelligence. For minds anywhere not in transcience contact with intergalactic society. The Reefer and I have built our own equipment — very sensitive equipment — one contact turned out to be the hysterical mind of a small human boy, lost in the wilderness of a new planet out in Galaxy 9. But the strangest contacts are the rogue stars — "

"What's a rogue star?"

He probed at the dried blood beside his nose, thoughtfully. "Solitary sentient stars," he said. "They don't belong to the civilized community. Most of those we've picked up — all of them, maybe — are at enormous distances outside our own galactic cluster. Yet somehow — " He hesitated, shrugged. "I don't know why. But they seem angered or alarmed when they sense us."

Molly Zaldivar shuddered. She tried to remember something, but it was outside the reach of her mind.

Cliff Hawk was lecturing now, his eyes fastened on limitless space, "Thinking machines are all alike. Whether they are human brains or fusorian committees or sentient stars or computing robots, they all possess certain common features. All thinking things have inputs — from sensory organs or tape readers or sensitive plasmas. They all have data storage units — magnetic cores or neuron cells or electronic or transcience patterns. They all have outputs through motor organs or servo machines or plasma effectors."

He stopped thoughtfully, seeming to listen to the drone of energy fields and the distant scream of the power tube. "Go on, dear. How do you tell a rogue star from a lost boy?"

Cliff Hawk hesitated, as though trying to relate the girl's presence to what he was talking about, but she urged him on with a nod. "Our steady-state universe is infinite," he said. "Truly infinite. Endless. Not only in space and time, but also in multiplicity." The worry and resentment faded from his worn face as the theory absorbed him. "The exploding galaxies called quasars were the first proof of that — galactic explosions, resulting from extreme concentrations of mass. Space is distorted into a curved pocket around a dense contracting galactic core. When the dense mass becomes great enough, the pocket closes itself, separating from out space-time continuum."

He was in full flight now. Molly heard a distant sighing, remembered the sleeth and shivered. Was that fearsome creature still lurking about? But she did not dare interrupt him?

"The visible quasar explosion," he droned on, "results from the sudden expansion of the remaining shell of the galaxy, when it is released from the gravitation of the lost core. Each lost core, cut off from any ordinary space-time contact with the mother galaxy, becomes a new four-dimensional universe, expanding by the continuous creation of mass and space

until its own maturing galaxies begin shrinking past the gravitational limit, budding more new universes."

From the cave mouth blood-colored dusk seeped in, mingling with the violet hues of the aurora. It was growing hard to see me. Molly stirred restlessly, stifling a sigh.

"But the rogue stars," said Cliff Hawk, "are in our universe. Or we think they are. Or — "

"Or you're talking too much," rumbled a new voice, and Molly Zaldivar spun around to see a great bear of a man, wearing a dirty yellow beard, peering in at them from the cavemouth. In the red gloom he looked menacing, and far more menacing still was the great restless bulk of the creature beside him. The sleeth.

Cliff Hawk blinked and returned to reality. For a moment his gaze brushed Molly Zaldivar as though he had forgotten she was there and was astonished to find her. But then his whole thought was concentrated on the man at the cavemouth.

"Reefer! What's the word? How bad is the damage?"

The Reefer opened a soundless grin between dingy yellow mustache and grimed yellow beard. "Bad enough," he said. "But we're still in business. What happened?"

"I — I — " Hawk glanced again at Molly Zaldivar. "I was just checking in the cave when I heard Molly groaning, and I — "

"And you forgot everything else and went to her. Ah, that's to be understood. A pretty face is more than a star to you, of course."

Hawk shook his head. "I've been telling her to go away."

"Beyond doubt! That's why you're lecturing the girl like a child at Starday school, eh?" He patted the great bulk of the sleeth. "We understand, do we not?"

Hawk gazed at the Reefer with mingled anger and apology, then turned to Molly. "I'm sorry," he said. "But the Reefer's right. You've got to go back to Wisdom Creek."

"No! Not until you tell me what you're doing here!"

"Girl, he's been telling you," rumbled the Reefer. "What do you think all those words were, that he was pouring out at you when I came in? More than you need to know. More than you should know, I think."

"But nothing that made sense to me," Molly persisted. "How are you trying to communicate with rogue stars?"

The massive head shook with laughter. "Communicate with them, girl? Then maybe he didn't tell you after all. It's not just communication we're after. We're building them!"

Cliff Hawk broke the silence that followed the Reefer's words. "That's the truth of it, Molly. Or close enough. We can't really communicate with the rogue stars, not directly. We've tried that a thousand times, and it's past our abilities. But we can — we think we can — build a sort of mathematical model of one. An analogue. A small imitation, you might call it. And through that, here on Earth, we may be able to reach them, find out what we want to know."

"But that's dangerous!" protested Molly. "Aren't rogue stars terribly dangerous?"

The Reefer boomed, "Not a bit, girl! Look at our cave here — you can see there's no danger at all!" And his laugh filled the cave, drowning out the distant whines and drones.

Cliff Hawk said uneasily, "In order to duplicate the structure of a rogue star we had to duplicate some of the environment features. Not really. Not in degree. But we needed great pressure and temperature, and — Well, as you can see, we had a little accident."

"Little enough," flashed Milly Zaldivar. "It nearly killed you — and me, for that matter!"

"That's why I want you to go back to Wisdom Creek, Molly. Right away, before — "

"Now, stop that!" shouted Molly Zaldivar. "I won't go! I was afraid what you were doing was dangerous; that's why I sent for And — Well, never mind! But now that I know it, I won't stop until I make you give it up!"

"Impossible. I'll take you back."

"You won't!"

"Great Almalik, girl!" shouted Cliff Hawk, his face showing animation again for the first time. "What's got into you? Don't you understand, I don't want you here! Why won't you go?"

"Because I love you, you idiot!" cried the girl, and broke into tears.

There was silence then, even the Reefer saying nothing, though his eyes winked comically under the bushy yellow brows and his bearded face grinned hugely at the spectacle.

They stood staring at each other, Molly Zaldivar and the man she loved. The silence protracted itself.

And then Molly shivered. "Something's — wrong." she whispered. "I'm scared, Cliff."

Cliff Hawk's stern face lifted. He stood listening, to something that he could not quite hear.

In the opening of the cavemouth the sleeth moved restlessly, the shimmer of its transflection field rippling light across its night-black hide. The Reefer stared at it, then away.

"Girl," he rumbled, "you're right about that. The sleeth's spooked. You know what I think? I think we've got a visitor."

VI

Deep under the cave lay a tunnel, driven into the mountain by ancient prospectors a millenium earlier, beaded with galleries thrusting out from the main shaft to seek for gold or silver ores that were never found. For ten centuries they had lain empty, until Cliff Hawk and the Reefer came to fill them with their machines and instruments, to use them to hatch a new life that would serve as their contact with the rogue stars.

In one of those galleries, in a vault that the men had enlarged and bound about with steel and transflection energies, there was a region of great pressure and heat. All the energies of the screaming power tubes were funneled to keep that hot, dense plasma alive. It was an incubator, designed to produce a new life.

And it had succeeded.

Down there in the hot, crushing dark, Something stirred.

Its first knowledge was of pain. It had been born in a place where nothing like it had ever been before, a place that was innately hostile to all things like itself.

It stirred and reached out with an intangible probe of energy. The probe touched the energy-bound steel that kept its plasma environment intact, and recoiled.

I am caught, it told itself. I do not wish to be caught.

And then it fell to pondering the question of what is meant by "I." This occupied it for many thousands of microseconds — a long time in its life, which had just begun, but only a moment by the human standards of the, as yet unknown to it, world outside its pen. Overhead Cliff Hawk was studying his instruments ranging into galaxies millions of light-years away. The Reefer was roughly, effectively checking the tools and power tubes in the higher cave above, while his sleeth slipped silently and sightlessly around the crest of the hill. And down its slope Molly Zaldivar had just abandoned her old blue electrocar and was stealing toward the entrance.

At that point the new Something in the plasma field concluded its first serious deliberations with a conclusion worthy of Descartes: I do not know what I am, but I know that I am something capable of finding out what I am.

And it proceeded experimentally to seek a further solution. Gathering its energies, it thrust again at the metal and energies that bound it; thrust hard, with neither thought of damage to itself (it had not yet learned the habit of self-preservation) nor interest in the consequences of its environment.

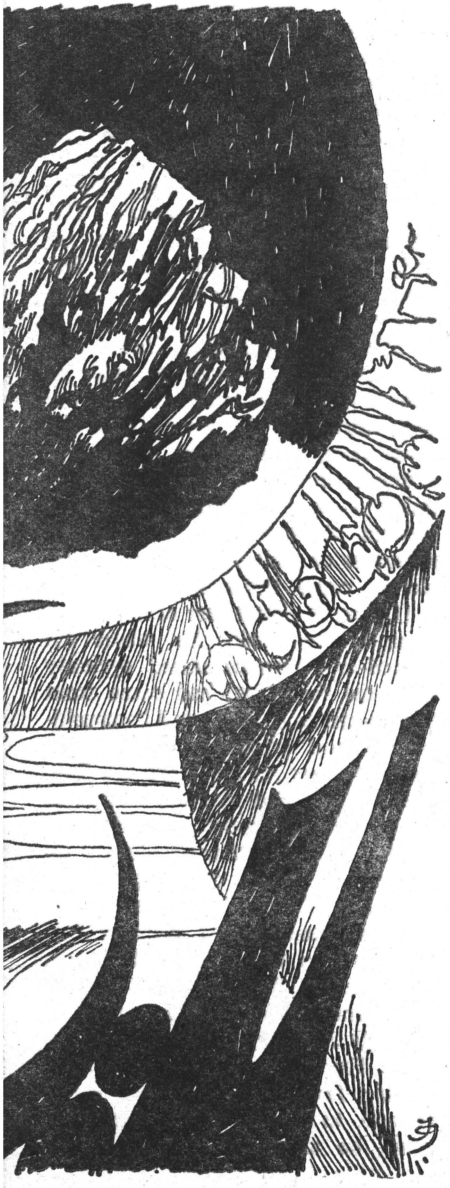
It thrust — and penetrated.

The dense, hot plasma burst free into the cave, shaking the entire hill, destroying its own gallery, melting down the steel bottle that had held it. As it broke free it died; the energies from the power tube that had replenished it were automatically cut off — which kept the hill, and half the countryside around, from destruction. Overhead the tremor it caused shorted connections, started a fire, caused secondary explosions in a dozen places. They picked up Molly Zaldivar and threw her into a heap, rocketed a shard of metal across Cliff Hawk's brow and threw the Reefer to his knees, where he shouted in anger and pain and called to his sleeth.

The thing that had been born in the plasma did not die. It registered this fact in its billion billion coded electrons without surprise. It had not been sure that it was alive, and had not feared to die. It hung in the corridor, while acrid chemical smoke and bright radiant heat whirled around it, untouched by them, hanging now in its own transflection forces, independent of its environment.

And free.

Now its probes could reach farther. They crept out onto the face of the mountain and lightly touched the unconscious mind of Molly Zaldivar, who moaned in fear and tried



to open her eyes. They touched and penetrated the stark, bare thoughts of the sleeth. They studied Cliff Hawk and the Reefer, dismissed the inanimate rock and metal of the mountain and its caves, reached out toward the human minds of Wisdom Creek and found them not worth inspection, scanned the myriad men, women, children, bees, turtles, dolphins, dogs, apes, elephants of Earth and filed them for future examination, reached out to the Moon and the planets, shaped themselves and stretched to touch the Sun itself.

All in the first few seconds of freedom.

Then they recoiled, and the thing that had been born so few moments before contracted in upon itself to think again. For some of the things it had touched had caused it certain sensations. It did not recognize what those sensations were, but it felt they were important. Some of them — those caused by the entity it had not learned to identify as Molly Zaldivar — were pleasant. Others — those caused by that huger, more distant entity it could not yet recognize as the Sun — brought about sensations which it could not yet identify as fear. It needed time to study the meaning of all these things.

It contracted into itself and thought, for many micro-seconds.

Presently a probe stretched out from it once more. There were certain other elements in its environment which it had passed over in its first examination, about which it wanted more information.

It touched the "mind" of the

sleeth again, but lingered for a moment, studying it. In this simple construct of cells and patterns it recognized something that might serve it. Yet there were even simpler patterns nearby. The thing reached out and looked at Molly's abandoned electrocar, at the great tracked handling machine that Cliff Hawk and the Reefer used for moving earth and heavy machines, at the instruments and machines of the cave themselves.

Hesitantly the probes returned to the thing down in the blazing gallery below.

It needed more time for thought. It wished to consider what it was that stirred inside it in regard to these things. It had not yet learned to call those stirrings "hunger."

Cliff Hawk lifted his head from the hooded viewtubes of his instruments and shouted: "Reefer! You're right! There's something near us that wasn't here before!"

The Reefer nodded his great head slowly. "Thought so." His little dark eyes were hooded in thought. "Question is, what?"

Molly Zaldivar struggled to her feet and caught at Cliff Hawk's arm. "Please stop, dearest! Don't go any farther. Let's call for help before it's too late."

Impatiently he shook her arm off, but she clung. "Cliff, please. I'm afraid. I felt something nearby before and, oh!, it frightened me. Let me call Andy Quam and — "

He jerked his head around to glare at her. "Quamodian? Is he on Earth?"

"I — I think so, Cliff. I sent for him, because I was so worried."

Cliff Hawk laughed sharply. "Little Andy Quam? You thought he could help in *this?*" He shook his head, dismissing little Andy Quam, and turned to the Reefer. "Could we have hatched something? Were you inside the lower galleries?"

The Reefer shook his shaggy head. "Just passed by the mouth. The power tubes were running free, no load, and I had to adjust them. But there was something burning down there."

"Idiot!" snapped Cliff Hawk, and bent to turn a switch. A bank of viewers lighted up before him on the wall, displaying the entrance to the lower cave, a jumble of machinery, a blank rock face where a gallery ended — and nothing. Five of the viewers showed only the shifting whiteness of their scanning traces; no picture came through.

(Down in that lower cavern, hovering in the smoky fire where the burned-out cameras stared eyelessly at it, the thing that had come from the plasma tank completed its consideration and stretched out another probe. It was reaching for the Sun. It had concluded that the danger in the Sun needed action. The thing in the lower cavern massed perhaps an ounce and a half of stripped electrons and plasma. The mass of the Sun was some 2×10^{33} grams, a third of a million times as much as the planet Earth. The thing did not regard those odds as important.)

Molly Zaldivar shivered and moved away. Her bruises were beginning to trouble her now, and Cliff Hawk seemed to have forgotten she was alive; he and that terrible Reefer,

with his face burned black and seamed with scars, were shouting at each other, pointing at the banks of instruments, acting in general like lunatics. Molly Zaldivar did not attempt to follow what they were talking about, except that something big had happened. But it could not be anything that was good she was certain.

Her eyes widened. "Cliff," she cried. "Listen!"

(The thing had acquired a great deal more skill in handling its functions in the past few thousand microseconds. While one probe was reaching out, invisibly and intangibly, to touch the Sun, it found itself able to mount other probes. One extended itself to touch those simplest of patterned creatures that it had discovered on the upper part of the mountain.)

"What's the matter, Molly?" Cliff was irritated, she knew; but she could not stop.

"Listen — outside! That's my car, starting up!"

And now all three of them could hear it, the distant tiny whine of the electrocar. They leaped for the cavemouth, all three of them, while the sleeth bobbed silently out of their way, and stared. Before their eyes the little car started to move up the mountain toward them.

There was no one at the wheel.

The sleeth darted abruptly toward it, recoiled and returned to the cavemouth like an arrow hurled at them. "Easy, girl!" shouted the Reefer, and turned to cry to Cliff Hawk: "The animal's caught a whiff of something. Careful! I can't control it when it's like this. . . . "

But that danger dwindled into nothingness even before Molly Zaldivar quite realized what it was. For something huger happened and caught them all unaware.

Outside the reddening sunset light brightened, flashed into an explosion of white-hot brilliance. Something shook them, threw them against each other and the walls. The light dwindled and returned, dwindled again and returned again, and on this third time it struck with such violence that, for the second time that day, Molly Zaldivar found herself hurled into unconsciousness. As she fell into blackness she heard the Reefer shouting: "The star! Great Almalik, Hawk, we're being hit by the star!"

VI

Quamodian shivered. Leaning past the boys clustered at the window of his flyer, he shaded his eyes to study that thin column of dark smoke which rose straight above the shallow notch in the blue-hazed hills. The three boys moved closer to him, breathless and pale.

"Preacher, what did it hit?" the dark boy whispered suddenly. "Did it hurt anybody?"

"I don't know," said Andreas Quamodian. He groaned and slammed his fist against the unbreakable glass. "But I've got to find out!"

"The sun did it," said Rufe breathlessly. "I saw it. It hit the Reefer's place."

Absently, staring at the thin beacon of smoke, Andy Quam said: "Who's the Reefer?"

"A man from the Reefs of Space.

He lives up on Wolf Gap ridge — right where you see that smoke. Him and his sleeth."

Quam glanced blankly at the boy. "A sleeth?"

"It's a thing from space. It hunts. The Reefer trapped it when it was a cub. He raised it for a pet. My uncle says he rides it now, but I don't know. Cliff Hawk doesn't, I know that. Nobody would dare touch it but the Reefer."

"They were bred to hunt pyropods," said the smallest of the boys, suddenly. "The sleeth can catch a pyropod and claw it to scrap metal."

Quam said harshly: "I don't care about the sleeth. Or the Reefer. What does Cliff Hawk have to do with all this?"

Rufe shrugged. "The Reefer brought him here from the Reefs when he was just a kid like me, then sent him off to the stars to learn to be a transflection engineer. That's what my dad says."

"What else does your dad say about Hawk?"

"Says Hawk's building something for the Reefer. Contraband. Don't know what kind, but they smuggle in machines that humans aren't supposed to have without permission from the Star."

The smallest boy whined, "I want to go back down, preacher. I want to go to Starschool."

"Jay! You know we all said we weren't going to — "

"Shut up, Rufe! I want to ask my Starschool teacher about the thing that hit the ridge. I'm scared, and Mark knows nearly everything. I want to see him!"

The red-headed boy looked at Andy Quam and shrugged. "Mark's a robot," he said. "But Jay's maybe right. Mark might know something."

Without thought Andy Quam's fingers reached out to the controls, but the flyer listening, had anticipated his thought. Already they were dropping to the ground.

"I'll take you there, Jay," said Andy Quam eagerly. "Provided you let me come along. I want to know too!"

They hurried up the graveled walk, under the multiple suns of Almalik imaged in the space-black dome of the church. The boy Jay guided Quamodian through hushed passages to Mark's schoolroom.

It was nearly empty, only a score or so brightly dressed children clustered at the front and a smaller, shabbier group lounging skeptically at the back. The robot paused to greet them.

"Come in, students! We are telling the wonderful story of the Visitants and the precious gifts they brought to the old human savages, centuries ago. Please take your seats."

The three boys slipped quietly into empty seats along a back bench, with the others who wore the worn and faded fiber clothing of the free people who had never accepted the Star. Quamodian walked past them, down the aisle to where the brighter-garbed children of civilization sat on the front benches. He stopped and planted himself in front of the robot.

"Robot-inspector, I'm sorry to interrupt — "

The robot hung in the air before him, its tall black shining case re-

flecting the lights of the room and of its own oval of flame-bright plasma. The plasma flickered, darted half a yard toward him, flicked a dark, whiplike effector toward his face.

"Sir, you cannot interrupt," the robot intoned, its voice ringing like tossed pebbles against the low, blue dome.

"I can, Robot-inspector. I am your superior in the Companions of the Star. I am Monitor Andreas Quamodian."

"Even so, sir," pealed the robot, "you cannot control me today. Our new compact allows no official duties to interfere with voluntary religious activities on Starday. Teaching this class, Monitor Quamodian, is my voluntary religious activity."

Andy Quam stood his ground, disdaining the effector that tried to wave him away. "Robot, an emergency exists." He heard the ripple of excitement from the children and lowered his voice. "A very grave emergency, I'm afraid. Three plasma bolts from the sun have just struck near here. Human beings may have been injured, even killed."

Gently but firmly, the dark tip of the effector coiled around his arm, propelled him irresistibly toward the benches. "You must wait, sir," sang the robot as the staring children tittered. "Be seated. Be still. Be attentive, all of you, as I resume the wonderful story of the Visitants and their fusorian gifts to men."

Andy Quam muttered under his breath, but clearly it was no use. He stalked back down the aisle to the back benches, where Rufe gave him an improving grin. "You're okay, preacher! We don't like robots, either."

"Hush, boy," said Andy Quam as severely as the robot. He sat glowering bleakly at the dark case of the robot, where its mark number was blazoned just under the bright-starred orbital pattern of Almalik. Perhaps the robot was hard to manage today, but tomorrow would be different.

"The fusorians," sang the robot melodiously, retracting its effector and floating higher toward the blue dome, "are older than the stars, and all of them are very wonderful. They are microscopic creatures that live by fusing hydrogen atoms, and they evolved in space — so long ago that they divided into many millions of different species. The Reefs of Space are built of atoms which some fusorians create. The Visitants are a special race of fusorians which live like symbiotes, inside the bodies of creatures like men."

"Bugs!" hissed the red-headed boy to Quamodian. "My dad says they're nothing but parasites!"

"In the wonderful partnership of man and fusorian," the robot trilled, "each benefits, neither is harmed. For the Visitants are wonderfully wise and just. They have evolved transcience intellectic patterns which knit their colonies together and link them all with the sentient stars. And so we are all united, all joined into the great multiple Citizen named Cygnus, whose spokesman star is Almalik."

"Slaved, you mean," whispered the red-headed boy.

"That is," sang the robot, its oval

of plasma pulsing rhapsodically, "so are we joined if we accept the gift of the Visitants. On the great day when you join the Star they will jump in a fat golden spark to your skin. Their colonies will penetrate every cell of your body. They will destroy all marauders and all wild cells, and keep you young forever. They bring you utter happiness, and utter peace. This is the gift of the Visitants."

"Hogwash," the redhead muttered. "Preacher, why don't you make him shut up?"

"And here with us on this Starday," cried the singing voice of the robot, "we are fortunate, children, blessed by the Visitants. For we have with us a Monitor of the Companions of the Star!" Lightninglike, a pale effector stabbed forth and burst in a shower of light over Andy Quam's head, as the children turned and stared. "For great Almalik can only help us and guide us, he cannot fight for his own right cause. So we Companions fight for him, Monitor Andreas Quamodian here as well as, more humbly, my poor robot self."

Quam swallowed angrily, torn between the desire to stalk out of the room and the yearning to leap to his feet and denounce this willful robot who spoke of duty but would not help him in the emergency that had blasted the mountains.

"Of course," the robot added delicately, "Monitor Quamodian and myself do not view all questions in the same light. Sometimes we differ. Sometimes, perhaps, one of us is wrong. But that too is just and proper, for the peace of the Star keeps us free, while joining us in fellowship.

It bobbed soundlessly for a moment, as though entranced with its own words, while its pale oval of plasma blushed briefly blue. "Now we are finished," it said at last. "Children, you may leave. Monitor Quamodian, I thank you for being with us today."

And Andy Quam pushed furiously down the aisle, through the knots of chattering children, to confront the robot. "Robot-inspector," he cried, "how do you fight for Almalik when you won't even help me in this important matter?"

"Patience, Monitor Quamodian," purred the robot. "There are evil men and evil stars who reject the universal good of all. I join you gladly in fighting them, but under our compact Starday is — "

"Is just another day!" Quamodian shouted roughly. "Rogue men are plotting with Rogue stars. There is great danger here, and it cannot wait on your convenience!"

The robot bobbed silently in its transflection field, as though it were considering what to do. Half-formed effectors budded around its case and were withdrawn; its plasma oval turned opalescent as pale colors chased themselves through it. It said at last, "The situation is grave, Monitor Quamodian."

"You don't begin to know how grave," Andy Quam said bitterly. "Didn't you hear me? Three bolts of plasma from the Sun! That would have been impossible for any star, even a non-intellectic one like the Sun, without grave provocation. So there must have been provocation —

something very dangerous, very serious, going on out in the hills!"

"We have recorded that phenomenon," the robot agreed melodiously. "It is more serious than you think, perhaps, Monitor Quamodian.

Quam brought up short, diverted. "More serious than I think? What — ?".

"But nevertheless," the robot went on, "the compact is clear. You may not compel me today. And I advise — *we* advise, most urgently — that you undertake no action without our aid. You see, Monitor Quamodian, we have recorded the presence of extreme hazards about which you know nothing."

Quamodian stuttered, "I d-d- I *demand* that information! Right now!"

"Under the compact — "

"Blast the compact!"

"Under the compact," the robot repeated serenely, "you may make no demands. I will do for you only what I wish to do freely, as part of my voluntary religious observance of Starday." It hesitated for only a second, while the shimmering colors on its plasma oval spun madly, then burst into a bright, even golden fire. "Voluntarily," it sang, "I elect to aid you now. Will you mount on my back Monitor Quamodian I will convey you at once to the site of the sun-bolts. For in truth there is danger; a rogue star has been born there, and it lives and grows!"

VII

The thing had grown now, grown even while its effectors were reaching out to the sun and the sun's triple-stroked reply was coming back. It had passed Descartes's *Je pense, et puis je suis,* and that milestone surmounted had put aside its examination of itself for examination of its world. *Dark. Alone. Particles.* It discovered that some of the particles were organized into macrostructures; it did not label these "matter," but it grasped at once that they operated as vector units, a myriad whirling charged bits contriving a mean motion exerting a mean force. *Warmth. Radiation.* Free of the heat of its exploded womb, it sought other energy sources, tapped them, used them, owned them.

I move, it "thought" — a true thought, joining together its sense of self and an operator; and it swam slowly along its deep tunnel, reaching for new sensation and new strength. *Pull. Gravity. Lift.* It slid through material obstacles or brushed them aside. Behind it lay a trail of erupted doors and demolished tiers of supplies. *Search. Search.* It gave a name to what it was doing and a sense of a goal. Search for what?

It became aware of a kind of radiation that was itself structured, that possessed patterns that were neither random or meaningless. *I?*

The thing paused, palping the faint currents of sensation that emanated from distant sources. *Affirmative. "I." Not I but another "I".*

It had recognized that there were other creatures in its world, other competitors for energy or matter or space . . . or companions.

In the cavern above, Molly Zaldivar roused briefly from the stunned

shock that held her and moaned in terror. Something was studying her. Something that caused fear. Something utterly strange, that had never been in this world before.

VIII

Molly Zaldivar stirred and returned to consciousness. She lay across the crumpled legs of a laboratory stool, and one of them was stabbing her with its shattered end. The cave workshop was hissing, moaning, crackling with electrical shorts and hot, cooling metal. The pale violet corona that once had enshrouded a globe of gold now threw itself like a tattered net from point to point, dying and returning, hissing and crackling. There was smoke from somewhere outside the cave, and a heavier, choking smoke from within.

She rubbed impatiently at her forehead, drew her hand away and saw, without surprise or fear, that it was bloody. But she was alive. She tried three times before she could speak:

"Cliff. Cliff, where are you?"

Hawk's voice answered at once, but weakly, more a whisper than his normal gruff tone. "I — I don't know exactly, Molly. Are you all right?"

She glanced down at herself — clothes a horror, skin bruised and cut, dirty and damp. But more or less functional, she decided. "I think so. How about you?"

She sat up, peering around. At first she could not see him. "Cliff! Are you hurt?"

Rubble stirred a few yards away, and Cliff Hawk's whisper said: "I don't know. Something fell on me."

"Oh, Cliff!" Molly struggled to her feet, limped, half crawled across the piles of debris that were all that was left of Hawk's orderly laboratory. "Can you move? Are you in pain?"

A trash-heap stirred again, and Molly saw that what she had taken for another heap of litter was the upper part of Hawk's body, powdered with grime and ash, but apparently intact. He seemed to be jackknifed over something, some large object that was resting on what would have been his lap, facing away from her. He twisted and looked at her. It took all his strength, and his face was a mask of effort and pain. "My — legs are caught," he gritted.

"Wait. No, sit still — let me!" And forgetting her own aches she flew to free him; but it was impossible. A beam had fallen across his legs, knocking him down; some other blow had thrust him sidewise. His upper body and arms were filthy and battered, but they were free and he could move. But his legs were under half a ton of mass.

He gave up the effort and slumped forward again, across the weight that pinned him down. After a moment he said, "Where's the Reefer? He can help — "

Molly looked around helplessly. "I don't know."

"Call him!"

But though she shouted, there was no answer. She stood up, stretching out an arm to the tunnel wall to steady herself. The smoke was getting very thick; something bad was happening in the interior of the workshop, and she could feel a warning of heat.

She shouted for the Reefer again; still no answer. There was no help for it; if Cliff Hawk was going to get out of the trap that bound him, she was the one who would have to do it. She bent dizzily to tug again at the beam. Hawk did not speak; his eyes were closed, he seemed to be unconscious. The beam was immobile.

Molly knelt in the litter, careless of the jagged edges that were shredding her knees, and methodically began to move what could be moved: the plastic housing from one of Hawk's instrument panels, a tangle of light metal tubing, a drift of shattered glassware. The smoke made her cough and blink, but she did not look up. . . .

Not until she became aware of the sound that had been growing in her ears for seconds, now was loud, close, compelling. It was a singing rustle like a breeze through dry brush.

The sleeth.

She turned and froze. The creature hung in the air not a yard from her back, its broad, blind eyes fastened on her, its supple muscles rippling down the black, sleek skin.

For a moment she thought it was help.

But Cliff Hawk did not stir. There was no sign of the Reefer. She was alone with a helpless man and a creature from space whose whole anatomy was meant for killing.

Under the mountain the flowing essence of power that was the infant rogue star paused to consider the meaning of the sharp-edged triple slap the sun had administered to its curiosity. It was a rebuke, clearly enough. Even at ninety-odd million miles, Sol could have launched a far more devastating blow. The tiny rogue knew that as surely as it knew its own strength and knew therefore, in its simple logic, that the intent of the blow was not destruction but a warning. *Star too big.* It corrected itself: *I too small. Get bigger.*

It had not been hurt in any way by the triple blast of coiled white flame. It did not fear a harder blow; indeed, it had not evolved a concept of "fear." But there were smaller, more controllable assemblies of particles closer at hand, and the rogue elected to investigate them.

Molly's little car it scanned, solved, manipulated and discarded. (The little vehicle started up at the rogue's remote command. Obediently moved forward and, when the rogue withdrew its attention, mindlessly ground ahead until one wheel dropped over the lip of the road and it slid, rolled and finally bounced to destruction down the mountain.)

More complex creations existed, the rogue found. It did not "see"; it did not distinguish visible light from any other form of radiation, but it recognized differences in frequency and kind. The differences were to it something like colors are to carbon-based life: it recognized a "green" glow which flickered violently, as though in fear or pain; a blue-violet aura which waned as the rogue observed it; emanations of all rainbow colors, and far into the infra- and ultra-frequencies, which were the sleeth, a colony of burrowing moles, an ant's nest, even small

faintly radiant points, like dust in a searchlight beam, that were the microorganisms in the air, the soil, the bodies of the larger life-forms nearby.

Something about the "green" light interested the rogue; perhaps it was the violence of its aura. It observed closely and discovered that there was an organized mass of particulate matter attached to it; the matter seemed to be acting upon that other mass of matter which appeared to be associated with the glow and the bodies of matter that were its sources. *Please, Cliff,* Molly was begging, *help me get you out;* but the rogue was a long way from having formed the concept of communication, much less acquiring a grasp of any language.

A brighter glow of vivid gold was moving toward them; the rogue reached out to encompass it and found it a new phenomenon, something between the car and the humans, far more subtle and complex in its organization than the clumsy mechanical toy it had played with for a moment, then discarded; yet simple enough to be operated. The rogue studied the sleeth for a fraction of a second, then reached out an invisible effector. It played with the sleeth, sending it through the air.

(Outside the cavemouth, the Reefer picked himself up, staggered to his feet and stared wildly about. There was blood on his grimy yellow beard, and his huge features had new scars. He croaked a question at the world, but there was no one to answer, no one in sight, nothing but gray smoke from inside the cave and crackling flame and white smoke from where something had set the cavemouth beams afire. He turned slowly, unsteady on his feet. The sun was a frightening color, roiled red and angry. The sky was clouded and ominous. He shouted for his sleeth, but there was no answer.)

The infant rogue was aware of the dull, slate-colored hue that was the Reefer. It had even recognized a connection between it and its new toy, the sleeth.

It would be interesting, the young rogue thought, to play with one of these more complex mechanisms too.

But for the moment it had not yet tired of the sleeth, arrowing it through the smoky sky, lashing out with its death-dealing claws and transflection fields at birds, rocks, tufts of grass.

The organization of matter fascinated the rogue. It decided to explore the possibilities of changing that organization, of interfering. It decided to be a god.

It thought for a moment of commandeering the Reefer for practice, as it had commandeered and operated first the electrocar, then the sleeth. It considered destroying one of the glowing living things. Any one. Destroying it so that it might be dissected and studied.

But it did not.

Already, only minutes after its first birth from its womb of plasma, the rogue had begun to develop habit patterns and "character." Its development was not only rapid but exponential. Its first actions had been entirely random, as pure a free will as a pinball machine. But it learned. The new and generally unpleasant environment in which it found itself, it had discovered, responded pleasing-

ly to certain kinds of manipulation. It was easy to destroy its features, one by one. The rogue could demolish a rock, kill a living thing, uproot a mountain, lash out at a sun. But once destroyed, it had learned, they were gone.

A more interesting, that is to say a more educational, way of manipulating them was to operate short of destruction. To interfere, but not to kill.

Not at first.

There was no question of conscience in this, of course, nor of mercy. The rogue was as yet totally without a superego. But it had learned for the sweet taste of pleasure.

These organized masses of matter could be sources of pleasure.

Molly dared move slightly, craning her neck to see past the sleeth.

"Reefer?" she whispered. "Are you there? Can you help me?"

But there was no human figure behind the great singing shadow of the sleeth. It hung there with its huge eyes fastened on her and then, without warning, slipped forward, darted to the wall, and hung over Cliff Hawk's unconscious body.

Molly screamed, "Don't hurt him!" But in fact the sleeth was not. It bobbed silently over him for a moment, then the pale radiance of its transflection field flickered.

Cliff Hawk's body quivered, then sat slowly up. "Cliff!" cried Molly, "you're all right!" But he was not conscious. His head lolled on a shoulder, his eyes were closed.

She stared wide-eyed at the sleeth.

SLEETH

It was lifting Cliff, but why? What was it going to do?

She did not have to wait for an answer. The transflection fields flickered again, and the great beam that had pinned him came up off his lap. It lifted at one end, like the boom of a crane, raised itself to the height of his head, rotated majestically, and dropped into a pile of rubble.

Gently Hawk's torso was allowed to sink back, until he was lying outstretched and unencumbered. He had not regained consciousness.

"Thank you," whispered Molly to the sleeth — knowing it could not understand; or not caring whether it could or not. Then she flew to Hawk.

He was badly hurt, but he was alive. There was not much blood. His legs, though, were badly injured; though they lay straight enough, when she moved one he groaned sharply in his sleep, and his face twisted in pain.

He needed medical attention. "Oh, Cliff!" she sobbed. "If only you hadn't — "

From the cavemouth the voice of the Reefer muttered, "Leave him be. You're as bad hurt as he is."

"Oh, Reefer!" cried the girl. "Help me! Cliff's been badly hurt, and we've got to get him to Wisdom Creek." Then what he had said penetrated to her, and she realized, with surprise, that in fact she was on the verge of unconsciousness herself. The smoky air made her lightheaded; she was coughing without knowing she was coughing; her bruised, racked body was beginning to hurt in earnest.

"How?" growled the Reefer.

"I don't know!" She swayed dizzily, and wailed, "At least let's get him out in the open. He'll suffocate in here."

The Reefer moved cautiously forward. Even in her misery, Molly could see that he had been hurt, too. His little eyes were sunk in pain, his yellow beard and mustache clotted with blood. He stood over Cliff Hawk, studying him without touching him.

"Can't," he said.

"You've got to!"

"Can't move him. If the sleeth was acting right — But he's not. Spooked fair. Not that I blame him," the Reefer rumbled. "We've chewed up pyropods out in the Reefs, but we never tangled with a star before."

"Star? What star?"

"The Sun, girl. That triple sunbolt. I think we've got ourselves in trouble."

The sleeth, which had been hanging humming nearby, surged suddenly toward them. The Reefer flinched away, and the sleeth passed him by and darted out into the open air again. "You see, girl? Won't mind me a bit. Don't know what's got into him."

"Then you and I must lift him out!"

The Reefer spat into the rubble. "You? Couldn't lift yourself, I'd say; you're wore out. And I can't manage him by myself. Kill him if I tried."

Then what can we do? Please, Reefer?"

The Reefer looked past her, into the denser smoke that was rolling toward them down the tunnel. "Only one thing I know," he growled.

"Shoot him for you, if you like. Better than letting him burn."

The rogue tired of the sleeth, thought for a moment of destroying it, then merely abandoned it to its own devices. It amused itself briefly by examining the state of those non-radiant assemblages of matter which had been so brutally tossed about by the sunbolts. It did not recognize them as instruments, machines, bits of human inventiveness; but it did see that they had been made functionless by the damage they had suffered, and that the chemical reactions now taking place in and among them were damaging them still farther.

It understood, after a meditation of some nanoseconds, that the course of the fire was carrying it toward those radiant masses which it had not yet learned to think of as living. It did, however, realize that the same sort of damage that had blasted the machines would harm them as well; and that one of the radiances was visibly fading in any case.

It would be interesting, thought the infant rogue, to do something new. It had already removed the radiationless lump of matter from the radiant mass that was Cliff Hawk, using the sleeth as its proxy; that had been disappointing nothing had happened.

But it wondered what if it were to soak up some of the radiation?

It was a notion that attracted the sleeth. It did not know why. It had not yet learned to recognize hunger.

TO BE CONTINUED

A. Jones

THE GUERRILLA TREES

by H. H. HOLLIS

Illustrated by JEFF JONES

Men! We were sent here to save B44(3), and that's what we'll do — by burning the whole world to ash!

I

Not with a general, thought Har-Har-Gret Harker. Certainly not with a general; how could I explain *that* to the gang on the tape deck?

Girl war correspondent Haggie Harker had made a career in the newstapes by exposing corrupt incompetence among the big jets. For this she was loved by flame sergeants, tube men and battle jumpers across the galaxy. It fitted neither her public image nor her private idea of self to dally with a military boss; but in the cramped command module from which General Borger Traven ran the ugly little war on the

tiny planet circling the insignificant sun, the just-arrived news-taper felt the old chemistry begin to bubble.

Haggie Harker was too hard on others in her newstapes to be less than honest with herself. She knew very well what was happening to her; but the thought of an amorous passage in the very atmosphere of "Traven's terror" was actively unpleasant.

Outside, the yellow sun, more nearly burnt out than Sol, had sunk below the green horizon, and the green dark of B44(3) came on apace. Outside, the guerrilla trees were shaking the dirt from their roots, ready to sidle close to Terra's enclaves to strangle and poison Traven's troops for another night. Inside, the shadows lengthened down the spectrum from green to black, and in the lighted cubicle from which Borger Traven commanded his battle jumpers, chemical affinities explored and affirmed each other, not yet at the tactile level.

Cold courtesy was the order of the day. Beneath it, Haggie Harker was aware of a mounting excitement; but whatever else lay in store for Borg Traven and herself, she had a job to do first. It was not the job the general expected; for he believed that she had written her first tape before she ever came out to B44(3), and that nothing he could show her would change her critical attitude. His politeness was put on only to avoid a worse drubbing. (Who'd be a bloody soldier? he thought. But she's pretty . . . .)

"General," she said, "is it still the position of the military that the dendroids are not people?"

"I must remind you again," the general said, his slow boy's smile lighting his un-boy's face for a moment, "that I do not speak for the 'military.' I am the head of Sol's Advisory Commission to the Government of Yip Sing. And although I happen to be a general officer, and many of our personnel, committed to the struggle to let the free Yips choose freely what course their history will take, *are* soldiers, that is an accident of history brought about by the fact that repeated brutal acts of aggression have been committed against the free Yips by their enemies. We are here to redress the balance and to help this little world into the family of free planets.

"Now," he said, smiling again, "within that context, I'll try to answer your question. Our xenologists tell me that Yips are *people*, all right. But they are *human* people."

"Oh yes," the reporter said. "I "I realize that's why they are called dendroids. Our government has taken the position that they are some sort of trees. But General, do *trees* scream and pray for mercy when their bark is pulled off or a limb is pruned?"

Borg Traven coughed. "Who knows? If trees on Sol Three were as articulate in the ranges we can hear as the Yips and Yaps on B44(3), Hagan only knows what they would say. I hope, Miss Harker, that you don't intend to tell these people how we handle trees back home. Please! I have problems of cooperation enough."

"But they breed! Not tree-like."

"Of course it's not like earth trees. There are a lot of other things on this planet that aren't like Sol Three either." He stood up, opened the door to his office and whistled. Something dark scuttled in and reared up against the general's legs like a dog; but it was waving antennae a foot long. Har-Gret Harker's skin crawled a little.

"See?" the general said. "Here's old Arther, smart, affectionate, doglike. But he looks like a roach, doesn't he? Now, how am I to treat Arther? As a roach or a dog?"

"I — I don't know. Oh!" as great insect eyes turned toward her and he made as if to jump in her lap.

"Sha! don't be afraid of him. He really is affectionate. Wait a minute. I'll make him give off his pleasure odor." General Traven rooted about in his desk for a minute and took out an apple. "Hoo boy!"

The creature stood on the rearmost pair of six legs, twitched its antennae and, reaching the apple with its foremost legs, descended to four of its feet and began to munch the fruit. A smell like bayberry candles burning crept through the room.

"Great gronk!" the girl said. "All right . . . you wouldn't step on Arther. Why are you burning and stripping trees? Trees that *can* scream?"

"They're not exactly simple trees either, you know. You visit some hospitals and look at boys blinded by tree poison. We're meeting force with equal force, that's all. I spend a lot of hours each day making sure that we don't over-react to the Yap attacks."

Almost she believed him. She had realized now that the distinguished gray at his temples and his patient air reminded her of her first companionate husband. They had been companions for four years, from the time she was twelve until she was sixteen. He was fifty then, and the morning after her sixteenth birthday, he had given her a cool kiss (all his kisses were cool, she remembered) and told her, "Haggie, you're a young woman now. I'm more a man for companions than for wives. I hope you'll remember me kindly when you make your permanent union."

Now she was thirty, and Traven, she said appraisingly to herself, might be her fifth companion. Was he the one with whom she would make a permanent union?

With a wrench, she got her mind back to immediate business. She could not afford to let his chance resemblance to Rossano sway her judgment. Always better under such circumstances to let a machine make the record.

"General, the microphone to my tape can be opened." She tapped the black and white button, bearing the anti-bomb sign, on the left breast of her coverall. "This has been background, not for attribution; but I would be happy to have your own exact words explaining your position." She did not expect him to agree; so she did not tell him that tapping the button had opened the microphone, whether he agreed or not.

General Traven shook his head. Miss Harker put a question. "Aren't we really just injecting our power into one side of a civil war that is essentially meaningless to us?"

Traven spoke vigorously. "No, indeed! The Yipsl are a free nation with a history going back into antiquity. Yap aggression from the southern hemisphere automatically activated the aid provision of our commercial treaty with Yip Talltree, and we responded by sending an advisory commission. Naturally, at this distance from earth, we can not fight a war with our own troops."

"Why send out a hundred thousand of them, then, by Faster-Than-Light capsule, at a cost of billions of credits? That's commercial aid?"

"Because they get here faster. Freezing them and shipping in sunjammers means that generations of dendroids would grow up and die before the first of our teaching troops got here. Come on, Miss Harker. If we're going to be on YipYap at all, we've got to be here in sufficient numbers and fast enough."

She answered, "I don't doubt that we will win, with the technology of a mass industrial plant leveled full-bore against the savage, illiterate flora of a third-rate planet in a tenth-rate solar system; but if we are to make the *difference* on B44(3), General, doesn't that make it our war, for all that counts? Ours will be the victory . . . but that means to me that what *brings* victory, the incinerated trees, the ashen villages, the bloody bark trophies our allies are taking out there in the jungle, those are all ours too. *Incidentally,* I thought *all* the natives resented 'YipYap' as a name for their world."

"Please," he said. "That 'YipYap' just slipped out. We don't call it that, except in the kind of jest I tried to make just then. You're very literal, I see. No, *we* call it what Groendyk called it when he set his scout down here. To those of us who are *on* it, B44(3) is La Selva — The Jungle.

"Excuse me, Miss Harker. Arthur has finished his apple and is anxious for me to leave so he can carry out his nightly marauding against the paste and paper supply. I could use a drink myself, and a little dinner.

"The head of an advisory commission to Yip Sing is the loneliest man on the planet. Would you let me take you to your hotel and buy you dinner first?"

II

They fell into step down the darkened hall. Arther's bayberry scent following them. As they neared the front end of a minor maze of corridors, the night attendant slithered toward them. It was a dendroid of

moderate age, about as tall as a kumquat tree, its bole already thickening to the diameter of a thirty-year-old ash, with the mantle atop its mushrooming "head" obsequiously rippling. In near falsetto tones, which sounded to Har-Gret Harker like a bad joke, the creature announced, "Sirs! Madams! Fellers! Me door. Me door. Thissy, thatsy, outsy door! Me door, me door, all."

"How do you know that's a Yip and not a Yap?" she asked the general in a low voice.

"Oh, easy," he said. "Come over here in the light, and I'll show you." They stopped near a dull globe which hardly dispelled the gloom, and he summoned the plant-animal. "Hey, Yip! Come on over here. Ripple your mantle for the lady. Now, look, Har-Gret, you can see the base of the opening in the mantle — the slit extends all the way round his 'head' — and the base, around where the sex nodules are, has a faintly greenish purple cast. The Yaps are the other way around. The moist membrane around the sex pearls is purplish green."

Har-Gret Harker shrugged. In the dim yellowish light, she could hardly see any color on the moist surface, which exuded a musky odor like that of a long-empty perfume bottle. The general chuckled. "You're looking too close. To see the color tone, you've got to scan. Come on, Yip, raise your whole flaming mantle and spin around for us." Silently, the short, thick tree complied. General Traven's face fell. "Hagan o Hagan! I made a mistake. Miss Harker, I'm sorry!"

She stepped back in apprehension. "It's a Yap? Is it dangerous? What can it do, at this range?" She reached for the blaster which the issuing sergeant had promised her she would never have to use.

"No, no . . . oh, I . . . no, for Selva's sake, don't let fly with that cannon in here! It's one of ours. Only it isn't a Yip. She's a Yipper — a lady. Blast it, I forgot to ask the ritual question. The males, the Yips, have a hundred of those pearly looking nodules, and the Yippers have only ninety-seven. When you see the whole circle, it's easy to see whether they're in five even groups of twenty, or in four of twenty and one of seventeen. But you're supposed to ask. Then you don't look. See? This one is a Yipper."

"I Yipper yes," the tree said dreamily.

"So?" said Har-Gret Harker. She couldn't believe that this casual faux pas had embarrassed the general as much as appeared from his sheepish face.

"Well, I — O Hagan, it's nothing. We'll get it over right away . . . the *fact* is that now we've looked at her, she has the right to look at *us*. Local culture pattern, you know." As Har-Gret stepped back farther into the gloom, Traven said, "It's just the most casual inspection, really. Really. It's sort of like having an oak drop an acorn in your cleavage. I *am* sorry. It's just the way the fix fax."

Har-Gret Harker laughed angrily when she heard the punch line of earth's most popular tv comic re-

peated again, as she had heard it a hundred times in the day she had been on B44(3), as insincere apology for small irritations and as a put-off for embarrassing questions. "Shall we strip? What is this tomfoolery?" She felt certain she had not been stirred alone, in the general's office. She was seldom mistaken about such things; but if the general turned out to be a looker instead of a doer, she knew she would simply turn the reaction off.

"Please, Miss Harker," he said, still smiling one-sidedly, "I don't want to be uncomplimentary; but I should certainly not have chosen this dark and uncomfortable hallway as a place in which to match orbits by some elaborate joke. We have to override some of the Yipsl culture to get them to save themselves, so we have to give in on non-essentials. We needn't watch each other. Come, look: we'll stand side by side. Just palm open your coverall and pull down your . . . ah, your briefs . . . and I'll do the same . . . and that's really all there is to it. Then I'll take you to dinner and drop you at your hotel."

Half-frowning and half-smiling, she came forward into the partial light and did as he suggested. Although he had said that they need not look at each other, she did not deny herself a peripheral glance. Yipper's examination was more tactile than visual, and it was very short and gentle. "You he. You she. I Yipper," the short tree murmured, waving its myriad twigs, and proudly tripped the door.

Drinks and dinner were constrained until, as if by mutual consent, the war and the minor inconvenience it had just visited on them were put aside for a pleasant, inconsequential chat about home. There was no other contretemps until the cab pulled up in front of her hotel. There was no telling what its name had been when it was a second-rate inn for traveling trees; but the correspondents who had been assigned there by (they were all sure) a malign billeting sergeant, had renamed it Timber Arms. The name was boldly painted on a great strip of peeled Yap hide.

"In the name of the great Melt," General Traven burst out, "who stuck you in this tree-house? You'll have to let me billet you someplace decent, Harker. I could drop you at the Diplomatic Barracks tonight, and tomorrow you can be in the Hilton Selva."

"No, Traven," she refused. "Haggie Harker isn't asking any favors of general officers, or anybody else. If you knew how I fought to get out here, you'd understand why I don't want anything that even looks as if I complained about one single item of the environment while I'm taping this story. Anyway, the place is clean, and it's safe enough. It's full of newstapers."

"That gang! We call them the *pulque* news pool. They sit around all day lapping fermented tree sap, and at night the one who drew the short straw in the morning comes back and every drunk in the bunch tapes a story off him."

"Well, that'll make it easier for me to beat them. Now, don't worry about me. Just worry about what I'm going to write when I get back to earth."

He laughed. "We do censor everything, you know. This is a combat zone, even if it's not a war."

"It's a war, as far as I'm concerned. Remember I said, 'When I get back to earth.' You can't censor the inside of my skull."

"That's the way the fix fax," he replied. "Listen, Har-Gret, I'd offer to put you up — my billet is forty rooms, a whole Hagan of a lot better then I could afford on earth; but it's . . . oh, I . . ."

"It's too soon. I agree," and she slid out of the cab. "Thanks. I hope I can see you again after I've been out in the field." She waved as the cab was warped away by a native driver who looked like a cedar tree from Carmel.

Jack-Jack Frens, with whom Har-Gret Harker had taped a police run when they were both learning their craft, woke her the next morning pounding on the door and shouting, "Haggie! Haggie! the war's over! You came out here for nothing!" When she jerked open the irregularly shaped door of her room, he bounded in and embraced her. "Oh, Hag, you don't know how good it is to see a real woman after a year of these creepy trees. Would you be interested in a short-term companionship, just for the duration?"

"You tapestealer," she greeted him affectionately. "I wouldn't companion with you again on a bet. Snoring in bed in one thing, but that's a May-high converter you operate when you get to sleep."

"That's why you can't find a permanent union. Too choosy. Listen, the *pulque* pool has elected you to do all the work for the whole gang for a week. You've got the fresh view. It'll earn us all a bonus."

"How the Hagan did you even know I was here?"

Jack-Jack laughed. "The concierge told us."

"You mean this old owl roost has a factotum?"

He opened the door and made a high, shrill noise. A sapling-slender figure rushed in and bent slightly in a parody of respect. In falsetto, it piped, "Honored lady, I your slave. What can you wanted in the morning? Hot water, cold water, drinked coffee? Did I scrub your back?"

Haggie laughed. "You're a young Yip, right?"

"No, honored lady. I Yipper. Your slave."

"Do you work for the hotel?"

"No, no, I free enterpriser. My grove burn early in war, I only I alone alive to told. Newstapers adopt me. I smarter than roach, speak Terran like politician, sleep under stairs . . . ."

"Jack-Jack," Har-Gret said, "you colonial exploiter, you never land anywhere without taking on a serf. Honey," to the little tree, "do these tight fisted drunks pay you anything?"

"*Pay*?" the little creature said, its two bulbous eyes on the front slope of the upper mantle alive with interest. "What *pay* mean?"

Har-Gret struck Frens several times with the edge of her hand. He laughed and parried the karate blows with his forearms. "Wait a minute, Haggie. She may not know

the word, but we take care of her, and she takes care of us. She has food, some money, speaks the best Terran of any tree on the planet . . . and has the best nose for news. Har-Gret, if you hit me again, I'll kick you in the belly." He raised one combat boot.

"Oh, you're hopeless. Get out of here." She pushed him out the door. "Now, young lady," and she led the slim Yipper to her bed, "you know I don't know much about you and your world. You'll have to teach me. Do you sit down?"

"Oh, sure, lady," Yipper said, matching action to word and crossing the two separate lower portions of her trunk at what would have been the ankles if she had been a fourteen-year-old girl. "Lie down too. You want? Terrans most want that late by night. Now?"

"Great Melt!" said Har-Gret. "You poor child. How old are you?"

"I three next eight day."

"Melt! You're a child. Listen, how old is one of you with a girth like this?" She held out her hands to indicate the size of the Yipper she had encountered in Traven's HQ.

"Oh, ten years, fifty years. Grow slow after fifty. Much tall by hundred fifty, some thicker. Lie down now?" and she rippled her mantle slit for a length of about eighteen inches.

Haggie Harker was both amused and disgusted. How does one deal with a child whore whose most seductive feature is a mushroom head like a Tenniel drawing? "Listen, baby," she said. "I'm a different sex from these other newstapers. You understand sex? My . . . my requirements are different from theirs."

"Lady!" Yipper said. "I know sex. We two sexes too. How were you thought . . . we scatter seeds on wind or something? Did you show me?"

Did you show me, Har-Gret thought. If you can comprehend sex, why not tense? "Well, I . . . oh, Hagan, what in the melting planets' difference can it make? I show you and you show me, right? And I'll teach you Terran on a little more systematic basis. I'll bet these tape rats have taught you a rare vocabulary, but we'll make a lady Yipper out of you yet. All right, Galatea: show me your equipment."

III

An hour later, Har-Gret was a much enlightened Terran. The peculiarities of Yipsl metabolism which allowed them to put down roots when necessary, walk when wanted, masticate and digest meat, bones, vegetables, or anything else animate when available, had been explained to her in accented Terran which she was working to make more understandable even as she absorbed information from it. The exchange of information about parturition and the acts leading up to it had been fast and full, and the amount of voluntary control Yippers could exert over their internal organization left Haggie Harker rather envious.

A chance hint at the social organization of the Yipsl soon led the conversation away from biology. By noon, Har-Gret was still pulling information out of her new found friend. Again and again the little

creature affirmed her undying attachment for Yip Sing; but when challenged to explain if this was a country, a government, a political philosophy or a place, Yipper always produced a tortured formulation which Har-Gret had no trouble recognizing as her friend's translation of Terran communiques about the embattled democratic Yip Sing villages.

"Are there embattled democratic villages in Yap Sang too?"

"No villages Yap Sang. Dirty Yaps huddle in groves. Wild, mean. Shed leaves."

"And do you shed your leaves?"

"Only if I *have* leaves."

"Well," Haggie said in exasperation, "do the Yapsl shed leaves except when they *have* leaves?"

"On order! Master trees in Yap Sang wave branch, leaves fall. Ugh! Turn stomach to see."

"Why orders? What is the point of the different way of doing things?"

"Master trees *bosses*. Down bosses!" the little tree whistled. Haggie learned to recognize the eye roll with which the Yipper then looked to see if this was approved.

"Honey," she said, "Old Haggie doesn't give a melted sun for all that poisoned fertilizer. Please, please, believe me that I don't care about the objectives of my government here. Just tell me: why should you hate Yapsl because they drop their leaves differently from you?"

The fourth or fifth time, Yipper suddenly began to leak green gray tears down her pretty bark, not only from her protruberant eyes, but from the slit which encircled her mantle. "Rootless . . . you rootless!" she cried. "Terrans burn my grove . . . all burned, nowhere but flame, only did to breathe burn kerosene. You mean Terran, smell from kerosene, every all!"

Har-Gret knew she was on to something. Emotion unlocks truth; and for the first time, she felt Yipper was saying what she felt rather than what she thought Haggie wanted to hear. Trained instinct drove the taper on. "What do you mean, burnt your grove? And I thought you lived in a village."

"Village, grove, hamlet, same same, MELT YOUR SUN!" The sapling Yipper was weak with hate and fright, dripping saplike tears, branches trembling. Suddenly she flung herself backward on Haggie's bed and shrieked, "Okay! Come on! Okay! Okay! This all any Terran want. Melt you! Melt you!" Great gray green tears stained the bedding.

Har-Gret Harker sat on the edge of the rude bed and threw her arms about the frightened, hate-filled sapling. She gathered the little tree to her breast and rocked back and forth for a minute. "O Yipper, what can I say? What can I do? I don't know the simplest gesture of tenderness among your people. Poor darling, this is the way we comfort children among my race, and you're a child to me. I'm ten times as old as you, Yipper, think of that, ten times! I'm thirty, sweetheart, did you know that?"

From the great mushroom head there came a giant cough. "You no thick in trunk. No thirty."

"Yes, darling, oh yes, yes I am.

I'm slender because I work at it, thank you; but we don't all get thick anyhow. There, can you sit up now? Shall I wipe your tears a little?"

Yipper gave a great snuffling sound, and all the tears still on her tender bark disappeared into it. "Well, I told you all I knew. I went to work now."

"Wait a minute, Yipper. Are we friends now? How do you say friends in your language?"

Yipper stood silent. Har-Gret tried again. "No word for friends in your language?"

Yipper gave an eloquent snort. "You not hear, not see. Our sounds too tall for you; and you no have twigs for the words which are see."

"You talk with your branches?"

The dendroid made the sign which Har-Gret recognized now as a shrug. "All right," Haggie said. "I can't hear you and I can't see you except in my language. Friends talk to each other, even if it's hard. So speak Terran to me, and I promise to listen hard. Please tell me about your grove."

"Just mistake." The great eye stalks filmed with green moisture. "Just . . . melted mistake. One tree like another to human beings, anyway. Every tree I love gone like torch. I and one Yipper left, too green to burn."

"Another beautiful little girl like you? What happened to her?"

"We come here together. Yipper will not lie down easy. She have leaves already, see. Soldiers tear off her bark and branches one night, full of *pulque*."

"They *killed* her?"

"Lose bark, that kill her. Sap leak out. I give bark, but too little to save her." The small tree pointed to a hard brown scar on one side. "Soldiers crazy on *pulque*."

Har-Gret Harker could bear to ask no more. She made an agreement that Yipper would come back the next day, and then she dressed herself.

An hour later, she began to doubt that it had happened. Still, it was all on the raw tape, to be winnowed later for that would sock Haggie Harker's special audience in the guts when the reels were edited. Doubt was fed by the careful, cheerful briefing she was receiving from one of Traven's aides. The first thing he had done was to ask her for a date. When she turned him down and told him she hoped to be in the jungle that night, he paled visibly and hurried into the briefing.

As the captain explained, it seemed perfectly clear to Har-Gret Harker that Yipsl could easily be distinguished from Yapsl, that there was a real difference between the social organization of the two, that the northern Yipsl had a recognizably "humane" government and economic structure, that the southern Yapsl were visibly satellites of the dreaded bacterial empire centered in Betelgeuse, that there was a human strategic interest of life-and-death nature on this little planet which commanded a vast reach of space and was the only planet for parsecs in any direction habitable both by the bacteria and human beings, and . . . what she had most doubted, turning tapes on the movieola in her office on earth . . . that Sol was slowly, painfully,

expensively, but appreciably, winning the war by bringing immense technology to bear, across the wide ocean of space.

She thanked the aide, promised him that after what she had seen in his orientation movies of the strangling trees and the new poisons elaborated for them by their bacterial allies and masters in Betelgeuse, she would not venture into the night jungle where the Yapsl guerrilla trees hunted, and walked into the yellow afternoon sun with a feeling of bearings lost.

Jack-Jack Frens may be a snaffler, she said to herself. In fact he *is* a snaffler, but he's my snaffler. Borg Traven couldn't sell Jack-Jack a safe conduct through the jungle, let alone a propaganda structure like this; and drunk, sober or hung over, Jack-Jack is *people*. So she went back to Timber Arms, stood in the lobby and yelled, "Yipper!" When the sapling appeared, Haggie said shortly, "Get Jack-Jack Frens — quietly — and bring him up to my room. Savvy?"

"Sure," said Yipper. "You lie down with Jack-Jack?"

Haggie grinned. "That's too complicated for me to explain in pidgin Terran. Just hunt him up, will you? I trust you, Yipper. Here's half-a-credit in advance; but I want him in a hurry."

"Sure," said Yipper, "know that feeling," and she went off, mantle rippling in a suggestive way.

IV

Five minutes later, Jack-Jack Frens opened the door without knocking and sauntered in with a liter of *pulque* in his fist. "Yipper rousted me out of the bar, Haggie. The gang's all there waiting for you to dictate their tapes; but I figured you either had a beat you needed help on, or you wanted my advice without advertising it."

"Jack square," said Haggie, "put down that melted tree juice. I've got a liter and a half of Ould Kennedy Green Label in that bag over there. Pull out a can and pour us a couple of shots. I want some truth out of you."

"Harker the Hag!" he said, opening the door and setting the *pulque* jug on the floor in the hall. "You never forget you're Ace Girl Reporter, do you? How'd you get clearance to bring out this much mass in liquid form?"

"Lay off, Jackling. We were friends when we were companions, and we're still friends, aren't we?"

The tall news-taper paused in his task of evening up the contents of two glasses, looked levelly at her and said, without his usual smile, "'Til the sun melts, Har-Gret. And to take you off the hook, I'll tell you Chi-An Ling and I have already mailed the contracts. She's my permanent union, as soon as I can get home from this crazy greenhouse to consummate it. Okay?"

"Jack, I'm glad for Chi-An. I haven't time for more congratulations. Have Chi-An let me know when the consummation party is."

"Why, Hag, you won't be out of here by then. Aren't you signed on for a Terran year, like all the rest of us?"

"Sure, but you get sent home by FTL capsule if it's for the convenience of the advisory commission; and it always is convenient for the commission if you're critical."

He handed her the drink. "Hagie, Hagan knows you've got chutzpah enough to try anything; but dear heart, what mostly happens to tapers out here who offend Borg Traven is that the bookerman carries them off in the night. He ships home mighty few; but lots of tapers have died heroic deaths, strangled or poisoned by the Yaps . . . it says here."

She made a short raspberry and said, "Well, that's the way the fix fax, Jax. Thanks for the warning, and no, thanks. Give me what you know, and I'll burn the tape from here to Terra. I don't want your own stuff . . . just the background it takes a year to get. But I'll be looking at it without a year of drinking *pulque* and listening to Captain Stinks of the Horse Marines, that melting p.r. officer . . . yes, and without a year of lying down with underage trees."

He colored, and laughed uneasily. "Oh, well, come on, Har-Gret, a man is not made of wood." He giggled and said, "Well, I guess that's an unfortunate way to put it. Sha Hagan! Leave my sex life out of this. It was no concern of yours the day you packed your ear plugs and left."

She laughed explosively. "Chi-An Ling! She's got more sensitive ears than I. We were a four once, and I remember. Chi-An was the one who slept down the hall, while the other three of us sawed wood at each other."

Jack looked uncomfortable. "Well, one clause of the contract is that I'll have my septum relocated and my soft palate plasticized. What in Selva's name do you want from me?"

"What's all this tree-sweat about villages and groves?"

"Look, Hag, it's just that earth people can visualize a village as being on our side a lot easier than a grove; and they don't think of a bombed grove or a burned grove as having people in it — as *being* people; so we call them Yipsl *villages* and Yap *groves*. Who cares how many Yap groves we incinerate?"

He drank deep. "Har-Gret, we're destroying the ecology of the planet. When we win . . . of course, we will win, technology always wins . . . there won't be any planet left . . . not for these people. It'll still be here for us, and we will have denied it to the bacteria. But Yips? No, sweetheart, no Yip Sing, no Yap Sang, not a talking tree left in the universe. That's going to be our victory. I'm sorry you only got a liter and a half of this corn whisky. I'd like, just one night, to get plastered enough not to remember all those dendroids out there, burning and strangling. You brought my favorite brand, I'll say that. Did you remember I used to drink it before it was advertised?"

"I brought it because I learned to like it from you. Is there any real difference between Yips and Yaps?"

He took a long pull of the hundred-proof rocket fuel her influence had brought to La Selva. Then

he sighed. "Got any Japanese friends, Haggie?"

"Sure. You remember that fat Sumo wrestler we used to follow. After you and I split, I spent a summer with his entourage. His wife was tiny, like Chi-An. His brother was two meters tall, without an ounce of fat on him. That what you mean?"

"Exactly. They *look* different, but all regard themselves as Japanese. Any difference between them as individuals is a difference in philosophy or education or politics. You can't see that in the shape of a head or the measure-

ment from the floor to the top knot."

"You're telling me the difference here is a political difference."

Jack-Jack shook his head. "I don't think I am, am I? I didn't mean to."

"All right, Jack square, what do you mean?"

He drained the glass and poured another. "I mean the difference is whether they live in the southern hemisphere, where the forests are infected by the bacteria, or in the northern hemisphere, which we infest. And that's the only difference."

"Jack," she said. "Stop drinking for one melted minute. You are saying that we are destroying a whole species because of our struggle against the bacteria?"

"Ye-a-ess."

"No other reason?"

"None."

"The southern aggression?" she asked wistfully.

"Hagan o Hagan! The planet's tilted, like home! What Groendyk saw was the spring renascence in the south and the autumn leaves falling in the north. The bacteria were in the south already. They *would* have appeared in the north in *its* next spring; so we moved in there in the dead of winter . . . and claimed the green spring as a great opening victory for our technology."

"What about the democratic villages of the north?"

"'Sno villages," Frens spoke thickly, tears in his eyes. "Only *groves*, north and south. True trees in groves, and at the center of every grove a family of those dendroids. They live with the trees, grow with them, protect them, cultivate them. Some grovesh're hunnert milez acrosh. In the middle of a forest like that, there may be three or four Yips a hunnert'n'fif'y feet tall, and one ole gran'pappy two hunnert feet high. That's all. No villages, no government, no votes, no historic democratic tradition, nothing; just the trees and the dendroids."

"Then what in Selva's name are we doing here?"

"Good strategic reason. B44(3) is *the* command planet for one enormous globe of space. We can live here, and the bacteria can live here. Not another planet with the right specs for a third of a spiral arm. So it's us or them . . . but, baby, it's tough on trees."

Jack-Jack drained another glass of the Green Label and lay back across the bed. "This short-out juice is gonna cut off my computer in a few more minutes, Hag. If I get sick, jush drag me in and prop my head over the disposal unit. Hell of a war."

Har-Gret said, "I may be there ahead of you. Cold strategy makes a cold supper, Jacko. Not one human idea in the whole lash-up, except that it's us or the bugs . . . and melt the Yips. Hard times on YipYap."

V

Next morning, predictably, Haggie Harker was hung over, a condition which always presaged a hard time for the object of her researches. She had Yipper drag Jack-Jack Frens off to his own cubicle in the early dawn. He was so hung that working it off was out of the question. He would do well to sleep it off in a

single day. Har-Gret showered angrily and shot into her coverall. She was in line for a tour of government bureaus that morning, meeting the local administrators who held Yip Talltree's writ; but Haggie wanted to get out of the Sodom she felt the city now to be. She wanted to see what Terran boys were being translated out to La Selva by FTL capsule to do. She was honest enough with herself to know that there was some point at which she would feel that the destiny of the dendroids didn't matter, some point at which the survival of her own branch of the human race would be sufficiently important. After all, they were the bearers of the democratic tradition, though its present computerized, totally industrialized form might seem strange to Jefferson or Danton. Then she would shrug and say, "That's the way the fix fax," and mean it.

If justice and human compassion were scheduled to die throughout the galaxy, but that death could be forestalled by the sacrifice of one small planet, Haggie Harker would press the button, conceding the injustice of that planet's having been chosen by hers to do all the dying for both. But pressing one button, the classic choice of the philosophers, was different from being asked to affirm and approve an endless series of green tree burnings and flooding out of forests old enough to support creatures like Yipper, but a hundred feet tall. Saving one's own world and way of life somehow failed to justify the casual cruelty of painting a hotel name on the stripped skin of a dead dendroid.

So the time had come for Haggie to satisfy herself as to the actual content of the war. There was no front, only "operations"; and it was fully fifteen minutes before Haggie Harker was recognized by two bug sergeants and, when she confessed she wanted to see a combat sweep without the clearance of the top deckers, smuggled onto the flame deck of a jumper.

An hour later, the "boys" — and they *were* boys, that was the Hagan of it — were gleefully pouring the undying fire into the heart of a grove so massive and so old that it seemed like a green mountain. Around the flickering edges of the flame, the darker flickering of fleeing bacteria could be seen, bursting into corona-like arms visible through the firewatching goggles the young Terrans had lent the famous news-taper.

"Burn those bugs!" the young men shouted, while the range finder monotonously ordered the fire to be spread, repeating again and again, "Bacteria moving out north by west . . . one mile west . . . flames one high, two high, and spread . . . "

Meanwhile one of the bug sergeants was explaining. "The whole base of this flitter craft is sensitized to the presence of bacteria in any significant concentration. We've had our eye on this patch of forest for about a week. It's a main stop on the infection route, and they're probably dug in fifty meters below the roots of those innocent-looking trees. That's why we can't let the fire die. It has to keep burning until there isn't a living thing here. Then we consider that

we already have secured the grove."

"But there's no grove left. When does it grow back?"

"I don't know, Haggie. I just work here. You know what I mean: they don't tell us that; but some of the ecology boys say it may be a hundred YipYap years."

"Do they fight back?"

"Well, no, the trees can't do much, at this distance. The big dendroids snap those long tentacles like catapults, and sometimes they can throw a load of bacteria near enough to do some damage. We've lost three-four thousand men that way."

"I thought our technical superiority was such that no Terrans were being lost in combat."

The sergeant looked at her. He was a professional, and he would be here after the draft of boys he was running on this sweep were home or dead. His look was the weary, cynical one with which the combat man has always regarded home front propaganda.

"But surely the greatest number of losses is from sabotage and from the guerrilla trees?"

"Oh, sure. When you walk out of a saloon with a tree tart on your arm and a tentacle drops around your neck or poison sap spews in your eyes, it's a bad war, Ma'am."

Just then Haggie got a better demonstration than she ever wanted to remember of the fighting capabilities of the tall dendroids. There suddenly appeared at an open gunport a fuzzy black cloud which sucked itself into the jumper even as Haggie was screaming and pointing. Nothing she had ever seen on her colleagues' tapes made her realize that the bacteria were intelligent more than the deadly way in which the little cloud oriented itself, shot like an arrow to the guidance controller and killed him with a fulminating infection that struck so fast he never cried out.

As the ship automatically began to sink toward the forest, the dead man turned black. Clouds of black erupted from every orifice of his body, each headed for a different member of the crew. A black blister made unerringly down the dead controller's umbilical cord to the organic guidance mechanism, and killed it. The noise of propulsion died; the roaring flame nipples blew out; the only noises in the vessel were people whimpering with haste to get their bugproofs on, and the rush of air as the ship fell more and more headlong.

From outside and below came the sound Har-Gret Harker could never forget. The burning trees were screaming.

It was that agony of noise she remembered, retching and crying in the rescue boat that had swung over them and taken off the few survivors.

When she faced Borg Traven the next day, Haggie Harker knew her face had wrinkles she would never be able to iron out. "General," she said, in the tone news-tapers adopt when they expect to be lied to, but have to ask a question for the record, "what justification can there be for the suffering we are causing to the trees and dendroids of this world? Surely there is some strategic objective to be gained short of a world

of ashes. Even if we were justified in destroying a whole unique species because of our own danger, can we justify doing it with flame-jumpers?"

Borg Traven sat completely immobile for a moment. Then he passed a great hand over his face, and the face that emerged from that message was infinitely sad. "We explain what we do by the necessity of our own lives. If the trees would only throw off the infection and stop resisting long enough for us to begin rebuilding what we have destroyed, we would leave this a garden world, with only a few strategic enclaves to assure the bacteria could not infiltrate without our knowing in time to fight them off.

"I don't condone brutality, and I don't enjoy the spectacle of Terran boys pulling the bark off tied down trees and enjoying it. I know how they feel, though. When you've got to get information and you're dealing with organisms that are resistant to questioning drugs, you've got to be awfully patient and tolerant not to feel that torture is a justified shortcut. Boys who've seen their friends strangled and poisoned and blinded right here in town by killer trees that just slip into the forest, sink their roots in the soil and become indistinguishable from the rest of the plants can't be expected to be as tolerant and patient as you and I are.

"One last thing: don't forget that the technique of bark stripping was taught us by the dendroids. They practice it on each other."

"I've heard about that. They girdle a dendroid that's invaded territory belonging to another grove, blind him and point him for home as a lesson to the others in his grove. It's something they've been doing for thousands of years. Bark stripping is a part of their culture, and an ugly part; but at least it's isolated, it has some relation to what are valid cultural goals *for them*. It's bestiality for *us*. We institutionalize sadism when we let it happen. We're supposed to be the most advanced technological planet in the galaxy. Is the best technique for questioning prisoners that we can come up with a particularly unrefined brand of torture?"

The general looked straight at her, agony in his eyes. "Is that the thing that most worries and frightens you? Not me. At least when you're torturing some creature, you have a relationship with it, however twisted. What sickens me is the genocide we're working on the whole planet. We've killed enough trees already to alter the ecology of the planet. It's becoming gradually less desirable and more expensive for the bacteria to maintain their infection outposts; but we're doing it by using the first technical discovery man ever made — fire. Did you hear any trees screaming when you were falling into that burnout yesterday?"

"Yes," she said, pressing her hands to her eyes. Somehow, if she could erase the image of miles of green trees in unnatural flame, she could get the dreadful sound out of her ears.

"All right!" General Traven said, leaning forward and grasping both her wrists so he could pull her hands away from her eyes. "You got yourself into that before you were

ready for it. I can't protect you from yourself. I have no illusions about that. No general can restrain a newstaper who knows half his non-coms from a dozen other brushfire wars. You can go anywhere and see anything you want to. The only way I could stop you would be to shove you in an FTL capsule and zeep you back to earth; and I'd be dead on every news-tape in the galaxy if I did. But Har-Gret, this is an ugly green world out here. Will you just let me control your time for the next two days? I promise you'll be briefed on some items the *pulque* pool doesn't even know exist. At the end of that time, the world is yours; or the Yip Sing part, anyway. How about it?"

She nodded with tears glittering on her eyelids.

"Now," he said, I've got to get you out of this office. Or I never will." And he smiled a real smile.

VI

The p.r. captain's eyes opened when General Traven described the briefing to be given Har-Gret Harker on the new technlogy about to come into play in the war. Borg Traven's orders were certainly not to be questioned by any creature as low as a captain, however, and the newstaper soon found herself talking to lab men and technicians who had been FTL-zeeped out to get the new weaponry into action.

"Actually," one of them said in the accents of Old Oxford, "we shall give up doing anything to the trees as groups and groves. We are going to reduce General Traven's war to a man-to-man, or I *suppose* I should say, man-to-dendroid combat. We have a new filter — there, slip that over your head — that's good for a hundred hours against even the densest swarm of bacteria. The soldier will be equipped with a personal flitter — oh, you're familiar with them? One forgets you've just come out, yourself — with which he can escape from a strangler tree. The head filter ought to hold off the poisons as well as the bacteria. The offensive weapon is this little aerosol pistol. See? The sidepack carries forty recharges, and we figure the whole thing is good for eighty dendroids, given optimum conditions."

"What does it do?"

"Why, Miss Harker, it's a rapid rot agent. Beauty is it only gets the dendroid, or the one or two trees in a small grove that have been infected by the bacteria. You know, it's harshly hard work for the bugs to infect trees — real wooden trees, I mean. The metabolism of the dendroids is such that it's much easier; but the bugs can't afford to reduce all the dendroids on the planet to acute illness. Then they'd have nobody to run the place for them, collect their space tolls, conduct limited negotiations with us and all that. When we get these into full production and front-line use, the action will take a dramatic change."

"We'll be burning them one at a time instead of in groves?"

The Oxonian mustache twitched a little. "Ye-es, you could say that. Rotting is a slow sort of burn. And

since this takes place in twenty-four to thirty-six hours, you might say that. Still, it's rather more humane than a burnout, where a whole grove, seedlings, saplings, tall trees and all gets reduced to ash. Don't you think?"

"Oh yes," Haggie replied. "Does it reduce the one creature that's been sprayed to a pile of smoking ash? As an example to the rest of the community, that sort of thing?"

"Miss Harker, I have the feeling you're pulling my mustache. Don't you *want* to deny this planet to the bugs?"

"Hagan o Hagan! How many ritual obeisances do you people want? Of course I want this planet and the whole universe bacteria clean. I just don't want every other animate, intelligent creature in the galaxy ganging up on us because we're as bad as the bugs. Do I have to call General Traven to get a straight answer to my question? What is the actual physiological effect of this stuff on the particular dendroid sprayed with it? Is he reduced to ash?"

"N-no, not — not quite. It's a rapid rot, but the net effect is just that of a very old, hollow tree. The wood goes, and the bark becomes porous and crumbly, glows in the dark, you know. Everything decays except those thornylike things around the trunk near the 'head' — haven't you noticed them?"

"Yes," Haggie said, "but I shouldn't call them thorns. Not like rose thorns or even cactus thorns. They're soft spines, like on a young citrus tree; even the points are soft."

"Well, something in this stuff stimulates the growth center for those organs — if that's what they are; appendages I suppose would be a better term. They become about a foot and a half long and extremely hard. About the consistency of good teak or heavy mahogany, I should say. The thorns are really all that's left."

"Here's the important question," Haggie said. "When do we get enough of this stuff to make the difference in the character of the war and to start winning it?"

"Oh, we're winning it now, Miss Harker. The flit-flamers, the defoliants, the water-firing rifles that burst the whole inside of a tree out, these devices are carrying the war to victory, as a war. They're *too* effective. Have you seen them in action?"

"I helped kill a whole grove thirty miles across with them," Har-Gret Harker said through gritted teeth. "If they finally come through with long-life pills and I live to be a thousand, maybe I'll forget it. You're hashup right they're too effective."

The technical man colored. "Hashly, if you don't mind, Miss Harker. Hashup was an obscenity at my school."

"Melt your sun! And your hashed-up school too. Can't you give me one straight answer, without simpering? When? When will we win this war by technology, instead of just slaughtering a world . . . by technology?"

"Doctor Xylophage . . . do you know of him? A Venusian, you know. Personally, I find him a lot more repulsive than a nice, clean,

well mannered dendroid with sense enough to keep the dirt off its roots in a house. But it takes all sorts of efforts in a war. Doctor Xylophage, who invented the rotting agent, says that we ought to have the kinks out of the weaponry in another year. Say a year more to get it all in the pipeline, and the war should be over in three years at most.

"You see, the great thing is the dendroids won't be able to resist this. They don't have weapons in any conventional sense. Strangling with tentacles is something they're physically adapted for; and poisoning by excreting liquids through their roots is something they've been doing to control the breeding of the true trees for hundreds of thousands of years. But they have no technology, as we understand the term. No machines, no metal. When they had this world all to themselves, it was a gigantic greenhouse, and even the tenders of the plants had become treelike: the dendroids.

"When we get the delivery system elaborated, every human being on the planet will wear the filters whenever he's out of doors. There won't be any night patrols. A few months, really, free of strangling and poisoning, rotting down the leaders of the Yap infiltration from the south, and we'll have B44(3) buttoned down like Kew Gardens."

"Three years! Three *years*!" Despite the hardening she had endured in a dozen ugly, necessary human actions she had reported on planets across the Terran side of the galaxy, there was something basically anti-*human* in the thought of continuing the burning and destruction of the groves for two or three more years that sickened and horrified Har-Gret Harker.

She fled from the technical briefing, convinced beyond doubt that earth would win by the shaped and directed power of its industry and the gadgeteers who had never failed to find better — deadlier — methods of disposing of earth's enemies and of neutrals whose neutrality partook of enmity, but also convinced that the history of the reduction of La Selva would be remembered in every un-human planet in the galaxy and that earth would never again be trusted. Cultures who had never known the genuine blessings of computerization could be forgiven if they did not embrace it at once. To such a culture, even the deadening influence of the bacteria, who infected a world by controlling its every leader in a state of chronic illness, might seem preferable.

The worst thing for Haggie Harker was that she knew she and she alone, at this stage, could put the whole dreadful story on tape. And she knew she had to. It was too late for her to root out the motivations that had become part of her character along with the hardening in the wars she had reported.

Tell all, tell true, was her motto. She could not renounce it. Not now. Not ever.

VII

In a visible, seething rage, she went back to Timber Arms. In her room, she slammed and locked the

ill-fitting door. For a few minutes, she sank on the bed, crying. Then she stood up and headed for the mirror cubicle to repair the ravages of her tears. She glanced once around the room and slammed the door to the mirror cubicle. The metal powder and rouge case she tried to open resisted her fumbling fingers, and winding up like the legendary Don Wilson, she threw it to the floor. The silver object bounced three feet high, and as it came to rest with a rattle, a tiny voice was heard issuing from the bottom of it. "That you, Haggie?"

"Yes," she hissed, squatting on her heels. "Sam, open me up a whole tape bank. I want one solid hour on tonight's reel. You've got the stuff on the flame treatments we've been holding because the administration says they're Yap propaganda. Sam, I was there. I helped burn a thirty-mile grove, and Sam, I heard them. Some of it's on the tape bank here in my room. You just run that video we've been holding behind my audio, and we'll burn a few woodenheads of our own."

The compact answered, "Can't tonight, baby. Draft riot in New Chicago, and the Administrative Chairman himself is out there, showing the local love-chiefs how to push buttons. We're covering it live. Yours will have all the more carombo! when we run it tomorrow night, right after the Ad Chair closes his press conference with an assurance that everything is all right, everything is necessary, and anyway, we're winning the good fight. Comfortable, kid? Lie down or sit down and dictate."

Two hours later, she was beat, drained, and shivering from the reaction to high-speed organization of the material in her head and on her tongue. The little transmitter, which tapped the galactic flow in the same way the FTL capsules did, but which had not yet been thought about in the administration's labs, was the secret weapon with which Haggie Harker had come to La Selva prepared to topple a military public relations machine which seemed to brainwash news-tapers. Sam Smackover, her editor, had said, "Haggie, we *believe* in machines. I could make out a pretty good argument that we *worship* machines; or the idea of the machine, anyway. What's happening to those tapers out there is that Borg Traven's throwing them in a jumper, they see a grove burning with few losses of human soldiers, the hurt ones being zeeped back to hospital and operated on just as soon as they're infected, even the bacteria, schizzy as they are, being held off and gradually worn down by our machines, on a world that's so non-technological it hasn't got the wheel.

"Every one of us is susceptible, in such a situation, to thinking how much better off those people would be with good old Terran high speed waste disposal, portable shower baths, and ordering food by computer. Would they really? Do they really want this from us? Are we winning, even if we *are* winning?

"This little gadget is my insurance policy you won't get brainwashed. You get on this FTL transmitter, for Hagan's sake without anyone

seeing or hearing you, within a couple days after you get there. I want that emotion fresh and hot. Give me everything you've been saving for that permanent union, baby; because you may not get back from out there after we get this on the reel. It may be the last tape you'll ever dictate or I'll ever splice."

Now she had done all Sam asked, all she asked of herself. Why wait? For a long time, she looked at two bottles of pills, picking up first one and then the other. In the end, she took the dreambits rather than the quickdeath, but she could not have told why.

Next day, of course, was another day. Life so feeds on itself that just to be alive compels us to go on living, and living compels us to do things as if there would be an infinity of days in which to do them. Haggie shopped for souvenirs in the morning, had a curiously teetotal lunch with Jack-Jack Frens, and in the afternoon responded to a communicator call from General Traven's office. When the general asked, in his diffident way, if he might give her dinner, she shrugged. She could not feel that he was as antihuman as the policies he administered. She *was* sure that she would never be asked to dinner by him again after word of her tape got back. That would be three weeks by tight beam radio, a week if they sent it by FTL courier, or a day, if the administration seized the FTL transmitter from All-Planet News and her instrument were in the hands of Borg Traven. Should she give it to him? She could not decide; but she took it in her gold mesh evening bag.

For this evening, Haggie had chosen not to wear the coverall which was so easy to hide within. She had one good cocktail dress with her, one set of accessories, and she disposed the whole ensemble to do herself full justice. Why? she asked herself. I *know* I'll never be even a companion to this man, let alone join a permanent union. One-night jumps were never my style. So why the trouble? He said a native restaurant . . . that always means romance, on these colonial outposts. She stiffened her back, so that her ear drops hung like plumb bobs, and said to herself, At least he'll know a real woman did it to him. Let his sun melt!

She got into the cab beside a general resplendent in as near full dress uniform as regulations would permit in a combat zone. To her surprise, he also carried a side arm; and from a small knapsack on the seat, he extracted one of the new filters for her to wear. "Wait a minute," she said, drawing back from the proffered filter, "what kind of place are we going to? I think I'd prefer the officer's club, even if your rank scares everybody else out of the place."

He smiled his little boy smile, and said, "My rank couldn't keep those juice jockeys away from you, Har-Gret. You are a lovely woman, and none of us has seen anything like you in a year."

"Well, where are we going?"

"It's a genuine place. There may not be another human being besides us. No human food on the menu. But

it's secure. The filter is because we do have to transit a burnout near the edge of town, and there are saplings growing back in the area."

"Saplings!" she cried. "Must we fear saplings?"

"Oh, they have roots, these young dendroids. That means they can spray poison. It might not be fatal, but I've no mind to be blind either." They both slipped on the masks, but the burned section was hardly a hundred meters across, and they felt a little foolish when the cab deposited them at the restaurant without incident. Just before they arrived, Haggie asked, "How can you trust this Yip? Why aren't you in a command car?"

"We're not in a command car because I want to forget, just for tonight, what my job is out here. I trust her, anyhow . . . that's right, it's your old friend from the office. Here, Yipper," he suddenly shouted, "turn around and give Miss Harker a hello smile!"

The toadstool head slowly twisted until the bulbous eyes on top were directed at Haggie. The mantle slit rippled for two feet, and the dendroid said quietly, "I Yipper, Okay."

VIII

The restaurant was unbelievably lovely and serene. It was not exactly a building, but neither was it just a clearing in the woods. The light was hard to trace to its sources, great luminescent insects who fluttered slowly overhead. The food and drink, though exotic, were well within the range of human metabolism and appetite.

Har-Gret Harker looked at General Traven over the liqueurs, which smoked greenly in leafy cups, and said, "Borg, you're a good man. I don't know why you're doing a bad man's job. I don't want to hear your formula justifications for it. You love this world, and you love the people. I can tell that you even understand a little of the dendroid language. If you had twigs, you'd try to speak it. I just want to say to you that *you, you* as Borg Traven, an existent human being, not General Borger Traven as a memory pulse back at earth central computer, need to go. Now! While there's something to remember. This restaurant won't be here in a year, Borg. This world will be a ball of ashes, and you can't stand to be here and keep pushing the buttons that make it happen. Get out!"

Just then a tiny pinging sounded on his wrist, and he lifted it to listen. In a moment, he said, "You're right. I'm killing La Selva, and Selva's death is killing me. I'm caught. I have my job to do, and I believe in it. I believe in Terra's computerized democracy, and I hate the dead worlds where the bacteria rule. I'm willing to die myself to keep the bugs from Terra. Why shouldn't a world, even a green and pleasant one like this, be willing to die for the same thing? There are a million worlds in the galaxy. Shall I let my affection — my love, if you like — for this one kill them all?

"Come on. My wrist communicator just summoned me back to the office. There's a massive night attack ten miles down the line from our

enclave here, and something new is happening. I've got to get out there and see for myself. I'll drop you at the hotel."

She sat frozen. "I heard what your duty officer said. I heard it on this thing in my handbag."

He nodded, unsmiling. "Yeah. Not much *really* gets away from the central computer labs, you know. We didn't know All-Planets had it, or you would have been searched when you got here. And yesterday afternoon, we couldn't get a fix on you to shut you up. Where in Selva's name *were* you?"

"In my bathroom," she replied mechanically. "But . . . doesn't it

make any difference to you that I've tripped the switch on the whole murderous adventure? That tape will light fires on earth from one pole to the other. Or will it be shown?" Now she *was* frightened.

"Oh, sure it'll be shown. Computer democracy. It just won't make any difference. The machine is too directed toward this war. La Selva is too strategic a planet. Doubts are too costly. If we drop back here, we drop back all across the galaxy. It means abandoning a thousand planets. So YipYap is going to die, that all the rest may live. People feel the administration *must* know more than they about what's best. Come on."

They walked in silence to the cab, and rode silently for a few minutes. As they approached the burnout, so that they were out of the shade, the tiny planet's tinier moon cast its aquamarine light into the cab. General Traven's head was back on the cushion. He seemed too weary even to adjust the filter. Haggie had slipped hers on, but she felt foolish, even only ten miles away from where trees were killing human soldiers. Something new, she thought, what could that be?

The cab glided into the burnout. "This good place," hissed the dendroid driver. The cab stopped, and as Borg Traven sat up and reached for his side arm, soldier's instincts aroused at last, a root appeared over the back of the seat and a concentrated jet of poisonous liquid spread over the general's face. It was so virulent that it had not yet begun to drip on his uniform when he sank back, dead.

"Yipper," said Haggie, in a transport of fear, "don't kill me. You can't kill me, anyway, I have the filter on. I won't let you strangle me, because I have the general's pistol. It fires the exploding water, Yipper! Sit still and listen. I'm your friend. Yes, and Yapsl's friend, too. I love this world and its people, all of them. I don't care what we want here, Yipper, we're wrong to be here. I've sent the word to the earth that may get us all off La Selva. Take be back to the hotel and I'll help more. I'll say Traven was all right when he left me off. You can just disappear into the forests . . . or go back to the office. I don't care. I can help you, Yipper, more than any other human being. Let me live, Yipper, and I'll let *you* live. I'll *help* your people to live, thousands of them."

"No good human beings," the

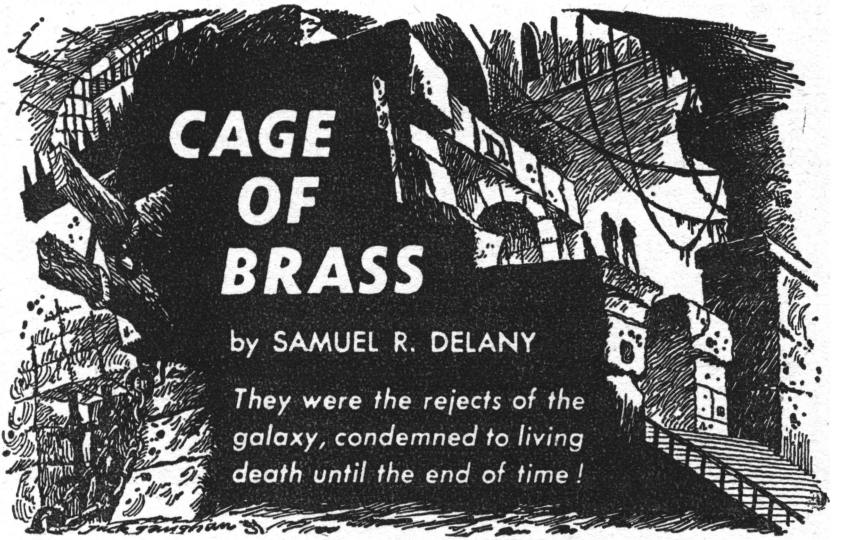
creature piped. The great upper part turned in the seat, and a tentacle pinned down Har-Gret's hand with the gun in it. She squirmed. "This is just a standoff, Yipper. You're not strong enough to strangle me and hold my gun hand too. You can't poison me. Be reasonable, Yipper!"

The great bulbous eyes turned full toward her. For the first time, she was forced to look directly into the dark green depths of a dendroid's eyes. She seemed to be looking into the depths of a very deep well.

In a shrill whisper, the plant-animal said, "I Yapper now." Another tentacle appeared over the back of the seat, a weak one, holding some object, dark and polished. With a shock, Har-Gret realized it was a rot-hardened thorn.

Yapper said, "One weed with a thorn is an army. There are no good human beings." Har-Gret's eyes were still fixed on the thorn in horror when the point slid into her throat.

END



CAGE OF BRASS

by SAMUEL R. DELANY

They were the rejects of the galaxy, condemned to living death until the end of time!

Describe the darkness inside Brass? It was too complete to fix with words. He shunted and shuttled through the dark until he stopped in one of the cells, was lowered by mechanical hands into the glycerine coffin, and the lid fell like a feather falling on a mound of feathers. That darkness? Perhaps you could hint at it with a lack of words. Perhaps you could hint at it by saying that once the voices came, there was nothing else:

"Hey!"

". . . aaaaaaah . . ."

"Hey! What's your monicker, buddy-boy?"

"I don't tink he wake up yet."

"Shut up! Hey, come on and give with something beside the grumbly-grunts!"

". . . . aaah . . . wha . . .?"

"He comin' roun' now!"

". . . who are . . .?"

"I'm Hawk, grunter. And that's—"

"I'm Pig. Hawk wants 'a know what they got ya for."

"Oh. I . . . my name . . ."

"That's it, baby. Give Hawk what he wants. Hawk always gets what he wants."

" 'S'right. You tell 'im, Hawk."

". . . Cage. Jason Cage."

"Who'd you cross, Cage, to get stored down here in the sub-basement with the likes of us?"

"I . . . look, leave me alone!"

"No!"

"I don't . . . I just want to be left —"

"I'll make Pig do his hollering act. Baby, that'll drive you battier than you feel now. Go on, Pig. Holler."

"Aloooah — glogalogologologa —

*Rheeeeeee*shiminy! Biminy! Whiminy! Zapologologola —"

". . . all right!"

"You don't get left alone, Mister Jason Cage. I been here a year now with nothing but Pig to babble with. And they burned out half his brain before they dumped him down here. No, you ain't going to be left alone. You talk to me!"

"Hawk wants 'a know what they got you here in Brass for."

"And you're going to tell Hawk why they got you here in Brass. You hear that, Mister half-asleep Cage?"

"(breath) . . . (breath) . . . I guess you fellows don't get too many newspapers down here."

"Never read no newspapers even when I weren't here (chuckle)."

"Shut up, Pig! Come on. Spill, Cage."

"I don't want to talk about —"

"Talk!"

"I'll tell ya all 'bout me if ya tell me 'bout you. Ya gotta talk, Mister Cage. I heard jus' 'bout all there is to hear about Hawk. An' there ain't much left to hear 'bout me. Please, Mister Cage —"

"Shut it, Pig. Cage: Talk, I said."

"All . . . right. All right. But it hurts."

"Hurt, Cage."

"They ain't put us in Brass to make us happy —"

"There's a world out there. What world do you come from, Hawk?"

"A place called Krags, from a city called Ruption, where the streets are cracks down to the hot core of the planet, and lava broils up with sulphur and brim."

"Yeah, yeah, you told me all about Ruption, where the green and yellow smoke twines up between the balconies of the rich men's palaces in the charred evening —"

"Shut up, Pig. Go on, Cage."

"Don't shut up, Pig. What about you?"

"You wanna know where I'm from, Mister Cage?"

"He's from a world called Alba, Cage."

"Yeah, an' a city called Dusk. Dusk is in the mountains, where we got caves cut way down in the ice, and sunset and dawn flame in the fog and make the ice dance like diamonds."

"I've heard it, Pig. Let Cage talk."

"Well I come from a world called . . . Earth."

"Earth?"

"Be quiet, Pig!"

"From a city called Venice. At least that's where I was arrested, where I was tried, and where I was sentenced to spend the rest of my life in Brass. Venice? There the ocean comes and makes streets between the great palazzos and crowded slums strung with clothes lines, where the motorboats stop on the market street, decks spread with cabbages and tomatoes and persimmons and mussels and artichokes and clams and lobsters. Where the visitors and the architectural students and the bankers and the artists stroll down the tiled trapezoid of the Piazza, move among the pink columns of the Doge's Palace, come and walk down the waterfront and gaze into the canaletti where the Bridge of Sighs arches between the Doge's palace and the

old dungeon. Where the students will see you wandering by yourself with the park on one side and the sea on the other, and run up to you and slap your back and tell you to come with them, and drag you back to the Vaporetto that winds down the grand canal, singing and joking with the girls, while I try to point out to Bruno the historic bits of architecture that have fascinated men of earth since Ruskin. They storm down the alley to the Mensa, rollick over the Ponte Academia, its boards brown and hung with moss underneath, pass the little wine shops, then upstairs, where you pound on the doors to make the cooks let you in and then everybody is eating and singing, and Bruno is telling you that it is all right, not to worry, and you cannot be sad any more because it is Venice . . . ."

"Hey, wa' 'sa matter, Mister Cage?"

"Go on, Cage."

"Have either of you ever seen Brass from the outside?"

"Sure as hell can't see it from the inside."

"Shut up, Pig. No."

"It's on a plane of rock and snow. Even the clouds are scrawny. They shroud the nights and let the stars peak down on Brass itself. And it just sits there and doesn't look back."

"Nobody's ever supposed to have seen Brass, Mr. Cage."

"Yeah, how'da ya know what it looks like?"

"I've seen a picture. I've seen many things I'm not supposed to have seen, Pig. I was an architectural student, you see."

"On Earth?"

"In Venice?"

"That's right. I was once allowed access to the plans. I got a chance to see where all the corridors go and where they come from."

"You did?"

"I could tell you where every brick and block on Hagia Sofia is placed and mortared. I could tell you how they put together the optical-illusory temple of Ancqor on the world of Keplar down to the last mirror. And I know every blind corridor and twist and turn and gate and time lock and drainage conduit in Brass."

"You do?"

"Hey, you mean you know how you could get out of here?"

"Venice . . . ."

"Hey, Hawk. Maybe Cage knows how to get us out of here!"

"Shut up, Pig. Keep talking, Cage."

"Venice, that's so far away now; no more nights in the wine shop while Giamba throws his knife to cut the sausages hanging from the rafters; those nights where we drank the wine from the south and the wine from the north to see which was sweeter. They are gone. Bruno is gone. And so is the beautiful lazy-eyed girl who destroyed it all, Bruno, me, and the beautiful girl called — ."

"Cage!"

"— Sapphire!"

"Cage, listen to me!"

"Yeah, you better listen to Hawk!"

"Sapphire is gone . . . ."

"Can you tell us how come these three coffins can talk to one another? I been in one coffin before this one.

I cried and screamed and whimpered like a dog there. But this is the first one where I ever heard anyone answer. All the answer I got was Pig. But it was more than before. What is it, some kind of whispering chamber effect?"

"Why we three can . . . hear?"

"Yeah, can you tell Hawk an' me that? I been in two before this one an' I ain't never heard no voices."

"The tri-nexus . . . yes, that must be it. The prisoners in Brass are stored in glycerine coffins that feed and wash them and minister to any medical needs and keep them from hurting themselves . . . too badly. You can hurt yourself just to the point of death, then the coffin knocks you out with drugs and makes you get better. You can get out of it to exercise once a day, in the dark, in a little stone cubicle — "

"Yeah, yeah. We know all that, Cage. But why the parly-parly in these three coffins?"

"At the tri-nexus — that's at the very bottom of the prison, three chambers come together around the old drainage pipes. Hollow metal pipes instead of stone between these three chambers. A new drainage system was put in a hundred and fifty years ago. If the pipes were filled up with waste and things, then you couldn't hear. But the new system goes somewhere else. Now that the pipes are empty, these three coffins in the lowest level have . . . well, you can hear . . . through the drains."

"What about getting out, Mister Cage? Hawk and me sure would like to get out of this."

"Quiet, Pig."

". . . the drains . . . of the city, emptying along the canal, into the water, the bits of paper, the leaves, the filth of animals and humans floating in the water along the back canals of the city . . . ."

"What's 'a matter with 'im, Hawk?"

"Just listen, Pig."

". . . alone, wandering alone in the back alleys of the city, the sky running like purple waters between the narrow rooftops, the water beside me like black dirty blood, arteries laid open between crumbling stones. Oh, it's a terrible city, beautiful with its wells and its rusted railings, and its rickety porches hanging over the water, its shop windows alive with the glass of Murano, its children dark-eyed and dark-haired with skin like dirty soap, city of beauty, city of loneliness . . . . "

"Cage, we're alone. Here in Brass, you hear about it all the time, the prison without guards. It's all automatic. All the coffin changing, the feeding, it all goes on without guards. Now you say you know how Brass is laid out. How can we believe all that?"

"I know. I knew the stones of the city better than Ruskin, better than Persey. I knew the crack in the rock where Napoleon laid his pick to the Ponte San Marco, and I know the workings of the locks in the dungeon by which the Doge could flood the lower chambers of the prison when he had to be rid of vast numbers of political prisoners without question; I knew the passage by which Titian's *Ascension of the Virgin* was smuggled

from St. Mary's to the cellar of Di Trevi the wool merchants, or the foundations for the gate by which Marino visited Angiolina before their betrothal. I have walked down the staircase of the palace as had Byron and Shelley, and like them I had found the secret entrance into the palazzo Scarlotti where the nightly debouches are still being carried on by the decadent sons of the sons of Fottia, in the mirrored halls, in the tapestried pavillions. All of the city was open to me, and I was profoundly alone."

"What's he talkin', Hawk?"

"Shhh . . . ."

"And into my aloneness, into the Venetian evening, came Sapphire. Hawk, Pig, have you ever seen a woman?"

"Hey, Hawk, I think he's outa his head."

"Pig, who was the most beautiful woman you ever saw?"

"Huh? Well, there was Jody-b, and when I us'ta bring in my haul back in the caves of Dusk, she'd laugh and wollop me and wrestle me for the best pieces, and the others would stand around the fire, hoopin' and hollering, and bettin' on which of us, she or me, would win — "

"I knew a woman in Ruption. She walked in the burning streets of the city, and the flames fell back into the earth around her. Her name was Lanza, and when she dropped her fire-colored hair across my face, her fire-colored mouth on mine — "

"Neither of you have known Sapphire. Neither of you have known a woman. She was the daughter of an Ambassador to Earth from the thirteenth planet of Sirius. You come from Krags and Alba? She had summered on one and wintered on the other and found them dull, tawdry, productive of incomparable ennui. And she had come to Venice. I saw her three times in one afternoon. Venice is a small city, and if you are wandering the streets, you will pass other wanderers many times: first on the steps of the bridge at Ferovia, while women with their husbands carried their baby carriages across the steps, and lottery venders hurried by, their sticks streaming with tickets. Again, at the Rialto, I saw her as they were closing the stalls along the bridge, and she stopped to examine a flask, then replace it and look over the balustrade into the water; the third time, when I dared speak to her, was on a little back canal, where she had stopped on the tiny Ponte Diavolo, leaning on the rail, while the sunset gilded the swell of water that flapped at the rotten, rusty stones. I came upon her just as she was offering a piece of something to one of the cats. I ran to her, struck her hand away, and when she drew back, frightened and surprised, I explained that the wild cats that roamed the city were vicious, many of them diseased, and that with so much fishing in the city they could fend for themselves. First she looked offended, then just annoyed, but at last she laughed and agreed to go with me when I invited her back to the university, begged her to come, explained how much fun the students were, how delightful the city could be with good companionship, till at last she smiled and exclaimed, "Why, you poor, lonely

man. Of course I'll come with you," and she came, while I told her all about the prizes I'd won, and the buildings I'd planned, and the papers I'd written; and when we reached the Grand Canal, I helped her onto the vapperetto; and as we plowed the water between the gorgeous facades, I pointed out to her Ca'doro, the the Scholas and the great merchant palazzos that towered into the evening behind the colored landing poles, their reflections shimmering until the public-boat's ripples shattered them. And when we went up to the students' dining room, oh, they were so friendly with us, and Bruno came all the way over to invite us to the party he was giving that night. 'I couldn't find you earlier or I would have invited you before,' he explained. And that night we drank wine and danced on the balcony, and the breeze lifted Sapphire's scarf and hung it over the moon for a moment so that her face was in shadow, and I held her hand, and she smiled in shadow, and below the water carried flecks of silver down toward a bridge. And then the scarf dropped again . . . ."

"Hey, Hawk! He's stopped talkin'."

"Cage? Hey, come on, Cage."

"W-w-why . . . ."

"That's right. Go on, Cage."

"Why do . . . men commit crimes? Your voices in the darkness, why do men commit crimes in the first place?"

"I guess I jus' did it 'cause I was hungry. It gets cold at Dusk. I got hungry, and stealin' was easier than workin'. Only I got caught. Which would'a been okay, only I got hungry again an' stole some more. Bout the fifth time or so, after I'd beat up on a couple of patrol men, and two of them died, they just threw their hands up and threw me down in Brass. You say why do people — "

"I say why is this, Cage. The streets of Ruption are filled with hot fires and hot men; there is revenge; there is pride; there is the writhing hate for the workings of a decadent world that curses us with morality. That's why I ran my gang of marauders and looters through the coffers of the city, battled the flying patrolmen from the roofs of the palace, watching my men fall around me, laughing as the floodlights swept the roof and I shook my fist at the sky that blazed with the fires of their jets bright as the fires of the streets, firing back, till I was the only one left — "

"No . . . . Hawk. That's not it, Pig. Or perhaps that's what it is with some men. But with me it was so much more, so *much* more. It was later in the evening, when again I went on the balcony, to clear my head I was light-headed from joy and wine, and as I gazed on the water, the lights reeled before me, my knees gave and I fell with my face pressed to the cold bars, looking over the red-tiled roofs of the city, bleached now by the lowering moon. For a moment I thought my exaltation was to be replaced by sickness. I pushed myself up, turned back to stagger between the glass doors, with the curtains shaking in the breeze. Wine bottles had spilled on the rug. Giamba lay on the couch, his hair awry, his

shirt wet with his own bile. The plates of hors d'oeuvres were half empty, and even those that were not had been used for ash trays. The only light in the room was from the stub of a candle in one, still-upright bottle. The moon reached in white fingers and brushed away the shadows. I staggered forward. They were all gone, I thought at first. Then, in the doorway of Bruno's room I saw them.

"Blades of pain shot into my head, tried to unfix my eyes! I swallowed what rose in my throat, swallowed what rose again! Muscles all over my body began to shake. Then something came out — I thought it would be a scream, but it was laughter.

"Bruno raised his face from her neck, frowned. Then he asked, blearily, 'Are you going now — '

" 'Oh, yes,' I told him. 'But the two of you must come with me. The night is just beginning. Come, come, I will show you a really good time.' She looked at me, as drunk as he was, and I knew that for a moment she did not even remember who I was. Oh, I was maniacal with my laughter. I hustled Bruno, protesting, into his jacket; and as I wrapped her scarf again and again about her shoulders, I suddenly felt her start, pull away from me, but I pretended not to notice, chattered on cheerily, and almost pushed them out into the hallway, where Bruno asked, 'Now what party would anybody in Venice invite you to?' Only I just laughed, and soon we were out on the little walkway beside the canal.

" 'This way! This way,' and they followed me down beside the canaletti, then out to the Campanile, up the arch of the Academy Bridge, and across the broad end of the Strada Nova, into the tiny alley that has no name. We crossed another of the city's thousand bridges (there aren't really a thousand; only six hundred and eighty-two) and hurried beneath the covered water-way. It let us out two small streets from the clutter of steps rising to the Ferovia side of the Rialto. But we moved off down to little blue-tiled walkway, then pushed throught a gate and hurried down an alley where the lights were out. I started to climb the low wall.

" 'Where are we . . . ' she began. But Bruno *shhhhhed* and laughed. 'I've been a student in the City almost a year, and I still don't know. But Jason knows every gutter and alley of the place. He's getting us there by a short cut.' Then he growled, 'I hope we get where you're going soon.' But I just hurried them along. I remember she said once '. . . But there's no rail to the canal here—' but by then I was working loose the grate. 'In here, in here . . .' Again Bruno explained for me, 'Jason likes to pull surprises on people. He's always crawling up from somebody's cellar. Venice is a city of intrigue, you know . . . .' But by then, by then our breaths were echoing in the dark passage. Our feet splashed, and she had begun half-crying noises. But again I just urged them on faster. 'Don't worry,' Bruno assured her, but his voice was almost as unsteady as hers. 'Jason doesn't get all these prizes each year for nothing. He's got an absolute sense of spatial relations. He *can't* get lost.' We passed

under a grating which let half a dozen blades of moonlight through the fog and down beside the underground bridge we were crossing. She caught her breath. There was no rail here either. I told them to watch out for the steps. We left the moonlight, and in another fifteen minutes we were there. I closed a door behind us and let out my breath. 'We're here,' I told them. 'Come on, Bruno, I need your help.' I moved along the wall, the blueprints almost visible before my eyes. Four steps, five. 'Duck your head, Bruno!' and, 'Here. Give me a hand.' I guided him to the great bar across the wheel. 'Now, bear down on this with me.' He took the bar. 'Will this get us into the party? I don't hear any —' I stopped him. 'This way to the cellar. Come on, lean on it.' At first I thought the ancient lock wouldn't budge. My toes came up off the dusty stone. Then I felt Bruno lend his weight, and — it gave! Metal ground. I heard the weights fall. Then a rush of water. I heard her say, 'What was that? Bruno, Jason?' And then she let out a cry. Water splashed about my feet. 'Hey!' Bruno said, 'what's all this?' I backed away from the lock, and began to laugh. "We're in the dungeon, the Duke's dungeon, on the lowest level, where he had the water locks! You remember, Bruno? Where he could open the flood gates to drown his prisoners?'

"'Hey, if this is some kind of a joke, Jason, it's not funny!' I heard her splashing toward us now, 'How do we get out of here? Which way do we go? It's all pitch dark.' Then she cried out and stumbled. Because the water was rushing so hard now, it was difficult to stand. It had already reached our knees. I just started to back away. They splashed afterward. She came near us, then hit her head on the overhang of stone, fell. Bruno tried to help her; then, all at once, he was raging. He dived for me, caught me. 'Look, you're going to drown too if you think you're going to drown us.' She was splashing towards us, just screaming. I tried to pull away, but both of them got me. We fell in the water. Her scarf, I remember, was wet between my fingers. I just stayed under, swam down, which they weren't expecting and . . . got away. With the currents, it was hard to judge the distances accurately, but I surfaced once more, took a breath, then dove beneath the low wall, already under water, clawed my way under the stone, then at last shot up to the surface, pulled myself up the stairs. The water was all the way up the stairs. I could hear them screaming behind the rocks. When I stood, the water was all the way up to my chest . . . They found me, wandering across the Piazza, in front of the Byzantine facade of St, Mark's, passing through the shadows of the four great bronze horses thrown from the basilica's roof. I was soaking wet, and was dragging her wet scarf behind me."

"By all the gods of Krags —"

"By the single god of Alba —"

"By whatever gods there are left on Earth, I tell you I laughed like a demon. They found me. They found me, and I told them. The alarms had already gone off. But, by then, it was too late. The Doges were very effi-

cient. Very . . . because she was the daughter of an ambassador from another world, it became an interworld offense. So instead of incarcerating me in the city, they sent me here, here to the interworlds prison called Brass . . . ."

"Hey, Hawk, he ain't talkin' no more!"

"Cage? Look, Jason Cage, you say you know the architecture of Brass as well as you knew the setup of that dungeon in . . . what-ever-it's-name-was? Come on, now! Talk."

"I know. I know them all. I know the floorplan for the Shining Mosque in Iran. I know the structure of cellars in the Museum of Life at Beta-Centauri. If Daedalus had ever left plans for the Labyrinth itself, had I but seen them once, I would have needed no thread . . . ."

"Then what about Brass, Cage? How about where we are now? Do you think you could get us out of here?"

"Here at the . . . tri-nexus? Very near, there are the . . . yes, the tunnels that the original workman used to enter and leave the structure, when they built the thing, five hundred years ago. But . . . but they are sealed off. Leave, you say? But how can I leave? I am guilty. My heart is all crusted with the metal of guilt.

I am here . . . to suffer. Yes! Even if I were to leave, guilt is a prison around my heart."

"Hey, Hawk, I think he really gone nuts."

"Listen, Cage. Where we are, here at this tri-nexus, is there any way you know of to get into that tunnel?"

"You . . . you want to get out? But . . . but . . . I killed them. I'm guilty. I deserve — "

"Look, Cage!"

"My crimes make all the worlds guilty."

"Come on, Mister Cage. We wanna get out."

"Talk, Cage. Talk more."

"She was . . . she was beautiful as water, as fire, as fog — "

"Talk about Brass!"

"Brass? Yes, Brass . . . the prison, the prison with the three chambers near the workman's tunnel. The keystones, perhaps. Yes, they wouldn't be set."

"What are you talking about, Cage? Make it so I can see it, clear as Venice."

"These three cells we're in. They come together around the drainage system like three fat slices of cake with their points together. The walls would be where the knife goes — "

"And the drain is where you'd put the candle for a one-year-old's birthday?"

"That's right. And the stones in the joining walls, near the tip, they can't be mortared in. They weigh perhaps three hundred pounds apiece."

"Three hundred pounds? One person couldn't move that, Hawk."

"But two could, Pig."

"And each covers a drop shaft into the worker's tunnel that winds and turns and rises to the rocks outside . . . . "

"If you pushed from your side, Pig, then I pulled from the other . . . . "

"What about him?"

"Cage, we can move our stone out, and then move yours — "

"No. No, this is where I quit."

"Hawk, the lid is starting to open for exercise period. Come on, let's get that stone."

"Cage, you won't be able to move your stone by yourself. You better let us help you. Once we go, you'll be here forever."

"No! No . . . I belong here. I must stay here . . . I must . . . I have to stay and be part of the great tower of Brass, like one of its very rocks, become part of the bedrock itself. I can hear, you now, hear the stone scraping against the stone. You grunt. You pant. But it moves, slowly. Yes, I hear it moving, like the great lock in the dungeon of the Doge, scraping, scraping. There! You've got it now . . . Pig? What tasks of knavery had you bent those shoulders to on Alba? Hawk, what did you pit your strength against to strain such force into being at Krags? Pig . . . ? Hawk . . . ? Hawk . . . . ? Pig — ! I can't hear you any more! Have you . . . gone? Pig? Hawk . . . ?"

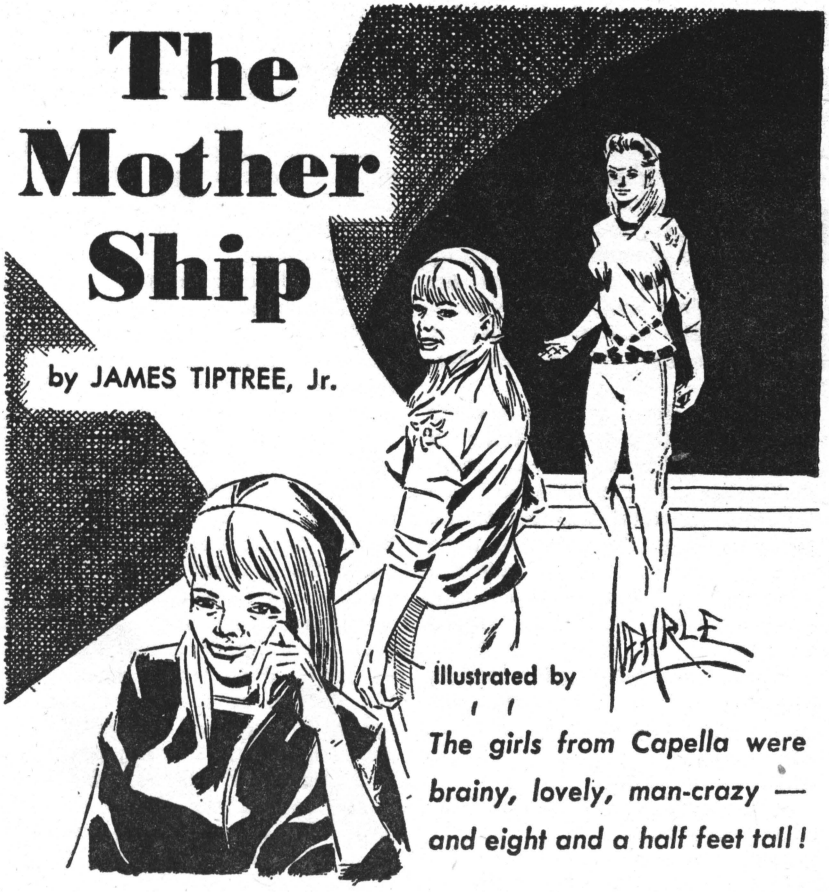
Describe the silence inside Brass?

Now it too was complete. Perhaps you could hint at it by a lack of words. Perhaps you could hint at it by saying once the voices left, there was — nothing.

END

The Mother Ship

by JAMES TIPTREE, Jr.



Illustrated by

The girls from Capella were brainy, lovely, man-crazy — and eight and a half feet tall!

I

The day Papa came home was the day my mama came home to me. That's the way I looked at Earth's first alien contact. We may have changed some of our ideas about what's human, but one thing hasn't changed: The big history-tape events are still just background for the real I-Me-You drama. Not true? So, wasn't the U.S.-Soviet treaty signed the weekend you caught your first marlin?

Anyway, there they were, sitting on Luna. Although it's not generally

known, there's been a flap about a moving source around Pluto the year before. That's when C.I.A. decided that outer space fell under the category of foreign territory in its job description — at least to the extent of not leaving the U.S. Air Force in total control of contact with the galaxy. So our little shop shared some of the electronic excitement. The Russians helped some; they're the acknowledged champs at heaving up the tonnage, but we still have the communications lead — we try harder. The British and the Aussies try too, but we keep hiring their best men.

That first signal went to nothing — until one fine April evening all our communications went snap-crackle-pop, and the full moon rose with this big alien hull parked on the Lunar Alps. Sat there for three days, glowing bluishly in any six-power lens — if you could buy one. And you'll recall, we had no manned moon-station then. After peace broke out, nobody wanted to spend cash on vacuum and rocks. The shape our space program was in, we couldn't have hit them with a paper-clip in less than three months.

On A-Day plus one I spotted Tillie at the water-cooler.

To do so I had to see through two doors and Mrs. Peabody, my secretary, but I'd got pretty good at this. I wandered out casually and said:

"How's George doing?"

She gave me a one-eyed scowl through her droopy wing of hair, finished her water, and scowled again to make sure she wasn't smiling.

"He came back after midnight. He's had six peanut-butter sandwiches. I think he's getting it."

There are people who'll tell you Tillie is an old bag of bones in a seersucker suit. For sure she has bones, and she's no girl. But if you look twice it can get a little hard to notice other people in the room. I'd done the double take about three years back.

"Meet me at lunch, and I'll show you something."

She nodded moodily and lounged off. I watched the white knife-scar ripple elegantly on her tanned legs and went back through my office, fighting off the urge to push Mrs. Peabody's smile into her Living Bra.

Our office is a little hard to explain. Everybody knows C.I.A. is out in that big building at Langley, but the fact is that when they built it there it fit about as well as a beagle-house fits a Great Dane. They got most of the Dane in somehow, but we're one of the paws and tails that got left out. Strictly a support facility — James Bond would sneer at us. We operate as a small advertising agency in a refined section of D.C. which happens to be close to a heavy land transmitter cable and the Naval Observatory gadgets. Our girls actually do some ads for other government agencies — something about Smokey the Bear and Larry Litterbug is all over the first floor. We really aren't a Big Secret Thing — not a Biretta or a cyanide ampoule in the place, and you can get into our sub-basement any time you produce front and profile X rays of both your grandmothers.

What's there? Oh, a few linguists

and cold war leftovers like me. A computer N.S.A. spilled coffee into. And George. George is our pocket genius. It is generally believed he got started making pop movies for yaks in Outer Mongolia, He lives on peanut butter and Tillie works for him.

So, when the aliens started transmitting at us, George was among the facilities Langley called on to help decipher. And also me, in a small, passive way — I look at interesting photography when the big shop wants a side opinion. Because of my past as a concocter of fake evidence in the bad old days. Hate that word fake. Mine is still being used by historians.

Come lunchtime I went looking for Tillie at Rapa's, our local lifeline. Since Big Brother at Langley found that our boys and girls were going to Rapa's instead of eating G.S.A. boiled cardboard, Rapa's old cashier has been replaced by a virgin with straight seams and a camera in each, ah, eyeball — but the chow is still good.

Tillie was leaning back relaxed, a dreamy double-curve smile on her long mouth. She heard me and wiped it off. The relaxation was a fake; I saw her hand go over some shredded matches.

She smiled again, like someone had offered her fifty cents for her right arm. But she was okay. I knew her, this was one of her good days. We ordered veal and pasta, friendly.

"Take a look," I invited. "We finally synched in with their beam for a few frames."

The photo showed one side foggy, the rest pretty clear. Tillie goggled.

"It's — it's — "

"Yeah, it's beautiful. *She's* beautiful. And the dead spit of you, my girl."

"But Max! Are you sure?" Her using my name was a good sign.

"Absolute. We saw her move. This, kid, is The Alien. We've had every big cine collection in the world checking. It's not a retransmission. See that script on her helmet and that background panel? T'ain't nobody's. No doubt where the send is from, either. That ship up there is full of people-type people. At least, women . . . . What's George got?"

"You'll see the co-copy," she said absently, grooving on the photo. "He worked out about 200 words in clear. It's weird. They want to land — and something about Mother. Like, Mother is back, or is home. George says 'Mother' is the best he can do."

"If that's Mother, oh my. Here's your pasta."

They landed a week later, after considerable international wrangling. At Mexico City, as everyone knows. A small VTO affair. Thanks to George's connections — in the literal sense — we had it on closed circuit right over the crowd of world dignitaries and four million real people.

The airlock opened on a world-wide hush, and Mother came out. One — and then another — and a third. Last one out fiddled with something on her wrist, and the lock closed. We found out later she was the navigator.

There they stood on their ramp, three magnificent earth-type young females in space-opera uniforms.

Helmets on the backs of their heads and double-curve grins on their long mouths. The leader was older and had more glitter on her crest. She swung back her droopy wing of hair, breathed twice, wrinkled her nose and paced down the ramp to meet the U.N. president.

Then we got it. The U.N. President that year was an Ethiopian about six feet five. The top of his head came just to the buckle on her crossbelt.

I guess the world-wide hush quivered — it certainly did in George's projection room.

"About eight foot three for the captain," I said.

"Assuming the top of the head is normal," George chirped. That was what they loved him for.

In the dimness I saw a funny look on Tillie's face. Several girls were suppressing themselves, and Mrs. Peabody seemed to feel an egg hatching in her uplift. The men looked like me — tense. Right then I would have settled for green octopusses instead of those three good-looking girls.

The captain stepped back from President Enkaladugunu and said something in a warm contralto, and somehow we all relaxed. She seemed wholesome, if you can imagine a mix of Garbo and Moshe Dayan. The other two officers were clearly very young, and — well, I told you, they could have been Tillie's sisters except for size.

George got that; I saw his eyes going between Tillie and the screen.

To his disgust, all the talking was being done by our people. The three visitors stood it well, occasionally giving brief, melodious responses. They looked mightily relaxed, and also somewhat puzzled. The two young J.O.'s were scanning hard at the crowd, and twice I saw one nudge the other.

Mercifully a Soviet-U.S.-Indian power play choked off the oratory, and got the party adjourned to Mexico's Guest Palace — or rather, to an unscheduled pause in the colonnade while beds were being lashed together and sofas substituted for chairs. Our circuit went soft. George shut himself up with his tapes of the aliens' few remarks, and I coped with a flock of calls about our observing devices, which got buggered up in the furniture-moving orgy.

Two days later the party was moved to the Popo-Hilton with the swimming pool as their private bath. Every country on earth — even the Chicoms — sent visiting delegations. George was going through fits. He was bound and determined to be the expert on Mama's language by remote control. We really had no official mission, but I had an in with the Mexicali bureau, and we did pretty well until about twenty other outfits got into the act and the electronic feedback put us all in the hash.

"Funny thing, Max," said George at morning staff. "They keep asking — I can only interpret as, 'Where are the women?'"

"You mean, like women officials? Women in power jobs?"

"Simpler, I think. Perhaps *big* women, like themselves. But I get a connotation of grown-up, women,

adults. I need more of their talk among themselves, Max."

"We're trying, believe it. They keep flushing all the cans and laughing like mad, I don't know if it's our plumbing or our snoops that amuse them. Did you hear about Tuesday?"

Tuesday my shivers had come back. For half an hour every recording device out to a half-mile perimeter went dead for forty minutes, and nothing else was affected.

Another department was getting shivery too. Harry from R & D called me to see if we could get a better look at that charm bracelet the navigator had closed the ship with.

"We can't get so much as a gamma particle into that damn boat," he told me. "Touch it — smooth as glass. Try to move it, blowtorch it, burrow under it, laser it, bombard it — nothing. It just sits there. We need that control, Max."

"She wears it taking a bath, Hal. No emissions we can read."

"I know what I'd do," he grunted. "Those cream-heads up there are in a daze."

II

A daze it was. The world at large loved them. They were now on a Grand Tour, being plied with entertainment, scenic wonders and technology. The big girls ate it up — figuratively and literally. Balloon glasses of dubrovka went down especially well from breakfast on, and they were glowingly complimentary about everything, from Sun Valley to the Great Barrier Reef, with stopovers at every atomic and space installation. Captain Garbo-Dayan really unbent on the Cote d'Azur, and the two F.O.'s had lost their puzzled looks. In fact, they were doing a good deal of what would have looked like leering if they didn't have such wholesome smiles.

"What the hell?" I asked George.

"They think we're cute," he said, enjoying himself. Did I tell you he was a tiny little man? That figures, with Tillie working for him. He loved to see us big men squinting up at the Girls from Capella, as the world now called them.

They were from a system near Capella, they explained in delightful fragments of various Earth languages. Their low voices really had charm. Why had they come? Well, they were a tramp freighter, actually, taking a load of ore back to Capella. They had dropped by to clear up an old chart notation about our system. What was their home like? Oh, much like ours. Lots of commerce, trade. Wars? Not for centuries. Shocking idea!

What the world wanted to know most, of course, was where were their men? Were they alone?

This evoked merry laughter. Of course they had men, to care for the ship. They showed us on a video broadcast from Luna. There were indeed men, handsome types with muscles. The chap who did most of the transmission looked like my idea of Leif Ericsson. There was no doubt, however, that Captain Garbo-Dayan — or Captain Lyampka, as we learned to call her — was in charge. Well, we had female Soviet freighter captains, too.

The one thing we couldn't get exactly was the Capellan men's relative heights. The scenery on these transmissions was different. It was my private opinion, from juggling some estimates of similar background items, that at least some of their men were earth-normal size, though burly.

The really hot questions about their space drive got gracefully laughed off. How did the ship run? They were not technicians! But then they sprang the bombshell. Why not come and see for ourselves? Would we care to send a party up to Luna to look over the ship? Would we? Would we? How many? Oh, about fifty — fifty men, please. And Tillie.

I forgot to mention about Tillie getting to be their pet. George had sent her to Sun Valley to record some speech samples he absolutely had to have. She was introduced at the pool. Immediate hit. She looked incredibly like a half-size Capellan. They loved it. Laughed almost to guffawing. When they found she was a crack linguist they adopted her. George was in ecstasy with hauls of Capellan chatter no one else had, and Tillie seemed to like it. She was different these days — her eyes shone, and she had a kind of tense, exalted smile. I knew why, and it bothered me, but there wasn't anything I could do.

I cut myself into her report-circuit one day.

"Tillie. It's dangerous. You don't know them."

Safe at 2,000 miles, she gave me the bare-faced stare.

"They're dangerous?"

I winced and gave it up. Tillie at fifteen had caught the full treatment from a street gang. Fought against knives, left for dead — an old story. They'd fixed her up as good as new, except for a few interesting white hairlines in her tan, and a six-inch layer of ice between her and everybody who shaved. It didn't show, most of the time. She had a nice sincere cover manner, and she wore her old suits and played mousey. But it was permanent guerrilla war, inside.

Intelligence had found her, as they often do, a ready-made weapon. She was totally loyal, as long as no one touched her. And she'd wear anything or nothing on business. I'd seen photos of Tillie on a job at twenty-five that you wouldn't believe. Fantastic — the subtle sick flavor added, too.

She let people touch her, physically, I mean, on business. I imagine — I never asked. And I never asked what happened to them afterward, or why the classified medal. It did trouble me a little when I found out her chief case officer was dead — but that was all right, he'd had diabetes for years.

But as for letting a friend touch her — really touch *her* — I tried it once.

It was in George's film-vault. We were both exhausted after a fifty-hour run of work. She had leaned back and smiled, and actually touched my arm. My arm went around her automatically and I started to bend down to her lips. At the last minute I saw her eyes.

Before I got pastured out to Smokey Bear and George, I had worked around a little, and one of

the souvenirs indelibly printed on my memory is the look in the eyes of a man who had just realized that I stood between him and the only exit. He relaxed for just a second — and then started for the exit through what very nearly became my dead body, in the next few hectic minutes. I saw that look — depthless, limp, inhuman — in Tillie's eyes. Gently I disengaged my arm and stepped back. She resumed breathing.

I told myself to leave her alone. It's an old story. Koestler told it, and his girl was younger. The trouble was I *liked* the woman, and it didn't help that she really was beautiful under those sack suits. We got close enough a couple of times so we even discussed — briefly — whether anything could be done. Her view was, of course, *Nada.* At least she had the taste not to suggest being friends. Just *Nada.*

After the second of those sessions I sloped off with a couple of mermaids from the Reflecting Pool, who turned out to have strange china doorknobs in their apartment. When the doorknobs got busted I came back to find Mrs. Peabody had put me on sick leave.

"I'm sorry, Max."

"De nada," I told her.

"De nada," I told her.

And that was how matters stood when Tillie went off to play with the alien giantesses.

With Tillie next to them, our shop became Miss Government Agency of the moment. The reluctant trickle of cross-data swelled to a flood. We found out, for instance, about the police rumors.

It seemed the big girls wanted exercise, and the first thing they asked for in any city was the big park. Since they strolled at eight mph, a foot guard wasn't practical. The UN compromised on a pair of patrol cars bracketing them on the nearest road. This seemed to amuse the Capellans, and every now and then the police radios went dead. The main danger to the big girls was from hypothetical snipers, and nobody could do much about that.

After they went through Berlin the Vapos picked up four men in poor condition in the Tiergarten, and the one who lived said something about the Capellans. The Vapos didn't take this seriously — all four had vagrancy and drug records — but they bucked it along anyway. Next there was some story from a fruity type in Solsdjk Park near The Hague, and a confused disturbance in Hong Kong when the Girls went through the Botanical Gardens. And three more defunct vagrants in the wilderness preserve outside Melbourne. The Capellans found the bodies and expressed shock. Their men, they said, did not fight among themselves.

Another tidbit was the Great Body Hunt. Try as we had in Mexico we had never got one look at them completely naked. Breasts, yes — standard human type, superior grade. But below the navel we failed. Now we found out that everybody else all along the route was failing too, although they'd pushed the perimeter pretty close. I admired their efforts — you wouldn't believe what some of our pals had gotten pickups into. But nothing worked. It seemed the

Girls liked privacy, and they had some sort of routine snooper-sweep that left blank films and tapes. Once when the Jap I.S. got really tricky they found their gismo with the circuits not only fused but mirror reversed.

Tillie's penetration evoked a mass howl for anatomical detail. But all she gave us was, "Conception is a voluntary function with them." I wondered if anyone else around the office was hearing mice in the woodwork. Was I the only one who knew Tillie's loyalty was under pressures not listed in standard agent evaluation?

She was helpful on the big question: How did they come to be so human? There was no doubt they were. Although we hadn't got pictures, we had enough assorted biological specimens to know they and we were one flesh. All the Girls themselves had told us was interpreted as "We are an older race" — big smile.

Tillie got us the details that shook our world. The navigator had too many balloon-glasses one night and told Tillie that Capellans had been here before — *long* before. Hence the chart notation they'd wanted to check. There was something of interest here besides a nice planet — something the first expedition had left. A colony? The navigator grinned and shut up.

This tidbit really put the strawberries in the fan. Was it possible we were the descendants of these people? Vertigo hit the scientific sector and started a babble of protest. What about Proconsul? What about the australopithecines? What about gorilla blood-types? What about — about — about WHAT? The babble mounted; a few cooler heads pointed out that nobody really knew where Cro-Magnon came from, and he had apparently interbred with other types. Well, it's an old story now, but those were dizzy days.

True to human form, I was giving the grand flip-flop of history about two percent of my attention. To begin with, I was busy. We were fighting out a balanced representation of earth scientific specialists with all the other nations who had delegations in the visiting party to Luna. It was to be a spectacular talent show — everything from particle physics, molecular genetics, math theory, ecosystems down to a lad from Chile who combined musical notation analysis, cosmetology and cooking. And every one of them handsome and certified heterosexual. *And* equipped with enough circuitry to — well, assist their unaided powers of observation. Even in the general euphoric haze somebody had stayed cool enough to realize the boys just might not get back. Quite a job to do in two weeks.

But that again was background to a purely personal concern. The Monday before the party took off Tillie and the Girls came through D.C. I cornered her in the film vault.

"Will you receive a message in a sanitized container?"

She was picking at a bandaid over a shot-puncture some idiot had given her. (What the hell kind of immunization did the medicos think they had

for assignments on the moon?) One eye peeked at me. She knew she was guilty, all right.

"You think your big playmates are just like yourself, only gloriously immune from rape. I wouldn't be surprised if you weren't thinking of going home with them. Right? No, don't tell me, kid, I know you. But you don't know *them*. You think you do, but you don't. Did you ever meet any American Negroes who moved to Kenya? Talk to one some time. And there's another thing you haven't thought about — two hundred and fifty thousand miles of hard vacuum. A quarter of a million miles away. The Marines can't get you out of this one, baby."

"So?"

"All right. I just want to get it through to you — assuming there is a human being under that silicon — that out here is another human being who's worried sick about you. Does that get through? At all?"

She gave me a long look as though she were trying to make out a distant rider on a lonesome plain. Then her lashes dropped.

The rest of the day I was busy with our transmitting arrangements from — actually — Timbuctu. The Russians had offered to boost the party up in sections in six weeks, but Captain Lyampka, after a few thoughtful compliments, had waved that off. They would just send down their cargo lighter — no trouble at all, if we would point out a convenient desert to absorb the blast. Hence Timbuctu, and the Capellan party was spending the night in D.C. en route there.

They were lodged in the big hotel complex near our office and adjoining Rock Creek Park. That was how I came to find out what Capellans did in parks.

It was a damn fool thing, to trail them. Actually I just hung around the park input. About two AM I was sitting on a bench in the moonlight, telling myself to give it up. I was gritty-eyed tired. When I heard them coming I was too late to take cover. It was the two J.O.'s, two beautiful girls in the moonlight. Two *big* girls. Coming up fast. I stood up.

"Good evening!" I essayed in Capellan.

A ripple of delighted laughter, and they were towering over me.

Feeling idiotic, I got out my cigarillos and offered them around. The first mate took one and sat down on the bench. Her eyes came level with mine.

I clicked my lighter. She laughed and laid the cigarillo down. I made a poor job of lighting mine. There is a primal nightmare lurking deep in every man. It has to do with his essential maleness. With violation thereof. Most of us go through life without getting more than a glimpse of it, but this situation was bringing black fingers right up into my throat. I essayed a sort of farewell bow. They laughed and bowed back. I had a clear line of exit to right rear. I took a step backward.

A hand like a log fell on my shoulders. The navigator leaned down and said something in a velvety contralto. I didn't need a translator — I'd seen enough old flics:

"Don't go 'way, baby, we won't hurt you."

My jump was fast, but those she-brutes were faster. The standing one had my head in a vise at arm's length, and when I tried the standard finger-pull she laughed like a deep bell and casually broke my arm. In three places, it turned out later.

The ensuing minutes are what I make a point of not remembering except when I forget not to wake up screaming. My next clear view was from the ground where I was discovering some nasty facts about Capellan physiology through a blaze of pain. (Ever think about being attacked by a *musth* vacuum cleaner?) My own noise was deafening me, but either I was yelling in two voices or something else was screeching and scrabbling around my head. In a dead place somewhere inside the uproar I associated this with Tillie, which didn't make sense. Presently there was, blessedly, nothing . . . and somewhere else, ambulance jolts and smells and needle-jabs.

At some later point in daylight George's face appeared around a mass of tapes and pulleys on a hospital bed.

He told me Tillie had got the captain to call off her J.O.'s ("Leave the kid her toy!") Later she got a call through to George, and he sent the special squad to haul the corpse in to the hidey-hole for Classified Mistakes. (I was now very Classified.) While he talked he was setting up a video so we could watch the Terran scientific delegation embark for Luna.

Through the pulleys I saw them

— a terrific-looking group, the cream of Terran expertise, and most of them still looking human in spite of being about thirty per cent hardware. There were the dress uniforms of various armed services — the pair of Danish biologists in naval whites, and the Scotch radiation lad in dress kilts were dazzling. Myself, I had most faith in the Israeli gorilla in khaki; I had run into him once in Khartuum when he was taking time off from being a Nobel runner-up in laser technology.

The bands played; the African sun flamed off the gold and polish; the all-girl Capellan freighter crew lined up smartly as our lads marched up the ramp, their heads at Capellan belly-button level. Going into that ship with them was enough miniaturized circuitry to map Luna and do a content-analysis on the Congressional Library. At the last minute, one of the Chicoms got the hiccups, and his teeth transmitted flak all over the screen. Tillie followed the men, and behind her came the captain and her roughnecks, smiling like The Girl Next Door. I wondered if the navigator was wearing any bandaids. My teeth had had hold of *something* — while they lasted.

There they went, and there they flaked out, to a man. We next saw them on a transmission from the mother ship. There wasn't a molecule of metal on them. We found out later they'd dozed off on the trip up, and waked up in the ship clean as babies, with healing scars on their hides. (The Chicoms had new teeth.) Their Capellan hosts acted as if it were all a big joke and served welcome drinks all around every ten minutes. Some drinks they must have been — I caught a shot of my Israeli hope. He was sitting on the captain's lap, wearing her helmet. Somebody had had the sense to rig a monitor on the satellite relay, so the world at large saw only part of the send. They loved it.

"Round one to Mordor," said George, perched like a hobbit on my bed. He had stopped enjoying the situation.

"When the white man's ship came to Hawaii and Tahiti," I croaked through my squashed larynx, "they'd let a herd of vahines on board for the sailors."

George looked at me curiously. He hadn't had the chance to meet his nightmare socially, you see. I was getting friendly with mine, in a grim way.

"If the girls had a machete or two, nobody got mad. They just took 'em away. The technological differential here is about the same, don't you think, George? We've just had our machetes taken away."

"They left some new diseases, too, when they moved on," said George slowly.

He was with it now.

"If this bunch moves on."

"They have to sell that ore."

"— What?" (I had had a glimpse of Tillie on the screen, standing near the Capellan male we had been calling Leif Ericsson. As I had figured, he was about my size.)

"I said they have to get home to sell their cargo."

And was he right. The operative word was *cargo*.

The plot unfolded about a week later when the visiting party was sent back from Luna, along with three new Capellan ratings who were to collect the VTO launch. To my inexpressible relief Tillie came with them.

The cargo lighter dumped Tillie and our deflowered male delegation in North Africa and then took off on a paraboloid which put the Capellans down partway 'round the globe.

"Scechuan Province, Woomara says," George told me. "Doesn't smell good." The Chicoms in those days were speaking to us, but not very politely. They did not see fit to mention to the rest of the world that the Capellans were paying them a private visit.

"Where's Tillie?"

"Being debriefed at the Veddy Highest Levels. Did you hear the mother ship unloading its ore?"

"Where would I hear anything?" I wheezed, rattling my pulleys. "Give me that photo!"

You could see it clearly: conical piles and some sort of conveyor running out from the big hulk on Luna.

"At least they hadn't got matter transmitters," I croaked.

The next piece of the plot came through Tillie. She sat chin on fist, talking tiredly through her hair in the general direction of my kneecaps.

"They estimate they can carry about 700. It'll take them three days our time to unload, and another week to seal and atmospherize part of the cargo hold. The Chicoms bought the deal right off."

"What's the difference to them?" I groaned. "From China the Capellan brand of slavery probably looks like cake."

That was it, of course. The men of Capella were slaves. And there were relatively few of them. A cargo of exotic human males was worth a good deal more than ore. A hell of a lot more, it seemed. On Terra we once called it "Black Ivory."

So much for Galactic super-civilization. But that wasn't all. I had to scream loud for George before he showed, looking white around the nose.

"A merchant privateer who runs into a rich source of pearls, or slaves, or whatever," I wheezed, "doesn't figure to quit after one trip. And he doesn't want his source to dry up or run away while he's gone. Or learn to fight back. He wants it to stay sweet, between trips. The good captain was quite interested in the fact that the Russians offered to get up to Luna so quickly. They could expect us to develop a defensive capability before they got back. What do they propose to do about that?"

"This may come as a shock to you," George said slowly, "but you aren't the only man who's read history. We weren't going to tell you because there's nothing you can do about it, old brother, in that jungle gym."

"Go on!"

"Mavrua — that's the fellow you called Leif Ericsson — he told me," put in Tillie. "They plan to turn off the sun a little. As they leave."

"A solar screen." George's voice was gray, too. "They can lay it with their exhaust in a couple of dozen orbits. It doesn't take much, and it

should last, that is, there's an irreversible interaction. I don't understand the physics. Harry gave me the R & D analysis at lunch, but the waiter kept taking the mesons away. The point is, they can screen off enough solar energy to kick us back to the ice age in about ninety days. Without time to prepare we'll be finished. Snow should start here about June. It won't quit. Or melt. Most of the big lakes and quite a lot of ocean will go to ice. The survivors will be back in caves. Perfect for their purpose. of course — they literally put us on ice."

"What the hell is being done?" I squeaked.

"Not counting the people who are running around cackling, there are two general lines. One, hit them with something before they do it. Two, undo it afterwards. And a massive technological research depot is being shipped to Columbia. So far the word has been held pretty close. Bound to leak soon, though."

"Hit them?" I grated. "Hit them? The whole U.S.-U.K.-Soviet military can't scratch that VTO that's sitting in their laps! Even if they could get a warhead on the mother ship, they're bound to have shielding. Christ, look at the routine fields they use to hold their atomics. And they know the state of our art. Childish! And as for undoing the screen in time to save anything — "

"What do you think you're doing? Max!" They were pawing at me.

"Getting out of here . . . . Goddamnit, give me a knife, I can't untie that bastard! Let go! Nurse! WHERE ARE MY PANTS?"

IV

They finally hauled me over to George's war-room in a kind of mobile mummy-case and saw I got fed all the info and rumors. I kept telling my brain to produce. It kept telling me back Tilt. With the top men of ten nations working on it, what did I imagine *I* could contribute? When I had been grunting to myself for a couple of hours Tillie and George filed in with a purposeful air.

"'In a bad position there is no good move.' Bogoljubov. Give over, Max."

"In a bad position you can always wiggle *something,*" I rasped. "What about the men, Tillie?"

"What about them?"

"How do they feel about the plan?"

"Well, they don't like it."

"In what way don't they like it?"

"The established harem favorites don't like to see new girls brought in," she recited and quick looked me in the eye.

"Having a good time, baby?" I asked her gently. She looked away.

"Okay. There's our loose piece. Now, how do we wiggle it at a quarter of a million miles? . . . . What about that character Leif — Mavrua?" I mused. "Isn't he some sort of communications tech?"

"He's chief commo sergeant," Tillie said, and added slowly, "He's alone on duty, sometimes."

"What's he like? You were friendly with him?"

"Yes, kind of. He's — I don't know — like queer only not queer."

I was holding her eye.

"But in this situation *your interests coincide?*" I probed her hard, hard. The American Negro who goes to Kenya often discovers he is an American first and a Negro second, no matter what they did to him in Mississippi. George had the sense to keep quiet, although I doubt he ever understood.

She swung back her hair, slowly. I could see mad dreams dying in her eyes.

"Yes. They do . . . Coincide."

"Think you can talk to him?"

"Yes."

"I'll get over to Harry," George jumped up, he was ahead of the play now." "We'll see what we can lash up. Ten days, maximum."

"Call the campus. I can take a meeting now. But get me something so I don't sound like a frog's ghost."

The chief we had then was all right. He came to me. Of course we had only the start of a plan, but nobody else had anything, and we had Tillie. He agreed we were nuts and gave us everything we needed. The lateral channels were laid on by 1500, and Jodrell Bank was to set us up.

The waning moon came over Greenwich just before dawn that week, and we got Tillie through to Mavrua about midnight. He was alone. It took her about a dozen exchanges to work out agreement in principle. She was good with him. I was studying him on the monitors; as Tillie said, queer but not queer. Cleancut, muscular, good grin; gonads okay. Something sapless in the eyes. What in hell could he do?

The chief's first thought had been, of course, sabotage.

"Stupid," I husked to George. "Harem slaves don't blow up the harem and themselves just to keep the new girls out. They wait and poison the new girls when they can get away with it. That does us no good."

"Nor do historical analogies, after a point."

"Analogic reasoning works when you have the right reference frame. We need a new one. For instance, look at the way the Capellans overturned our psychic scenery, our view of ourselves as integral to this world .... Or look at their threat to our male-dominant structure. Bigger, more dominant women who treat our males as sex-slave material. Walking nightmares . . . notice that 'mare?' All right — What is the exact relationship between the Capellans and us? Give me that Danish report again."

The two gorgeous Danes had at least gotten some biological information between orgies. Maybe they were more used to them. They confirmed that the Capellans carried sex-linked differences. Capellan males matured to earth-normal size and sexual features, but the adolescent females went through a secondary development spurt and emerged as the giantress we had seen. With the specialized characteristics that I had inadvertently become familiar with. And more: some milennia back a mutation started cropping up among the women — fallout from a war, perhaps? No answer. Whatever the cause, women began failing to develop. In other words, they stayed as earth-type normals, able to reproduce in what the Capellans regarded as immature form.

Alarmed, the Capellan matriarchate dealt with the problem in a relatively humane way. They rounded up all suspected mutant lines and deported them to remote planets, of which Terra was one. Hence the old chart notation.

Our present visitors had been ore-hunting at nearly maximum range when they decided to check on the semi-mythical colony. No one else ever had.

"What about the Capellan's own history?"

"Not much. Look at that British sheet: 'We have always been as we are.'"

"Isn't that just what we thought about ourselves — *until they landed?*"

George's tired eyelids came open wide.

"Are you thinking what I —"

"We've got Tillie. Mavrua probably knows enough to bugger their receiver records. It wouldn't take much .... What is to Tillie as a Capellan is to us?"

"Bobo!" put in Mrs. Peabody, from some ambush.

"Bobo will do nicely," I went on. "Now we work up the exact scenery —"

"But, Jesus — talk about forlorn chances —" protested George.

"Any chance beats no chance. Besides, it's a better chance than you think. Some day I'll tell you about irrational sex phobias, I've had some unique data. Right now we've got to get this perfect, that's all. No slips.

You cook it and I'm going to vet every millimeter of every frame. Twice."

But I didn't. My fever went up, and they put me back in the cooler. Every now and then Tillie dropped in to tell me things like the ore-piles on Luna had quit growing, and the crew was evidently busy air-sealing the hold. How was George doing? Great. In my more lucid moments I realized George probably didn't need any riding — after all, he'd trained on those Mongolian yak parties.

If this were public history I'd give you the big drama of those nine days, the technical problems that got licked, the human foul-ups that squeaked by. Like the twenty-four hours in which the U.S. military was insisting on monitoring the show through a channel that would have generated an echo — their scientists said no, but the President finally trusted ours and killed that. Or the uproar when we found out, about Day Five, that the French had independently come up with a scheme of their own, and were trying to talk privately to Mavrua — at a time when his Capellan chief was around, too. The President had to get the U.N. Secretary and the French Premiere's mother-in-law to hold that. That let the cat out of the first bag; the high-level push to get in the act began. And there was the persistent intrusion from our own Security side, who wanted to hitch Mavrua up to some kind of interstellar polygraph to run a check on him. And the discovery, at the last minute, of a flaw in our scanning pulse which would have left a fatal trace, so that new equipment had to be assembled and lofted to the satellite relay all one sleepless night. Oh, there was drama, all right. George got quite familiar with the sight of the President pulling on his pants.

Or I could paint you the horror visions now growing in all our minds, of snow that never stopped, of glaciers forming and grinding down from the poles across the world's arable land. Of eight billion people ultimately trying to jam themselves into the shrinking, foodless equatorial belt. Of how few would survive. A great and dramatic week in world history — during which our hero, in actual fact, was worrying mostly about an uncontrolled staph colony in his cracked pelvis and dreaming of dragging seals home to his igloo off Key West.

"How're your teeth, baby?" I asked what seemed to be a solid version of Tillie, swimming in the antibiotic fogs. I had the mad notion that her head had been resting on my arm cast.

"?"

"Teeth. Like for chewing blubber. That's what Eskimo women do."

She drew back primly, seeing I was conscious.

"It's getting out, Max. Some wise money is starting to slip South."

"Best stick with me, baby. I have a complete arctic camping outfit."

She put her hand on my head then. Nice hand.

"Sex will get you nowhere," I told her. "In times to come it's the girls who can chew hides who'll get the men."

She blew smoke in my face and left.

V

On Day Six there was a diversion. The Capellan party who had landed in China were now partying around the Pacific on their way to pick up the VTO launch in Mexico. Since Authority was still sitting on all the vital information, the new batch of Girls from Capella were as popular as ever with the public. Behind the scenes there was a hot debate in progress about how they could be used as hostages. To me this was futile — what could we get but promises? Meanwhile their launch was sitting unattended at Mexico City, showing no signs of the various cosmic can-openers we had tried. All the United Powers could do was to englobe it with guard devices and a mob of assorted special troops.

On Day Six the three Girls went fishing off a Hawaiian atoll, in a catamaran. They were inshore of their naval escort. One of them yawned, said something.

At that moment the VTO boat in Mexico went *Whirr,* let out a blast that incinerated a platoon of Marines and took off. A Jap pilot earned his family a pension by crashing it at 90,000 feet with his atomic warheads aboard. As far as we could find out, he never even caused a course correction.

It came scorching down on the atoll just as the girls drifted up to the beach. They sauntered over and were inside before the naval watchdogs got their heads out of their radar hoods. Two minutes later they were out of atmosphere. So much for the great hostage plan.

After this I kept dreaming it was getting colder. On Day Seven I thought I saw rhododendron leaves outside my window hanging straight down, which they do at 46 Fahrenheit. Mrs. Peabody had to come over to tell me the ship was still on Luna, and it was 82° outside.

Day Nine was it. They rolled me over to George's projection room for the show. We had one of the two slave-screens, the U.N. had the other. The Chief hadn't wanted that — partly from the risk of detection, but mostly because it was ninety-nine to one the thing would bomb out. But too many nations knew we were trying something.

I was late, due to a flat tire on my motorized coffin. George's masterpiece was already running when they wedged me through the doors. In the dimness I could make out the Chief up front, with a few cabinet-type sachems and the President. The rest seemed to be just two-feather Indians like me. I guess the President wanted to be in his own family when it bombed.

The screen show was pretty impressive. A big Capellan hunched over her console, sweat streaming down her face, yelling a low steely contralto into her mike. I couldn't get the words, but I picked up the repetitive cadence. The screen flickered — George had worked some authentic interstellar noise into the send — and then it jumped a bit, like an early flic, when the ship goes down with Pearl White lashed to a bunk. There were intermittent background crashes, getting louder, and one cut-off screech.

Then the back wall started to quake, and the door went out in a laser flare. Something huge kicked it all the way down, and Bobo came in.

Oh my aunt, he was beautiful. Bobo Updyke, the sweetest monster I've known. I heard a chair squeak beside me, and there he was beaming at his image on the screen. They'd fixed him up with love. Nothing crude — just a bit more browridge on what he had, and the terrible great paws very clean. The uniform — a little raw Mau-Mau on a solid base of mechanized S.S. *schrechlichheit*. Somebody had done something artfully inhuman about the eyes, too. For an instant he just stood there. The crashes quit, like held breath.

There's rape and rape, you know. Most rape has some kind of warmth in it, some kind of acknowledgment of the victim's existence. That's why most women aren't really scared of it. But there's another kind. The kind a machine might do, or a golem, or a torture device. The kind that is done by a thing to a *thing*. That's what they'd put into Bobo, and that's what the Capellan on the screen turned up her face to look at. All sweet Auschwitz.

Did I say Bobo is seven feet two plus his helmet which brushed the ceiling, and Tillie is not quite five feet? It was something to see. He put out one huge hand. (I heard that footage was reshot twenty-two times.) His other hand was coming toward the camera. More background crash. The last you saw between Bobo's oncoming fingers was her uniform starting to rip and more hulking bodies beyond the open door. Blackness — a broken shriek and a male, well, noise. The sound went dead.

Our lights came on. Bobo giggled faintly. People were getting up. I saw Tillie before the crowd covered her. She had some blue gook on her eyelids, and her hair was combed. I decided I'd give her a break on the blubber-chewing.

People moved around, but the tension didn't break. There was nothing to do but wait. In one corner was Harry with a console. Somebody brought in coffee; somebody else brought something in a napkin that gurgled into the chief's dixie cups. There was a little low talk that stopped whenever Harry twitched.

The world knows what happened, of course. They didn't even stop for their ore. It was 74 minutes later that Harry's read-outs began to purr softly.

Up on Luna, power was being used to close airlocks, shift busbars. Generators were running up. The great sensitive ears yearning at them from the Bank quivered. At minute 82.5 the dials started to swing. The big ship was moving. It floated off its dock in the Alps, drifted briefly in an expanding orbit, and then Harry's board went wild as it kicked itself outward. Toward Pluto.

"Roughly one hundred and seventy-nine degrees from the direction of Capella," said George, as they rolled me out. "If they took Harry's advice, they're working their way home via the Magellanic Clouds."

Next day we got the electronic snow as they went into space drive.

To leave us, we may hope, for another couple of millennia.

The official confirmation of their trajectory came on the day they let me try walking. (I told you this was history as I lived it.) I walked out of the front door, over a chorus of yelps. Tillie came along to help. We never did refer to precisely what it was that made her able to grip my waist and let me lean on her shoulder. Or why we were suddenly in Magruder's buying steak and stuff to take to my place. She was distrustful of my claim to own garlic, and insisted on buying fresh. The closest we came — then or ever — to an explanation was over the avocado counter.

"It's all relative, isn't it?" she said to the avocadoes.

"It is indeed," I replied.

And really, that was it. If the Capellans could bring us the news that we were inferior mutations, somebody could bring them the word that they were inferior mutations. If they had women bigger and hairier than our men, somebody else could have men bigger and hairier than they. If Mama could come back and surprise her runt relations, Papa could appear and surprise Mama.

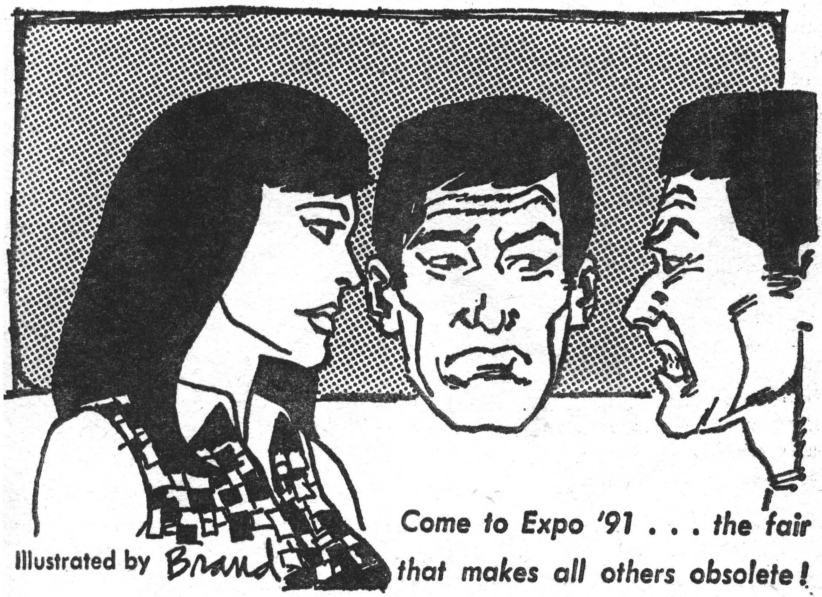
— Always provided that you had a half-pint female who could look and talk like a Capellan for seven minutes of tape, and a big guy who could impersonate a walking nightmare, and one disaffected alien to juggle frequencies so a transmission from a nearby planet came through as a send from home base. And a pop genius like George to screen the last stand of the brave Capellan HQ officer, sticking to her mike to warn all ships to save themselves from the horror overwhelming the home planet . . . . It had been Harry's touch to add that the invaders had long-range ship detector sweeps out and ordering all ships to scatter to the ends of the Galaxy.

So, all things being potentially relative, everybody down to Mrs. Peabody got a medal from bringing Papa home. And my mama came home with me, although I still don't know how she is on chewing blubber.

END

HOUSE OF ANCESTORS

by GENE WOLFE



Illustrated by Brand

I

The eye of the telescope looked upward giddy miles to where the last sphere, its sides pierced with yawning holes, swayed above the city. A teacher from Baton Rouge had paid her quarter, looked, and left, a moment before. A man from Des Moines would come soon, but he would be too late. For a few seconds a figure stood at one of those holes; then another who struggled with him; then both were gone.

The subway rocked and jerked in the malicious way subways have on Sunday afternoons, when the rocking

and jerking are out of harmony with the mood of the time and the people on the trains, people crossing the city to visit relatives or seek the cool of the ocean. The motion did not seem to bother Bonnie, who sat with her hands upon the purse in her lap with her arms enclosing protectively and possessively the scarcely noticeable swelling.

Bonnie was pregnant. That made all the difference, as Joe told himself. Bonnie was pregnant.

She was a tall, rather lanky girl, colored Scotch-Irish around her red flushed elbows and hands. She wore a black maternity skirt with a hole for the belly in front — it had been lent her by her brother Chuck's wife — and a voluminous blue smock like the uniform of one of those semi-public institutions whose inmates are issued clothing that does not seem to be a uniform until two of them are seen together. Joe was Irish-Italian, darker than she, with big hands and forearms.

A group of men on the far side of the car stared for a moment at Bonnie, and he glowered at them. He wanted to ask them what the hell they thought they were looking at, but he knew Bonnie would be upset. He embarrassed her too often anyway, too often for him to do it when he could see it coming. Besides, someone might get really tough, and Bonnie would become frightened for him and cry, sniveling and choking with shame as she wept because it had been a crime to cry in Bonnie's family. For himself he did not care if someone did get tough. Not that he wanted to die.

"I think it's the next stop after this," Bonnie said above the clatter. It was the first time she had spoken since they had boarded the train. Joe nodded.

He would be glad to get out. He had seldom been outside New York before, and the few occasions when he had were associated in his mind with pleasure, with sunny skies and fragrant winds, those one-day trips on which someone brought a portable television so that they would not be bereft of the familiar computer-written jokes, and someone else his friends and the friends of his friends so that the reassurance of the crowd was with them too. He played softball in the high grass of meadows and enjoyed it much more than the semi-pro which had occupied his weekday evenings since he quit night school.

"Come on." Bonnie was pulling at his shoulder. "This is our stop. You feel all right? It doesn't hurt?"

He stood up, his broad body almost filling the narrow subway aisle, then waited for her to stand too. The train bumped to a stop.

At the gate of the fair grounds Bonnie showed the pass Chuck had given her, telling the guard a lot more about Chuck's job selling for the plastics company and what his connection was with the fair than the guard wanted to know. Joe stood back away from them, looking up at the entrance arch with its twenty-foot letters that read NEW YORK WORLD'S FAIR '91. It was big as hell, but you could see The Thing on past it, and The Thing made it seem small.

Of course The Thing made everything seem small. He had not been up there to see, because the elevator didn't go that high and he was supposed to stay away from steps, but they said you could even see The Thing from the roof of the buildings where he and Bonnie lived, way over in Yonkers. It was far higher than the Empire State building.

Finally Bonnie quit talking to the guard, and he let them through the gate. "Where'd Chuck say he was going to meet us?" Joe asked. Even though he was curious to see the inside of The Thing — especially to see it now, before the public was admitted, before any of the people they knew had seen it — he found himself hoping Bonnie's brother would not be there.

"At Howard Johnson's right at the foot of it. They've got that opened up already so the people working on the pavilions from the different countries can eat there, and the reporters." He was walking a pace behind her, and Bonnie looking at him seriously over her shoulder said, "You didn't really want to come, did you, Joe?"

"Sure I did. I was going crazy sitting around the apartment all day."

Bonnie pursed her lips, turning to look up at him and seeming to understand everything with her blue eyes. "I know you were. But you feel bad about Chuck. Envious."

He said, "No." But it was true.

She waited for him to catch up to her and took his hand. "I just want to tell you that I'm not mad because of it. Chuck isn't either. We understand."

Joe said nothing after that, just looking up at The Thing as they walked along. Thousands upon thousands of colored balls linked together with slender looking tubular stems he knew were really big enough to hold moving belts that would carry sightseers from ball to ball. Although there was no wind down here on the ground it was blowing hard high up. You could see the top of The Thing lean away from the wind. The engineers said (Joe had read it in *Time*) that even a hurricane couldn't knock it down, but it looked as though it were about to go as he watched. He wondered what it would be like to be up in it with the wind blowing it like that.

Chuck was waiting for them in front of Howard Johnson's jingling the change in his pocket as he stood there, the way he always did. Chuck was ten years older than Bonnie. He had been selling those plastics ever since he got out of school. Two years ago, when the fair was just in the planning stage, he had landed the contract for the stuff that went into The Thing, and since then he had it knocked. The commissions were making him rich; you could see it and not just from the clothes he wore. It was in the way he stood, and the way he wore his hat. That was a hat that said: I've got it made. I'm big time, and you'd better believe it.

Chuck grinned big at him and shook his hand with his own soft one in that up-and-down way he had until Joe mashed it a little to see him

wince. Joe's own hands had been getting soft during the months since the accident, but there were still firm and not flabby like Chuck's. He swore to himself he'd never let them get that way, either; he'd find something he could do, even if it was only wood carving or something silly like that.

"Come on in," Chuck said when Joe had let go of his hand. "Ed Baker — he's the guy I told you about, the chief engineer — is waiting in there already. I just stepped outside to look for you."

The engineer rose when Bonnie came to the table. He was a tall, man, thin as a rake, with a sharp "V" of hair beginning to gray at the sides. Chuck introduced both of them, Bonnie first, and beckoned to one of the uniformed girls who were waiting on the tables.

"Chuck here says you people'd like to see the inside of The Thing." Baker had a noticeable New England twang. "And if you would, now's the time to do it. They've sold tickets for six months in advance already."

"Is it finished?" Bonnie asked timidly.

Chuck laughed. "Not quite inside, sir. But it won't come down with you in it, if that's what you mean. Finishing up the displays is Ed's job, though. And believe me, he can make the ones that aren't complete more interesting than the stuff near the bottom that's ready to roll."

"There aren't any steps, are there?" Bonnie looked at Joe, and he wanted to sink into the floor. He knew what was coming.

Baker shook his head. "All the rises are by belt. Does your husband have a heart condition? Chuck mentioned something."

Bonnie's brother held his fingers an impossible distance apart. "He's got a nail in his heart this big. A great big galvanized nail."

Baker's eyebrows went up, and Joe said quickly, "It's only five-eighths of an inch long, really. From a spiking gun — one of those tools that shoot a shell like a .22 so that you can nail furring strips onto concrete."

"But it's in your heart?" the engineer was half astonished, half skeptical.

"In one of the chambers. The doctor told me the name of it, but I forget now."

"My God, what happened?"

"You know how you got to push the barrel against something and pull the trigger at the same time to make it go off?"

Baker nodded. "I've used them; they're practically foolproof."

"Yeah. Well, this guy at work was fooling around with one. I guess he must have had his finger on the trigger, and he bumped the end against a steel *I* beam."

Chuck broke in: "It wasn't square against it, you see, Ed. Kind of at a slant. So the spike caromed off the beam and hit Joe. The doctor told Bonnie it happens with bullets once in a while, especially small ones like maybe buckshot. They can go right through the wall of a man's heart — just puncture it — and stay there. But without killing him. The heart heals up behind them."

Baker picked up one of the cups of coffee the waitress was handing around, and although his hand was steady Joe could see that he was shaken. "They can't get it out?"

"He won't let them," Bonnie said. "I've begged him."

"Listen," Joe told them, "I don't like to go over all this again. Let me say my piece now, and then let's shut up about it and talk about The Thing. That's what we came here for."

"You don't have to — " Baker began, but Joe interrupted him with a gesture.

"Like I've explained to Bonnie a thousand times — " he was addressing the engineer alone now — "I haven't got a lot of life insurance, just what the union gives everybody. And if they take it out it'll have to be what they call open heart surgery, where the chances aren't so good. This way, as long as I'm alive I draw workman's compensation, and medical benefits and all that kind of stuff. If I drop over some day Bonnie'll get the insurance anyway, so then she won't be no worse off. Now tell us about The Thing, huh? What's it supposed to be, anyway?"

"Oh, *you* know." Bonnie seemed to be as relieved as he was at the change of the subject. "You read to me about it out of the paper."

"Sure," Joe said, "but I want to hear from an expert. The papers always get something wrong. What is it, Mr. Baker?"

"You'd need a biochemist to really tell you. I can only repeat the same things you've already read; that it's actually a giant model of a molecule of deoxyribonucleic acid — what we call DNA for short. It's the stuff genes are made of, so in the fundamental sense it's what determines that each of us has the heredity he has."

Bonnie asked, "And it looks like that?" She was staring out the window toward the base of The Thing.

"Somewhat like that. We've followed the normal conventions for making a molecular model, of course. Those balls, as the public calls them, represent atoms in the model, although each one is actually a hollow sphere thirty yards in diameter. The black ones are carbon, the light blue ones oxygen, and so on."

The engineer's interest in his work was infectious. Joe asked, "But it really does have that crazy shape? All the DNA in the world?"

Chuck snorted. "If all the DNA had the same shape, everybody'd be the same, Joe. Ed, you've got to excuse him; Joe's not too technically oriented."

"It does all have that general double helix construction," Baker said stiffly, "and it's incorrect to think that a single molecule of DNA like the one we've modeled here determines its owner's complete heredity. It takes the entire set of human chromosomes to do that. The DNA molecule only determines the makeup of a single type of cell, although even so its structure seems to be minutely different for each person. Only identical twins can readily accept tissue grafts from one another, so one individual's cells must be subtly different from another's — even though the grafts are from corresponding parts of the body, liver tissue.

"Well, what kind of a cell would this make?" Bonnie asked. "And who is it from?"

Baker shrugged. "This is just a typical human DNA molecule, as far as I know. I'm only an electrical engineer and I'm not sure even a Ph.D. biochemist could tell you what sort of a cell would contain it from looking at it."

"It could be a brain cell," Joe said unexpectedly, and the other three stared at him.

"It could be," Baker agreed after a moment's pause. "It would be strange, wouldn't it, if there actually were someone who had that exact pattern."

Chuck said airily, "The odds are probably a million to one against it."

"I know, but suppose someone did." Baker seemed to be talking half to himself. "Would the molecule itself recognize its own structure the way that a set of cell transducers read the history of gene structure? There must be a logic to the geometry we are completely incapable of recognizing; but it is the logic that makes all life possible, and the human race only stays alive because it's capable of duplicating itself endlessly — "

"Tell them how big The Thing is, really," Chuck demanded. "Three hundred thousand million to one, that's the scale this thing here is built to, Bonnie. It's the biggest model of anything ever built, and the tallest building in the world at the same time. And do you know what it is that makes something like this possible?"

"Yes," Joe said. "Glass fibers."

Chuck was only slightly crestfallen. "That's right, what we call monomolecular strands. They're only one molecule thick, stronger than hell, and we embed them in high strength resin — really key them in. Every one of those balls was made out of two bowls from the same mold, fitted together, and the tubes that connect them were extruded and cut off to length. After that all they had to do was hang them up there after they'd installed the partition floors that cut the top half of the ball that you see off from the bottom half where the machinery is."

Baker seemed embarrassed by Chuck's exuberance, but he nodded verification. "We didn't even use a scaffold. Just picked up the pieces with helicopters and fitted them into place. I suppose you saw it on television."

"And you've got displays inside all of them?" Bonnie asked. "That's what I want to hear about."

The engineer smiled. "I'm glad you do, because it's the displays and the analytical circuits, not the structure, that are really my responsibility. The civil engineering boys have done their job and left. They only come back to read their strain gauges every once in a while."

Joe scarcely listened while Baker explained the displays. His attention was somewhat in his chest, in the area just beneath his breastbone, where a strange tightness had gripped him. He remembered the X-rays he had been shown; the spike moving, tumbling in the current of his blood, with each beat of his heart. The doctors had said that if it lodged in a valve. . . .

"Come on."

Suddenly they were all standing up, pushing back their chairs and setting down their coffee cups. He rose too, feeling a little confused. There was no point in making a fuss; he would simply have to go on behaving normally until he fell over on his face, if that were what he was going to do. . . .

Outside the engineer led them to the foot of The Thing.

Joe stood a little behind the others, his head thrown back to stare up at the dizzily swaying top thousands of feet above him. A droning little business jet of an airplane went past. It was only a tiny silver cross against the sky, but the lacework of The Thing towered over it like a thunderhead. With dizzied eyes he tried to follow the complexities of the spiraling pattern, becoming more certain as he did that some secret of colossal importance was contained in it.

Bonnie was touching his elbow; he looked down at her at last, the earth rocking under his feet. "What's the matter?" he asked. The entrance to The Thing was still shut.

"Something's wrong with the door. Mr. Baker's key won't make it work."

Baker said, "Come along, and we'll go to the shop and get someone who can open this up for us. It's at the back of the grounds."

Joe took a step forward as Bonnie released his elbow, then stopped, afraid he was going to lose his balance. The vertigo which had seized him while he was staring upward required a few seconds to subside. Bonnie and Chuck were leaving him, trailing after Baker. None of them looked back to see if he were coming too.

Half in anger, half to have something against which to steady himself, he went over to the big door instead of following them. It was massive, impressive and somber. He grasped the handle and pulled back.

He was a big man, owning the strength that comes of hard physical work done every day, and the accident had done nothing to change that. The door gave almost imperceptibly. He pulled harder, throwing his weight backwards. The door rasped a quarter inch more, then suddenly gave free. "Stuck," he muttered to himself.

He looked at his wife's back; she was almost out of shouting distance now. For half a second he thought of hurrying after her, then decided against it. Let them all walk to wherever it was they were going, and back. He would make his own inspection of The Thing — the lower levels at least — and be ready to laugh at them when they returned.

The base chamber was dark until he entered it. Then the lights came up slowly like the illumination in a theater. No doubt in coming through the doorway he had stepped on a pressure-sensitive plate or interrupted a photocell beam. A man in a white laboratory smock stepped forward smiling a greeting, and it was an instant before Joe realized that the man was an automaton activated, like the lights, by his entry.

"Good day, sir," the robot began. "Are you interested in a guided tour of the exhibit in this atom?"

"Sure. That's what I came for." It was amusing to address the mechanical toy as though it were in fact a human being.

"I will be delighted to show you around. I will form my next tour in two minutes."

"Why can't we start now?"

The robot shook his head regretfully. "My programming requires a two-minute wait for others who might wish to join us."

"Okay." Joe shrugged, grinning. "You don't mind if I look around a little on my own while you're waiting, do you? Nobody's really going to come anyway, you know."

"There is always that possibility," the mechanical guide admitted diplomatically. "In the meantime you have the freedom of the exhibit."

Joe left him standing, still smiling, by the entrance — apparently oblivious to the fact that Joe had closed it behind him.

Most of the material on display in this chamber of The Thing was in the form of 3D projections — objects solid and real to the eye but insubstantial. Mutated fruit flies, magnified a hundred times, crawled about a section of the floor. He found himself wanting to kick them away when they approached his legs and he went past them without bothering to read the printed explanations of their grotesque abnormalities that floated in the air above them.

Beyond the fruit flies an experiment still more bizarre claimed his attention. An egg, palely translucent, stood upright on its large end. The small end was two feet higher than his head, and the yolk could be seen through the shell — a golden globe showing a single dark speck. As he watched the speck grew, developed a head, wings and legs. It seemed to writhe with the energy of its thrust toward being. Behind him the robot said, "My tour is ready to form, sir. Would you care to go back to the flies, or shall we begin here?"

Joe said a little sarcastically, "Where's all the other people on this tour?"

"There are no others," the robot replied in an unruffled voice. "If you are expecting friends or members of your family to join you I will be happy to wait until they arrive."

"They won't be along for a while yet," Joe told him. "I think I'll go ahead without them." He was still staring at the growing chick, now nearly ready to burst from its shell.

"This display," the robot said chattily, "shows a White Leghorn egg in incubation; the unfolding of the miracle of life. It is designed to illustrate the sequence of alterations every embryo undergoes before the final form is realized. The old naturalists used to say that every creature had to climb its own family tree to qualify for the privilege of birth, and although we are no longer accustomed to employ such quaint phrases the old tag illuminates a truth."

The chick was scratching weakly at the shell with its egg tooth. Joe took his eyes from it long enough to glance at the guide. "What do you mean, *climb his family tree?*"

"He goes briefly through the forms of each of his forebears — "

"His father was a chicken, wasn't he? And he's a chicken too. How could you tell whether he looks like his father or not?"

"That's not what is meant — " the robot began.

"I know darn well it's not what you meant," Joe told him irritably. "You meant this chicken here goes up through evolution from just one little blob like a germ. So why couldn't you say so instead of all that junk about family trees? If that was true it would mean everybody has their father and grandfather and all that inside them. You know what the trouble with you and all those smart guys that set you up is? You think that anybody that went to college is so stupid they've got to have everything explained to them like a little kid."

"I'm sorry, sir," the robot said. "But it is interesting to consider that since each of us receives half his genetic structure from each parent — "

"Oh, shut up."

The chick had broken the shell now and was struggling through the hole it had created. The robot remained obediently silent, and for a few seconds Joe watched it without speaking. Then he asked abruptly, "Where's the horn on its legs?"

"Sir?"

"I said, where's the horn on its legs. You said it was a Leghorn chicken and I'll bet you don't know why it's called that."

There was a barely perceptible hesitation before the robot replied, "No, I don't sir. I find the information is not in my memory banks. Please rest assured that your question had been recorded, and that the answer will be supplied to my program as part of the next reprogramming session."

"I can tell you right now," Joe said sourly. "Leghorn's a place in Italy. That's where they got this kind of chicken from."

The chick, its magnified image as tall as an ostrich, was struggling to its feet. The robot said nothing.

"Here's some more for you, smart guy. Who was the King of the Cowboys on the old TV movies, huh? And what year was it the Mets first won the pennant? Where was Grand Central before they tore it down?"

The robot hesitated again, then said, "I'm afraid the answers to none of your questions are in my memory banks, sir. Would you like to see the other exhibits in this atom?"

Joe was walking away. "No."

"In that case, sir, the entrance to the pedestrian conveyor which will take you to the next atom on the regular tour is on your right. If you wish to leave the complex entirely, you may use the door by which you entered."

"Does the next place have another dummy like you in it?"

"Oh, no, sir. Each atom has a completely different guide."

Not certain why he did it, Joe turned to his right and stepped onto the silently moving belt.

IV

The upward angle was even steeper than he had expected, but the surface of the belt was ribbed with ridges almost like steps. The

lights of the chamber behind him faded until he was left in near darkness. It reminded him of the Tunnel of Love at Coney Island, where he had gone once with Bonnie before they were married. Her perfume had seemed intensified in the dark until it was all around him, and in the boat ahead another couple, a boy and a girl he had not noticed particularly when they had gotten in, had made little animal sounds like chipmunks mating. Nothing had mattered then. Both Bonnie and he had believed that in spite of everything he would be a success. He would go to night school, take a Saturday job. . . . And nothing, nothing at all, had worked out as they had planned.

Ahead of him light grew; not merely because he was approaching it, but as in the chamber below because the voltage was being turned on gradually. He could make out the displays in the area immediately in front of the end of the connecting tube now, and a flicker of motion beyond them. He stepped off the belt.

An elderly man came forward to greet him. He wore a black cassock and a Roman collar. "Good morning, sir," the new guide said in a gentle, slightly accented voice. "I am Father Gregor Mendel. Good morning, madam."

With a start Joe turned to look behind him at the person the cybernaut "priest" was addressing. A young woman, almost a girl, was stepping from the belt. "Hello," (she had a soft voice that was somehow familiar,) "do you mind if I join your tour?"

Joe shook his head, then remembering his manners said, "No, not at all." He was looking at the girl's clothing: a skirt fully eight inches shorter than was currently fashionable, and a blouse fantastically patterned with interlaced squares. "Where did you come from?" he asked.

The girl smiled, brushing back her long, straight hair. "I came in with you, actually. When you opened the door."

"I didn't see you." After a moment he realized how hostile the flat statement sounded and added, "I mean, I'm surprised I didn't notice you down below."

"I kept in the background. I'm afraid that's rather a fault of mine."

The figure of Mendel made a little gesture of welcome. "This is nice, very nice. The two of you will make an ideal party to tour my little exhibit."

"Wasn't there somebody here before us?" Joe asked. "I thought I saw him go out the exit over there just as we came in."

Mendel nodded. "There was, my son. But he did not stay. I didn't even have time to speak to him."

Puzzled, Joe said, "I don't see how he could of gotten in ahead of me."

The girl tossed her head. "It doesn't matter, does it?"

"I guess not."

She smiled suddenly. "Do you know that the only one who's formally introduced himself here is Father Mendel? Although I know your name's Joe — let's say I overheard some people talking to you in Howard Johnson's."

He told her his full name, adding unnecessarily, "I'm married."

"I'm not," the girl said, "but I'm engaged." She held up her left hand so that he could see the ring she wore. "My name's Mary Hogan."

He felt an unexpected warmth toward her. "That's my mother's maiden name. There's a coincidence."

"That's nothing." She was grinning now. "You have the same last name as the boy I'm engaged to."

Mendel cleared his throat. "I'm afraid my atom is one of the dullest, but are you ready to see it now, my children?"

"What's it about?" the girl inquired.

"My discovery of genetics. I used garden peas, you know, and all my experiments are condensed here for you. The idea of the designers, I suppose, is to teach the principles in the same way in which there were originally discovered. I hope it is a good one."

To please the girl Joe followed the monk-scientist from display to display, looking at tall and short pea plants and genetic charts which appeared in glowing lines in the air; but he could not fix his attention on the exhibits or Mendel's rambling, accented lecture. The brief glimpse he had gotten of the man who had fled the exhibit just as he entered exerted a hypnotic attraction on his mind so that he found himself recreating that flicker of furtive motion over and over again in his imagination while Mendel droned on.

At last it was over, and the diminutive priest-robot made a little bow to them, then stood, smiling shyly.

"That was wonderful," the girl said. "A wonderful discovery."

"He didn't do it," Joe told her, and hated himself for saying it as soon as he saw the hurt in her face.

"I know I didn't," the robot admitted in its gentle voice, "but can't you think of me as a sort of actor?"

"I suppose so," Joe mumbled.

"I look much as the real Mendel did, and insofar as is possibly my logic pattern has been shaped to duplicate his as revealed in his works. Although I admit we can't hope for the accuracy obtainable when the genetic pattern of one of the subject's descendants is available for study. Thus far you two are the only audience to whom I have lectured. But I felt as proud, when I was talking to you a moment ago, as I would have if the work Mendel did was really my own."

The girl whispered in Joe's ear, "Ask his blessing — it will make him feel better."

Before he was fully aware of what he was doing he had dropped to his knees. He heard himself mumble, "Bless me, Father."

An expression of bewilderment passed over Mendel's face. "Are you Catholic, my son?" he asked.

"Does that matter? Couldn't you give me your blessing anyway?"

"I suppose it doesn't really," Mendel said, "and no, I couldn't." He reached down and drew Joe to his feet again. "This is like the story," he continued in his mild voice, "they used to tell about one of the Emperor Franz Josef's visits to Baden. They were going to perform one of the op-

eras based on Goethe's *Faust* for him, and when one of the emperor's courtiers brought his little daughter behind the scenes in the theater she saw an actor dressed as the pope and asked for his blessing."

Mary Hogan asked curiously, "And did he bless her?"

Mendel shook his head. "He explained that he was only a make-believe pope, and when she understood she said, 'Then bless my doll.' Just so, I cannot bless this young man, my daughter, but I will bless you." His fingers sketched a cross in the air, and he murmured a latin phrase. The girl knelt.

When it was over the two of them stepped onto the belt that would take them to the next hemispherical room, and the darkness of the tube closed around them. "Why would he bless you," Joe asked "and not me?"

"Maybe you were too sincere about it." He felt the girl's fingers touch his hand. "It was sweet though."

He could sense her beside him in the blackness; and unexpectedly, overwhelmingly, the certainty came to him that they had waited together like this before, that the sensation he now felt was familiar through countless repetitions. He tried to recall when this might have been and if he had not perhaps known this girl before he had met Bonnie, or before they had married and he had cut off his contacts with other women. But no memory of her came, and he found his recollection forced backward instead to a place he had nearly forgotten: the tenement apartment in which he lived with his parents when he was very small.

There had been only one bedroom, with the double bed on one side and his own with the high wooden railings on the other. An electric sign outside the window flashed blue, then yellow, blue, then yellow, then went dark. Now in the darkness he found himself waiting for the blue flash again, and the bright spark when his mother drew on her cigarette, just as he had on nights when he would awaken to see her waiting for his father to return home.

Instead white light gleamed in front of them, the lights of the next chamber springing into life. "I wonder what this one will be," the girl said, but he did not answer her. He was looking for the man he had glimpsed in the chamber below, somehow certain that he would be here too.

He was, but he remained hidden until they were almost ready to get off the belt.

V

Perhaps because it was so crowded this exhibit seemed smaller than the others. Poultry cackled and quacked around the attenuated legs of a giraffe. Huge beetles climbed the walls and, slipping, fell back to the floor to wiggle and struggle before they could turn themselves over and climb again.

Then, on the far side of the chamber, peering from behind a huge Empire wardrobe of oiled walnut which stood in Napoleonic grandeur among the animals, Joe saw the man's eyes. For an instant they stared at him. He received an impression of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malice unfathomable. Then they were gone. A hunched, hurrying figure scuttled like one of the beetles, darting from behind the wardrobe and disappearing into the darkness of the next exit.

He yelled and jumped from the end of the steeply rising belt, wading through the insubstantial animals that surged about his feet; but as he reached the middle of the room the doors of the wardrobe flew apart like the doors of some Christmas toy, and a man with bandaged eyes stepped directly into his path. They collided and went crashing to the resilient plastic floor.

By the time he got to his feet again he knew it was too late. With the girl's help he pulled the robot erect, wondering all the while, rather vaguely as he might have wondered about some back page story in a newspaper, whether or not the exertion he had just undergone would kill him. He could feel the thumping of his heart as clubbed blows from inside his chest.

"Bon soir," the blind robot said. "I am Jean Baptiste Pierre Antoine De Monet, Chevalier de Lamarck." He made a courtly bow.

"What happened to you?" the girl asked suddenly. She pointed, and Joe saw that Lamarck's right hand was missing. It seemed to have been torn or hacked away; the plastisol flesh was ragged around the amputation, and color-coded wires, blue and yellow, dangled from the stump.

"I fear, Mademoiselle," Lamarck murmured, "that there may be a vandal in our complex." He seemed ashamed of the injury that so clearly revealed his nature, and thrust the injured limb behind him.

"Yes, and I almost caught him," Joe said. "If you hadn't jumped out of that big cabinet when you did I would have. What were you doing in there anyway?"

"It is a service closet," Lamarck explained. "Each atom has one, equipped to perform routine maintenance on the guide assigned to it and to make minor repairs. When the vandal released me I went in hoping to have something done about my hand; when I heard the three of you coming, however, I felt that since I retained sufficient functioning to perform my office I should do so." A tall wading bird, insubstantial as mist, flew through his body as he spoke, its stilt legs trailing behind it.

"Three of us?" Startled, Joe glanced back at the tube from which he and Mary Hogan had entered. A second girl was standing near the end of the belt. She was taller than Mary, but seemed even younger, coltishly unsure of herself. Like Mary's, her skirt ended well above her knees; but short blonde hair peeped from under her close fitting hat, and she carried a beaded handbag with a long strap. Looking at the three of them she swung it nervously.

"Come on," Mary gestured to her. "Join the freakout. We won't put you down."

"I overheard you talking about someone damaging something in here." The new girl's voice was shrill and self-conscious. "And I just wanted to tell you it was not me."

"We know who it was," Joe said gruffly. "It's a man, and he's ahead of us, not behind us. I'm not going to stay here and look at the exhibits. I'm going on ahead and try to get him." The resolve had formed in his mind, so it seemed to him, as he spoke; but once formed and articulated he felt that it had the force of divine law. In his imagination he saw himself dying, the spike jamming his heart action at the very moment the scuttling man he had seen come from behind in Lamarck's cabinet sprang some simple, horrible, trap that would leave his body mangled — and he did not care.

"Wait!" the blind robot grasped him by the arm with his one hand. "If you don't see the things here — if you don't listen to what I must tell you about them — you will miss the point of all of it."

"I think he should go." The voice was the girl's, shrill and insistent.

"I think he should too," Mary Hogan said. "There's no telling how much damage that thing loose up ahead may do."

"I shall ask the master computer." Lamarck's blind face looked at no one in particular. "Monsieur" when none of the programmers are here the master computer is the highest authority. Will you abide by the decision of the master computer?"

The girl with the beaded bag said, "It's the unit that controls the whole Thing. All of it; all the exhibits."

Joe wanted to shake himself free. He could have done it easily — the tiny servo motors which powered robots' actions were strong only on televised horror dramas — but he found himself unable to do so. Lamarck's aged face, although he knew it to be a plastisol mask, his sightless eyes and his intangible air of genius in defeat, held him. "All right," he said at length. "I'll do whatever your computer says. How do we consult it?"

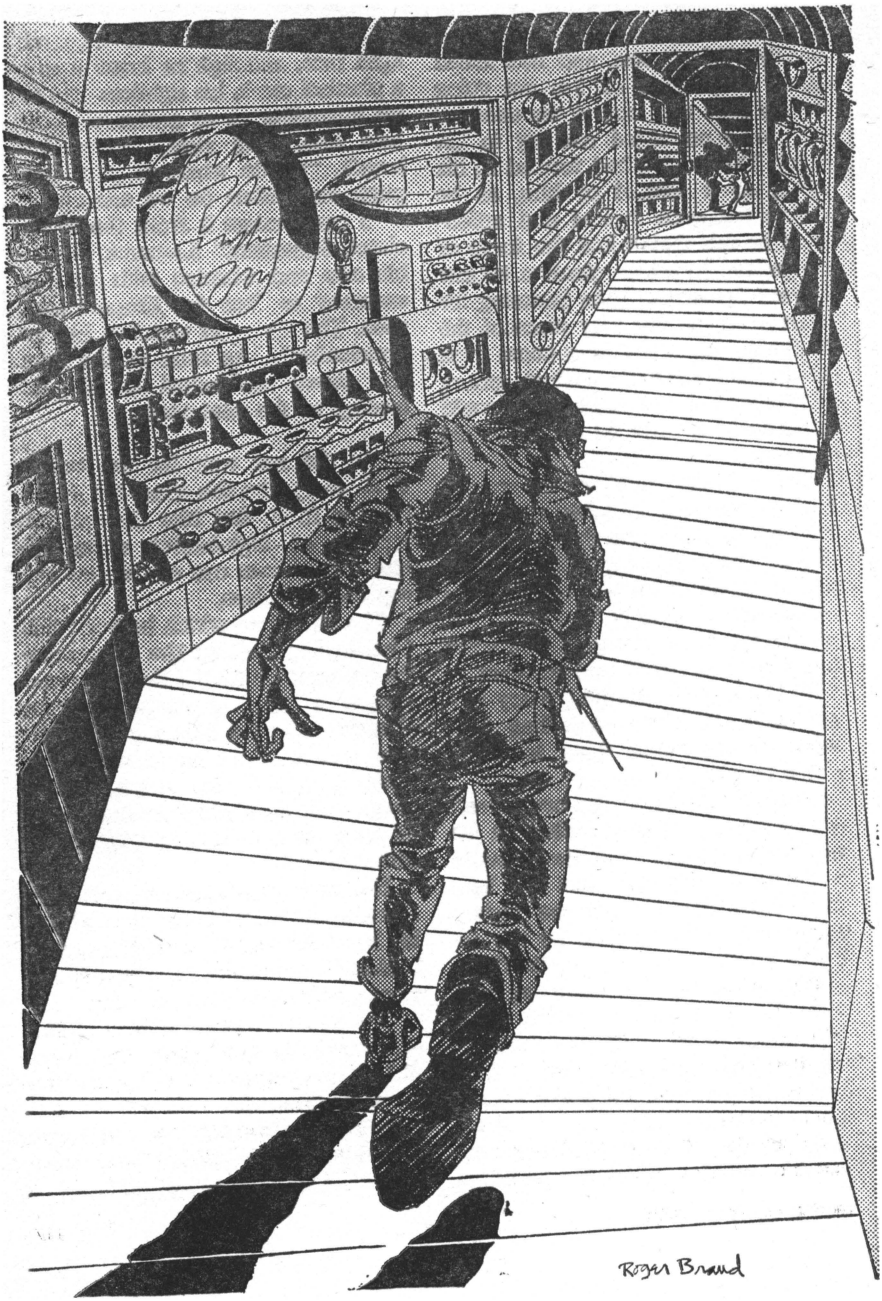
"I can contact it from the service closet, Monsieur." Lamarck released his arm and wheeled with uncanny accuracy to face the Empire wardrobe. The two girls watched him expressionlessly. As soon as the doors had closed Joe bolted for the exit leading to the next atom.

He did not wait for the belt to carry him this time, but scrambled up it. Behind him the unsteady tapping of high-heeled shoes told him that at least one of the two girls was following him.

The atom into which he burst held Charles Darwin, but the great scientist lay tumbled on the floor, his midsection a mass of smashed circuit elements which a Galapagos tortoise near him appeared to regard incuriously. Moths big as swans covered every wall, their wings stiffly extended to make an incredible pattern of iridescent color.

He was bending over the inert Darwin when something whistled past his head. He heard it strike the wall behind him and fall clattering to the floor as he looked up.

The vandal was no longer hiding. He stood near a scale model of *H.M.S. Beagle,* his left hand grasping a bundle of slender rods with ragged, razor-sharp ends. His right arm was drawn back as though to cast a spear, and as Joe watched he whipped it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forward; there was barely time to jerk himself to one side as the jagged sliver hurtled toward him. With a solid thudding sound it buried itself in Darwin's chest.

He jerked it out as he drew himself erect, poised to dodge the next missile. It came flying at his face. As he ducked, the vandal leaped onto the belt which would carry him to the next atom.

That atom was empty a moment after Joe arrived, but a metal sliver plucked at his shirt as he jumped from the belt, and he saw his quarry disappear into the next tube.

After that he lost count of the atoms through which they passed, and he no longer noticed what displays they held and whether they were complete or not.

The structure of The Thing was complex, and most of the atoms possessed several radiating tubes so that the figure he was pursuing could easily have shaken him off. But he did not seem to wish to do so; and when Joe grew too fatigued to climb along the steep belts that carried them higher and higher he found that he lost no ground in the pursuit. Always, at the end of each tube he glimpsed the man running for the next belt. And it was always the belt which would loft them highest that he finally chose.

But as he continued the pursuit Joe came to realize that he also was followed. Behind him the sound of the two girls' feet grew until it was the roar of a crowd, high pitched and quick voiced.

At last they reached an atom which had no floor, and from which no belt led, an empty globe of fiber glass with gaping holes in its sides. He saw the man he had followed waiting with a metal sliver upraised beside the lowest of the holes, and only blue sky and clouds beyond. Behind him were the hurrying noises of a hundred women.

"Go ahead," he called. "What are you going to do — jump?"

The figure silhouetted against the sky only stared at him dumbly.

Upright Joe walked forward, down the curving inside of the sphere that led to the level bottom, then slowly up until the man he had followed all these thousands of feet into the air and he were no more than a few yards apart. The spearlike fragment of metal rod remained poised; but the corners of the man's mouth drew down and down with each step he took until the yellowish skin must have been ready to tear under the strain and the mouth was drawn open to show the square white teeth.

Then, with a gesture that was almost casual, the metal sliver was flipped into the void. With his shoulder down Joe rushed forward, struck the man, and drew him away from the edge.

The man's resistance revived at the moment of contact, and for a few seconds he struggled desperately. He still held four or five pieces of metal similar to the one he had thrown away in his left hand; but Joe pinned it, then jerked one from him to drive against his throat. The struggling stopped.

"What's happening," someone behind him asked. "What are those things?"

VI

From the corner of an eye he saw the girl who had called herself Mary Hogan. Behind her came the girl with the beaded bag; then, as he watched, a third girl who wore a skirt that reached her ankles. And behind her, some stepping agilely from the belt, some staggering clumsily, came woman after woman.

Many were young, and some were pretty and even beautiful, but others were neither and a few were monstrously fat. Several wore silks, but most were in plain dresses not much better than rags.

"What are those things?" Mary Hogan asked again. She was standing close to his shoulder now. "What are you going to do?"

"Steel construction strips he's ripped out of something," Joe told her. "And I'm going to kill him with this one — rip him wide open. Want to watch?" He pushed one jagged end of the piece he held against the other's body.

"Don't!"

Joe stared down at the impassive face of the man under him and drove the splinter tighter still; the face contorted under the pressure until malice blasted from it like heat from the top of an open crucible.

The girl in the long skirt dropped to her knees beside him. "Don't you know who that is?" she asked. She was not pretty, but somehow clean looking and attractive.

"It's a robot." Joe's voice was stubborn, although he found himself gasping for breath in the thin air. "Another crummy, clanking robot; a robot with my face. I'm going to wreck him."

"I wasn't sure you knew who it was," the girl murmured.

"You think I don't know my own face? What I'd like to know is what sort of dirty joke is being played here."

"I think I can tell you," Mary Hogan said; she stooped beside the kneeling girl, pushing her long hair away from her face. "It involves who all of *us* are too. Have you guessed yet?"

"You're robots too," Joe said bitterly. "That's why the robot pretending to be a priest would bless you and not me. You aren't a real person any more than this thing is."

"We're more — I'm more than that. Don't you know who I am yet?"

He said something inaudible.

"I couldn't hear you." She bent closer, the other women crowding around her.

"You're supposed to be my mother; my mother the way she looked when I was born. My real mother is still alive in Brooklyn."

"This is the way I was when you were conceived," the girl said. "It's at conception that the heritage is passed."

Joe nodded. "I knew it once I'd thought of it. That skirt-and-blouse outfit of yours: mini-skirts and op-art prints mean '67 or '68. I'm twenty-four, so that puts you just about right, and I guess the girl with the bag back there is your mother, and this one," he looked at the kneeling woman in the long skirt, "is her mother."

Mary Hogan nodded. "Your grandmother and great grandmother, really; it was from your cells that the transducers took the patterns. It used to be believed that only the parents' own heredity could be transmitted, but recently we've discovered that Lamarck was correct in certain respects — every characteristic, as it exists at conception, is to some extent transmitted to the new generation. That's what he was supposed to explain to you in his atom."

Joe said stubbornly, "But you're really a robot."

"Physically, yes. But mentally — spiritually if you will — I am a replica of the young woman who became your mother. Tomorrow I will be someone else." There was sadness in her voice.

"You change?"

"Yes; that's the point of this entire complex. There are a hundred of us here who constitute what might be called a repertory company. As visitors enter the master computer reads a component of some randomly selected individual's genetic heritage, then programs one of us as that person's forebear."

"But over and over?" Joe looked at the crowd of women. "Generation after generation? From the same person?"

The girl in the long skirt said, "It wasn't supposed to work this way. But an automatic program sequence was installed that demands maximum utilization of us. With a whole crowd of visitors coming in each of us would have been assigned to a different one, but with only you in the complex. . . "

"I got read every time I went past a thingamajig, and they're in all the tubes. I see. But what about him?"

"He was the first one, really," the girl with the beaded bag said unhappily. "Only something went haywire."

"Well, *what* went haywire? How does he fit into this?"

The other girls looked at Mary Hogan.

"You have a death wish. Do you realize that, Joe?"

He shook his head. "I want to live as much as anyone else."

"Consciously, yes. But not subconsciously. No one who didn't want to die would make up that story of refusing surgery for his wife's sake."

"How did you know . . . ?"

"I've been contained in your body all your life; there's a carryover of information — don't you remember that I knew your name when we first met? In so far as I am your mother — and till my program is changed that's very far — that carryover is all that holds me sane. Without it I would be finding myself suddenly here without an explanation at all."

Joe looked down at the man he held pinned. "And that's the way you know about him too?"

"Partly, and I can guess the rest. For a long time it's been known that a person's will to die could actually produce the death, and to do that it must affect a change in certain cell structures. Somehow the first time the tranducers tried to read your DNA they produced this. The master computer corrected for the error on subsequent readings by automatically

rejecting all male data matrices, but it could do nothing about this one which was already programmed. He is your own personal hope for death personified."

Joe clenched his teeth. "He'll get what he wants; because I'm going to kill him."

"I wouldn't do that, if I were you."

"Why not?"

"Your death wish is strong now. I can only guess what destroying an image of yourself will do to it. You've been using that metal thing to hold him down — look at your own chest."

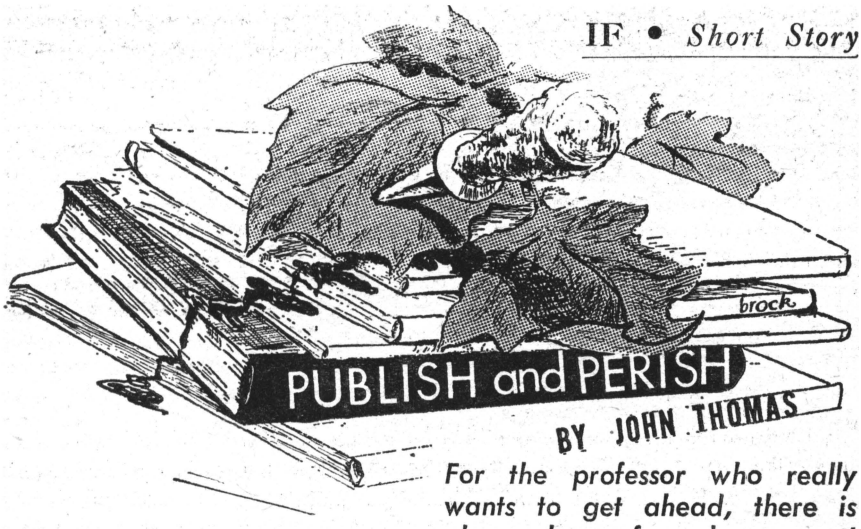
He looked. The opposite end of the steel sliver was as sharp as the one with which he was threatening his double. It had torn his shirt and scratched his chest until it was covered with his own blood. For a long time he stared at it.

VII

They found him sitting outside The Thing, waiting for them. Chuck yelled, "See! I told you he'd be here. He's just got too much sense to wear himself out walking around the grounds with us."

In Father Mendel's room he was able to get Bonnie alone long enough to explain that he had decided to have the spike removed after all and had already telephoned the doctor from Howard Johnson's while he was waiting. When she asked if he were not afraid he shook his head, remembering suddenly that Bonnie was pregnant.

END



PUBLISH and PERISH

BY JOHN THOMAS

For the professor who really wants to get ahead, there is always boom for advancement!

The last cars had pulled into Clark W. Kerr Memorial Parking Lot for the opening session of his new Physics I course, and Gleason was still searching frantically for the rest of his notes. Today of all days he could not afford to be late for class. It had taken all the pull he could muster to get prime time on the closed-circuit tv, and he'd surely be relegated to the early morning hours or even cancelled if he were late the first day. With only one hundred and twenty-seven research papers to his name he was lucky to have made assistant professor anyway.

Quarters were dropping into parking meter slots, and the air filled with the buzz of hungry machinery clicking off the time. The big screen at the front of the lot lit up hopefully, then went dark again as Gleason, seated in his office a half-mile away, shook his head at the engineer on his monitor. He was digging hurriedly through the stacks of Physical Abstracts that had been delivered that morning, the six-foot bundle representing summaries of all the papers in his field published during the preceding week. Under one of the piles he found the missing pages of his notes and, with a relieved sigh, fitted them into the sheaf of papers in his hand. Using the camera lens as a mirror he smoothed down his rumpled hair, then nodded to the waiting engineer. The red light went on, and he saw his own owlishly bespectacled face staring out from the monitor.

"The pursuit of knowledge," he began, "has always been the province of a handful of lonely, dedicated men . . ."

He felt better once class was over. It hadn't gone badly at all. There'd been some disturbance on

the screen from a passing jet, and one of the filmstrips had run out before he'd finished explaining it, but otherwise the show had been technically competent. He sighed, put put down his notes on the desk, and began to burrow through the piles of abstracts that filled most of the small office. Buried in a corner he found a two-cup coffee maker, now empty. Again Gleason seethed with the consciousness of his inferior status. Associate professors rated five-cup coffee makers and didn't have to go hunting water all the time! He thought of borrowing the larger size from the office of Professor Morgan, who had died only yesterday, but decided against it since the theft would soon be discovered by Morgan's successor, and it could mean Gleason's job. If he wanted a cup of coffee there was nothing to do but trek to the graduate students' lounge.

He unearthed a chipped and blackened coffee cup, shoved a pile of abstracts away from the door and ventured into the hallway of the physics building. A sharp hiss from the office to the right of his brought him up short. Turning he found the department's other assistant professor, Gridley Farrington, peering out at him through a partially opened door. The other man, shorter than Gleason with a sharpened nose and slick, black hair, slipped from his office and confronted his colleague with a broad and strikingly insincere smile. "Off to the kiddies' lounge again?" he inquired, staring pointedly at Gleason's cup.

Gleason could understand Farrington's hostility, as the poor man had published a scant one hundred and twenty-three research papers and was thus even lower on the multiversity social scale than he. Of course seventeen of Gleason's publications had been purchased from graduate students who had dropped out before getting their degrees, but Farrington wasn't likely to have done all his own work either.

"Just thought I'd get some coffee," Gleason replied, waving his cup vaguely. "It's a chance to keep in touch with the students, see what they're thinking. It's hard to get to know anybody teaching your courses over television."

"Oh, sure," Farrington grinned unpleasantly. "Well, Gleason," he went on, turning apparently to what was really on his mind, "what do you think about old Morgan dying?"

"Terrible thing," Gleason mumbled.

"Oh, I don't mean that! I mean who do you think will get his job?"

Gleason had thought of little else since Morgan's death, but he wasn't going to let Farrington know that. "Well, I suppose there are lots of

An IF First

Each issue of *IF* features a writer who has never been published before. May's "first" writer is John Thomas, a 33-year-old UCLA graduate who lives in Los Angeles. Recently Thomas edited *Film Society Review*, a monthly which he says "is published for those hardy groups who screen old movies in colleges and broken-down auditoriums everywhere." Of late he has decided to devote all his time to writing, and *Publish and Perish* — believe it or not — is his first submission and first sale!

choices. Hunnicutt could bring in a man from outside."

"Ridiculous!" Farrington snapped. "Silly idea! Surely they'd choose a faculty man, someone with an — er — adequate publication record."

"Well, probably," Gleason admitted, shifting nervously from one foot to the other. He himself had been at the multiversity only a few months, a replacement in fact for Morgan, who had been promoted to an associate professorship after nineteen years on the staff. He wasn't familiar with all the nuances of departmental rivalries yet.

"You'll go for the job, I suppose," Farrington ventured.

"Well, if they offer it to me . . ."

"Oh, don't play modest with me, Gleason!" The little man smoothed down the back of his slick hair. "If you want the job you've got to fight for it! Nobody can afford to wait for offers any more. Are you going to fight or not?"

Gleason didn't quite understand the implications of the question. Farrington must want the job for himself, but surely the four-publication margin would be decisive if the chairman chose to recruit from his own staff. "Well," Gleason said finally, "I'll probably do whatever I can to get the job, if that's what you mean."

Farrington smiled nastily, but at the same time turned rather pale. "That's what I thought," he said and disappeared into his office, snapping the door shut behind him.

Gleason shrugged and continued on down the corridor to the graduate lounge, where he found four anonymous students and a luke-warm urn of coffee. He sipped some of the coffee and attempted to make conversation with the students, none of whom appeared to see any advantage in talking to an assistant professor. The belated entrance of a fifth student, however, left Gleason somewhat less than pleased. For the boy was Alec Throckmorton, a shambling, beetle-browed graduate student of minimal intelligence and doubtful competence, whose attempts to make up for his lack of brilliance through an anxious, almost fawning desire to please rendered him doubly odious. But, since his father happened to supervise the awarding of grants through the National Science Foundation, Throckmorton was assured not only of his degree, but of a soft berth as lab assistant to the least prestigious member of the staff — Gleason.

"How ya doin', professor?" the boy demanded, slapping Gleason's shoulder and dislodging most of the contents of his coffee cup. "All ready for the big spearmint tomorrow?"

Gleason recalled with a chill that the boy was scheduled to assist him the following day in a critical and perhaps dangerous investigation into the properties of one of the newer synthetic elements. "All ready, Throckmorton," he sighed. "I hope you can set up the equipment properly, this time."

Throckmorton nodded his head vigorously. "Don't worry, professor. Sometimes I get confused about where the wires go, but I've got it all straightened out now."

"Green wire to the red coil, remember?"

"Oh — uh — yeah, I remember." Before the boy could generate further unwelcome conversation, Gleason hurried away.

After awhile he wandered back to his own office carrying a tin of water for his coffee maker. Though he had closed his office door on leaving it was now ajar, and Gleason wondered idly if he had missed a visitor. Pouring the water into the coffee maker he added some grounds from a jar in his desk. He plugged in the percolator and stepped around a stack of abstracts to get his cup.

The explosion wasn't very loud, but it was powerful enough to lift the abstracts and deposit them solidly against the small of his back. Gleason went down across another pile of papers as a fusillade of deadly fragments rattled angrily against the walls. In the sudden silence he sat up and stared at the smoking hole where the coffee maker had been sitting.

His door flew open, and for a moment Farrington's ratlike face was momentarily framed, an expectant grin fading to dismay as he saw Gleason staring back at him. Then the face was gone, and Gleason heard rapid footsteps in the hallway. A few moments later the door again swung open to reveal the department chairman, Professor Hunnicutt.

"Starting sooner than I'd expected," was Hunnicutt's only comment as he helped Gleason to his feet. "Bomb in the coffee maker, eh? Not really ingenious."

Gleason examined the remains of the percolator mutely. Only the heavy stack of abstracts had prevented him from being slashed by flying metal and glass from the explosion. Hunnicutt came up behind him and peered over his shoulder. "Looks like the bomb was connected to the heating element, went off when the coil started to warm up." Hunnicutt shook his head disapprovingly. "Not really a good job. Always takes a few seconds for heat to get to the element — long enough for the intended victim to walk away from the bomb. A really top-notch man would have connected the bomb directly to the electrical circuit."

It occurred to Gleason that the chairman's remarks were not entirely appropriate to an instance of attempted murder. He turned to stare at his boss, a tall, white-haired man impeccably clothed in gray pinstripe. "What," he demanded, "is going on here?"

Hunnicutt slipped a fatherly arm about Gleason's shoulders. "I keep forgetting you're new here, my boy. Not really conversant with the multiversity traditions." He kicked aside a stack of abstracts with a well-polished oxford. "Come up to my office for a few minutes. I think we can easily straighten this out."

The chairman motioned casually to a bored custodian who had suddenly materialized and led Gleason into the hallway and down the long corridor to the left. Gleason noted that Farrington's door was tightly closed and that no sound issued from the sealed interior.

Hunnicutt seated himself at his desk and leaned back comfortably, moving a ten-cup percolator to one

side. "Bit of a shock for you, I suppose, coming without warning and all. Warning from me, I mean. I assume Farrington did check with you to make sure you wanted to compete before he planted the bomb."

Gleason was thoroughly disoriented now. Something rather unusual seemed to be going on within the walls of what he had come to think of as a rather staid multiversity. "I — I don't think he really . . ." Gleason began and then recalled the peculiar conversation with Farrington of an hour before. "He said something about *fighting* for the appointment . . . ."

"Yes," said Hunnicutt brusquely, "the appointment." He leaned back, making a tent of his fingers. "It's a real problem for me. Need a really top-notch man for the job, if you know what I mean. So many Ph.D's these days, so many publications, one can't really keep up with the qualifications any more. Don't want to go outside the present staff if I can help it. But, you know, I need some real evidence that I've got a top-notch man to fill the vacancy."

Gleason had a feeling that he didn't completely understand the conversation. "You know my qualifications . . ." he began.

Hunnicutt waved him aside impatiently. "Know it all; no better or worse than Farrington's except for a small difference in the publications index. Really couldn't choose on the basis of what I know now. Farrington's got seniority in service, of course, but I never let that influence an appointment." Hunnicutt's manner softened a bit. "It's ingenuity I like to see, my boy. Farrington's trying hard, but that coffee-maker stunt isn't really the sort of thing to convince me. The heating element, you know. Now, I wonder if you could think of some better way . . . ."

"Better way, sir? To do what?"

Hunnicutt laughed nervously, tamping tobacco into a professorish pipe. "Why, to kill him, of course! He's had his chance, now it's your turn! If you can think of a more ingenious — and successful — method than his, you'll not only have convinced me of your own abilities, but you'll have eliminated your only departmental rival!"

Gleason stared at his boss. "Kill him, sir?"

"Well, that's the tradition!" Hunnicutt snapped with a sudden return to his mood of irritation. "Can't fight a good college tradition, I always say. Besides, it's really the only way. How can I tell who's really top-notch without some kind of test?" He paused, reflecting. "The whole thing began really as a kind of accident a few years ago. Milton and Borofsky had decided to duel for the post being vacated by Anderson, but Borofsky cheated by devising a way to assassinate Milton with the chimes in the college bell tower even before the duel took place. Read it in some mystery story, I believe. Of course we couldn't turn Borofsky over to the police, top-notch men being hard to get as they are. So I promoted him to the job — rather admired his ingenuity, as a matter of fact.

"Well, couldn't do much a few months later when Leonard electrocuted Borofsky to get Blassingame's job. A sort of precedent had been set,

you see. Anyway, that's the way it grew, from small beginnings, as these traditions often do. Nowadays I wouldn't consider making appointments any other way." He was friendlier now, smiling an encouraging smile at Gleason. "I think you've got the stuff it takes to carry on the old tradition, my boy. Farrington's good, but not really my type of research man. Heating coils! Think up something a little better, and you won't have to worry about that associate professorship."

Gleason was still trying to make some audible comment as Hunnicutt ushered him briskly to the door. "To tell the truth," the chairman was saying, "I've been a little disappointed in the quality of assassinations around the department the last year — too messy, too routine. Now, if you could come up with something really top notch on your first time out . . . ." His voice dropped to a friendly confidentiality. "Well, you'd have a head start on a really outstanding career in science." Gleason found himself standing in the corridor as the chairman's door sighed shut behind him.

He drifted back down the hallway and into his office, peering apprehensively at Farrington's closed door before he entered. The custodian had just finished cleaning up his office, and a shiny new two-cup percolator had already been installed in one corner. Gleason noted with relief that several bales of shredded abstracts had been removed.

What was he to do now? He couldn't go along with Hunnicutt's plan — simply couldn't! He'd never killed anybody in his life and wasn't going to start now. Yet apparently his own life was in danger, and if he didn't try some kind of counterattack the assistant professorship would surely go to Farrington. He'd heard vague rumors of the kind of cutthroat competition that had developed in the multiversities over the past decade, but he'd never anticipated anything like this. A little sabotage to divert government research funds — that was common enough. But murder! If this was the kind of game they were playing, he wanted no part of it.

Gleason glanced at his watch and saw that it was almost time for his next class. He went over to the wall case and racked out the tv camera. Removing a sheaf of notes from his desk, he sat down in his chair and turned toward the camera; only a half minute to go, he noted. Suddenly he realized that he was still a mess from the explosion, his hair on end, his clothing rumpled. He looked about for a mirror, then remembered the trick of using the camera lens as a last-minute mirror. He peered at the camera, trying to catch his reflection in the darkened lens.

There was no lens; only a slim, blackened tube.

Gleason sat for a moment digesting this fact as the clock hand crept toward the hour. The absence of a lens might mean several things, but only one occurred to him at the moment. He dived for the floor.

The red light winked on, and a high-energy laser beam spat from the tube, passing just over Gleason's desk and burning a hole in the wall

behind it. Overloaded circuits began to whine, and the camera burned itself out within seconds, the beam vanishing as its power supply was cut off. After a few moments the top of Gleason's head rose warily above the level of the desk, round eyes fixed on the smoking hulk of the television camera.

The phone rang. It was Professor Hunnicutt.

"What's going on in there," Hunnicutt demanded between audible sucks on his pipe. "You're twenty seconds late getting on the air! Students are waiting — knowledge calls, my boy!"

"It's Farrington, I think, sir." Gleason sat down on the floor cross-legged, not quite ready to leave the shelter of his desk. "He seems to have installed a laser beam in my tv camera. He — he nearly burned a hole in me!"

"No!" came Hunnicutt's shocked voice over the wire. "Used a tv camera, did he? That sort of thing won't do at all!"

"No, sir," said Gleason, brightening.

"No man has the right to interrupt class programming for personal business," said Hunnicutt, righteous anger thundering in his voice. "Not a really top-notch kind of thing to do. Shows the sort of degeneration of standards in the academic community the last few years."

"Yes, sir."

"All violence must take place outside class hours, committee meetings and conference periods," Hunnicutt said firmly. "I'll have to talk to Farrington about this."

"Er — sir . . . ."

Hunnicutt's voice rasped with impatience. "Well, what is it? I've got to get back to work."

Still crouching, Gleason cradled the phone in both hands. "I — I was thinking, sir. I'm not sure I really want that associate professorship after all. I've only been here a few months, and . . . ."

"Nonsense!" Hunnicutt roared. "You're a top-notch man. Want to see you move ahead!"

"Yes, sir. But, you see, murder's not really . . . . I mean, I'm not the type for this sort of thing."

"What's that?" Menace edged Hunnicutt's voice.

"What I'm trying to say is, I'm not really the type to kill someone just to get a job."

A long silence stretched across the wire. "Not the type, eh?" Hunnicutt sighed wearily. "I'd thought better of you, my boy. Really top-notch, I thought. Felt sure you'd come through." Another silence. "You understand, of course, that we can't keep a man on the faculty who scorns our department's hallowed traditions."

"Sir?"

"I mean, Gleason, that you do not yet have tenure."

"No, sir."

"Plenty who'd like your present job, Gleason. And no other multiversity is likely to hire you without a recommendation from me. Think it over." The wire went dead.

Gleason put down the phone and rose cautiously to his feet. He circled the desk to peer at the fused camera, then turned to stare at the neat hole burned in the far wall of

his office. A peaceful grouping of trees and ivy could be glimpsed through the aperture.

Gleason stood thinking about Hunnicutt's words, the long struggle to get his present job, his unfitness for any real work in the outside world. Hunnicutt was right — no other multiversity would hire him without a recommendation, and surely no one would believe his story if he tried to use it as an excuse. It was either get out of this situation somehow or face a diminishing career at some backwater city college, stripped of research funds and despairing of the future.

Still sunk in misery, he called the tv studio and cancelled all classes for the rest of the day, since it would take that long for his camera to be replaced. Then he returned to a serious consideration of his problem. What was he going to do? He couldn't kill anybody! And how could Farrington . . . ? There was a thought! Was it possible that Farrington was no more enthusiastic about murder than he? Perhaps the poor man had made the two attempts on Gleason's life out of nothing more than a pathetic loyalty to his department. If the two of them could get together and make a deal . . . .

A few moments later Gleason was knocking timidly at his neighbor's door, a cautious optimism in his heart and a heavy paperweight in his hand should the optimism prove unjustified. Gleason heard footsteps inside the office, then Farrington's hoarse whisper at the door. "Who's there?"

"Gleason! I've got to talk to you!"

He heard a hasty scuffling, then silence. "Don't bother to try shooting through the door," Farrington's muffled voice called finally. "I've got an energy field around my desk!"

"For God's sake, man, I don't want to hurt you. I just want to talk this thing over!"

"There's nothing to talk about," Farrington snarled. "You won't get me to open this door!"

Gleason stepped to one side of the door in case Farrington decided to do some shooting himself. "Let's be sensible," he called in a stage whisper. "Why should we go along with this crazy scheme when the stakes aren't worth it? Maybe we could work something out!"

"There's nothing to work out!" Farrington snapped back. "I need the job! If I knew how to do anything else I wouldn't be a college professor!"

Nervously Gleason shifted the paperweight from hand to hand. "But, look, Farrington. We must be able to make some kind of deal. If we could just talk rationally about this I'm sure —"

"There's nothing to talk about, and even if there were . . . ." A sudden, protracted silence fell. Gleason eased up to the door and put his ear against the panelling. He thought he could hear the faint sounds of hurried movement inside. "On second thought," Farrington went on, "you may be right. At least we can talk it over. Come on inside, and let's discuss it."

Gleason straightened, shifted the paperweight to his left hand and reached for the doorknob. He froze

in that attitude, reflecting. After a few moments he ventured, "Maybe you'd better come out here instead, Farrington. The — er — light's better."

"No," Farrington's distant voice replied, "you come in here. We want to keep this private."

"We can have some coffee in the lounge."

"I've got a coffee maker in here."

"I think you'd better come out here."

A half-hour later Gleason gave up and returned to his office to sit brooding at his desk. Farrington seemed determined to kill him, and he still couldn't work up much enthusiasm for a counterattack. At any rate he couldn't think clearly about the problem with Farrington plotting actively next door. Kicking aside a pile of abstracts, he exited quietly through the hole in the wall.

After a sleepless night in a rented hotel room (in case Farrington had his home address) he rose bleary eyed and despairingly to face what would surely be another miserable day. He still had no plan, no hope. Perhaps there was some way of merely *disabling* his rival . . . . But no, he couldn't consider violence at all. Still, wasn't one of Farrington's arms or legs worth his own life? It was only a small concession to principle.

He arrived at his office early and found that the new tv camera had been installed and the laser hole sealed up. Of Farrington there was no sign. Gleason boiled some water in his percolator (after a thorough inspection), but soon discovered that his container of coffee had been shattered in one or more of the recent office catastrophes. There was nothing to do but go to the graduate lounge again. He slipped out quietly, pausing only to make sure Farrington's door was closed, and ran tiptoe down the hallway, dodging around a bit in case of pursuit by missiles. In the lounge he found no one but Throckmorton, snoring on one of the couches.

"The spearmint," said Throckmorton, opening one eye to peer dully at his boss. "Today's the day!"

In his anxiety over the murder attempts, Gleason had forgotten the experimental work scheduled with Throckmorton for that day. He felt a twinge of apprehension; the equipment they were using was dangerous, and in his present mood he could make any one of a number of errors. Still, if he tried to put off the experiment today his standing with Hunnicutt might be damaged irreparably.

"Go ahead and set it up," he said. "I'll be down later to work with you."

The shaggy boy unfolded himself from the couch, grinning vacuously. "I'll get started on it right away, professor. Count on me." He stumbled into Gleason, spilling the cup of coffee the man had just poured for himself, and shambled off toward the stairway. The research lab was downstair's in the basement, almost directly beneath Gleason's office.

"And Throckmorton," Gleason called after him, "don't forget — it's the red wire on the green coil."

"Green wire on red coil," Throckmorton assured him and increased his pace, trying to appear enthusiastic.

Gleason's head buzzed with the effects of little sleep and much worry, so that he barely heard the boy. All his remaining emotional energy went into the task of drawing himself another cup of coffee. It wasn't until he was back at his desk that the boy's last words finally registered.

He recalled at the same moment the possible result of attaching the green wire to the red coil.

Suppressing a howl, he headed for the door, twisting frantically at the knob.

The door refused to open.

Gleason stood momentarily transfixed, the doorknob still in his hand. The door had never stuck like this before. He rattled the knob experimentally, bent over to peer through the keyhole. Something was blocking it from the other side, something that was not a key. At the same moment he felt the doorknob grow warm beneath his hand.

Gleason snatched his fingers away and stood up, backing away from the door. The knob was turning cherry red, and smoke had begun to issue from the door itself. Could Throckmorton already. . . . Then he heard a bubble of wild laughter from next door, and he knew.

"Got you this time!" Farrington screamed at him through their common wall. "My heat converter will fry you alive within the next couple of minutes! The job is mine!"

Gleason wiped his damp brow with the back of his hand, searching about for some means of escape. Since the physics building was determinedly modern, it had no windows whatsoever; the door was the only way in or out. He glanced upward at the footsquare grill of the air-conditioning unit. Was he slim enough to worm his body through that passage? Desperately Gleason shoved his desk under the opening and clambered up to test the grill. Six strong screws held it firmly across the outlet, and Gleason had no screwdriver.

He peered down, spied the telephone on his desk. He might still be able to summon help. He had crouched down and was just reaching for the receiver when the phone rang. Lifting the receiver he heard Throckmorton's dull tones. "Everything's all connected up, professor. When ya comin' down?"

"Throckmorton, get help! I'm locked in my office, and Farrington is trying to kill me!"

"What's that, professor?" the boy shouted. "I can hardly hear ya with all the noise from the equipment!"

"I said Farrington —" Gleason's voice froze. "Did you say 'noise from the equipment?'"

"Yeah, professor, I got it goin', all right."

"It's operating — with the green wire on the red coil?"

"Sure, right now it's —"

But the sentence remained uncompleted as the phone went dead and the right wall of Gleason's office vanished. He dropped the receiver and stood staring at the vacant spot where Farrington's office — and Farrington — had stood. About fifty square feet of floor space had been vaporized instantly. The laboratory, Gleason now recalled, was almost di-

rectly beneath his office. But just *almost* directly. Actually it was beneath Farrington's.

The door had stopped smoking, and Gleason threw it open easily, the now harmless attachment to Farrington's heat converter clattering to the floor. He saw Hunnicutt scuttle down the hall toward him, pipe bouncing nervously between his teeth. The chairman halted and stood awestruck before the hole in his building. At last he turned to Gleason, tears brimming in his eyes. "My boy, this is the most absolutely top-notch piece of work I've ever seen in this department."

"But — "

"Oh, it'll be rather expensive to replace this much of the building; but we've got government money, and I must say the loss is really worth it, under the circumstances. Never seen a cleaner, more humane liquidation since the tradition began."

A ragged figure appeared at the head of the basement stairs and lurched toward them. Apparently the force of the beam of destruction, or whatever the thing was, had been directed almost entirely upward. "It was really Throckmorton, here — "

Hunnicutt majestically placed an arm about the shoulders of the frightened boy. "This young man gave you a hand, did he? Pulled the trigger, so to speak, while you were the bait. Brave lads, both of you!"

Throckmorton, who had never in his entire life been addressed by anyone above the level of associate professor stood open-mouthed, basking in the glow of sudden recognition. "You will no doubt benefit from this, too, Throckmorton," the chairman went on. "Naturally there'll be two assistant professorships vacant now, and I'm sure we can arrange a spot for you while you're completing your doctoral requirements."

Perhaps, Gleason decided, there was no point in rocking the boat after all. With the coveted associate professorship his, and the beginnings of a new and infinitely murderous weapon created by attaching the green wire to the red coil, he was well on his way to a brilliant career in science.

"Come into my office, both of you," Hunnicutt was saying. "Got to get started on the paperwork for your appointments."

Watching his boss chew vigorously on his pipe, a foolproof idea for a booby trap slipped unbidden into Gleason's mind. The whole thing was ridiculous, he told himself. He wouldn't be in line for the departmental chairmanship for years! Still, it didn't hurt . . . . "Do you have a pencil and paper, professor?" he asked. "I'd like to jot down a little idea I just had."

"Certainly, my boy," Hunnicutt smiled, handing him the pencil and paper. "It's the mark of a top-notch scientist that he's always thinking, always searching for new ideas, always looking toward the future."

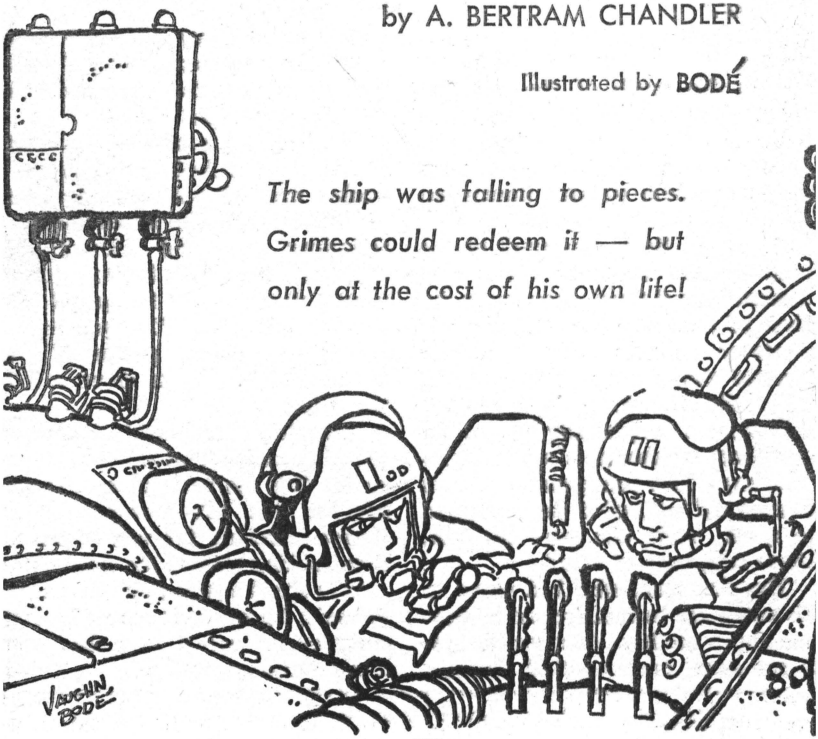
"I'm afraid you're right, sir," Gleason said; he was still scribbling furiously as he passed into the chairman's darkened office. END

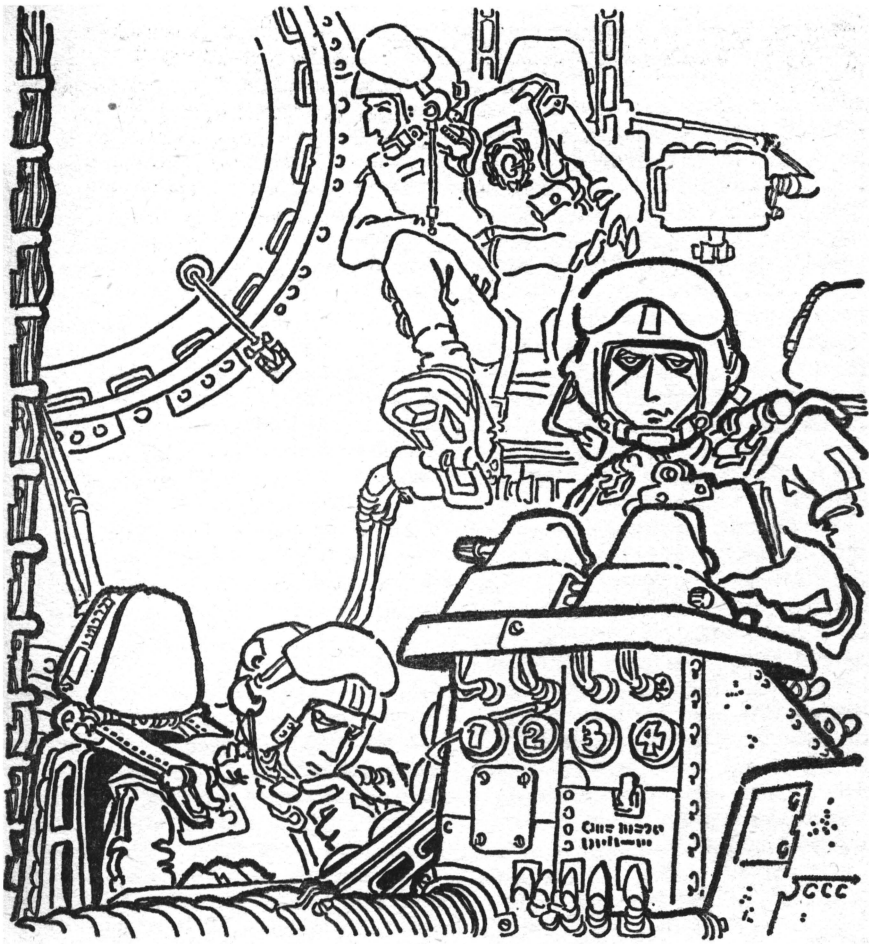
The Bird-Brained Navigator

by A. BERTRAM CHANDLER

Illustrated by BODÉ

The ship was falling to pieces. Grimes could redeem it — but only at the cost of his own life!





I

Her inertial drive throbbing softly, all hands at landing stations, all passengers save one strapped in their acceleration couches (a sudden emergency requiring the use of the auxiliary reaction drive was unlikely, but possible) the star ship *Rim Dragon* dropped slowly down to Port Grimes on Tharn.

The privileged passenger — although in his case it was a right rather than a privilege — who was riding in the control room instead of being incarcerated in his cabin was

Commodore John Grimes, Astronautical Superintendent of Rim Runners. But he said nothing, did nothing that could be construed as interference on his part. Legally speaking, of course, he was no more than a guest in the liner's nerve center. But, at the same time, he could and did exercise considerable authority over the space-going employees of Rim Runners, made the ultimate decisions in such matters as promotions and appointments. However, Captain Wenderby, *Rim Dragon's* master, was a more than merely competent ship-handler. At no time did Grimes feel impelled to make any suggestions, at no time did his own hands start to reach out hungrily for the controls.

So Grimes sat there, stolid and solid in his acceleration chair, not even now keeping a watchful eye on the briskly efficient Wenderby and his briskly efficient officers. They needed no advice from him, would need none. But it was easier for them than it had been for him, when he made his own first landing on Tharn — how many years ago? Too many. There had been no spaceport then, with Spaceport Control keeping the master fully informed of meteorological conditions during his entire descent. There had been no body of assorted officials — Port Captain, Customs, Port Health and all the rest of it — standing by awaiting the ship's arrival. Grimes, in fact, had not known what or whom to expect, although his robot probes had told him that the culture of the planet was roughly analogous to that of Earth's Middle Ages. Even so, he had been lucky in that he had set *Faraway Quest* down near a city controlled by the priesthood rather than in an area under the sway of one of the robber barons.

He looked out of one of the big viewports. From this altitude he could see no signs of change — but change there must have been, change there had been. On that long ago exploration voyage in the old *Quest* he had opened up the worlds of the Eastern Circuit to commerce — and the trader does more to destroy the old ways than either the gunboat or the missionary. In this case the trader would have been the only outside influence. The Rim Worlds had always, fortunately for them, been governed by cynical, tolerant agnostics to whom gunboat diplomacy was distasteful. The Rim Worlders had always valued their own freedom too highly to wish to interfere with that of any other race.

But even commerce, thought Grimes, *is an interference. It makes people want the things that they cannot yet produce for themselves — the mass-produced entertainment, the labor-saving machines, the weapons.* Grimes sighed. *I suppose that we were right to arm the priesthood rather than the robber barons. In any case, they've been good customers.*

Captain Wenderby, still intent on his controls, spoke. "It must seem strange, coming back after all these years, sir."

"It does, Captain."

"And to see the spaceport that they named after you, for the first time."

"A man could have worse monuments."

Grimes transferred his attention from the viewport to the screen that showed, highly magnified, what was directly astern of and below the ship. Yes, there it was. Port Grimes. A great circle of gray-gleaming concrete, ringed by warehouses and administration buildings, with cranes and gantries and conveyor belts casting long shadows in the ruddy light of the westering sun. (*He* had made the first landing on rough heathland, and for a long, heart-stopping moment had doubted that the tripedal landing gear would be able to adjust to the irregularities of the surface.) And there was *Rim Griffon*, the reason for his voyage to Tharn. There was the ship whose officers refused to sail with each other and with the master. There was the mess that had to be sorted out with as few firings as possible — Rim Runners, as usual, was short of spacefaring personnel.

There was the mess.

It was some little time before John Grimes could get around to doing anything about it. As he should have foreseen, he was a personality, an historical personality at that. He was the first outsider to have visited Tharn. He was responsible for the breaking of the power of the barons, for the rise to power of the priesthood and the merchants. Too, the Rim Confederacy's Ambassador on Tharn had made it plain that he, and the government that he represented, would appreciate it if the Commodore played along. The delay to the departure of a very unimportant merchant vessel was far less important than the preservation of interstellar good relations.

So Grimes was wined and dined, which was no hardship, and obliged to listen to long speeches, which was. He was taken on sightseeing tours, and was pleased to note that progress, although inevitable, had been a controlled progress, not progress for its own sake. The picturesque had been sacrificed only when essential for motives of hygiene or *real* efficiency. Electricity had supplanted the flaring natural gas jets for house and street lighting, but the importation and evolution of new building techniques and materials had not produced a mushroom growth of steel and concrete matchboxes or plastic domes. Architecture still retained its essentially Tharnian character, even though the streets of the city were no longer rutted, even though the traffic on those same streets was now battery-powered cars and no longer animal-drawn vehicles. (Internal combustion engines were manufactured on the planet, but their use was prohibited within urban limits.)

And at sea, change had come. At the time of Grimes's first landing the only ocean-going vessels had been the big schooners. Now sail was on its way out, ousted by the steam turbine. Yet the ships, with their fiddle bows and their figureheads, with their raked masts and funnels, still displayed an archaic charm that was altogether lacking on Earth's seas and on the waters of most Man-colonized worlds. The commodore, who was something of an authority on the history of marine transport, would dearly have loved to have made a

voyage in one of the steamers, but he knew that time would not permit this. Once he had sorted out *Rim Griffon's* troubles, he would have to return to Port Forlorn, probably in that very ship.

At last he was able to get around to the real reason for his visit to Tharn. On the morning of his fifth day on the planet he strode purposively across the clean, well-cared-for concrete of the apron, walked decisively up the ramp to *Rim Griffon's* after airlock door. There was a junior officer waiting there to receive him; Captain Dingwall had been warned that he would be coming on board. Grimes knew the young man, as he should have done. After all, he had interviewed him when he had applied for a berth in the Rim Runners' service.

"Good morning, Mr. Taylor."

"Good morning, sir." The third officer was painfully nervous, and his prominent Adam's apple bobbled as he spoke. His ears, almost as outstanding as Grime's own, flushed a dull red. "The Old . . ." The flush spread to all of Taylor's features. "The master is waiting for you, sir. This way, sir."

Grimes did not need a guide. This *Rim Griffon,* like most of the older units in Rim Runners' fleet, had started her career as an *Epsilon* Class tramp in the employ of the Interstellar Transport Commission. The general layout of those tried and trusted galactic workhorses was familiar to all spacemen. However, young Mr. Tayor had been instructed by his captain to receive the commodore and to escort him to his, Dingwall's, quarters, and Grimes had no desire to interfere with the running of the ship.

Yet.

The two men rode up in the elevator in silence, each immersed in his own thoughts. Taylor, obviously, was apprehensive. A delay to a vessel is always a serious matter, especially when her own officers are involved. And Grimes was sorting out his own impressions to date. This *Rim Griffon* was obviously not a happy ship. He could feel it — just as he could see and hear the faint yet unmistakable signs of neglect, the hints of rust and dust, the not yet anguished pleading of a machine somewhere, a fan or a pump, for lubrication. And as the elevator cage passed through the "farm" level there was a whiff of decaying vegetation; either algae vats or hydroponic tanks — or both — were overdue for cleaning out.

The elevator stopped at the Captain's Deck. Young Mr. Tayor led the way out of the cage, knocked diffidently at the door facing that into the axial shaft. It slid open. A deep voice said, "That will be all, Mr. Taylor. I'll send for you and the other officers when I want you. And come in, please, Commodore Grimes."

Grimes entered the day cabin. Dingwall rose to meet him — a short, stocky man, his features too large, too ruddy, his eyes too brilliantly blue under a cockatoo-crest of white hair. He extended a hand, saying, "Welcome aboard, Commodore." He did not manage to make the greeting sound convincing. "Sit down,

sir. The sun's not yet over the yardarm, but I can offer you coffee."

"No thank you, Captain. Later, perhaps. Mind if I smoke?" Grimes produced his battered pipe, filled and lit it. He said through the initial acrid cloud, "And now, sir, what *is* the trouble? Your ship has been held up for far too long."

"You should have asked me that five days ago, Commodore."

"Should I?" Grimes stared at Dingwall, his gray eyes bleak. "Perhaps I should. Unfortunately I was obliged to act almost in an ambassadorial capacity after I arrived here. But now I am free to attend to the real business."

"It's my officers," blurted Dingwall.

"Yes?"

"The second mate to begin with. A bird-brained navigator if ever there was one. Can you imagine anybody, with all the aids we have today, getting lost between Stree and Mellise? *He* did."

"Legally speaking," said Grimes, "the master is responsible for everything. Including the navigation of his ship."

"I navigate myself. Now."

And I can imagine it, thought Grimes. *"Do I have to do everybody's bloody job in this bloody ship? Of course, I'm only the captain . . . ."* He said, "You reprimanded him, of course?"

"Too right I did." Dingwall's voice registered pleasant reminiscence. "I told him that he was incapable of navigating a plastic duck across a bathtub."

"Hmm. And your other officers?"

"There're the engineers, Commodore. The interstellar drive chief hates the inertial drive chief. Not that I've much time for either of 'em. In fact I told Willis — he's supposed to run the inertial drive — that he couldn't pull a soldier off his sister. That was after I almost had to use the auxiliary rockets to get clear of Grollor . . . ."

"And the others?"

"Vacchini, my mate. He couldn't run a pie cart. And Sally Bowen, the catering officer, can't boil water without burning it. And Pilchin, the so-called purser, can't add two and two and get the same answer twice running. And as for Sparks . . . I'd stand a better chance of getting an important message through if I just opened a control viewport and stood there and shouted."

The officer who is to blame for all this, thought Grimes, *is the doctor. He should have seen this coming on. But perhaps I'm to blame as well. Dingwall's home port is Port Forlorn, on Lorn — and his ship's been running between the world's of the Eastern Circuit and Port Farewell, on Faraway, for the past nine standard months. And Mrs. Dingwall* (Grimes had met her) *is too fond of her social life to travel with him . . . .*

"Don't you like the ship, Captain?" he asked.

"The *ship's* all right," he was told sarcastically.

"But the run, as far as you're concerned, could be better?"

"And the officers."

"Couldn't we all, Captain Dingwall? Couldn't we all? And now, just between ourselves, who is it that refuses to sail with you?"

"My bird-brained navigator. I hurt his feelings when I called him that. A very sensitive young man is our Mr. Missenden. And the inertial drive chief. He's a member of some fancy religion called the Neo-Calvinists."

"I've met them," said Grimes.

"What I said about his sister and the soldier really shocked him."

"And which of them refuse to sail with the other?"

"Almost everybody has it in for the second mate. He's a Latter Day Fascist and is always trying to make converts. And the two chiefs are at each other's throat Kerholm, the interstellar drive specialist, is a militant atheist . . . ."

And I was on my annual leave, thought Grimes, *when this prize bunch of square pegs was appointed to this round hole. Even so, I should have checked up.*

"Captain," he said, "I appreciate your problems. But there are two sides to every story. Mr. Vacchini, for example, is a very efficient officer. As far as he is concerned, there could well be a clash of personalities."

"Perhaps," admitted Dingwall grudgingly.

"As for the others, I don't know them personally. If you could tell them all to meet in the wardroom in — say — five minutes, we can go down to try to iron some of these things out."

"*You* can try," said the captain. "I've had them all in a big way. And, to save you the bother of saying it, Commodore Grimes, they've had me likewise."

II

Grimes ironed things out. On his way from Lorn to Tharn he had studied the files of reports on the captain and his officers. In other circumstances he would have been quite ruthless — but good spacemen do not grow on trees, especially out towards the Galactic Rim. And these were good spacemen, all of them — with the exception of Missenden, the second officer. He had been born on New Saxony, one of the worlds that had been part of the short-lived Duchy of Waldegren, and one of the worlds upon which the political perversions practiced upon Waldegren itself had lived on for years after the downfall of the Duchy. He had been an officer in the navy of New Saxony and had taken part in the action off Pelisande, the battle in which the heavy cruisers of the Survey Service had destroyed the last of the self-styled commerce raiders who were, in fact, no better than pirates.

There had been survivors, and Missenden had been one of them. (He owed his survival mainly to the circumstance that the ship of which he had been navigator had been late in arriving at her rendezvous with the other New Saxony war vessels and had, in fact, surrendered after no more than a token resistance.) He had stood trial with other war criminals, but had escaped with a very light sentence. (Most of the witnesses who could have testified against him were dead.) As he had held a lieutenant commander's commission in the navy of New Saxony he had been able to obtain a Master Astronaut's Certifi-

cate after no more than the merest apology for an examination. Then he had drifted out to the Rim, where his New Saxony qualifications were valid — where, in fact, qualifications issued by any human authority anywhere in the galaxy were valid.

Grimes looked at Missenden. He did not like what he saw. He had not liked it when he first met the man, a few years ago, when he had engaged him as a probationary third officer — but then, as now, he had not been able to afford to turn spacemen away from his office door. The second officer was tall, with a jutting, arrogant beak of a nose over a wide, thin-lipped mouth, with blue eyes that looked even madder than Captain Dingwall's, his pale, freckled face topped by close-cropped red hair. He was a fanatic, that was obvious from his physical appearance. And in a ship where he, like everybody else, was unhappy, his fanaticism would be enhanced. *A lean and hungry look,* thought Grimes. *He thinks too much; such men are dangerous.* He added mentally, *But only when they think about the wrong things. The late Duke Otto's Galactic Superman, for example, rather than Pilgren's Principles of Interstellar Navigation.*

He said, "Mr. Missenden."

"Sir?" The curtly snapped word was almost an insult. The way in which it was said implied, "I'm according respect to your rank, not to *you.*"

"The other officers have agreed to continue the voyage. On arrival at Port Forlorn you will all be transferred to more suitable ships, and those of you who are due will be sent on leave or time off as soon as possible. Are you agreeable?"

"No."

"And why not, Mr. Missenden?"

"I'm not prepared to make an intercontinental hop under a captain who insulted me."

"Insulted you?"

"Yes." He turned on Dingwall. "Did you, or did you not, call me a bird-brained navigator?"

"I did, Mr. Missenden," snarled Captain Dingwall. "And I meant it."

"Captain," asked Grimes patiently, "are you prepared to withdraw that remark?"

"I am not, Commodore. Furthermore, as master of this ship I have the legal right to discharge any member of my crew anywhere that I see fit."

"Very well," said Grimes. "As Captain Dingwall has pointed out I can only advise and mediate. But I do possess some authority; appointments and transfers are my responsibility. Will you arrange, Captain, for Mr. Missenden to be paid, on your books, up to and including midnight, local time? Then get him off your Articles of Agreement as soon as possible, so that the second officer of *Rim Dragon* can be signed on here. And you, Mr. Missenden, will join *Rim Dragon.*"

"If you say so," said Missenden. "Sir."

"I do say so. And I say, too, Mr. Missenden, that I shall see you again in my office back in Port Forlorn."

"I can hardly wait. Sir."

Captain Dingwall looked at his watch. He said, "The purser already

has Mr. Missenden's payoff almost finalized. Have you made any arrangements with Captain Wenderby regarding his second officer?"

"I told him that there might be a transfer, Captain. Shall we meet at the consul's office at 1500 hours? You probably already know that he is empowered to act as shipping master insofar as our ships on Tharn are concerned."

"Yes, sir," stated Dingwall. "I know."

"You would," muttered Missenden.

The transfer of officers was nice and easy in theory — but it did not work out in practice. The purser, Grimes afterwards learned, was the only person aboard *Rim Griffon* with whom the second officer was not on terms of acute enmity. Missenden persuaded him to arrange his payoff for 1400 hours, not 1500. At the appointed time the purser of the *Griffon* was waiting in the consul's office, and shortly afterwards the purser and the second officer of *Rim Dragon* put in their appearance. The *Dragon's* second mate was paid off his old ship and signed on the articles of his new one. But Missenden had vanished. All that *Griffon's* purser knew was that he had taken the money due him and said that he had to make a business call and that he would be back.

He did not come back.

Commodore Grimes was not in a happy mood. He had hoped to be a passenger aboard *Rim Griffon* when she lifted off from Port Grimes, but now it seemed that his departure from Tharn for the Rim Worlds would have to be indefinitely postponed.

It was, of course, all Missenden's fault. Now that he had gone into smoke, all sorts of unsavory facts were coming to light regarding that officer. During his ship's visits to Tharn he had made contact with various subversive elements. The consul had not known of this — but Rim Runners' local agent, a native to the planet, had. It was the police who had told him, and he had passed the information on to Captain Dingwall. Dingwall had shrugged and growled, "What the hell else do you expect from such a drongo?" adding, "As long as I get shut of the bastard he can consort with Aldebaranian necrophiles for all I care!"

Quite suddenly, with Grimes's baggage already loaded aboard *Rim Griffon,* the mess had blown up to the proportions of an interstellar incident. The Port Grimes Customs refused outward clearance to the ship. The Rim Confederacy's ambassador sent an urgent message to Grimes requiring him to disembark at once — after which the ship would be permitted to leave — and to report forthwith to the Embassy. With all this happening, Grimes was in no fit state to listen to Captain Wenderby's complaints that he had lost a first class second officer and now would have to sail short-handed on completion of discharge.

The ambassador's own car took Grimes from the spaceport to the Embassy. It was a large building, ornately turreted, with metal-bound doors that could have withstood the

charge of a medium tank. These opened as the commodore dismounted from the vehicle, and within them stood saluting Marines. *At least,* thought Grimes, *they aren't going to shoot me. Yet.* An aide in civilian clothes escorted him to the ambassador's office.

The Honorable Clifford Webb was a short, fat man with all of a short, fat man's pomposity. "Sit down, Commodore," he huffed. Then, glowering over his wide, highly polished desk at the spaceman, "Now, sir. This Missenden character. What about him? Hey?"

"He seems to have flown the coop," said Grimes.

"You amaze me, sir." Webb's glower became even more pronounced. "You amaze me, sir. Not by what you said, but by the way in which you said it. Surely you, even you have some appreciation of the seriousness of the situation?"

"Spacemen have deserted before, in foreign ports. Just as seamen used to do. Still do. The local police have his description. They'll pick him up and deport him when they get him. And we'll deport him, too, when he's delivered back to the Confederacy."

"And you still don't think it's serious? Hey?"

"Frankly, no, sir."

"Commodore, you made the first landing on this planet. But what do you know about it? Nothing, sir. Nothing. You haven't lived here. I have. *I* know that the Confederacy will have to fight to maintain the currently favorable trade relations that we still enjoy with Tharn. Already other astronautical powers are sniffing around the worlds of the Eastern Circuit . . . ."

"During the last six months, local time," said Grimes, "three of the Empire of Waverley's ships have called here. And two from the Shakespearean Sector. And one of Trans-Galactic Clippers' cargo liners. But, as far as the rulers of Tharn are concerned, the Confederacy is still the most favored nation."

"Who *are* the rulers of Tharn?" barked the ambassador.

"Why, the priesthood."

The ambassador mumbled something about the political illiteracy of spacemen, then got to his feet. He waddled to the far wall of his office, on which was hung a huge map of the planet in Mercatorial projection, beckoned to Grimes to follow him. From a rack he took a long pointer. "The island continent of Ausiphal . . ." he said. "And here, on the eastern seaboard, Port Grimes, and the University City. Where we are now."

"Yes."

The tip of the pointer described a rhumb line, almost due east. "The other island continent of the northern hemisphere, almost the twin to this one. Climatically, politically — you name it."

"Yes?"

The pointer backtracked, then stabbed viciously. "And here, well to the west of Braziperu, the island of Tangaroa. Not a continent — but still a sizeable hunk of real estate."

"So?"

"So Tangaroa's the last stronghold of the robber barons, the ruffians who were struggling for power with the

priests and merchants when you made your famous first landing. How many years ago was it? Hey?"

"But what's that to do with Mr. Missenden," Grimes asked. "And me?" he added.

"Your Mr. Missenden," the ambassador said, "served in the navy of New Saxony. The people with whom he's been mixing in the University City are Tangaroan agents and sympathizers. The priesthood has allowed Tangaroa to continue to exist — in fact, there's even trade between it and Ausiphal — but has been reluctant to allow the Tangaroans access to any new knowledge, especially knowledge that could be perverted to the manufacture of weaponry. Your Mr. Missenden would be a veritable treasure house of such knowledge."

"He's not *my* Mr. Missenden!" snapped Grimes.

"But he is, sir. He is. *You* engaged him when he came out to the Rim. *You* appointed him to ships running the Eastern Circuit. *You* engineered his discharge on this world, even."

"So what am I supposed to do about him?"

"Find him, before he does any real damage. And if you, the man after whom the spaceport was named, are successful it will show the High Priest just how much we, of the Confederacy, have the welfare of Tharn at heart."

"But why *me?* These people have a very efficient police force. And a man with a pale, freckled face and red hair will stand out like a sore thumb among the natives."

The Honorable Mr. Webb laughed scornfully. "Green skin dye! Dark blue hair dye! Contact lenses! And, on top of all that, a physical appearance that's common on this planet!"

"Yes," admitted Grimes. "I might recognize him, in spite of a disguise . . . ."

"Good. My car is waiting to take you to the High Priest."

The university stood on a rise to the east of the city, overlooking the broad river and, a few miles to the north, the sea. It looked more like a fortress than a seat of learning — and in Tharn's turbulent past it had more than once been castle rather than academy.

Grimes respected the Tharnian priesthood. The religion that they preached and practiced made more sense to him than most of the other faiths of Man. There was something of Buddhism about it, a recognition of the fact that nothing *is,* but that everything is flux, change, a continual process of becoming. There was the equation of God with Knowledge — but never that infuriating statement made by so many Terran religions, that smug "There are things that we aren't meant to know." There was a very real wisdom — the wisdom that accepts and rejects, and that does neither just because a concept is *new.* There was a reluctance to rush headlong into an industrial revolution, with all its miseries. And, at the same time, no delay in the adoption of techniques that would make the life of the people longer, easier and happier.

Night had fallen when the embassy car pulled up outside the great

gates of the university. The guard turned out smartly — but in these days their function was merely ceremonial; no longer was there the need either to keep the students in or the townsfolk out. On all of Tharn — save for Tangaroa — the robber barons were only an evil memory of the past.

A black-uniformed officer led Grimes through long corridors, lit by bright electric bulbs, and up stairways to the office of the High Priest. He, an elderly, black-robed man, frail, his skin darkened by age to an opaque olive, had been a young student at the time of the first landing. He had claimed to have met the commodore on that occasion, but Grimes could not remember him. But he was almost the double of the old man who had held the high office then — a clear example of the job making the man.

"Commodore Grimes," he said. "Please be seated."

"Thank you, Your Wisdom."

"I am sorry to have interfered with your plans, sir. But your Mr. Webb insisted."

"He assured me that it was important."

"And he has . . . put you in the picture?"

"Yes."

The old man produced a decanter, two graceful glasses. He poured the wine. Grimes relaxed. He remembered that the Tharnian priesthood made a point of never drinking with anybody whom they considered an enemy, with nobody who was not a friend in the true sense of the word. There was no toast, only a ceremonial raising of goblets. The liquor was good, as it always had been.

"What can I do?" asked Grimes.

The priest shrugged. "Very little. I told Mr. Webb that our own police were quite capable of handling the situation, but he said, 'It's *his* mess. He should have his nose rubbed in it.'" The old man's teeth were very white in his dark face as he smiled.

"Tales out of school, Your Wisdom," grinned Grimes. "Now I'll tell one. Mr. Webb doesn't like spacemen. A few years ago his wife made a cruise in one of the T-G Clippers. And when the divorce came through, she married the chief officer of the liner she traveled in."

The High Priest laughed. "That accounts for it. But I shall enjoy your company for a few weeks that you will have to stay on Tharn. I shall tell my people to bring your baggage from the embassy over here to the University."

"That is very good of you." Grimes took another sip of the strong wine. "But I think that since I'm here I shall help in the search for Mr. Missenden. After all, he is still, officially, one of our nationals."

"As you please, Commodore. Tell me, if you were in charge how would you set about it?"

Grimes lapsed into silence. He looked around the office. All of the walls were covered with books, save one, and on it hung another of those big maps. He said, "He'll have to get out by sea, of course."

"Of course. We have no commercial airship service to Tangaroa. And the Tangaroans have no commercial airship service at all."

"And you have no submarines yet, and your aerial coastguard patrol will keep you informed as to the movements of all surface vessels. So he will have to make his getaway in a merchant vessel . . . . Would you know if there are any Tangaroan merchantmen in port?"

"I would know. There is one — the *Kawaroa*. She is loading textiles and all kinds of agricultural machinery."

"Could she be held for any reasonable length of time?"

"On what excuse, Commodore? The Tangaroans are very touchy people, and if the ship is detained their consul will at once send off a radio message to his government."

"A very touchy people, you say. And arrogant. And quarrelsome. Now, just suppose that there's a good, old-fashioned tavern brawl, as a result of which the master and his officers are all arrested . . . ."

"It's the sort of thing that could easily happen. It has happened, more than once."

"Just prior to sailing, shall we say? And then, with the ship immobilized, with only rather dim-witted ratings to try to hinder us, we make a thorough search — accommodation, holds, machinery spaces, storerooms, the works."

"The suggestion certainly has its merits."

"The only snag," admitted Grimes, "is that it's very unlikely that the master and all three of his mates will rush ashore for a quick one just before sailing."

"But in this case they always do," said the High Priest.

III

As they always had done, they did. Grimes watched proceedings from the innkeeper's cubbyhole, a little compartment just above the main barroom with cunning peepholes in its floor. He would have preferred to have been among the crowd of seamen, fishermen and watersiders, but his rugged face was too well known on Tharn, and no amount of hair and skin dye could have disguised him. He watched the four burly, blue-and-brass clad men breasting the bar, drinking by themselves, tossing down pot after pot of the strong ale. He saw the fat girl whose dyed yellow hair was in vivid contrast to her green skin nuzzle up to the man who was obviously the Tangaroan captain. He wanted none of her. Grimes sympathized with him. Even from his elevated vantage point he could see that her exposed, overblown breasts were sagging uglily, that what little there was of her dress was stained and bedraggled. But the man need not have brushed her away so brutally. She squawked like an indignant parrot as she fell sprawling to the floor with a display of fat, unlovely legs.

One of the other drinkers — a fisherman by the looks of him — came to the aid of beauty in distress. Or perhaps it was only that he was annoyed because the woman, in her fall, had jostled him, spilling his drink. Or, even more likely, both he and the woman were the High Priest's agents. If such were the case, he seemed to be enjoying his work. His huge left hand grasped the captain's

shoulder, turning him and holding him, and then right fist and left knee worked in unison. It was dirty but effective.

After that — as Grimes said later, telling about it — it was on for young and old. The three mates, swinging their heavy metal drinking pots, rallied to the defense of their master. The fisherman picked up a heavy stool to use as his weapon. The woman, who had scrambled to her feet with amazing agility for one of her bulk, sailed into the fray, fell to a crouching posture and straightened abruptly, and one of the Tangaroan officers went sailing over her head as though rocket-propelled, crashing down on to a table at which three watersiders had been enjoying a quiet, peaceful drink. They, roaring their displeasure, fell upon the hapless foreigner with fists and feet.

The police officer with Grimes — his English was not too good — said, "Pity break up good fight. But must arrest very soon."

"You'd better," the commodore told him. "Some of those gentry down there are pulling knives."

Yes, knives were out, gleaming wickedly in the lamplight. Knives were out, but the Tangaroans — with the exception of the victim of the lady and her stevedoring friends — had managed to retreat to a corner and there were fighting off all comers, although the captain, propped against the wall, was playing no great part in the proceedings. Like the fisherman, the two officers had picked up stools, were using them both as shields and weapons, deflecting with them flung pots and bottles, smashing them down on the heads and arms of their assailants.

The captain was recovering slowly. His hand went up to fumble inside the front of his coat. It came out, holding something that gleamed evilly — a pistol. But he fired it only once, and harmlessly. The weapon went off as his finger tightened on the trigger quite involuntarily, as the knife thrown by the yellow-haired slattern pinned his wrist to the wall.

And then the place was full of University police, tough men in black tunics who used their clubs quite indiscriminately and herded all those present out into the waiting trucks.

Quietly, Grimes and the police officer left their observation post and went down the back stairs. Outside the inn they were joined by twelve men — six police and six customs. These latter were used to searching ships. Their heels ringing on the damp cobblestones, they made their way through the misty night to the riverside, to the quays.

Kawaroa was ready for sea, awaiting only the pilot and, of course, her master and officers. Her derricks were stowed, her moorings had been singled up, and a feather of smoke from her tall, raked funnel showed that steam had been raised. She was not a big ship, but she looked smart, well maintained, seaworthy.

As Grimes and his party approached the vessel they saw that somebody had gotten there ahead of them, a dark figure who clattered hastily up the gangway. But there was no cause for hurry. The ship, with all her navigating officers either in jail or in

hospital, would not be sailing, and the harbor master had already been told not to send a pilot down to take her out.

There was no cause for hurry . . . .

But what was that jangling of bells, loud and disturbing in the still night? The engineroom telegraph? The routine testing of gear one hour before the time set for departure?

And what were those men doing, scurrying along to fo'c's'le head and poop?

Grimes broke into a run, and as he did so heard somebody shouting from *Kawaroa's* bridge. The language was unfamiliar, but the voice was not. It was Missenden's. From forward there was a *thunk!* and then a splash as the end of the severed headline fell into the still water. The last of the flood caught the ship's bows and she fell away from the wharf. With the police and customs officers, who had belatedly realized what was happening, well behind him, Grimes reached the edge of the quay. It was all of five feet to the end of the still-dangling gangway and the gap was rapidly widening. Without thinking, Grimes jumped. Had he known that nobody would follow him he would never have done so. But he jumped, and his desperate fingers closed around the outboard manropes of the accommodation ladder and somehow, paying a heavy toll of abrasions and lacerations he was able to squirm upwards until he was kneeling on the bottom platform. Dimly he was aware of shouts from the fast receding quayside. Again he heard the engineroom telegraph bells and felt the vibration as the screw began to turn. So the after lines had been cut, too, and the ship was under way. And it was — he remembered the charts that he had looked at — a straight run down river with absolutely no need for local knowledge. From above sounded a single, derisory blast from *Kawaroa's* steam whistle.

Grimes was tempted to drop from his perch, to swim back ashore. But he knew too much. He had always been a student of maritime history in all its aspects. He knew that a man going overboard from a ship making way through the water stands a very good chance of being pulled under and then cut to pieces by the screw. In any case, he had said that he would find Missenden, and he had done just that.

Slowly, painfuly he pulled himself erect, then walked slowly up the clattering treads to deck level.

There was nobody on deck to receive him. This was not surprising; Missenden and the crew must have been too engrossed in getting away from the wharf to notice his literal pierhead jump. So . . . . He was standing in an alleyway, open on the port side. Looking out, he saw the seaport lights sliding past, and ahead and on to port there was the white-flashing fairway buoy already — dim, but from mist rather than distance. Inboard there was a varnished wooden door set in the white-painted plating of the 'midships house, obviously the entrance to the accommodation.

Grimes opened it without difficulty — door-handles will be invented

and used by any being approximating to human structure. Inside there was a cross alleyway, brightly illuminated by electric light bulbs in well fittings. On the after bulkhead of this there was a steel door, and the mechanical hum and whine that came behind it told Grimes that it led to the engine-room. On the forward bulkhead there was another wooden door.

Grimes went through it. Another alleyway, cabins, and a companionway leading upwards. At the top of this there were more cabins, and another companionway. And at the top of this . . . the master's accommodation, obviously, even though the word on the tally over the door was no more than a meaningless squiggle to Grimes.

One more companionway — this one with a functional handrail instead of a relatively ornate balustrade. At the head of it was a curtained doorway. Grimes pushed through the heavy drape, found himself in what could be the chartroom, looked briefly at the wide chart table upon which was a plan of the harbor, together with a pair of dividers and a set of parallel rulers. The Confederacy, he remembered, had at one time exported quite large consignments of these instruments to Tharn.

On the forward bulkhead of the chartroom, and to port, was the doorway leading out to the wheelhouse and bridge. Softly, Grimes stepped through it, out into near darkness. The only light was that showing from the compass periscope, the device that enabled the helmsman to steer by the standard magnetic compass, the binnacle of which was sited up yet one more deck, on what had been called on Earth's surface ships the "monkey island." There was the man at the wheel, intent upon his job. And there, at the fore end of the wheelhouse, were two dark figures, looking out through the wide windows. One of them, the taller one, turned suddenly, said something in Tangaroan. As before, the voice was familiar but the language was not.

The question — intonation made that plain — was repeated, and then Missenden said in English, "It's you! How the hell did you get aboard? Hold it, Commodore, hold it!" There was just enough light for Grimes to see the pistol that was pointing at his midriff.

"Turn this ship round," ordered Grimes, "and take her back into port."

"Not bloody likely." Missenden laughed. "Especially when I've gone to all trouble of taking her out of port. Pity old Dingwall wasn't here to see it. Not bad, was it, for a bird-brained navigator? And keep your hands up, where I can see them."

"I'm unarmed," said Grimes.

"I've only your word for it," Missenden told him. Then he said something to his companion, who replied in what, in happier circumstances, would have been a very pleasant contralto. The girl produced a mouth whistle, blew a piercing blast. In seconds two burly seamen had appeared on the bridge. They grabbed Grimes and held him tightly while she ran practiced hands over his clothing. It was not the first time that she had searched a man for

weapons. Then they dragged him below, unlocked a steel door and threw him into the tiny compartment beyond it. The heavily barred port made it obvious that it was the ship's brig.

IV

They locked him in and left him there.

Grimes examined his surroundings by the light of the single, dim bulb. Deck, deckhead and bulkheads were all of steel. But had they been of plyboard it would have made no difference; that blasted girl had taken from him the only possession that could possibly have been used as a weapon, his pocketknife. There was a steel-framed bunk, with a thin mattress and one sleazy blanket. There was a stained washbasin, and a single faucet which, when persuaded, emitted a trickle of rusty water. There was a bucket — plastic, not metal. Still, it could have been worse. He could sleep — perhaps — and he would not die of thirst. Fully clothed, he lay down on the bunk. He realized that he was physically tired; his desperate leap for the gangway had taken something out of him. And the ship was moving gently now, a slight, soporific roll, and the steady hum and vibration of the turbines helped further to induce slumber. There was nothing he could do, absolutely nothing, and to lose valuable sleep by useless worry would have been foolish.

He slept.

It was the girl who awakened him. She stood there, bending over him, shaking his shoulder. When he stirred she stepped sharply back. She was holding a pistol, a revolver of Terran design if not manufacture, and she looked as though she knew how to use it. She was one of those women whose beauty is somehow accentuated by juxtaposition to lethal ironmongery. Yes, she was an attractive wench, with her greenish, transluscent skin that did not look at all odd, with her fine, strong features, with her sleek, short-cut blue hair, with her slim yet rounded figure that even the rough uniform could not hide. She was an officer of some sort, although what the silver braid on the sleeves of her tunic signified Grimes could not guess. Not that he felt in the mood for guessing games; he was too conscious of his own unshaven scruffiness, of the aches and pains resulting from his athletics of the previous night and from the hardness of the mattress.

She said, in fair enough English, "Your Mr. Missenden would see you."

"He's not *my* Mr. Missenden," replied Grimes testily. Why should everybody ascribe to him the ownership of the late second officer of *Rim Dragon?*

"Come," she said, making an upward jerking motion of the pistol barrel.

"All right," grumbled Grimes. "All right."

He rolled off the narrow bunk, staggered slightly as he made his way to the washbasin. He splashed water over his face, drank some from his cupped hands. There was no towel. He made do with his hand-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kerchief. As he was drying himself he saw that the door was open and that a seaman was standing beyond it. Any thoughts that he had entertained of jumping the girl and seizing her gun — if he could — evaporated.

"Follow that man," she ordered. "I will follow you."

Grimes followed the man, through alleyways and up companionways. They came at last to the bridge. Missenden was there, striding briskly back and forth as though he had been at sea all his life. In the wheelhouse the helmsman was intent on his task. Grimes noted that the standard compass periscope had been withdrawn and that the man was concentrating upon the binnacle housing the ocean passage compass. So they still used that system. But why shouldn't they? It was a good one. He looked out to the sea, up to the sky. The morning was calm, but the sun was hidden by a thick, anticyclonic overcast. The surface of the sea was only slightly ruffled and there was a low, confused swell.

"Missenden," called the girl.

Missenden stopped his pacing, walked slowly to the wheelhouse. With his dyed hair and skin he looked like a Tharnian, a Tangaroan, and in his borrowed uniform he looked like a seaman. He also looked very pleased with himself.

"Ah, Commodore," he said, "welcome aboard. You've met Miss Ellevie, I think. Our radio officer."

"You'd better tell Miss Ellevie to send a message to the High Priest for me, Mr. Missenden."

Missenden laughed harshly. "I'll say this for you, Commodore, you do go on trying. Why not accept the inevitable? You're in Tangaroan hands. In fact you put yourself in their — our — hands. The Council of Barons has already been informed, and they have told me that they want you alive. If possible."

"Why?" asked Grimes bluntly.

"Use your loaf, Commodore. Firstly, it's possible that we may be able to persuade you to press for the establishment of trade relations between the Confederacy and Tangaroa. You do pile on quite a few G's in this sector of the galaxy, you know. Or should I say that you do draw a lot of water? And if you play, it could be well worth your while."

"And if I don't play?"

"Then we shall be willing to sell you back to your lords and masters. At a fair price, of course. A squadron of armed atmosphere flyers? Laser weapons? Missiles with nuclear warheads?"

"That's for *your* lords and masters to decide."

Missenden flushed, and the effect, with his green-dyed skin, was an odd one. He said to the girl, "That will do, Ellevie. I'll let you know when I want you again." He walked out to the wing of the bridge, beckoning Grimes to follow. When he turned to face the commodore he was holding a pistol in his right hand.

He said, "Don't try anything. When I was in the navy of New Saxony I was expert in the use of hand guns of all descriptions. But I'd like a private talk. Ellevie knows English, so I sent her below. The man at the wheel may have a smatter-

ing, but he'll not overhear from where we are now."

"Well?" asked Grimes coldly.

"We're both Earthmen."

"*I* am, Mr. Missenden."

"And I am, by ancestry. These Tharnians are an inferior breed, but if they see that *you* can be humiliated . . . ."

". . . they'll realize that *you* aren't the galactic superman you set yourself up to be."

Missenden ignored this, but with an effort. He said, "My position in this ship is rather . . . precarious. The crew doesn't trust me. I'm captain, yes — but only because I'm the only man who can navigate."

"But can you?"

"Yes, damn you! I've read the textbooks — it was all the bastards gave me to read when I was holed up down in the secret compartment. And anybody who can navigate a starship can navigate one of these hookers! Anyhow . . . . Anyhow, Commodore, it will be better for both of us if we maintain the pretense that you are a guest rather than a prisoner. But I must have your parole."

"My parole? What can I do?"

"I've heard stories about you."

"Have you? Very well, then, what about this? I give you my word not to attempt to seize this ship."

"Good. But not good enough. And will you give your word not to signal, to aircraft or surface vessels?"

"Yes," agreed Grimes.

"And your word not to interfere, in any way, with the ship's signalling equipment?"

"Yes."

"Then, Commodore, I feel that we may enjoy quite a pleasant cruise. I can't take you down yet; I relieved the lookout for his breakfast. You'll appreciate that we're rather shorthanded. As well as the Old Man and the three mates, half the deck crew was left ashore, and two of the engineers. I can't be up here all the time, but I have to be here most of the time. And the lookouts have orders to call me at once if they sight another ship or an aircraft."

"And, as you say, you're the only navigator." *The only human navigator,* Grimes amended mentally.

The lookout came back to the bridge then, and Missenden took Grimes down to what was to be his cabin.

It was a spare room, with its own attached toilet facilities, on the same deck as the master's suite — which, of course, was now occupied by Missenden. It was comfortable, and the shower worked, and there was even a tube of imported depilatory cream for Grimes to use. After he had cleaned up he accompanied Missenden down to the saloon, a rather gloomy place panelled in dark, unpolished timber. Ellevie was already seated at one end of the long table, and half way along it was an officer who had to be an engineer. Missenden took his seat at the head of the board, motioned to Grimes to sit at his right. A steward brought in cups and a pot of some steaming, aromatic brew, returning with what looked like, and tasted like, two deep plates of fish stew.

But it wasn't bad and, in any case, it was all that there was.

After the meal Missenden returned to the bridge. Grimes accompanied him, followed him into the chartroom where he started to potter with the things on the chart table. Grimes looked at the chart — a small scale oceanic one. He noted that the Great Circle track was penciled on it, that neat crosses marked the plotting of dead reckoning positions at four-hourly intervals. He looked from it to the ticking log clock on the forward bulkhead. He asked, "This submerged log of yours. Does it run fast or slow?"

"I — I don't know, Commodore. But if the sky clears and I get some sights, I'll soon find out."

"You think you'll be able to?"

"Yes. I've always been good with languages, and I've picked up enough Tangaroan to be able to find my way through the ephemeris and the reduction tables."

"Hmm." Grimes looked at the aneroid barometer — another import. It was still high. With any luck at all the anticyclonic gloom would persist for the entire passage. In any case, he doubted if Missenden's first attempt to obtain a fix with sextant and chronometer would be successful.

He asked, "Do you mind if I have a look round the ship? As you know, I'm something of an authority on the history of marine transport . . . ."

"I do mind!" snapped Missenden. Then he laughed abruptly. "But what could you do? Even if you hadn't given your parole, what could you do? All the same, I'll send Ellevie with you. And I warn you, that girl is liable to be trigger happy."

"Have you known her long?"

Missenden scowled. "Too long. She's the main reason why I'm here."

Yes, thought Grimes, *the radio officer of a merchant vessel is well qualified for secret service work, and when the radio officer is also an attractive woman* . . . . He felt sorry for Missenden, but only briefly. He'd had his fun; now he was paying for it.

Missenden went down with Grimes to the officers' flat, found Ellevie in her room. She got up from her chair without any great enthusiasm, took from a drawer in her desk a revolver, thrust it into the side pocket of her tunic. "I'll leave you to it," said Missenden.

"All right," she said in a flat voice. Then, to Grimes, "What do you want to see?"

"I was on this world years ago," he told her.

"I know."

"And I was particularly impressed by the . . . the ocean passage compasses you had, even then, in your ships. Of course. it was all sail in those days."

"Were you?"

Grimes started pouring on the charm. "No other race in the galaxy has invented such ingenious instruments."

"No?" She was beginning to show a flicker of interest. "And did you know, Commodore Grimes, that it was not a wonderful priest who made the first one? No. It was not. It was a Baron Lennardi, one of *my* ancestors. He was — how do you put it? A man who hunts with birds?"

"A falconer."

"A falconer?" she repeated dubi-

ously. "No matter. He had never been to the University, but he had clever artisans in his castle, and his brother, whom he loved, was a . . . how do you say sea raider?"

"A pirate."

She took a key from a hook by the side of her desk. "Second mate looks after compass," she said. "But second mate not here. So . . . *I* do everything."

She led the way out into the alleyway, then to a locked door at the forward end of the officers' accommodation, to a room exactly on the centerline of the ship, directly below the wheelhouse. She unlocked and opened the door, hooked it back. From inside came an ammoniacal odor. In the center of the deck was a cage, and in the cage was a bird — a big, ugly creature, dull gray in color, with ruffled plumage. It was obvious that its wings had been brutally amputated rather than merely clipped. Its almost globular body was imprisoned in a metallic harness, and from this cage within a cage a thin yet rigid shaft ran directly upwards, through the deckhead and, Grimes knew, through a casing in the master's day cabin and, finally, to the card of the ocean passage compass. As Grimes watched, Ellevie took a bottle of water from a rack poured some into a little trough that formed part of the harness. Then from a box she took a spoonful of some stinking brown powder, added it to the water. The bird ignored her. It seemed to be looking at something, for something, something beyond the steel bulkhead that was its only horizon, something beyond the real horizon that lay forward and outside of the metal wall. Its scaly feet scrabbled on the deck as it made a minor adjustment of course.

And it — or its forebears — had been the only compasses when Grimes had first come to this planet. Even though the Earthmen had introduced the magnetic compass and the gyro compass this, for an ocean passage, was still the most efficient.

Cruelty to animals is penalized only when commercial interests are not involved.

"And your spares?" asked Grimes.

"Homeward spare — right forward," she told him. "Ausiphal compass and one spare — right aft."

"So you don't get them mixed?" he suggested.

She smiled contemptuously. "No danger of that."

"Can I see them?"

"Why not? May as well feed them now."

She almost pushed Grimes out of the master compass room, followed him and locked the door. She led the way to the poop — but Grimes noticed that a couple of unpleasant-looking seamen tailed after him. Even though the word had been passed that he had given his parole he was not trusted.

The Ausiphal birds were in a cage in the poop house. As was the case with the Tangaroa birds, their wings had been amputated. Both of them were staring dejectedly directly astern. And both of them — even though dull and ruffled their plumage glowed with gold and scarlet — were females.

Grimes followed Ellevie into the cage, the door to which was at the forward end of the structure. He made a pretense of watching interestedly as she doled out the water and the odoriferous powder — and picked up two golden tail feathers from the filthy deck. She straightened and turned abruptly. "What you want those for?"

"Flies," he lied inspiredly. "Dry flies."

"Flies?"

"They're artificial lures, actually. Bait. Used for fishing."

"Nets," she stated. "Or explosives."

"Not for sport. We use a rod, and a line on the end of it, and the hook and the bait on the end of that. And fishermen are always experimenting with different baits."

The suspicion faded from her face. "Yes, I remember. Missenden gave me a book — a magazine? It was all about outdoor sports. But this fishing . . . . Crazy!"

"Other people have said it, too. But I'd just like to see what sort of flies I can tie with these feathers when I get home."

"If you get home," she said nastily.

V

Back in his cabin, Grimes went over mentally what he had learned about the homers — that was as good a translation as any of their native name — during his last (his only, until now) visit to Tharn. They were land birds, but fared far out to sea in search of their food, which was fish. They *always* found their way back to their nests, even when blown thousands of miles away by severe storms, their powers of endurance being phenomenal. Also, whenever hurt or frightened, they headed unerringly for home — by the shortest possible route, which was a Great Circle course.

Used as master compasses, they kept the arrowhead on the card of the steering compass pointed directly towards wherever it was that they had been born — even when that "wherever" was a breeding pen in one of the seaport towns. On a Mercatorial chart the track would be a curve, and according to a magnetic or gyro compass the ship would be continually changing course — but on a globe a Great Circle is the shortest distance between two points.

Only one instinct did they possess that was more powerful, more overriding than the homing instinct.

The sex instinct.

Grimes had given his parole. Grimes had promised not to do certain things — and those things, he knew, were rather beyond his present capabilities in any case. But Grimes, as one disgruntled Rim Runners' master had once remarked, was a stubborn old bastard. And Grimes, as the admiral commanding the navy of the Rim Worlds Confederacy had once remarked, was a cunning old bastard. Sonya, his wife, had laughed when told of these two descriptions of her husband and had laughed still louder when he had said plaintively that he didn't like to be called old.

Nonetheless, he was getting past the age for cloak and dagger work,

mutiny on the high seas and all the rest of it. But he could still use his brains.

Kawaroa's short-handedness was a help. If the ship had been normally manned he would have found it hard, if not impossible, to carry out his plan. But, insofar as the officers' flat was concerned, the two engineers were on watch and watch, and off watch would be catching up on lost sleep. That left Ellevie. But she had watches to keep, and one of these two-hour stretches of duty coincided with and overlapped evening twilight. Missenden was not a watchkeeper, but he was, as he was always saying, the only navigator, and on this evening there seemed to be the possibility of breaks appearing in the overcast. There had been one or two during the day, but never where the sun happened to be. And, insofar as evening stars were concerned, out here, on the Rim, there were so very few. On a clear evening there would have been three, and three only, suitably placed for obtaining a fix. On this night the odds were against even one of the three appearing in a rift in the clouds before the horizon was gone.

Anyhow, there was Missenden, on the bridge, sextant in hand, the lid of the chronometer box in the chartroom open, making an occasional gallop from one wing to the other when it seemed that a star might make a fleeting appearance. Grimes asked if he might help, if he could take the navigator's times for him. Missenden said no, adding that the *wrong* times would be no help at all. Grimes looked hurt, went down to the boat deck, strolled aft. The radio shack was abaft the funnel. He looked in, just to make sure that Ellevie was there. She was, and she was tapping out a message to somebody. Grimes tried to read it — then realized that even if the code was Morse the text would be in Tangaroan.

He went down to the officers' flat. All lights, with the exception of the dim police bulbs in the alleyways, were out. From one of the cabins came the sound of snoring. He found Ellevie's room without any trouble; he had been careful to memorize the squiggle over her door that meant *Radio Officer*. He walked to the desk, put his hand along the side of it. Yes, the key was there. Or *a* key. But it was the only one. He lifted it from its hook, stepped back into the alleyway, made his way forward.

Yes, it was the right key. He opened the door, shut it behind him, then groped for the light switch. The maimed, ugly bird ignored him; it was still straining at its harness, still scrabbling now and again at the deck as it made some infinitesimal adjustment of course. It ignored him — until he pulled one of the female's tail feathers from his pocket. It squawked loudly then, its head turning on its neck to point at the new, potent attraction, its clumsy body straining to follow. But Grimes was quick. His arm, his hand holding the feather shot out, steadied over the brass strip let into the deck that marked the ship's centerline.

But it had been close, and he had been stupid. The man at the wheel would have noticed if the compass card had suddenly swung a full ninety degrees to starboard — and even

Missenden would have noticed if the ship had followed suit. (And would he notice the discrepancies between magnetic compass and ocean passage compass? Did he ever compare compasses? Probably not. According to Captain Dingwall he was the sort of navigator who takes far too much for granted.)

Grimes, before Missenden had ordered him off the bridge, had been able to study the chart. He assumed — he had to assume — that the last Dead Reckoning position was reasonably accurate. In that case, if the ship flew off at a tangent, as it were, from her Great Circle, if, as and from now she followed a rhumb line, she would miss the north coast of Tangaroa by all of a hundred miles. And if she missed that coast, another day's steaming would bring her into the territorial waters of Braziperu. There was probably some sort of coastal patrol, and even though surface and airships would not be looking for *Kawaroa* her description would have been sent out.

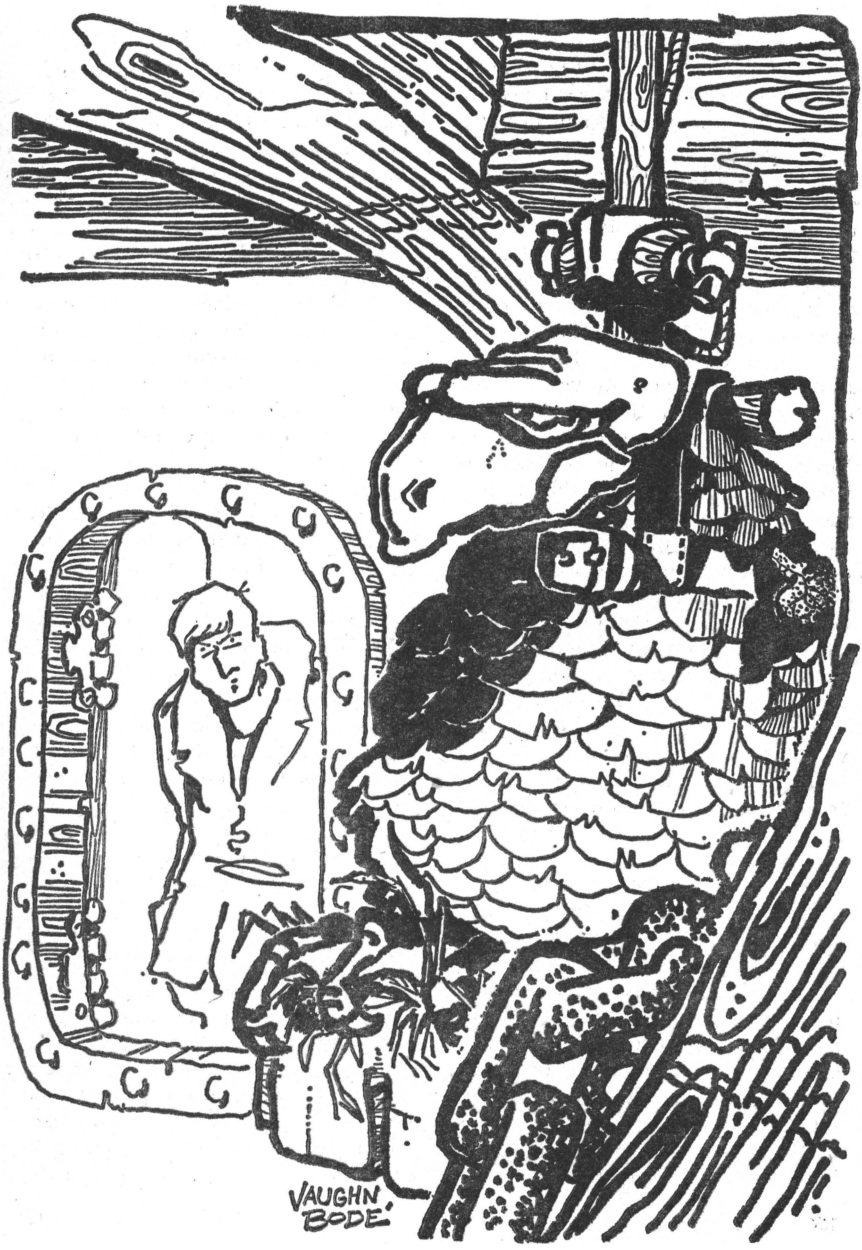
The rack containing water and food containers was on the forward bulkhead of the master compass room. It was secured to the plating with screws, and between wood and metal there was a gap. Grimes pushed the quill of the feather into this crack, being careful to keep it exactly over the brass lubber's line. He remembered that the male homer had paid no attention to the not-so-artificial lure until he pulled it out of his pocket. Had his own body masked the smell of it? Or *was* there a smell, or was it some more subtle emanation? He recalled then that he had learned that the male birds must be kept beyond a minimum distance from the females, no matter what intervened in the way of decks or bulkheads. So . . . ? His own masculine aura . . . ? The fact that he had put the feathers in the pocket that he usually kept his pipe in . . . ?

He decided to leave the merest tip of the feather showing, nonetheless. He had noted that Ellevie went through her master compass tending routine with a certain lack of enthusiasm; probably she would think that the tiny touch of gold was just another speck on the paintwork.

He waited in the foul-smelling compartment for what seemed like far too long a time. But he had to be sure. He decided, at last, that his scheme was working. Before planting of the feather, the maimed bird had been shifting to starboard, the merest fraction of a degree at a time, continually. Now it was motionless, just straining at its harness.

Grimes put out the light, let himself out, locked up, then returned the key to Ellevie's cabin. He went back up to the bridge, looked into the chartroom. It seemed that Missenden had been able to take one star, but that his sums were refusing to come out right.

The voyage wore on. It was not a happy one, especially for Grimes. There was nothing to read and nobody to talk to except Missenden and Ellevie — and the former was all too prone to propagandize on behalf of the galactic supermen, while the latter treated Grimes with contempt. He was pleased to note,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however, that they seemed to be getting on each other's nerves. The honeymoon, such as it had been, was almost over.

The voyage wore on. No other ships were sighted, and the heavily clouded weather persisted. Once or twice the sun showed through, and once Missenden was able to obtain a sight, to work out a position line. It was very useful as a check of distance run, being almost at right angles to the courseline.

"We shall," announced Missenden proudly, "make our landfall tomorrow forenoon."

"Are you sure?" asked Grimes mildly.

"Of course I'm sure." He prodded with the points of his dividers at the chart. "Look! Within five miles of the D.R."

"Mphm," grunted Grimes.

"Cheer up, Commodore! As long as you play ball with the barons they won't boil you in oil. All you have to do is be reasonable."

"I'm always reasonable," said Grimes. "The trouble is that too many other people aren't."

The other man laughed. "We'll see what the Council of Barons has to say about that. I don't bear you any malice — well, not much — but I hope I'm allowed to watch when they bring you around to their way of thinking."

"I hope you never have the pleasure," snapped Grimes, going below to his cabin.

The trouble was that he was not sure. Tomorrow could be arrival day at Port Paraparam on Tangaroa. It could be. It could not. If he started taking too much interest in the navigation of the ship — if, for example, he took it upon himself to compare compasses — his captors would at once smell a rat. He recalled twentieth-century sea stories he had read, yarns in which people, either goodies or baddies, had thrown ships off course by hiding an extra magnet in the vicinity of the steering compass binnacle. There had even been one in which the hero had achieved the desired effect by sticking a weight under the north pole of the gyro compass rotor with chewing gum, thus introducing some most peculiar precession. *Those old bastards had it easy,* he thought. *Magnetism is straightforward, it's not like playing around with the tail feathers of a stupid bird.*

He did not sleep well that night and was up on bridge, before breakfast, with Missenden. Through a pair of binoculars he scanned the horizon, but nothing was there, no distant peaks in silhouette against the pale morning sky.

The two men were up on the bridge again after breakfast. Still there was nothing ahead but sea and sky. Missenden was beginning to look worried — and Grimes's spirits had started to rise. Neither of them went down for the midday meal — and it was significant that the steward did not come up to ask if they wanted anything. There was something in the atmosphere of the ship that was ugly, threatening. The watches — helmsmen and lookouts — were becoming increasingly surly.

"I shall stand on," announced Missenden that evening. "I shall

stand on. The coast is well lit, and this ship has a good echometer . . . ."

"But no radar," said Grimes.

"And whose fault is that?" flared the other. "Your blasted pet priests'. *They* say that they'll not introduce radar until it can be manufactured locally!"

"There are such things as balance of trade to consider," Grimes told him.

"Balance of trade!" He made it sound like an obscenity. Then. "But I can't understand what went wrong. The Dead Reckoning — my observed position — "

"The log could be running fast. And what about set? Come to that — did you allow for accumulated chronometer error?"

"Of course. In any case, we've been getting radio time signals."

"Are you sure that you used the right date in the ephemeris?"

"Commodore Grimes! As I told you before, I'm a good linguist. I can read Tangaroan almost as well as I can read English."

"What about index error on that sextant you were using?"

"We stand on," said Missenden stubbornly.

Grimes went down to his cabin. He shut the door and shot the securing bolt. He didn't like the way that the crew were looking at the two Earthmen.

VI

Morning came, and still no land. The next morning came, and the next. The crew was becoming mutinous. To Missenden's troubles — and he was, by now, ragged from lack of sleep — were added a shortage of fresh water and the impending exhaustion of oil fuel. But he stood on, stubbornly. He wore two holstered revolvers all the time, and the other ship's firearms were locked in the strongroom. And what about the one that Ellevie had been waving around? wondered Grimes.

He stood on — and then, late in the afternoon, the first dark peak was faintly visible against the dark, clouded sky. Missenden rushed into the chartroom, came back out. "Mount Rangararo!" he declared.

"Doesn't look like it," said Ellevie, who had come to the bridge.

"It must be." A great weight seemed to have fallen from his shoulders. "What do you make of it, Commodore?"

"It's land," admitted Grimes.

"Of course it's land! And look! There on the starboard bow! A ship. A cruiser. Come to escort us in."

He snapped orders, and *Kawaroa's* ensign was run up to the gaff, the black, mailed fist on the scarlet ground. The warship, passing on their starboard beam, was too far distant for them to see her colors. She turned, reduced speed, steering a converging course.

The dull *boom* of her cannon came a long while after the flash of orange flame from her forward turret. Ahead of *Kawaroa* the exploding shell threw up a great fountain of spray. It was Grimes, who ran to the engineroom telegraph and rang *Stop*. It was Ellevie, who, dropping her binoculars to the deck, cried, "A Braziperuan ship!" Then she pulled

her revolver from her pocket and aimed it at Missenden, yelling, "Terry traitor!" Unluckily for her she was standing just in front of Grimes, who felled her with a rabbit punch to the back of the neck. He crouched, scooped up the weapon and straightened. He said, "You'd better get ready to fight your faithful crew away from the bridge, Missenden. We should be able to hold them off until the boarding party arrives." He snapped a shot at the helmsman, who, relinquishing his now useless wheel, was advancing on them threateningly. The man turned tail and ran.

"You're behind this!" raved Missenden. "What did you do? You gave your parole!"

"I didn't do anything that I promised not to."

"But — what went wrong?"

Grimes answered with insufferable smugness. "It was just a case of one bird-brained navigator trusting another." END

May 10-12, 1968. DISCLAVE. Washington D. C. Regency-Congress Motor Hotel. For information: Jack C. Haldeman, 1244 Woodbourne Avenue, Baltimore, Md. Featuring a lively slide show "The Decline and Fall of Practically Everybody" narrated by J. K. Klein and based on his photos of many past conventions. Guest of Honor: Robert Silverberg.

June 21-23, 1968. DALLAS CON. At Hotel Southland, Dallas, Texas. For information: Con Committee '68, 1830 Highland Drive, Carrollton, Texas 75006. Membership $2.50.

June 24-*August* 2, 1968. WRITERS' WORKSHOP IN SCIENCE FICTION & FANTASY. Participants may enroll for 2, 4, or 6 weeks; college credits will be given. Visiting staff will be: Judith Merril, Fritz Leiber, Harlan Ellison, Damon Knight, Kate Wilhelm. For information: Robin Scott Wilson, Clarion State College, Clarion, Pa. 16214.

June 28-30, 1968. MIDWESTCON. At North Plaza Motel, 7911 Reading Road, Cincinnati, Ohio. Program includes a banquet, cost $3.50. For information: Lou Tabakow, 3953 St. John's Terrace, Cincinnati, Ohio 45236. Membership: $1.00.

July 4-7, 1968. F-UN CON. In Los Angeles: at Statler-Hilton Hotel. For information: Charles A. Crayne, 1050 N. Ridgewood Place, Hollywood, California 90038. Advance membership: $2.00: supporting membership: $1.00.

July 8-13, 1968. INTERNATIONAL SCIENCE-FICTION FESTIVAL. Showing of sf films from all over the world. Judging by a distinguished panel. For information: Festival del Film di Fantascienza, Castle San Giusto, Trieste, Italy.

July 26-28, 1968. OZARKON III. At Ben Franklin Motor Hotel, 825 Washington, St. Louis, Missouri. Guest of Honor: Harlan Ellison. For information: Norbert Couch, Route 2, Box 889, Arnold, Missouri 63010. Membership: $2.00.

August 23-25, 1968. DEEP SOUTH SF CONFERENCE VI, New Orleans, Louisiana. Details to be announced. For information: John H. Guidry, 5 Finch Street, New Orleans, Louisiana 70124. Guest of Honor: Daniel F. Galouye. Membership: $1.00.

August 29-*September* 2, 1968. BAYCON: 26th *World Science Fiction* Convention. At Hotel Claremont, Oakland, California. Philip José Farmer, Guest of Honor. More details later. For information: BAYCON, P.O. Box 261 Fairmont Station, El Cerrito, California 94530. Membership: $1.00 foreign, $2.00 supporting, $3.00 attending. Join now and receive Progress Reports.

Dear Editor:

Re the letter by Mrs. Rhoda Wills in your March issue. There is no accounting for tastes, of course, and perhaps Mrs. Wills's letter ought not even to be dignified by a reply, but her attitude is both foolish and representative of a section of the reading public. As far as I know there has been a running battle throughout literary history concerned with whether literature should properly instruct or entertain, and no adequate conclusion will ever be reached as long as every person is permitted his own opinion. There is no reason science-fiction, science fantasy, or pure fantasy should be either instructive or entertaining, or educational, enlightening, and so on; it may be any of these or *none*, if the author chooses — but it will probably be one. An author should, ideally please himself first, and if he also pleases the readers who *choose* to read his works, so much the better. In other words, the obligation, if any, is with the reader. The newsstands place pornographic books on their shelves, but the public is not obliged to buy them — anything else would be more worth while. What is needed is a genuine discriminative effort on the part of each individual reader in deciding what is good for him and worthy of his attention. In the same light he has no right to prescribe for others whose tastes may differ.

In my opinion and acquaintance, readers and writers of sf and fantasy represent the elite of the world's *general* reading public. Many of them may be peculiar (I'm quite peculiar myself), but then any selected group of people will have its peculiarities — painters, horse lovers, dog fanciers, and so on. And Mrs. Wills's irresponsible claim that no real scientist or educator would uphold what *If* is printing (and evidently the entire genre is included) is simply not in accordance with the facts. Writers and readers of science-fiction and science fantasy *are* the well educated, *are* the well informed, *are* in many cases, the scientists of this country and other countries. And most educators on the university level will not deliberately spurn sf; they will usually admit that it has literary merits even though they may not care for it themselves. There is a sf section of the southern chapter of the Modern Language Association!

Beyond all this, however, Mrs. Wills does have a point. Does sf owe anything to its adherents? Perhaps so, in some cases, and I shall

use television sf as an example. Both *The Invaders* and *Star Trek* serve an informative end, whatever their design may be. But another show, *Lost in Space*, has fallen on bad times. In three years the series has shifted from a semi-scientific basis to a fantastic. The principals, now are a little boy, a strangely emotional robot and a pseudo-doctor, who, despite the fact that he is despicable, cowardly, greedy, and cruel when necessary, is made to retain our interest and even sympathy. He has become the hero of the program, and this is truly insidious, because it is not sufficiently clear that he is a non-hero or anti-hero. He receives little or no punishment and is rewarded more often than not by continued acceptance of his crimes. Where are the values here? If there are any, they have become warped out of countenance.

Against this, however, we have the truly magnificent fantasies of E. R. Burroughs, who has given the world, in *Tarzan*, a quasi-realistic figure that has, in a short fifty years, become a popular hero representing good to rank with or above King Arthur and Robin Hood. Yet Tarzan books are escapism in the purest form. What have they to do with the real problems and responsibilities of today's and tomorrow's world. Any young boy has missed one of the experiences of childhood if he never reads a Tarzan book. And I can also mention the works of Andre Norton, L. Sprague de Camp, A. Merritt, Jack Vance, and — the list is endless. Sherlock Holmes is no less wonderful because he is a fantasy hero, of sorts; I can say all this and still admit that fantasy and the recent sword and sorcery are not my favorites. Credit must be given where it is due — a story stands on its own merits, or should if it does not. What is needed, once again, is an individual ability to discern and discriminate; if we do not possess these talents strongly, we should practice them.

Well, now, I did not start out to write the decisive essay on this subject, and, despite the length, I can see that I have not done so. But it is important that we learn to judge literature of all kinds with something more than ignorance and our own predispositions. If there does exist an inability to separate fact and fancy, we should look farther than our writers and editors for a reason. Science fiction is not all bad, but neither is it all good, as some of the fans apparently feel. There is a wider scale of comparison than great! terrific! and Wow!

Congratulations on a fine sf magazine and a steadily better letter section. — James M. Gale, 7100 Cresthill Drive, Knoxville, Tennessee 37919.

* * *

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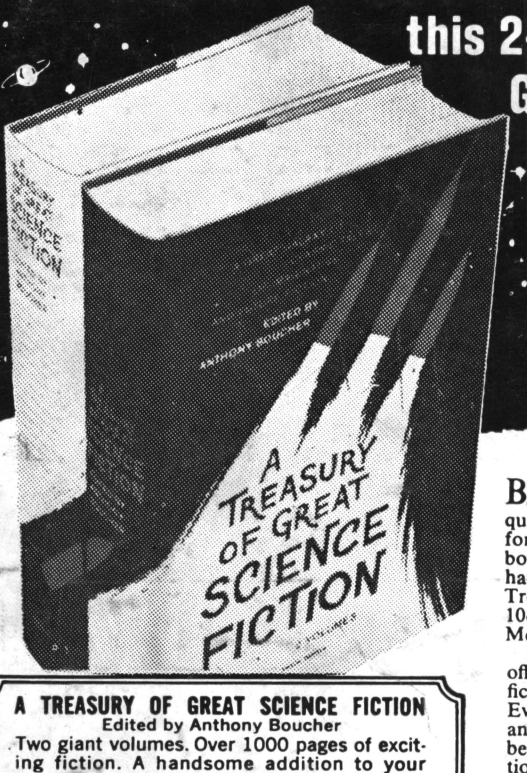

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