WORLDS OF TOMORROW

JANUARY 1966
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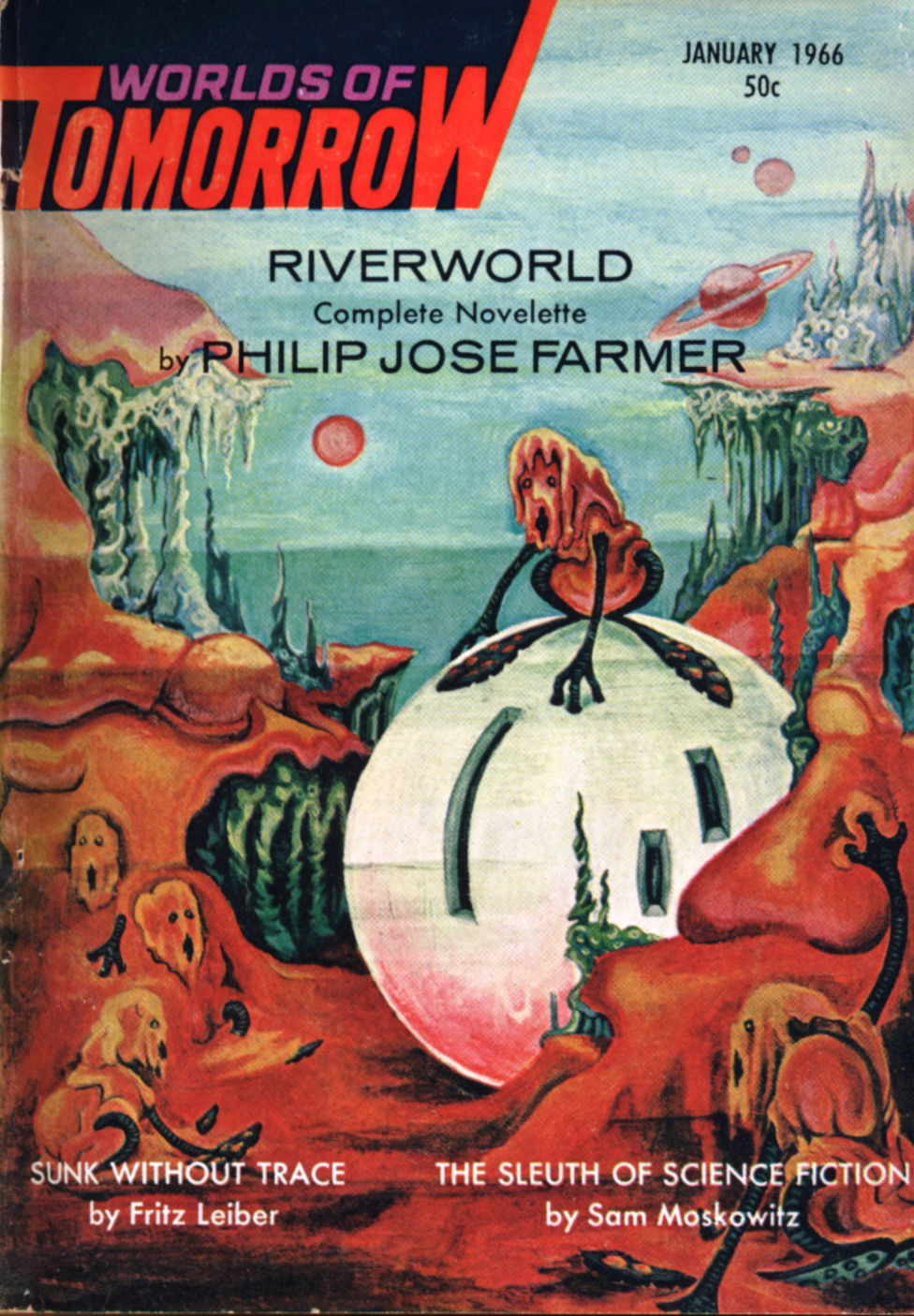
RIVERWORLD

Complete Novelette

by PHILIP JOSE FARMER



SUNK WITHOUT TRACE
by Fritz Leiber

THE SLEUTH OF SCIENCE FICTION
by Sam Moskowitz

$70,000.00 IN CASH PRIZES!

"Your $1,200.00 check arrived this morning by Special Delivery. Thanks ever so much for your telephone call and prompt payment. It still doesn't seem possible. It's been a great thrill."

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This announcement is an invitation to you, as a reader of this publication, to find out for yourself if you have the talent to win up to $70,000.00 in cash. If you are over 18 and like to play word games of any kind, the information below may lead you to thousands of dollars in extra cash that you may use as you wish.

Mrs. H. C. Despain, Houston, Tex., won $1,000.00 in cash in one month.

Ray Smith, Sacramento, Calif., won nearly $1,000.00 in Club contests.

Mrs. Florence Humphrey, Cincinnati, won $500.00 on just one puzzle.

YOU Can WIN Each Month!

Members of our Club win cash prizes at home, just by solving puzzles and entering Club contests. They turn an educational and enjoyable hobby into pure profit. **You can too!**

Your chief advantage in contests sponsored by our PUZZLE LOVERS CLUB is that you have only limited competition. Only members of the Club may compete and win.

In 1963 we offered our members $35,000.00. We actually paid out more cash than we said we would—$35,511.25, to be exact. In 1964, we again offered $35,000.00. Again, we paid out more than we promised—$40,778.11. And now we're offering our members $70,000.00 in cash prizes. Most contest groups offer about $4,500 or $5,000 a year. **Our Club gives you the opportunity to win double that every month!**

As a member of our Club you will be eligible to enter every cash prize contest we sponsor and you'll get at least four new contests each month. You'll have three weeks to solve each set of contests. One week after the deadline, you'll receive a new copy of our **Puzzle Lovers Newspaper** with names and addresses of all winners, correct solutions, and your new puzzle contests. When YOU win, you receive your prize within two weeks.

IT COSTS YOU NOTHING TO TRY OUR CONTESTS AND SEE IF YOU HAVE THE TALENT TO WIN

The coupon below will bring you, absolutely FREE, a sample copy of our **Puzzle Lovers Newspaper,** the only newspaper in the world exclusively devoted to contests (and it's published for members only). When your free copy of our newspaper arrives, sit down in a quiet place and read about our winners, our prizes, our contests. Try our stimulating word games to see if you can do them. You are under no obligation to enter our contests. If you do decide to go after our cash, there are no boxtops, no jingles to complete, nothing to buy.

Clip the coupon now and please be sure to print your name and address clearly. Then read about $1,000.00 winners like Mrs. Belle Smith of Yakima, Wash. Discover how hundreds of other members cashed in just by doing our puzzles in their spare time. Find out all about this exciting and profitable hobby now. You may receive your first big prize in a few weeks.

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Gentlemen,

Send me a free copy of your newspaper plus all details on your cash prize contests. I am under absolutely no obligation to pay anything. If I join the Club I may compete for all prizes and spend the cash I win any way I want.

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GP1

ENJOY YOURSELF IN YOUR OWN HOME AND WIN EXTRA CASH!

WORLDS OF TOMORROW

JANUARY 1966
Vol. 3 No. 5
ISSUE 17

ALL NEW STORIES

Cover by McLANE from SUNK WITHOUT TRACE.

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WORLDS OF TOMORROW is published bi-monthly by GALAXY PUBLISHING CORP. Main Offices: 421 Hudson Street, New York, 10014. 50c per copy. Subscription (12 copies) $5.00 in the United States, Canada, Mexico, South and Central America and U. S. Possessions. Elsewhere $6.00.

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LIVING LONGER

Old friends will remember that a couple of years ago *Worlds of Tomorrow* published the first appearance of Robert Ettinger's exciting thesis of life prolongation, *The Prospect of Immortality.* Says Ettinger: It is a fact that at low temperatures — say, liquid nitrogen or even liquid helium — chemical change simply does not occur, at least in a span of decades or centuries; furthermore, it is a good gambling bet that the growth of medical knowledge over the past fifty years will not stop. The conclusion of these statements is that if a man dies today, it makes sense to pop him into a freezer as rapidly as possible — in the hope, and probably a very well based hope, that the medical science of tomorrow will be able to thaw him out, repair the damage he died of and the incidental damage of freezing as well, and start him up again.

We have followed the freezer program with great interest since our first publication of Ettinger's work. There has been progress: several groups are operating in the research and development, some of them backed by substantial industrial corporations, some as associations of individuals. You can buy a freezer now; in certain parts of the country, the medical and legal barriers are being pierced. It turns out they are the hard part, since the technology involved in "cryogenic interment" is relatively simple.

We think all of this makes a good deal of sense, and nearly three years of discussing it with doctors, biochemists, lawyers, legislators, low-temperature physicists and others has only reinforced this conclusion.

Immortality may very well be here — if we can only revise our obsolete burial and autopsy laws to permit us to have it!

Meanwhile, those who don't want to die and be gone forever are making do with less attractive alternatives. This is as old as the Pharaohs, of course; and it didn't stop with them. In 1832 Jeremy Bentham — scientist, philosopher, jurist — contemplated the thought of dying, he decided he didn't like it and did something about it. He left a will requiring that his body be embalmed as thoroughly as was possible, and that it not be buried but kept above ground dressed in its usual clothes and maintained in a "position of life" where his friends and colleagues might enjoy its presence.

A few weeks ago we had lunch in the rectory of University College London with Robert M. W. Dixon (whose article on extraterrestrial languages is in this issue), and when the coffee ran out in the faculty lounge Dixon said, "There's something I want to show you." So we walked down the long hall to an alcove, and there, in a glass-fronted box, seated in a chair, hands resting on a cane, was Jeremy Bentham.

If he could do it over a century ago . . . why can't we? — EDITOR

PROJECT PLOWSHARE

by PHILIP K. DICK

Illustrated by MORROW

Alien satellites hung in Earth's skies—and Man's solitary hope was a demented comic artist!

XVII

There was a man, almost idol-like, graven in the stone-carved clarity of his facial structure. He was bending by Lars, wearing a smart uniform, including a cluster of vari-colored medals.

He said, "He's alive now."

Two medical persons hovered. They wore plain white floor-length smocks. Lars saw institutional, stupendously expensive emergency equipment, great chugging machines with hoses and gauges and self-powered engines, everything in furious operation. The air smelled of ionization — highly positive — and chemicals. He saw a table on which instruments rested, one of which he recognized; it was employed to perform immediate tracheaectasies.

What Has Gone Before . . .

The world has disarmed . . . but to keep the R&D facilities in business, to keep the world's war industries going, to provide jobs and money to support the economy, weapons are still being designed and built.

However, as soon as they are built they are "plowshared" — reconverted into peacetime uses — and new inventions are designed to take their places. Foremost among the "weapons fashion designers" is the famous Mr. Lars; but he has an opposite number in the Sovbloc, a girl who goes into another realm of existence with psychodelic drugs and comes back with weapons as terrifying as his own . . .

In fact, many of them are his own.

Meanwhile, strange new satellites are appearing in the skies. The combined military staffs are caught short, unable to cope with the new danger, whatever it is . . . and to help solve it Lars and the Russian girl together take the drugs and enter a realm of consciousness out of time and space . . .

But these Soviet medical people had not had to use it with him. He had come around in time.

The monitor, he realized. Hidden in the wall, grinding continually away its audio and video material. Keeping watch for its own sinister, ulterior purposes. It had witnessed his collapse and because of it help had been summoned, and soon enough to save him.

Getting to the bathroom would not quite have been enough.

To the uniformed, bemedaled, starched-collar and shoulder-boarded Red Army officer he said, "Major Geschenko?"

"Yes, Mr. Lars." The officer had become now, in relief, rubbery and pale. "Your vagus. Something about the medulla and especially the esophagus; I don't properly understand. But it was really exceptionally close, for a minute or two. They would of course at the very last cooled you down and flown you out of here. But —" He gestured.

Lars agreed, "Close. I felt the nearness." He made out Lilo Topchev now. She stood huddled at the far wall, not taking her eyes off him.

Lilo said, "Do you imagine I did it on purpose?"

Her voice was far off and barely audible to him. For a moment he believed it was his imagination and then he realized that she had actually asked that. And he realized the answer. He knew the truth.

But aloud, mostly to protect her, he said, "An accident."

"It was," Lilo said faintly.

"I think we're all aware of that," Major Geschenko said, with a trace

of taut irritation. "An allergic reaction."

You believe her? Lars wondered. A man in your business? Or is it that *I'm* not supposed to know?

No sir, he thought; you couldn't be fooled. You're a professional. And even I can tell an accident from the real thing. This was real. She made a try and then she got afraid because it would have been the end of her, too. She must have understood that when she saw the drug actually begin to work, the violence of the somatic response. She is just not an adult, he thought. She couldn't foresee.

But why? he wondered. Fear that I'd replace her? Or fear of another kind entirely.

A much more rational fear.

He said, speaking to Lilo, "It's the weapon."

"Yes." Rigidly she nodded.

He said, "You thought that it would come. By means of us as they hoped for."

"It would be too much," Lilo said.

He comprehended. "The old days, before the Protocols," he said. "When there was no deal. No hoax. When it was the real thing."

"It was returning," Lilo said in a whisper. "I felt it as soon as I set eyes on you. Together we'd do it and it'd be done and no one could change that. We in our expanded consciousness where they can't go, even with mescaline-psilocybin-Psilocybe mexicana-Stropharia cubensis-d-lysergic acid diethylamide, everything combined; they can't follow us. And they know it."

Angrily, Major Geschenko said to her in a loud voice, almost a shout, "The satellites! *Three!* Do you hear me? And there's going to be a fourth and a fifth and it's the end of us!"

"All right," she said, with composure. "I hear. You're undoubtedly right." She sounded defeated.

To Lars, Major Geschenko said with bitter, sardonic wrath, "Undoubtedly." He scrutinized Lars, seeking his reaction.

Lars said with difficulty, "You never will have to worry about me or my attitude. She's wrong, emotionally. I see that clearly — why you've always kept her under such surveillance. I understand perfectly. From now on I want Dr. Todt —"

"He'll be here in several minutes," Major Geschenko assured him. "And he'll be with you constantly, so the opportunity for her to try some other psychotic coup to defend herself against imaginary attack won't be even remotely possible. And if you want, in addition one of our own medical officers can —"

"Todt is enough," he said, and sat up.

"I hope you're right," Major Geschenko said. He sounded as if he had grave reservations. "Anyhow we'll defer to your preferences in this matter." To Lilo he said, "You could be arraigned, you know."

She said nothing.

"I want to take the chance," Lars said. "I want to go on working with her. Actually we haven't started. We should, right away; I think the situation insists on it."

Hands shaking, without a word,

Lilo Topchev relit her cigar. Ignoring him, staring fixedly at the match in her hand, she puffed gray smoke.

He knew then that he would not trust her for a long, long time. Nor even understand her.

"Tell me," he said to Major Geschenko. "Do you have the authority to ask her to put that cigar out? It makes it hard for me to breathe."

Two plainclothes KVB men at once stepped toward Lilo.

She dropped the burning cigar to the floor, defiantly.

The room was silent as everyone watched her.

"She'll never pick it up," Lars said. "You can wait forever."

A KVB man stooped, picked up the cigar and ground it out in a nearby ashtray.

Lars said, "But I will work with you. Do you follow me?" He watched her intently, trying to guess what she was thinking and feeling, but he saw nothing. Even the professionals around him seemed to see no harbinger. She has eluded us, he thought. We will just have to go ahead on this bad basis. And she has our lives at stake in those childish hands.

Jesus, he said to himself. What a mess!

Major Geschenko helped him up. Everyone in the room tried to assist, thwarting one another in a silent-movie routine that at any other time would have struck Lars as funny. The major led him off to one side where the two of them could talk.

Geshenko said, "You understand why we were able to get to you so soon."

Lars said, "She pointed out the aud and vid receptors."

"And you can see why they were installed."

"I don't care why they were installed."

"She will function," Major Geschenko assured him. "We know her. At least we've done our best to learn enough in order to predict."

"You didn't foresee this, though."

"What we didn't see," Geschenko said, "was that a preparation beni a to her brain-metabolism would be toxic to yours. And we're puzzled as to how she knew, unless she was guessing."

"I don't think she was guessing."

"Is there a pre-cog aspect to you mediums?"

"Maybe," Lars said. "Is she ill in the clinical sense?"

"You mean psychologically? No. She's reckless; she's full of hate; she doesn't like us or want to cooperate. But not ill."

"Try letting her go," Lars said.

"Go? Go where?"

"Anywhere. Free her. Walk away from her. Leave her. You don't understand, do you?" It was obvious; he was wasting his time. But he tried just a little further. The man he was addressing was not an idiot, not a fanatic. Geschenko was merely firmly gripped in the paws of his environment. "Do you know what a fugue is?" Lars asked.

"Yes. Flight."

"Let her run until she's run enough to —" He hesitated.

Mockingly, Geschenko said, with

the wisdom of an age not confined to his own, not limited to this Soviet world of his here and now, "To what, Mr. Lars?"

He waited for an answer.

Lars said doggedly, "I want to sit down with her and as soon as possible begin the work she and I have to do. In spite of this. It shouldn't be allowed to cause delay because that would encourage the tendencies in her that act toward dissolving the cooperative effort that we have to initiate. So get everyone else out and let me see my doctor."

Dr. Todt said to Lars, "I'd like to do a multi-phasic on you now."

Putting his hand on Todt's shoulder Lars said, "She and I have to work. We'll run the tests some other time. When I'm back in New York."

"'De gustibus,'" tall, morose, thin-beaked Dr. Todt said fatalistically, "'non disputandum est.' I think you're insane. They've got the formula for that poison held back so we can't analyze it. Only God Himself knows what it did to you."

"It didn't kill me and we're going to have to be content with that. Anyhow you keep your eyes open all the time, during our trance-states. And if you have any measuring devices you want to keep hooked up to me —"

"Oh yes. I'll be running an EEG and an EKG continually. But just on you. Not her. They can assume responsibility for her; she's not my patient." Dr. Todt's tone was envenomed. "You know what I think?"

Lars said, "You think I ought to go home."

"The FBI can get you out of —"

"You have the Escalatium and the Conjorizine spansules?"

"Yes, and thank God you're not going to inject. That's the first rational decision you've made." Todt handed him two small bulging envelopes.

"I don't dare inject. They might potentiate that damn poison she gave me." He considered himself warned. It would be a while before he took any more chances with even those drugs whose action he was familiar with. Or *imagined* he was familiar with.

Walking over to Lilo Topchev he stood confronting her; she returned his gaze with poise.

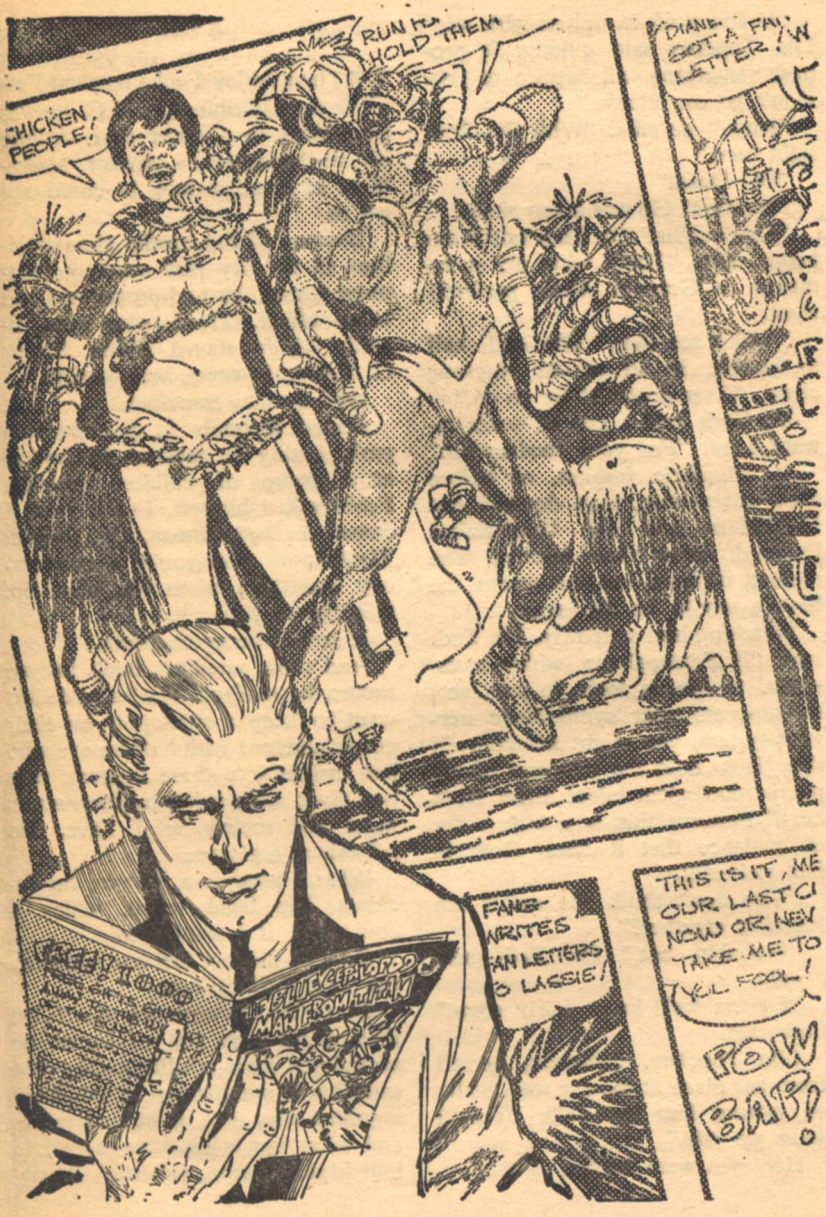
"Well," he said, by way of an appeasing introduction, "I suppose you could have given me four of those instead of two. It could be worse."

"Oh, hell," she said tragically. "I give up. There's no way out of this idiotic fusion of our minds, is there? I have to cease being an individual, what little they've left me. Wouldn't you be surprised, Mr. Lars, if *I* put those satellites up there? Through a parapsychological talent no one knows about yet?" She smiled happily. The idea seemed to please her, even if it was a fantasy, patently not true. "Do I scare you by saying that?"

"Nope."

"I'll bet I could scare *somebody* by saying that. Gosh, if only I had access to the info-media, the way you have. Maybe you could say it for me; you could quote me."

Lars said, "Let's start."


CHICKEN PEOPLE!
RUN TO HOLD THEM
DIANE GOT A FAN LETTER!
FANG WRITES FAN LETTERS O LASSIE!
THIS IS IT, ME OUR LAST CH NOW OR NEV TAKE ME TO YUL FOOL!
POW
BAP!

"If you work in unison with me," Lilo Topchev said quietly, "I promise something will happen to you. Don't go on. Please."

"Now," he said. "With Dr. Todt right here."

"Dr. Dead."

"Pardon?" He was taken aback.

"That's right," Dr. Todt said from behind him. "That's what my name means in German. She's perfectly right."

"And I see that," Lilo said, half to herself, in an almost singsong chant. "I see death. If we go on."

Dr. Todt held a cup of water toward Lars. "For your medication."

In ritualistic fashion, as before each trance-state, Lars downed one Escalatium and one Conjorizine. Downed rather than injected. The method differed but the results, he hoped, would be the same.

Watching him narrowly, Dr. Todt said, "If Formophane, which is essential to her, is toxic to you, acts to suppress your sympathetic nervous-system, you might ask yourself this. 'How does the structure of my parapsychological talent differ from hers?' Because this is a high order of evidence that it does. Does in fact radically."

"You don't think she and I can function together?"

"Probably not," Dr. Todt said quietly.

"I guess we'll know fairly soon," Lars said.

Lilo Topchev, detaching herself from her place at the far wall, walked toward him and said, "Yes, I guess we will."

Her eyes were bright.

XVIII

When Surley Febbs reached Festung Washington, D.C. he was astonished to discover that, despite his to-the-last-letter perfect assemblage of identification, he could not get in.

Because of the hostile alien satellites in the sky new security measures, formalities and procedures had taken effect. Those who were already within stayed within. Surley G. Febbs, however, was outside.

And thus he remained.

Seated gloomily in a downtown park, gazing in morose frustration at a group of children playing, Febbs asked himself, Is this what I came here for? I mean, it's a racket! They notify you you're a concomody and then, when you show up, they ignore you.

It passed comprehension.

And those satellites, that's just an excuse, he realized. The bastards just want to keep a monopoly on their power. Anyone with half an eye who has insight into these matters, who has given long study to the human mind and society as I have, can tell this at a glance.

What I need is a lawyer, he decided. Top legal talent, which I could hire if I wanted to.

Only he did not feel like spending the money right now.

Go to the homeopapes, then? But their pages were full of screaming sensational scare headlines about the satellites. No mass sap cared about anything else, such as human values and what was being done to certain individual citizens. As usual, the ig-

norant average goof was completely taken in by the trash of the day. Not so Surley G. Febbs. But that still did not get him into the *kremlin* below Festung Washington, D.C.

An ancient, tottering apparition approached in what appeared to be the much-darned, patched and washed remnants of a military uniform of some sort. It made its way slowly to the bench on which Febbs sat, hesitated, and then creakily lowered itself.

"Afternoon," the old man said in a rusty squeak. He sighed, coughed, rubbed his wet, liverish lips with the back of his hand.

"Mmmmmm," Febbs grunted. He did not feel like talking, especially with this tattered scarecrow. Should be in a veterans' home, he said to himself, bothering all the other *jerries* — the worn-out old folks who ought to have been dead a long time ago.

"Look at those kids." The ancient war veteran gestured and despite himself Febbs looked. "'Olly, olly, oxen free.' Know what that's a corruption of? 'All the, all the, outs in free.'" The jerry chuckled. Febbs groaned. "That goes back before you were born. Games never change. Best game ever invented was Monopoly. Ever play that?"

"Mmmmmm," Febbs said.

"I got a Monopoly board," the old war vet said. "Not with me, but I know where I can lay my hands on it. At the clubhouse." Again he pointed; his finger was like a winter tree-stalk. "Want to play?"

"No," Febbs said clearly.

"Why not? It's an adult game. I play all the time, like eight hours a day sometimes. I always buy the high-priced property at the end, like Park —"

Febbs said, "I'm a concomody."

"What's that?"

"A high official of Wes-bloc."

"You a military man?"

"Hardly." Military men! Fatbutts!

"Wes-bloc," the old veteran said, "is run by military men."

"Wes-bloc," Febbs said, "is an economic, political gestalt the ultimate responsibility for the effective functioning of which rests on the shoulders of a heterogeneous Board composed of —"

"Now they're playing Snum," the old veteran said.

"What?"

"Snum. I remember that. Did you know what I was in the Big War?"

"Okay," Febbs said, and decided it was time to move along. In his present mood — denied his legal right to sit on the UN-W Natsec Board — he was not disposed to hear a prolix account of this senile, feeble, tattered old relic's onetime so-called "exploits."

"I was main-man for a T.W.G. Maintenance, but I was in uniform. We were right at the line. Ever see a T.W.G. in action? One of the finest tactical weapons ever invented but always giving trouble in the power-feed assembly. One surge and the whole turret burned out — you probably remember. Or maybe that was before your time. Anyhow, we had to keep the feedback from —"

"Okay, okay," Febbs said, writhing with irritation; he rose to his feet and started off.

"I got hit by a shatter-cone that tore loose from the sword-valve system," the old war vet was saying as Febbs departed.

Big War my foot, Febbs said to himself. Some minor rebellion of some colony. Some fracas over in a day. And "T.W.G.!" God knows what obsolete thrown-away heap of junk *that* was, probably back in the primordial 100 series. They ought to make mandatory the scrapping of the operators along with the weapons; it's a disgrace, an old wreck like that wasting really valuable people's time.

Since he had been driven from the park, he decided to make one more stab at entering the *kremlin*.

Presently he was saying to the guard on duty, "It's a violation of the Wes-bloc constitution! It's nothing but a kangaroo court that's in session down there without me. Nothing it decides on is legal without my vote. You call your superior, your O.D. You tell him that!"

The sentry stared stonily ahead.

All at once a huge black government hopper hovered overhead, to descend toward the concrete field beyond the guard's station. Instantly the guard whipped out a vid receiver-transmitter, began giving orders.

"Whozat?" Febbs asked, devoured by an ant-army of curiosity.

The hopper landed. And from it stepped — General George Nitz.

"General!" Febbs shrieked; his voice carried past the reinforced barrier controlled by the guard, to the man in uniform who had disemhoppered. "I'm your compeer! I've got papers that prove I'm a legal rep to the Board, a concomody, and I demand that you use your authority to let me in, or I'm going to file a civil action for tort violation or some goddam such thing! I haven't talked to a lawyer yet, but I mean it, General!" His voice died away as General Nitz continued on and disappeared into the surface structure which was the meager portion of the Festung that stood above ground.

A cold Washington, D.C. wind blew about Febbs' legs. The only sound was the guard's voice as he gave instructions into his vidphone.

"Sheoot," Febbs said, in despair.

A small, dilapidated civilian for-hire type hopper now coasted up to the barrier and halted. From it a middle-aged woman in an old-fashioned grime-colored cloth coat stepped. Approaching the guard she said timidly, but with a certain air of firmness, "Young man, how do I find the UN-W Natsec Board? My name is Martha Raines and I'm a newly elected concomody." She fumbled in her purse for proof of her assertion.

The guard lowered his vidphone and said briefly, "No one with an AA-class or higher pass is to be admitted, madam. Emergency-sit priority of security rating-ruling in effect as of six a.m. time-zone one-fifty this morning. I'm sorry, madam." He turned his attention back to his vidset thereupon.

Febbs thoughtfully approached the middle-aged woman.

"Miss, I'm in exactly the same

disgraceful position as you are," he informed her. "We are being denied our legal prerogatives and I have seriously considered the possibility of major litigation against the parties responsible."

"Is it those satellites?" Martha Raines asked, mouse-like. But her suspicion was almost equal to his own. "It must be them. Everyone's busy about them and they don't care about us. I came all the way from Portland, Oregon, and this just is too much for me; I voluntarily relinquished my greeting-card shop — turned it over to my sister-in-law — in order to perform my patriotic task. And now look! They're just not going to admit us — I can *see* that." She seemed more stunned than angry. "This is the fifth entrance I've tried at," she explained to Febbs, glad of a sympathetic audience at last. "I tried gates C, D, and then even E and F, and now here. And every time they say the same. They must be *instructed* to." She nodded solemnly. It was all abundantly, un-Wes-blocly clear.

"We'll get in," Febbs said.

"But if every one of these —"

"We'll find the other four new concomodies," Febbs decided. "We shall act as a group. They won't dare refuse all of us — it's only by splitting us off from each other that they've been able to lord it over us. I seriously doubt if they'd turn *all six* of us down, because that would be to admit that they're conducting their policy-level sessions in deliberate illegality. And I bet if all six of us marched over to one of those autonomic TV interviewers, like one of Lucky Bagman's, and told it, they'd find time to take off from babbling about those satellites long enough to demand that justice be done!"

In fact Febbs had seen several TV interviewers since he had appeared here at the main gate. All the info-media agencies were on constant alert, these days, for news pertaining to the satellites.

All that remained was to round up the other four concomodies. And even as he and Martha Raines stood here, another civilian for-hire hopper began to descend; within it sat a nervous, frustrated-looking youth and Febbs had the acute intuition that this was an additional newly drafted concomody.

And when we do get in, Febbs declared to himself grimly, we'll make them squirm! We'll tell that fatbutt General George Nitz where to head in to.

He hated General Nitz already . . . for having paid no attention to him. Nitz did not know that things were about to change. He would soon have to listen, like that time in the old days when Senator Joe McCarthy, that great American of the last century, had made the fatbutts listen. Joe McCarthy in the 1950s had told them off, and now Surley Febbs and five other typical type citizens, armed with absolute, foolproof ident-papers certifying to their vast status as representing two billion humans, were about to do the same!

As the nervous youth emerged from his hopper, Febbs strode purposefully toward him.

"I'm Surley Febbs," he said grimly. "And this lady here is Martha Raines. We're newly drafted concomodies. Are you, sir?"

"Y-yes," the youth said, swallowing visibly. "And I tried at Gate E and then at—"

"Never mind," Febbs said, and felt an upsurge of confidence. He had spotted an autonomic TV interviewer. It was coming this way.

Wrathfully, Febbs walked to meet it, the other new concomodies trailing obediently after him. They seemed glad to fall behind him and let him speak.

They had found their leader.

And Febbs felt himself transformed. He was no longer a man. He was a Spiritual Force.

It felt just fine.

XIX

Lars could discern very little, as he sat across from Lilo, watching her intently while Dr. Todt prowled about keeping an eye on the spill of tapes secreted by the EEG and EKG machines attached to his patient. But he thought, *The promise which this girl made is going to be kept.* Harm will arise somehow from this situation. I feel it already, and I am nothing in this. Already Wes-bloc has those three to replace me. And undoubtedly more mediums exist in the East.

But his enemy, his antagonist, was not Peep-East and its KVB; the Soviet authorities had already proved their keen desire to act in his behalf. They had saved his life. His nemesis sat opposite him, an eighteen-year-old girl who wore a black jersey sweater and sandals and tight slacks, whose hair was pulled back with a ribbon. A girl who in her hatred and fear had, as an introduction, already made her first destructive move in his direction.

But, he thought, you are so goddam physically and sexually, so very amazingly sexually, attractive.

I wonder, he wondered, what you are like under that sweater, without those slacks and barefoot, without even that ribbon. Is there any way we can meet in that dimension? Or would the vid and aud monitoring-systems preclude that? Personally, he thought, I wouldn't care if the whole Red Army cadet academy pored over the tapes. But you'd mind. It would make you hate worse, and not hate just them but me as well.

The medication was beginning to affect him. Soon he would go under, and the next he would know, Dr. Todt would be reviving him and there would be—or would not be—a sketch. The production was automatic, neurologically speaking; it either came or it didn't.

He said to Lilo, "Do you have a lover?"

Her eyebrows knitted ominously. "Who cares?"

"It's important."

Dr. Todt said, "Lars, your EEG shows that you're—"

"I know," he said, and had difficulty articulating; his jaw had become numbed. "Lilo," he said, "I have a mistress. She heads my Paris branch. You know what?"

"What?" She continued to glower at him suspiciously.

Lars said, "I'd give Maren up for you."

He saw her face smooth. Her delighted laugh filled the room. "Wonderful! You *mean* it?"

He could only nod; it was past the time when speech remained possible. But Lilo saw the nod and the radiance of her face grew to a golden nimbus. Glory incarnate.

From a wall-speaker a business-like voice said, "Miss Topchev, you must synchronize your Alpha-wave pattern for the trance-phase to Mr. Lars. Should I send in a doctor?"

"No," she said quickly. The nimbus faded. "No one from the Pavlov Institute! I can manage it." She glided from her chair to kneel beside Lars. She rested her head against his, and some of her radiance seeped back from the physical contact; he felt it as pure warmth.

Dr. Todt said nervously to her, "Twenty-five seconds and Mr. Lars will be under. Can you manage? Your brain-metabolism stimulant?"

"I took it." She sounded irritable. "Can't you leave so that it's just the two of us? I guess not." She sighed. "Lars," she said, "Mr. Powderdry. You weren't afraid even when you realized you were dying; I saw you and you *knew*. Poor Lars." She ruffled his hair, clumsily. "And do you know what? I'll tell *you* something. You keep your mistress in Paris, because she probably loves you, and I don't. Let's see what sort of weapon we can make between us. Our baby."

Dr. Todt said, "He can't answer you but he can hear you."

"What a child for two strangers to spawn," Lilo said. "Does my killing you make us friends? Good friends? Bosom. Is that the idiom? Or breast-friends; I like that." She pressed his head down against the scratchy black wool of her sweater.

All this he felt. This black, soft scratchiness; the rise and fall as she breathed. Separated, he thought, from her by organic fiber and also no doubt by an inner layer of synthetic undergarment and then perhaps one additional layer after that, so there are three layers separating me from what is within, and yet it's only the thickness of a sheet of bookbond paper from my lips.

Will it always be like this?

"Maybe," Lilo said softly, "you can die in this posture, Lars. Like my child. You instead of the sketch. Not our baby but mine." To Dr. Todt she said, "I'm slipping under, too. Don't worry; he and I will go together. What'll we do in the non-space-time realm where you can't follow? Can you guess?" She laughed. And again, this time less crudely, rumpled his hair.

"God knows," Todt's voice came distantly to Lars.

And then he was gone. At once the soft black scratchiness departed. That foremost of all, and first.

But he grabbed to retain it, scrabbling like a beclawed beast; yet, even so, instead of the slim shape of Miss Topchev he found his fingers gripping — grotesquely, and hideously disappointingly — a ballpoint pen.

On the floor lay a scribbled sketch. He was back. It seemed impossible, not to be accepted or believed. Ex-

cept for the fact of his fright; that made it real.

Dr. Todt, busily glancing at the sketch said, "Interesting, Lars. It is, by the way, one hour later. You have emerged with a simple design for—" he chuckled, Dr. Dead chuckling— "a donkey-type steam engine."

Sitting up groggily, Lars picked the sketch from the floor. He saw to his dulled incredulity that Dr. Todt was not joking. A simple, ancient steam donkey-engine. It was too funny even to try to laugh over.

But that was not all.

Lilo Topchev was crumpled into a heap—like a completed but for reasons unknown discarded android—and one which had been dropped, too, from some immense height. She clutched a wadded sheet of paper. On it was another sketch and this, he saw instantly, even in his semi-conscious state, was not any archaic contraption. He had failed but Lilo had not.

He took the sketch from her stiff fingers. She was still quite flown.

"God," Lilo said distinctly. "Do I have a headache!" She did not move or even open her eyes. "What's the result? Yes? No? Just something to plowshare?" She waited, eyes squeezed shut. "Please, somebody answer me."

Lars saw that the sketch was not hers. It was his, too, or at least partly his. Some of the lines were unnatural to him—he recognized them from the material which KACH had shown him over the years. Lilo had done part of this and he had done the rest; they had manipulated the writing-stylus in unison. Had they actually gripped it simultaneously? Dr. Todt would know. So would the Soviet big-shots who scanned the vid and aud tape-tracks, and later so would the FBI when these were transmitted to them . . . or perhaps even an arrangement had been made to provide both intelligence agencies with the result at one exact synchronized instant.

"Lilo," he said, "get up."

She opened her eyes, raised her head. Her face was haggard, wild, hewn hawk-like.

"You look awful," he said.

"I am awful. I'm a criminal; didn't I tell you?" She staggered to her feet, stumbled and half-fell; expressionless, Dr. Todt caught her. "Thank you, Dr. Dead," she said. "Did KACH tell you that I'm as a rule sick at my stomach after a trance-phase? Dr. Dead, take me into the bathroom. Quick. And phenothiazine; do you have some?" She tottered away, Todt assisting her.

Lars remained seated on the floor with the two sketches. One of a steam-driven donkey-engine. The other—

It looked, he thought, like an autonomic, homeostatic, thermotropic wise rat catching-device. Only for rats with an IQ of 230 or better or who had lived a thousand years—mutant rats such as never existed and if all went well in the scheme of things never would.

He knew, intuitively and totally, the device was hopeless.

And, down the back of his neck, a giant blew a dying breath of ter-

ror. The chill of failure froze him as he sat rocking back and forth, on the floor of the motel room, listening to the far-off noise of the girl he had fallen in love with being sick.

XX

Later, they had coffee. He and Lilo Topchev, Dr. Todt and the Red Army officer who was their warden and protector against the insanities within themselves, Red Army Intelligence Major Tibor Apostokagian Geschenko. The four of them drank what Lars Powderdry knew to be a toast to ruin.

Lilo said abruptly, "It's a failure."

"And how." Lars nodded without meeting her gaze.

In a Slavic gesture, Geschenko patted the air, priest-like, with his open hand. "Patience. By the way." He nodded, and an aide approached their circular table with a homeopape — in Cyrillic type. Russian. "An additional alien satellite is up," Geschenko said. "And it is reported that a field of some variety, a warpage of electromagnetic — I don't understand it, being no physicist. But it has affected your city New Orleans."

"Affected how?"

Geschenko shrugged. "Gone? Buried or hidden? Anyhow, communication is cut and sensitive measuring apparatus nearby records a lowering of mass. And an opaque barrier conceals what transpires, a field identified as connected with that of the satellites. Isn't this approximately what we foresaw?" He deliberately slurped his coffee.

"I don't understand," Lars said tightly. And the drum of fear beat and beat inside him.

"Slavers." Geschenko added, "They are not *landing*. They are I think taking pieces of population, New Orleans first." He shrugged. "We will knock them down, don't worry. In 1941 when the Germans —"

"With a steam donkey-engine?" Lars turned to Lilo. "This is the true, undefiled reason that moved you to try to kill me, isn't it? So we'd never have to arrive at this point, sit here and drink coffee like this!"

Major Geschenko said with psychological acumen, "You give her an easy out, Mr. Lars. That is unhealthy, because she can divest herself further of responsibility." To Lilo he said, "That was *not* the reason."

"Say it was," Lars said to her.

"Why?"

"Because then I can think you wanted to spare us both even the *knowledge* of this. It was a form of mercy."

"The unconscious," Lilo said, "has ways of its own."

"No unconscious!" Major Geschenko said emphatically, reciting his doctrine. "That's a myth. Conditioned response; you know that, Miss Topchev. Look, Mr. Lars; there's no merit in what you're trying to do. Miss Topchev is subject to the laws of the Soviet Union."

Lars sighed, and from his pocket he brought out the rolled-up comic book which he had bought at

the enormous news-counter at the space terminal. He passed it to Lilo: the Blue Cephalopod Man From Titan and His Astonishing Adventures Among the Fierce Protoplasms of Eight Deadly Moons. She accepted it curiously.

"What is it?" she asked him presently, large-eyed.

"A glimpse," Lars said, "into the outside world. What life would be like for you if you could come with me, leave this man and Peep-East."

"*This* is what is for sale in Wesbloc?"

"In West Africa, mostly," he answered.

Lilo turned the pages, inspected the lurid and really downright dreadful drawings. Major Geschenko meanwhile stared off into space, lost in gloomy thought; his fine, clear face showed the despair which he had so far kept from his voice. He was, undoubtedly, thinking about the news from New Orleans . . . as any sane man would. And the major was indubitably sane. He would not be looking at a comic book, Lars realized. But Lilo and I —we are not quite sane, at this point. And for good reason. Considering the magnitude of our spectacular failure.

He asked Lilo, "You notice anything strange about that comic book?"

"Yes." She nodded vigorously. "They've used several of my sketches."

"*Yours!*" He had noticed only his own weapons sketches. "Let me look again."

She showed him the page. "See? My lobotomy gas." She indicated Major Geschenko. "They conducted tests on political prisoners and showed the results on TV. Just like this comic strip; it causes the victims to repeat endlessly the last series of instructions arising from the damaged cerebral cortex. The drawist has the Twin-brained Beasts From Io victims of this; he understood what weapon BBA-81D did, so he must have viewed the TV tape made in the Urals. But the tape was only shown last week."

"Last week?" Incredulous, Lars took the comic book back. Obviously it had been printed longer ago than that. It carried last month's date, had sat on the newsstand for perhaps sixty days. All at once to Major Geschenko he said, "Major, may I contact KACH?"

"Now? Immediately?"

"Yes," Lars said.

Major Geschenko silently took the comic book from Lars and glanced through it. Then he rose and gestured; an aide stepped into existence and the two men discoursed in Russian.

"He's not asking for a KACH-man for you," Lilo said then. "He's telling the KVB to investigate this comic book firm, where it originates in Ghana." She spoke to Major Geschenko in Russian herself. Lars felt, unhappily, the acute linguistic insularity of the American; Lilo was right. Mark of the province, he said to himself, and he wished to God he knew what they were saying. All three of them kept referring to the comic book and at last Major Ges-

chenko handed it over to his aide.

The aide departed with it, rapidly. The door slammed shut, as if the aide were mad.

"That was mine," Lars said. Not that it counted.

"A KACH-man will come," Lilo said. "But not immediately. Not what you asked for. They will conduct their own investigation and then let you make your try."

Lars said to the powerful Red Army intelligence officer, "I want to be returned to the jurisdiction of the FBI. Now. I insist on it."

"Finish your coffee."

"Something is wrong," Lars said. "Something about that comic book. I could tell by your manner; you discovered or thought something. What was it?" Turning to Lilo he said, "Do you know?"

"They're upset," Lilo said. "They think KACH has been supplying repros to this comic-book firm. That irks them. They don't mind if Wes-bloc has access, but not this; this goes too far."

"I agree," Lars said. But I think there's more, he said to himself. I know there is; I saw too much agitation, here, just now.

"There is a time-factor," Major Geschenko said, presently. He poured himself a fresh cup, but the coffee was utterly cold now.

"The comic-book firm got the sketches too soon?" Lars asked.

"Yes." Major Geschenko nodded.

"Too soon even for KACH?"

"Yes."

Stricken, Lilo said, "I don't believe it."

Major Geschenko glanced at her, briefly and without warmth.

"Not from them," Lilo said. "Surely we couldn't be."

"The final episode in the magazine," Major Geschenko said. "The Blue Whatever-he-is-man devised as a temporary source of power, while imprisoned on a barren asteroid, a steam engine. To act as an agent by which to reactivate the dead transmitter of his half-demolished ship, the normal power supply having been rayed out of existence by the—" he grimaced— "the Pseudonomic Flower-carnivores from Ganymede."

Lars said, "Then we are getting it from them. From the artist of that magazine."

"Perhaps so," Major Geschenko said, nodding very slowly, as if out of the most intense politeness he was willing to consider it — and for that reason only.

"Then no wonder—"

"No wonder," Major Geschenko said, sipping cold coffee, "that you can't perform your function. No wonder there is no weapon when we need it. *Must* have it. How could there be, from such a source?"

He raised his head, eyed Lars with a peculiarly bitter, accusing pride.

Lars said, "But if we are simply reading some comic artist's mind, how could there be *anything*?"

"Oh, that artist," Major Geschenko said disdainfully, "he has much talent. An inventive mind.

Don't ignore that. He's kept us going a long time, both of us, my friend. East *and* West."

"This is the worst news—" Lars began.

"But interesting," Major Geschenko said. He glanced from Lars to Lilo. "Pitiful."

"Yes, pitiful," Lars said thickly.

XXI

After a pause Lilo said starkly, "You realize what this means. Now they can go directly to him, whoever draws that ghastly, gutterish comic. They don't need us, Lars; not ever again."

Major Geschenko murmured, with caustic but high-born politeness, "Go to him for what, Miss Topchev? What do you think he has? Do you think he's held anything back?"

"There's no more," Lars said. "The man's in business, writing a comic strip. His inventions have been completely spurious all along."

"But all along," Major Geschenko pointed out in his urbane, mild, devastatingly insulting way, "this was exactly proper for the need. Now that is no longer true. The Blue Cephalopod Man cannot fly through space and knock the alien satellites down with his fist. We are not able to call on him—he will not show up. A satire on ourselves has duped us for years. The artist will be amused. Obviously he is a degenerate. That vulgar strip—and I notice it is English-language, the official language of Wes-bloc—shows that."

Lars said, "Don't blame him if telepathically, in some crazy goddam way, we've been picking up his ideas."

Lilo said, "They won't 'blame' him; they'll just shake him down. They'll pick him up and bring him to the Soviet Union, to the Pavlov Institute, try with all they have available to get out of him what they haven't got out of us. Just in case it *might* be there." She added, "I'm glad I'm not him." She seemed, in fact, relieved now. Because, as she understood the situation, the pressure was off her and to her, in her immaturity, that was what mattered.

"If you're so glad," Lars said to her, "at least don't show it. Try to keep it to yourself."

"I'm beginning to think," Lilo said, "that it's exactly what they deserve." She giggled. "It's really funny. I'm sorry for that artist in Southern Ghana, but can't you laugh, Lars?"

"No."

"Then you're as crazy as him." She gestured in Major Geschenko's direction, contemptuously, with a new, spirited superiority.

"Can I make a vidphone call?" Lars asked Major Geschenko.

"I suppose." Geschenko again beckoned to an aide, spoke to him in Russian; Lars found himself being escorted down a hallway to a public vidphone booth.

He dialed Lanferman Associates in San Francisco and asked for Pete Freid.

Pete looked overworked and not in the mood for receiving calls.

Seeing who it was, he gave forth a meager gesture of salutation. "What's she like?"

"She's young," Lars said. "Physically attractive, I would say sexy."

"Then your problems are over."

"No," Lars said. "Oddly, my problems aren't over. I have a job I want you to do. Bill me for it. If you can't do it yourself or won't do it — "

"Don't make a speech. Just say what it is."

Lars said, "I want every back issue of *The Blue Cephalopod Man from Titan* rounded up. A complete file from issue number one, volume one." He added, "It's a 3-D comic book. You know, the lurid kind that wiggles when you look at it. I mean, the girls wiggle — breasts, pelvic area, all there is to wiggle. The monsters salivate."

"Okay." Pete scratched himself a memo. "*The Blue Cephalopod Man from Titan.* I've seen it, although it's not made for North America. My kids seem to get hold of it anyhow. It's one of the worst, but it's not illegal, not outright pornographic. Like you say, the girls wiggle but at least they don't — "

"Go over every issue," Lars said. "With your best engineers. Thoroughly. List every weapons item employed in all the sequences. Check out which are ours and Peep-East's. Draw up accurate specs, anyhow as accurate as you can, based on the data given in the comic book sequences."

"Okay." Pete nodded. "Well, go ahead."

"Make a third list of all weapons items that are *not* ours and are *not* Peep-East's. In other words unknown to us. Maybe there won't be any but maybe there will. Have them, if possible, made into accurate specs; I want mockups and — "

"Did you and Lilo come up with anything?"

"Yes."

"Good."

"It's called a steam engine. Donkey type."

Pete regarded him. "Seriously."

"Seriously."

"They'll massacre you."

"I know that," Lars said.

"Can you get away? Back to Wes-bloc?"

"I can try; I can run. But there's other things that are more important at this moment. Now listen. Job number two, which you will actually do first. Contact KACH."

"Right." Jot-jot.

"Have them investigate all persons responsible for preparing, drawing, making up the dummies, writing the script ideas. In other words, go into the human sources of all the material in the comic book *The Blue Cephalopod Man from Titan.*"

"Will do." Pete scratched away.

"Urgently."

"Urgently." Pete wrote that. "And report to whom?"

"If I'm back in Wes-bloc, to me. If not, then to you. Next job."

"Shoot, Mr. God, sir."

"Vidphone on an emergency line the S.F. branch of the FBI. Tell them to instruct their team here in the field at Fairfax, Iceland to—" And he stopped, because the screen had gone blank. The set was dead.

Somewhere along the line the Soviet secret police who had been monitoring the call had pulled the plug.

It was astonishing that they hadn't done so sooner.

He left the booth, stood pondering. Down the corridor waited two KVB men. No other way out.

Yet somewhere in Fairfax the FBI had holed itself up. If he somehow got to them he might be able to—

But they had orders to cooperate with the KVB. They would simply turn him back over to Major Geschenko.

It's still that wonderful world, he thought, in which everyone cooperates—unless you happen to be the sole person who has ceased to cooperate and who would like to get out. Because there is no longer an out; all the roads lead back here.

He might as well eliminate the middlemen and deal directly with Major Geschenko.

So, reluctantly, he returned to the motel room.

At the table Geschenko, Dr. Todt and Lilo Topchev still sat, drinking coffee and reading the homeopape. This time they were conversing in German. Multilingual bastards, Lars said to himself as he sat down.

"*Wie geht's?*" Dr. Todt asked him.

"*Traurig*," Lilo said. "*Konnen Sie nicht sehen*? What happened, Lars? Did you phone up General Nitz and ask him to please take you home? And he said no, and don't bother me, because you're now under the jurisdiction of the KVB, even though Iceland is supposedly neutral ground. *Nicht wahr?*"

To Major Geschenko, Lars said, "Major, I am officially asking permission to discuss my situation alone with a rep from the United States police agency, the FBI. Will you grant that?"

"Easily managed," Geschenko said. A KVB man, abruptly entering the room, surprised all of them, Geschenko included. He approached the major, presenting him with a typed, not a Xeroxed, document. "Thank you," Geschenko said, and silently read the document. Then he lifted his head to confront Lars. "I think your idea is a good one—to sequester all the back-issues of *The Blue Cephalopod Man from Titan* and to have KACH run a thorough analysis on the strip's creators. We, of course, are already doing both ourselves, but there's no reason why your people can't duplicate it. However, to save time—and time, I should remind you, is in this case essential—I advance very respectfully the idea that you ask your business associates in San Francisco whom you just now conversed with to notify us of any useable material which they might uncover. After all, it is an American

city that has been the first object of attack."

Lars said, "If I can speak to an FBI man, yes. If not, no."

"I told you already that it was easy to arrange." Geschenko addressed his aide again in Russian.

Lilo said, "He's telling him to go out, stay five minutes, return and say in English that the FBI entourage here at Fairfax can't be located."

Glancing at her, Major Geschenko said irritably, "In addition to all else you could be arraigned under Soviet law for interfering with security operations. It would be a charge of treason, punishable by death before a firing squad. So why don't you for once in your life shut up?" He looked genuinely angry; he had lost his poise and his face was dark red.

Lilo murmured, *"Sie konnen Sowjet Gericht und steck'* — "

Interrupting, Dr. Todt said firmly, "My patient, Mr. Powderdry, seems under great stress, due especially to this last interchange. Would you object, major, if I gave him a tranquilizer?"

"Go ahead, doctor," Geschenko said grouchily. He waved curtly, dismissing his aide — without having reinstructed him, Lars observed.

From his black medical bag Dr. Todt brought several bottles, a flat tin, a number of folders of free samples the sort distributed by the large ethical pharmaceutical houses in incredible numbers all over the world, new drugs as yet untested and not on the market; he had, wearisomely, always been interested in the latest in medications. Mumbling, calculating to himself, Todt sorted among them, lost in his own idiosyncratic universe.

Again an aide brought Geschenko a document. He studied it silently, then said, "I have preliminary information on the artist who is the creator of The Blue Man abomination. Would you care to hear it?"

"Yes," Lars said.

"I couldn't care less," Lilo said.

Dr. Todt continued to root about in his overfilled black medical bag.

Reading from the document presented him, Major Geschenko summarized for Lars' benefit the info which the Soviet intelligence-apparatus, acting at top speed, had assembled. "The artist is named Oral Giacomini. A Caucasian of Italian origin who migrated to Ghana ten years ago. He is in and out of a mental institution in Calcutta — and not a reputable one at that. Without electroshock and thalamic-suppressors he would be in a complete autistic schizophrenic withdrawal."

"Jeez," Lars said.

"Further, he is an ex-inventor. For instance, his Evolution Rifle. He actually built one, about twelve years ago, had it patented in Italy. Probably for use against the Austro-Hungarian Empire." Geschenko set down the document on the table; coffee stained it at once, but he did not seem to give a good goddam, Lars noticed; the major was as disgusted as he himself. "Oral Giacomini's ideas, as analyzed by

the second-rate psychiatrists at Calcutta, consist of worthless, grandiose, schizophrenic delusions of world-power. And this is the lunatic nonentity whose mentality you—" he shook his fist, futilely, at Lars and Lilo—"have seen fit to tap as the inspiration for your 'weapons'!"

"Well," Lars said presently, "that's the weapons fashion designing biz."

Dr. Todt closed his medical bag at last and sat regarding them.

"You have my tranquilizer?" Lars asked. Dr. Todt had *something* in his hands, resting on his lap out of sight.

"I have here," Dr. Todt said, "a laser pistol." He displayed it, pointing it at Major Geschenko. "I knew I had it somewhere in my bag, but it was under everything else. You are under arrest, Major, for holding a Wes-bloc citizen captive against his will."

From his lap he produced a second object, a minute audio communications-system, complete with microphone, earphone and antenna. Snapping it on he spoke into the flea-size mike. "Mr. Conners? J.F. Conners, please?" He explained, for the benefit of Lars, Lilo and Major Geschenko, "Conners is in charge of FBI operations here at Fairfax. Um. Mr. J.F. Conners? Yes. We are at the motel. Yes, the same locus, the Bee's Knees. Apt. six. Where they first brought us. Evidently they plan to transport Mr. Powderdry to the Soviet Union when they return Miss Topchev and are awaiting transport-connections at this moment. There are KVB agents all over so—well, okay. Thanks. Yes. And thank you again." He shut off the communications-system and restored it to his medical bag.

They sat inertly, saying nothing, and then presently outside the door of the motel room there was a flurry of sharp, abrupt noise. Grunts, labored, muffled thumps, a voiceless cat-fight of confusion that lasted several minutes. Major Geschenko looked philosophical but not very happy. Lilo, on the other hand, seemed petrified; she sat bolt-upright, her face stark.

The door snapped spring-like open. An FBI man, one of those who had brought Lars to Iceland, peered in, laser pistol sweeping potentially everything in the room with its ability to include them all as targets. However, he did not fire but merely entered, followed by a second FBI man who had somehow, in what had happened, lost his tie.

Major Geschenko rose to his feet, unbuttoned his holster, silently turned over his side arm to the FBI men.

"We'll go back to New York now," the first man said to Lars.

Major Geschenko shrugged. Marcus Aurelius could not have achieved more stoic resignation.

As Dr. Todt and Lars moved toward the door with the two FBI men, Lilo Topchev suddenly said, "Lars! I want to come along."

The two FBI men exchanged glances. Then one spoke into his

lapel-mike, conversed inaudibly with an unseen superior. All at once he said brusquely to Lilo, "They say okay."

"You may not like it there," Lars said. "Remember, dear — we're both out of favor."

"I still want to come," Lilo said.

"Okay," Lars said, and thought of Maren.

XXII

In the public park in Festung Washington, D.C. the aged, feeble, shabbily dressed war veteran sat mumbling to himself and watching the children playing, and then he saw, making their way without haste down the wide gravel path, two second lieutenants from the Wes-bloc Air Arm Academy, youths of nineteen with clean, scrubbed, beardless but arrestingly, unusually intelligent faces.

"Nice day," the ancient hulk said to them, nodding.

They paused briefly. That was enough.

"I fought in the Big War," the old man cackled, with pride. "You never saw combat but I did; I was main-man for a front-line T.W.G. Ever seen a T.W.G. recoil 'cause of an overload, when the input-line circuit-breaker fails, and the induction field shorts? Fortunately I was off a distance so I survived. Field hospital. I mean a ship. Red Cross. I was laid up months."

"Gee," one of the shavetails said, out of deference.

"Was that in the Callisto revolt six years ago?" the other asked.

The ancient cobwebbed shape swayed with brittle mirth. "It was sixty-three years ago. I been running a fixit shop since. Until I got to bleeding internally and had to quit except for small work. Apt appliances. I'm a first-rate swibble man; I can fix a swibble that otherwise — " He wheezed, unable to breathe momentarily.

"But sixty-three years ago!" the first shavetail said. He calculated. "Heck, that was during World War Two; that was 1940." They then both stared at the old veteran.

The hunched, dim, stick-like figure croaked, "No, that was 2005. I remember because my medal says so." Shakily, he groped at his tattered great-cloak. It seemed to disintegrate as he poked at it, turning further into dust. He showed them a small metal star pinned to his faded shirt.

Bending, the two young commissioned officers read the metal surface with its raised figures and letters.

"Hey, Ben. It does say 2005."

"Yeah." Both officers stared.

"But that's *next year*."

"Let me tell you about how we beat 'em in the Big War," the old vet wheezed, tickled to have an audience. "It was a long war; sheoot, it seemed like it'd never end. But what can you do against T.G. warp? And that's what *they* found out. Were they surprised!" He giggled, wiped then at the saliva that had sputtered from his sunken lips. "We finally came up with it; of course we had all those failures." With disgust he hawked, spat onto

the gravel. "Those weapons designers didn't know a thing. Stupid bastards."

"Who," Ben said, "was 'the enemy'?"

It took a long time before the old veteran could grasp the nature of the question and when he did his disgust was so profound as to be overwhelming. He tottered to his feet, moved shufflingly away from the two young officers. "*Them*. The slavers from Sirius!"

After a pause the other second lieutenant seated himself on the other side of the old war veteran and then, thoughtfully, he said to Ben, "I think—" He made a gesture.

"Yeah," Ben said. To the old man he said, "Pop. Listen. We're going below."

"Below?" The old man cringed, confused and frightened.

"The *kremlin*," Ben said. "Subsurface. Where UN-W Natsec, the Board, is meeting. General Nitz. Do you know who General George Nitz is?"

Mumbling, the veteran pondered, tried to remember. "Well, he was way up there," he said finally.

"What year is this?" Ben said.

The old man eyed him gleefully. "You can't fool me. This is 2068. Or—" The momentarily bright eyes dimmed over, hesitantly. "No, it's 2067; you were trying to catch me. But you didn't, did you? Am I right? 2067?" He nudged the young second lieutenant.

To his fellow officer, Ben said, "I'll stay here with him. You get a mil-car, official. We don't want to lose him."

"Right." The officer rose, sprinted off in the direction of the *kremlin's* surface-installations. And the funny thing was he kept thinking over and over again, inanely, as if it had any bearing: What the hell was a swibble?

XXIII

On the subsurface level of Lanferman Associates, more or less directly beneath the mid-California town of San Jose, Pete Freid sat at his extensive workbench, his machines and tools inert, silent, off.

Before him lay the October 2003 copy of the uncivilized comic book, *The Blue Cephalopod Man from Titan*. At the moment, his lips moving, he examined the entertaining adventure, *The Blue Cephalopod Man Meets the Fiendish Dirt-Thing That Bored to the Surface of Io After Two Billion Years Asleep in the Depths*! He had reached the frame where the Blue Cephalopod Man, roused to consciousness by his side-kick's frantic telepathic efforts, had managed to convert the radiation-detecting portable G-system into a Cathode-Magnetic Ionizing Bi-polar Emanator.

With this Emanator, the Blue Cephalopod Man threatened the Fiendish Dirt-Thing as it attempted to carry off Miss Whitecotton, the mammate girlfriend of the Blue Man. It had succeeded in unfastening Miss Whitecotton's blouse so that one breast—and only one;

that was International Law, the ruling applying severely to children's reading material — was exposed to the flickering light of Io's sky. It pulsed warmly, wiggled as Pete squeezed the wiggling-trigger. And the nipple dilated like a tiny pink lightbulb, upraised in 3-D and winking on and off, on and off . . . and would continue to do so until the five-year battery-plate contained within the back cover of the mag at last gave out.

Tinnily, in sequence, as Pete stroked the aud tab, the adversaries of the adventure spoke. He sighed. He had by now noted sixteen "weapons" from the pages so far inspected. And meanwhile, New Orleans, then Provo, and now, according to what had just come over the TV, Boise, Idaho was missing. Had disappeared behind the gray curtain, as the 'casters and 'papes were calling it.

The gray curtain of death.

The vidphone on his desk pinged. He reached up, snapped it on. Lars' careworn face appeared on the screen.

"You're back?" Pete asked.

"Yes. In my New York office."

"Good," said Pete. "Say, what line of work are you going to go into now that Mr. Lars, Incorporated of New York and Paris is kaput?"

"Does it matter?" Lars asked. "In an hour I'm supposed to meet with the Board down below in the *kremlin*. They're staying perpetually subsurface, in case the aliens turn their whatever-it-is on the capital. I'd advise you to stay underground, too; I hear the aliens' machinery doesn't penetrate subsurface."

Pete nodded glumly. Like Lars, he felt somatically sick. "How's Maren taking it?"

Lars, hesitating, said, "I — haven't talked to Maren. The fact is, I brought Lilo Topchev back with me. She's here now."

"Put her on."

"Why?"

"So I can get a look at her, that's why."

The sunny, uncomplicated face of a young girl, light-complexioned, with oddly astringent, watchful eyes and a tautly pursed mouth, appeared on the vidscreen. The girl looked scared and — tough. Wow, Pete thought. And you deliberately brought this kid back? Can you handle her? I doubt if I could, he decided. She looks difficult.

But that's right, Pete remembered. You like difficult women. It's part of your perverse make-up.

When Lars' features reappeared Pete said, "Maren will disembowel you, you realize. No cover story is going to fool Maren, with or without that telepathic gadget she wears illegally."

Lars said woodenly, "I don't expect to fool Maren. But I frankly don't care. I really think, Pete, that these creatures, whatever they are and wherever they came from, these satellite-builders, have us."

Pete was silent. He did not see fit to argue; he agreed.

Lars said, "On the vidphone when I talked to Nitz he said some-

thing strange. Something about an old war veteran; I couldn't make it out. It had to do with a weapon, though; he asked me if I had ever heard of a device called a T.W.G. I said no. Have you?"

"No," Pete said. "There's absolutely no such thing, weaponwise. KACH would have said."

"Maybe not," Lars said. "So long." He broke the connection at his end; the screen spluttered out.

XXIV

Security, Lars discovered when he landed, had been even further augmented; it took over an hour for him to obtain clearance. In the end it required personal, face-to-face recognition of who he was and what he had come for on the part of a long-time, trusted Board assistant. And then he was on his way down, descending to join what might well turn out to be, he realized, the final convocation of UN-W Natsec at its intact fullness.

The last decisions were now being made.

In the middle of his discourse General Nitz took a moment, unexpectedly, to single out Lars and speak to him directly. "You missed a lot, due to your being away at Iceland. Not your fault. But something, as I indicated to you on the phone, has come up." General Nitz nodded to a junior officer who at once snapped on an intrinsic, homeo-programmed, vidaud scanner with a thirty-inch screen, parked in one corner of the room, at the opposite corner from the instrument which linked the Board, when desired, with Marshal Paponovich and the SeRKeb in New Moscow.

The set warmed up.

An ancient man appeared on it. He was thin, wearing the patched remnants of some peculiar military uniform. Hesitantly he said, "... and then we clobbered them. They didn't expect that; they were having it easy."

Bending, at General Nitz' signal, the junior officer stopped the Ampex aud-vid tape; the image froze, the sound ceased.

"I wanted you to get a look at him," General Nitz said to Lars. "Ricardo Hastings. Veteran of a war that took place sixty-some years ago... in his view of it, at least. All this time, for months, years perhaps, this old man has been sitting every day on a bench in the public park just outside the surface installations of the citadel, trying to get someone to listen to him. Finally someone did. In time? Maybe. Maybe not. We'll see. It depends on what his brain, and our examination has already disclosed that he suffers from senile dementia, still contains by way of memory. Specifically, memory of the weapon which he serviced during the Big War."

Lars said, "The Time Warpage Generator."

"There is little doubt," General Nitz said, folding his arms and leaning back against the wall behind him, professor-wise, "that it was through the action, perhaps accumulative and residual, of this

weapon, of his constant proximity to it, especially to *defective* versions of it, that he wound up, in a way we don't understand, back here. In what, for him, is almost a century in the past. He is far too senile to notice; he simply does not understand. But that hardly matters. The 'Big War' which for him took place years ago, when he was a young man, we have already established to be the war we are currently engaged in. Ricardo Hastings has already been able to tell us the nature and origin of our enemy; from him we've finally learned something, at long last, about the aliens."

"And you hope," Lars said, "to obtain from him the weapon which got to them."

"We hope," Nitz said, "for anything we can get."

"Turn him over to Pete Freid," Lars said.

General Nitz cupped his ear inquiringly.

"The hell with this talk," Lars said. "Get him to Lanferman Associates; get their engineers started working."

"Suppose he dies."

"Suppose he doesn't. How long do you think it takes a man like Pete Freid to turn a rough idea into specs from which a prototype can be made? He's a genius. He could take a child's drawing of a cat and tell you if the organism depicted covered its excretion or walked away and left it lying there. I have Pete Freid reading over back-issues of *The Blue Cephalopod Man from Titan*. Let's stop that and start him on Ricardo Hastings."

Nitz said, "I talked to Freid. I—"

"I know you did," Lars said. "But the hell with talk. Get Hastings to California or better yet get Pete here. You don't need me; *you don't need anyone in this room.* You need him. In fact I'm leaving." He rose to his feet. "I'm stepping out of this. So long, until you start Freid on this Hastings matter." He at that point started, strode, toward the door.

"Perhaps," General Nitz said, "we will try you out on Hastings first. And then bring in Freid. While Freid is on his way here—"

"It takes only twenty minutes," Lars said, "or less to get a man from California to Festung Washington, D.C."

"But Lars. I'm sorry. The old man is senile. Do you literally, *actually*, know what that means? It appears to be almost impossible to establish a verbal bridge to him. So please, from the remains of his mind that are not accessible in the ordinary, normal—"

"Fine," Lars said, deciding on the spot. "But I want Freid notified first. Now." He pointed to the vidphone at Nitz' end of the table.

Nitz picked up the phone, gave the order, hung the phone up.

"One more thing," Lars said. "I'm not alone now."

Nitz eyed him.

"I have Lilo Topchev with me," Lars said.

"Will she work? Can she do her job here with us?"

"Why not? The talent's there. As much as there ever was in me."

"All right." Nitz decided. "I'll have both of you taken into the hospital at Bethesda where the old man is. Pick her up. You can both go into that odd, beyond-my-comprehension trance-state. And meanwhile Freid is on his way."

"Fine," Lars said, satisfied.

Nitz managed to smile. "For a prima donna you talk tough."

"I talk tough," Lars said, "not because I'm a prima donna but because I'm too scared to wait. I'm too afraid they'll get us while we're *not* talking tough."

XXV

By government high-velocity hopper, piloted by a bored, heavy-set professional sergeant named Irving Blaufard, Lars raced back to New York and Mr. Lars, Incorporated.

"This dame," Sergeant Blaufarb said. "Is she that Soviet weapons fashion designer? You know, *the* one?"

"Yes," Lars said.

"And she 'coated?"

"Yep."

"Wowie," Sergeant Blaufard said, impressed.

The hopper, stone-like, dropped to the roof of the Mr. Lars, Incorporated building, the small structure among towering colossi. "Sure a *little* place you got there, sir," said Sergeant Blaufard. "I mean, is the rest of it subsurface?"

"Afraid not," Lars said stoically.

"Well, I guess you don't need no great lot of hardware."

The hopper — expertly handled — landed on the familiar roof field. Lars jumped forth, sprinted to the constantly moving down-ramp, and a moment later was striding up the corridor toward his office.

As he started to open the office door Henry Morris appeared from the normally-locked side-exit. "Maren's in the building."

Lars stared at him, his hand on the doorknob.

"That's right," Henry nodded. "Somehow, maybe through KACH, she found out about Topchev coming back from Iceland with you. Maybe KVB agents in Paris tipped her off in vengeance. God only knows."

"Has she got to Lilo yet?"

"No. We intercepted her in the outer public lobby."

"Who's holding onto her?"

"Bill and Ed McEntyre, from the drafting department. But she's really sore. You wouldn't believe it was the same girl Lars. Honest. She's unrecognizable."

Lars opened his office door. At the far end, by the window, alone in the room, stood Lilo, gazing out at New York.

"You ready to go?" Lars said.

Lilo, without turning, said, "I heard; I have terribly good hearing. Your mistress is here, isn't she? I knew this would happen. This is what I foresaw."

The intercom on Lars' desk buzzed and his secretary Miss Grabhorn, this time with panic, not with disdain, said, "Mr. Lars, Ed Mc-

Entyre says that Miss Faine got away from him and Bill Manfretti and she's out of the pub-lob and she's heading for your office."

"Okay," Lars said; he grabbed Lilo by the arm, propelled her out of the office and along the corridor to the nearest up-ramp. She came ragdoll-like, passively; he felt as if he were lugging a light-weight simulacrum devoid of life or motivation, a weirdly unpleasant feeling. Did Lilo not care any longer, or was this just too much for her? No time to explore the psychological ramifications of her inertness; he got her to the ramp and onto it and the two of them ascended, back up toward the roof with its field and waiting government hopper.

As he and Lilo emerged onto the roof, stepped from the up-ramp, a figure manifested itself at the up-terminus of the building's one alternate up-ramp, and it was Maren Faine.

As Henry Morris had said, she was difficult to recognize. She wore her high-fashion Venusian wubfur ankle-length cloak, high heels, a small hat with lace, large, handwrought earrings and, oddly, no make-up, not even lipstick. Her face had a lusterless, straw-like quality. A hint almost of the sepulcher, as if death had ridden with her across the Atlantic from Paris and then up here now to the roof; death perched in her eyes, gazing out fat-birdlike and impassive but with guileful determination.

"Hi," Lars said.

"Hello, Lars," Maren said, measuredly. "Hello, Miss Topchev."

No one spoke for a moment. He could not recall ever having felt so uncomfortable in his entire life.

"What say, Maren?" he said.

Maren said, "They called me direct from Bulganingrad. Someone at SeRKeb or acting for it. I didn't believe it until I checked with KACH."

She smiled, and then she reached into her mailpouch-style purse which hung from her shoulder by its black leather strap.

The gun that Maren brought forth was positively the smallest that he had ever seen.

The first thought that entered his mind was that the damn thing was a toy, a gag; she had won it in a nickel gum machine. He stared at it, trying to make it out more exactly and remembering that he was after all a weapons expert, and then it came to him that it was genuine. Italian-made to fit into women's purses.

Beside him Lilo said, "What is your name?" Her tone, addressed to Maren, was polite, rational, even kindly; it astonished him and he turned to gape at her.

There was always something new to be learned about people. Lilo completely floored him; at this critical moment, as she and he faced Maren's tiny dangerous weapon, Lilo Topchev had become lady-like and mature, as socially graceful as if she had entered a party in which the most fashionable cogs abounded. She had risen to the occasion and it was, it seemed to him, a vindi-

cation of the quality, the essence, of the stuff of humanity itself. No one could ever again convince him that a human being was simply an animal that walked upright and carried a pocket handkerchief and could distinguish Thursday from Friday or whatever the criterion was . . . even Ol' Orville's definition, cribbed from Shakespeare, was revealed for what it was, an insulting and cynical vacuity. What a feeling, Lars thought, not only to love this girl but also to admire her.

"I'm Maren Faine," Maren said, matter-of-factly. *She* was not impressed.

Lilo hopefully extended her hand, evidently as a sign of friendship. "I am very glad," she began, "and I think we can — "

Raising the tiny gun, Maren fired.

The filth-encrusted and yet clean-shiny little gadget expelled what once would have been certified as a dum-dum cartridge, in its primordial state of technological development.

But the cartridge had evolved over the years. It still possessed the essential ingredient — that of exploding when it contacted its target — but in addition it did more. Its fragments continued to detonate, reaping an endless harvest that spread out over the body of the victim and everything near him.

Lars dropped, fell away instinctually, turned his face and cringed; the animal in him huddled in a fetal posture, knees drawn up, head tucked down, arms wrapped about himself, knowing there was nothing he could do for Lilo. That was over, over forever. Centuries could pass like drops of water, unceasing, and Lilo Topchev would never reappear in the cycles and fortunes of man.

Lars was thinking to himself like some logical machine built to compute and analyze coolly, despite the outside environment: I did not design this, not this weapon. This predates me. This is old, an ancient monster. This is all the inherited evil, carried here out from the past, carted to the doorstep of my life and deposited, flung to demolish everything I hold dear, need, desire to protect. All wiped out, just by the pressure of the first finger against a metal switch which is part of a mechanism so small that you could actually swallow it, devour it in an attempt to cancel out its existence in an act of oral greed — the greed by life for life.

But nothing would cancel it now.

He shut his eyes and remained where he was, not caring if Maren chose to fire again, this time at him. If he felt anything at all it was a desire, a yearning that Maren would shoot him.

He opened his eyes. —

No longer the up-ramp. The roof field. No Maren Faine, no tiny Italian weapon. Nothing in its ravaged state lay nearby him; he did not see the remnants, sticky organic, lashing and decomposed and newly-made, the bestial malignancy of the weapon's action. He saw, but did not understand, a city street, and not even that of New York. He sensed a change in

temperature, in the composition of the atmosphere. Mountains ice-topped, remote, were involved; he felt cold and he shivered, looked around, heard the honking racket of surface traffic.

His legs, his feet ached. And he was thirsty.

Ahead, by an autonomic drug-store, he saw a public vidphone booth. Entering it, his body stiff, creaking with fatigue and soreness, he picked up the directory, read its cover.

Seattle, Washington.

And time, he thought. How long ago was that? An hour? Months? Years; he hoped it was as long as possible, a fugue that had gone on interminably and he was now old, old and rotted away, wind-blown, discarded. This escape should not have ever ended, not even now. And in his mind the voice of Dr. Todt came incredibly, by way of the parapsychological power given him, that voice as it had on the flight back from Iceland hummed and murmured to itself: words not understandable to him, and yet their terrible tone, their world, as Dr. Todt had hummed to himself an old ballad of defeat. *Und die Hunde schnurren an den alten Mann.* And then all at once Dr. Todt in English told him. *And the dogs snarl,* Dr. Todt said, within his mind. *At the aged man.*

Dropping a coin into the phone-slot he dialed Lanferman Associates in San Francisco.

"Let me talk to Pete Freid."

"Mr. Freid," the switchboard chick at Lanferman said brightly, "is away on business. He cannot be reached, Mr. Lars."

"Can I talk to Jack Lanferman, then?"

"Mr. Lanferman is also—I guess I can tell you, Mr. Lars. Both of them are at Festung Washington, D.C. They left yesterday. Possibly you could contact them there."

"Okay," he said. "Thanks. I know how." He rang off.

He next called General Nitz. Step by step his call mounted the ladder of the hierarchy, and then, when he was about ready to call it quits and hang up, he found himself facing the C. in C.

"KACH couldn't find you," Nitz said. "Neither could the FBI or the CIA."

"The dogs snarled," Lars said. "At me. I heard them. In all my life, Nitz, I never heard them before."

"Where are you?"

"Seattle."

"Why?"

"I dunno."

"Lars, you really look awful. And do you know what you're doing or saying? What's this about 'dogs'?"

"I don't know what they are," he said. "But I did hear them."

General Nitz said, "She lived six hours. But of course there was never any hope and anyhow now it's over; or maybe you know this."

"I don't know anything."

"They held up the funeral services thinking you might show up, and we kept on trying to locate you. Of course you realize what happened to you."

"I went into a trance-state."

"And you're just now out?"

Lars nodded.

"Lilo is with —"

"What?" Lars said.

"Lilo is at Bethseda. With Ricardo Hastings. Trying to develop a useable sketch; she's produced several so far but — "

Lars said, "Lilo is dead. Maren killed her with an Italian Beretta pelfrag .12 pistol. I saw it. I watched it happen."

Regarding him intently, General Nitz said, "Maren Faine fired the Beretta .12 pelfrag pistol that she carried with her. We have the weapon, the fragments of the slug, her fingerprints on the gun. But she killed herself, not Lilo."

After a pause Lars said, "I didn't know."

"Well," General Nitz said, "when that Beretta went off, somebody had to die. That's how those pelfrag pistols are. It's a miracle it didn't get all three of you."

"It was suicide! Deliberate. I'm sure of it." Lars nodded. "She probably never intended to kill Lilo, even if she thought so herself." He let out a ragged sigh of weariness and resignation. The kind of resignation that was not philosophical, not stoical, but simply a giving up.

There was nothing to be done. During his trance-state, his fugue, it had all happened. Long, long ago. Maren was dead; Lilo was at Bethesda; he, after a timeless journey to nowhere, into emptiness, had wound up in downtown Seattle, as far away, evidently, as he could manage to get from New York and what had taken place — or what he had imagined had taken place.

"Can you get back here?" General Nitz said. "To help out Lilo? Because it's just not coming; she takes her drug, that East German goofball preparation, goes into her trance, placed of course in proximity to Ricardo Hastings with no other minds nearby to distract her. And yet when she sobers up she has only —"

"The same old sketches. Derived from Oral Giacomini."

"No."

"You're sure?" His limp, abused mind came awake.

"These sketches are entirely different from anything she's done before. We've had Pete Freid examine them and he agrees. And she agrees. And they're always the same."

He felt horror. "Always what?"

"Calm down. Not of a weapon at all, not of anything remotely resembling a 'Time Warpage Generator.' They're of the physiological, anatomical, organic substance of — " General Nitz hesitated, trying to decide whether to say it over the probably-KVB-tapped vidphone.

"Say it," Lars grated.

"Of an android. An unusual type, but still an android. Much like those that Lanferman Associates uses subsurface in its weapons proving. You know what I mean. As human as possible."

Lars said, "I'll be there as soon as I can."

XXVI

At the immense parking-field atop the military hospital he was met by three snappily uniformed young Marines. They escorted him, as if he were a dignitary, or perhaps, he reflected, a criminal, or a gestalt of both combined, down-ramp at once to the high security floor on which *it* was taking place.

It. No such word as *they*. Lars noted the attempt to dehumanize the activity which he had come here to involve himself in.

He remarked to his escort of Marines, "It's still better than falling into the hands, if they do have hands, of alien slavers from some distant star system."

"What is, sir?"

"Anything," Lars said.

The tallest Marine, and he really was tall, said, "You've got something there, sir."

As their group passed through the final security barrier, Lars said to the tall Marine, "Have you seen this old war vet, this Ricardo Hastings, yourself?"

"For a moment."

"How old would you guess he is?"

"Maybe ninety. Hundred. Older, even."

Lars said, "I've never seen him."

Ahead, the last door — and it had some super-sense, in that it anticipated exactly how many persons were to be allowed through — swung temporarily open; he saw white-clad medical people beyond.

"But I'll make a bet with you," he said, as the sentient door clicked in awareness of his passage through. "As to Ricardo Hastings age."

"Okay, sir."

Lars said, "Six months."

The three Marines stared at him.

"No," Lars said. "I'll revise that. Four months."

He continued on, then, leaving his escort behind, because ahead he saw Lilo Topchev.

"Hi," he said.

At once she turned. "Hi." She smiled, fleetingly.

"I thought you were at Piglet's house," he said. "Visiting Piglet."

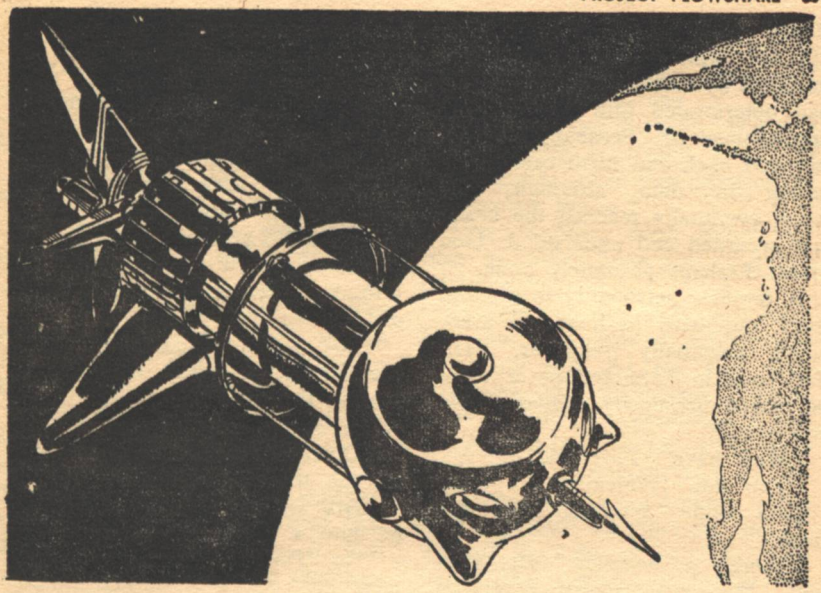
"No," she said. "I'm at Pooh's house visiting Pooh."

"When that Beretta went off —"

"Oh Christ I thought it was me, and you thought it was me; you were sure and you couldn't look. Should it have been me? Anyhow it wasn't. And I would have done the same; I wouldn't have looked if I thought it was headed at you. What I've decided, and I've been thinking and thinking, never stopping thinking ... I've been just so damn worried about you, where you went — you had your trance and you simply wandered off. But thinking about her I decided she must never have fired that pelfrag pistol before. She must not have had any idea what it did."

"And now what?"

"I've been working. Oh God how I've been working. Come on into the next room and meet him." She somberly led the way. "Did they tell you I haven't had any luck?"



Lars said, "It could be worse, considering what's being done to us every hour or so." On the trip east he had learned the extent of the population-volume now converted out of existence — as far as Earth was concerned — by the enemy. It was grotesque. As a calamity it had no historic parallel.

"Ricard Hastings says they're from Sirius," Lilo said. "And they are slavers, as we suspected. They're chitinous and they have a physiological hierarchy dating back millions of years. On the planets of their system, a little under nine light-years from here, warm-blooded life forms never evolved past the lemur stage. Arboreal, with fox-muzzles, most types nocturnal, some with prehensile tails. So they don't regard us as anything but sentient freaks. Just highly-organized work-horse organisms that are somewhat clever manually. They admire our *thumb*. We can do all sorts of essential jobs; they think of us the way we do rats."

"But we test rats all the time. We try to learn."

"But," Lilo said, "we have lemur curiosity. Make a funny noise and we pop our heads out of our burrows to see. They don't. It seems that among the chitinous forms, even highly evolved, you're still dealing primarily with reflex-machines. Talk to Hastings about it."

Lars said, "I'm not interested in talking to him."

Ahead, beyond an open door, sat — a stick-like clothed skeleton, whose dim, retracted, withered-pumpkin, caved-in face revolved

slowly as if motor-driven. The eyes did not blink. The features were unstirred by emotions. The organism had deteriorated into a mere perceiving-machine. Sense-organs that swiveled back and forth ceaselessly, taking in data although how much eventually reached the brain, was recorded and understood, God knew. Perhaps absolutely none.

A familiar personality manifested itself, clipboard in hand. "I knew you'd eventually reappear," Dr. Todt said to Lars, but nevertheless he looked drastically relieved. "Did you walk?"

"Must have," Lars said.

"You don't remember."

Lars said, "Nothing. But I'm tired."

"There's a tendency," Dr. Todt said, "for even major psychoses to get walked off, given enough time. The Nomadic Solution. It's just that there's not enough time in most cases. As for you, there's no time at all." He turned then to Ricardo Hastings. "As to him, what are you going to try first?"

Lars studied the huddled old figure. "A biopsy."

"I don't understand."

"I want a tissue-sample taken. I don't care what from, any part of him."

"Why?"

Lars said, "In addition to a microscopic analysis I want it carbon-dated. How accurate is the new carbon-17-B dating method?"

"Down to fractions of a year. Months."

"That's what I thought. Okay, there won't be any sketches, trances, any other activity from me, until the carbon dating results are in."

Dr. Todt gestured. "Who can question the ways of the Immortals?"

"How long will it take?"

"We can have the results by three this afternoon."

"Good," Lars said. "I'll go get a shower, a new pair of shoes and I think a new cloak. To cheer myself up."

"The shops are closed. People are warned to stay underground during the emergency. The areas taken now include — "

"Don't rattle off a list. I heard on the trip here."

"Are you honestly not going to go into a trance?" Dr. Todt said.

"No. There's no need to. Lilo's tried it."

Lilo said, "Do you want to see my sketches, Lars?"

"I'll look at them." He held out his hand and after a moment a pile of sketches was given to him. He leafed briefly through them and saw what he had expected — no less, no more. He set them down on a nearby table.

"They *are* of an elaborate construct," Dr. Todt pointed out.

"Of an android," Lilo said hopefully, her eyes fixed on Lars.

He said, "They're of him." He pointed at the ancient huddled shape with its ceaselessly revolving, turret-like head. "Or rather it. You didn't pick up the contents of its mind. You picked up the anatomical ingredients constituting its biochemical basis. What makes it go.

The artificial mechanism that it is." He added. "I'm aware that it's an android, and I know the carbon-dating of the biopsy sample will bear this out. What I want to learn is its exact age."

After a time Dr. Todt said hoarsely, "Why?"

"How long," Lars said, "have the aliens been in our midst?"

"A week."

"I doubt," Lars said, "whether an android as perfectly built as this one could be thrown together in a week."

Lilo said presently, "Then the builder knew — if you're right —"

"Oh, hell," Lars said. "I'm right. Look at your own sketches and tell me if they aren't of 'Ricardo Hastings.' I mean it. Go ahead." He picked up the sketches, presented them to her; she accepted them reflexively and in a numbed, sightless way turned from one to the next, nodding faintly.

"Who could have built such a successful android?" Dr. Todt said, glancing over Lilo's shoulder. "Who has the facilities and the capabilities, not to mention the — inspirational talent?"

Lars said, "Lanferman Associates."

"Anyone else?" Dr. Todt said.

"Not that I know of." Through KACH, he of course had a fairly accurate concept of Peep-East's facilities. They had nothing comparable. *Nothing* was comparable to Lanferman Associates, which after all stretched subsurface from San Francisco to Los Angeles: an economic, industrial organism five hundred miles long.

And making androids which could pass, under close scrutiny, as authentic human beings, was one of their major enterprises.

All at once Ricardo Hastings croaked, "If it hadn't been for that accident when that power-surge overloaded the — "

Lars, walking over, interrupted him, abruptly. "Are you operating on intrinsic?"

The ancient, dim eyes confronted him. But there was no answer; the sunken mouth did not stir, now.

"Come on," Lars said. "Which is it, intrinsic or remote? Are you homeostatic or are you a receptor for instructions coming from an outside point? Frankly, I'd guess you're fully intrinsic. Programmed in advance." To Lilo and Dr. Todt he said, "That explains what you call its 'senility.' The repetition of certain stereotyped semantic units over and over again."

Ricardo Hastings mumbled wetly, "Boy, how we clobbered them. They didn't expect it; thought we were washed up. Our weapons fashion designers, they hadn't come through. The aliens thought they could just walk right in and take over, but we showed them. Too bad you people don't remember; it was before your time." He — or it — chuckled, sightlessly staring at the floor, its mouth twitching in a grimace of delight.

"I don't," Lars said, pausing, "buy the idea of the time-travel weapon anyhow."

"We got the whole mess of them," Ricardo Hastings mumbled.

"We warped their goddam satellites entirely out of this time-vector, a billion years into the future, and they're still there. Heh-heh." His eyes, momentarily, lit with a spark of life. "Orbiting a planet that's uninhabited except by maybe spiders and protozoa. Too bad for them. We caught their ships of the line, too; with the T.W.G. we sent *them* into the remote past; they're set to invade Earth around the time of the trilobite. They can win that easy. Beat the trilobites, club them into submission." Triumphantly, the old veteran snorted.

At two-thirty, after a wait which Lars would not have undergone again at any price, the carbon-dating of the tissue taken from the old man's body was brought in by a hospital attendant.

"What does it show?" Lilo asked, standing up stiffly, her eyes fixed on his face, trying to apprehend his reaction, to share it with him.

Lars handed her the single sheet. "Read it yourself."

Faintly she said, "You tell me."

"The microscopic analysis showed it to be indubitably human, not snytho — that is, android — tissue. The cabon-17-B dating procedures, applied to the tissue-sample, indicate that the sample is one hundred and ten years to one hundred and fifteen years old. And possibly — but not probably — even older."

Lilo said, "You were wrong."

Nodding, Lars said, "Yes."

To himself, Ricardo Hastings chuckled.

XXVII

On this score, Lars Powderdry said to himself, I have failed as completely as, formerly, I let them down authentic, in time of need, weapons-wise. There has never been one point at which I have really served them, except of course in the old situation, the benign game which Peep-East and Wesbloc played all those years, the Era of Plowsharing in which we duped the multitude, the pursaps everywhere, for their own good, at the expensive of their own proclivities.

I did bring Lilo to Washington, though, he thought. Maybe that should be entered in the record-books as an achievement. But — what has that accomplished, besides the hideous suicide of Maren Faine, who had every reason for living on, enjoying a full and happy life?

To Dr. Todt, Lars said, "My Escalatium and my Conjorozine, please. Twice the customary dose." To Lilo he said, "And that East German firm's product that you have a monopoly on. I want you to double your intake of it at this time. It's the only way I can think of to increase our sensitivity and I want us to be as sensitive as our systems can withstand. Because we'll probably only make one real try."

"I'll agree to that," Lilo said somberly.

The door shut after Todt and the hospital staff-members. He and Lilo, with Ricardo Hastings, were sealed off.

"This may," he said to Lilo,

"kill either or both of us, or impair us permanently. Liver-toxicity or brain —"

"Shut up!" Lilo said. And, with a cup of water, downed her tablets.

He did the same.

They sat facing each other for a moment, ignoring the mumbling, slavering old man between them.

"Will you ever recover," Lilo asked presently, "from her death?"

"No. Never."

"You blame me? No, you blame yourself."

"I blame her," Lars said. "For owning that miserable, lousy little Beretta in the first place; no one should carry a weapon like that or even own it; we're not living in a jungle."

He ceased. The medication was taking effect; it paralyzed, like an enormous overdose of phenothiazine, his jaws and he shut his eyes, suffering. The dose, much too much, was carrying him off and he could no longer see, experience the presence of, Lilo Topchev. Too bad, he thought. And it was regret, and pain, that he experienced, rather than fear, as the cloud condensed around him, the familiar descent — or was it ascent? — now heightened, magnified out of all reasonable proportion, by the deliberate over-supply of the two drugs.

I hope, he hoped, that she isn't going to be required to endure this, too; I hope it is easier on her — knowing that would make it easier on me.

"We really blasted them," Ricardo Hastings mumbled, chuckling, wheezing, dribbling.

"Did we?" Lars managed to say.

"Yes, Mr. Lars," Ricardo Hastings said. And the garrulous, trivial mumble, somehow, seemed cleared, became lucid. "But not with any so-called 'Time Warpage Generator'. That is a fabrication — in the bad sense. I mean a cover-story." The old man chuckled, but this time harshly. Differently.

Lars, with extreme difficulty, said, "Who are you?"

"I am an ambulatory toy," the old man answered.

"*Toy*!"

"Yes, Mr. Lars. Originally an ingredient of a war-game invented by Klug Enterprises. Sketch me, Mr. Lars. Your compatriot, Miss Topchev, is no doubt sketching, but merely repeating, without realizing it, the worthless visual-presentation formerly produced . . . and ignored by everyone but you. She is drawing *me*. You were absolutely right."

"But you're old."

"A simple technical solution presented itself to Mr. Klug. He foresaw the possibility — in fact the inevitability — of an application of the new dating-test by carbon-17-B. So my constituents are modifications of organic matter slightly in excess of one hundred years vintage. If that expression doesn't disgust you."

"It doesn't disgust me," Lars said, or thought. He could no longer tell if he were actually speaking aloud. "I just plain don't believe it," he said.

"Then," Hastings said, "consider this possibility. I am an android, as you suspected, *but built over a century ago.*"

"In 1898?" Lars asked with bottomless scorn. "By a buggywhip concern in Nebraska?" He laughed, or tried to, anyhow. "Give me another one. Another theory that fits what you know and I know to be the facts."

"This time would you like to try the truth, Mr. Lars? Hear it openly, with nothing held back? Do you feel capable? Honestly? You're *sure*?"

After a pause Lars said, "Yes."

The soft, whispering voice, perhaps composed of nothing more in this deep-trance relationship than a thought, informed him, "Mr. Lars, I am Vincent Klug."

XXVIII

"The small-time operator. The marginal, null-credit, kicked-around toy man himself," Lars said.

"That's right. Not an android but a man like yourself, only old, very old. At the end of my days. Not as you've met me and seen me subsurface, at Lanferman Associates." The voice was weary, toneless. "I have lived a long time and seen a good deal. I saw the Big War, as I said. As I told everyone and anyone who would listen to me as I sat on that park bench. I knew eventually the proper person would come along, and he did. They got me inside."

"And you were main-man in the war?"

"No. Not for that or any weapon. A time-warpage instrument exists — will exist — but it will not factor in the Big War against the Sirius slavers. That part I made up. Sixty-four years from now, in 2068, I will make use of it to return."

"Then we have it," Lars said. "Through you."

"You don't understand. I can come back here from 2068; I've done so. Here I am. But I can't bring anything. Weapon, artifact, news, idea, the most minuscule technological pursap entertainment novelty — *anything.*" The voice was savage, roused to bitterness. "Go ahead! Telepathically pry at me, tinker with my memory and knowledge of the next six decades. Obtain the specs for the Time Warpage Generator. And take it to Pete Freid at Lanferman Associates in California; get a rush-order on it, have a prototype made right up and used on the aliens. Go ahead! You know what'll happen? It will cancel me out, Mr. Lars." The voice cut at him, deafening him, cruel. Corrupted by vindictiveness and the futility of the situation. "And when it cancels me out, by instigating an alternate time-path, it will cancel the weapon out, too. And an oscillation, *with me caught in it,* will be erected in perpetuity."

Lars was silent. He did not dispute; it seemed evident and he accepted it.

"Time-travel," said the ancient, decayed Klug of sixty-four years from now, "is one of the most rigidly limited mechanisms arrived at by the institutional research-

system. Do you want to know exactly *how* limited I am, Mr. Lars, at this moment in time, which is for me over sixty years in the past? *I can see ahead and I can't tell anything* — I can't inform you; I can't be an oracle. Nothing! All I can do, and this is very little, but it may be enough — I know, as a matter of fact, whether it'll be enough, but I can't even risk telling you this — is call your attention to some object, artifact or aspect of your present environment. You see? It must *already* exist. Its presence must not in any way be dependent on my return here from your future."

"Hmm," Lars said.

"'Hmm.'" Vincent Klug sneered, mocking him.

"Well," Lars said, "What can I say? It's been said; you just now went through it, stage by stage."

"Ask me something."

"Why?"

"Just ask! I came back for a reason; isn't that obvious? God, I'm tied in knots by this damn principle — it's called — " Klug broke off, choked with impotence and fury.

"I can't even give you the name of the principle that limits me," he said, with descending strength. The battle to communicate — but not to communicate beyond the narrow, proper line — was palpably draining him rapidly.

Lars said, "Guessing games. That's right; you like games."

"Exactly." A resurgence of energy pulsed in the dry, dust-like voice. "You guess. I either answer or I don't."

"Something exists now, in our time, in 2004."

"Yes!" Frenzied, vibrant, humming excitement; the furious regathering of the life-force in response.

"You, in this time period, are not a cog. You're on the outside and that is a fact. You've tried to bring it to UN-W Natsec's attention but since you're not a cog, no one will listen."

"*Yes*!"

Lars said, "It's — a device you've come up with in your toy business. Has a mockup been made at Lanferman for you?"

"Yes."

"A working prototype?"

"Yes. By Pete Freid. On his own time. After Jack Lanferman gave him permission to use the company shops. He's so goddam good; he can build so goddam fast."

"Where is the device now?"

A long silence. Then, haltingly, in agony, "I — am — afraid to — say too much."

"Pete has it."

"N-no."

"Okay," Lars pondered. "Why didn't you try to communicate with Lilo?" he asked. "When she went into a trance-state and probed at your mind?"

"Because," Klug whispered wearily in his dry, rushing voice, "she is from Peep East."

"But the Prototype —"

"I see ahead. This weapon, Mr. Lars, is for Wes-bloc alone."

"Is the weapon," Lars said, "in

Festung Washington, D.C. at this time?"

Witheringly, the voice of the ancient Vincent Klug eaten away by the destroyer retorted, "If it were I would not be talking to you. I would have returned to my own period." He added, "Frankly, I have plenty to lose by being here, my friend. The medical science of my own era is capable of sustaining my life on an endurable basis. That, however, is not the case in this year, 2004." His voice pulsated with the rhythm of fatigue and contempt intertwined.

"Okay, this device," Lars said — and sighed — "this weapon originates from my own time and not from the future. You've had the prototype made. Presumably it works. So you've either taken it back to your own tiny factory or wherever it is you operate!" For a long time he considered, recapitulating in his mind over and over again. "All right," he said. "I don't need to ask you any more; we don't need to strain it. Better not to take any more chances. You agree?"

"I agree," Klug said, "*if* you feel you can continue on your own — with what you now know *and no more.*"

"I'll find it."

Obviously he had to immediately approach the Vincent Klug of this period, drag the device out of him. But — and he saw it already — the Vincent Klug of 2004, having invented the device, would not recognize it as a weapon.

He would not therefore know which object was wanted; Klug might, in his typical, zany, marginal operations, possess a dozen, two dozen, constructs in every possible stage all the way from the rough sketch, the drafting board, to the final autofac-run retail-sales production items themselves.

He had broken contact with the ancient Vincent Klug of 2068 prematurely.

"Klug," he said instantly, urgently. "What kind of toy is it? A hint! Give me some clue. A board game? A war game?" His listened.

In his ears, as spoken words, not telepathically received thoughts, the cracked, senile voice mumbled, "Yeah, we really clobbered them, those slavers; they sure didn't expect us to come up with anything." The old man wheezing, chuckling with delight. "Our weapons fashions designers. What a washout they were. Or so the aliens thought."

Lars, shaking, opened his eyes. His head ached violently. In the glare of the overhead light he squinted in pain. He saw Lilo Topchev beside him, slouched inert, her fingers holding a pen . . . against a blank, untouched piece of white paper.

The trance-state, telepathic rapport with the obscured, inner mind of the old "war veteran" Vincent Klug, had ended.

Looking down, Lars saw his own hand as it gripped a pen, his own sheet of paper. There was no sketch, of course; he was not surprised by that.

But the paper was not blank.

On it was a scrawled, labored sentence, as if the awkward, unskilled fingers of a child had gripped the pen, not his.

The sentence read:

The (unreadable, a short word) *in the maze.*

The *something* in the maze, he thought. Rat? Possibly. He seemed to make out an *r*. And the word consisted of three letters, the second of which — he was positive, now, as he scrutinized it — was *a*.

Unsteadily, he rose, made his way from the room; he opened door after door, at last found someone, a hospital orderly.

"I want a vidphone," Lars said.

He sat, finally, at a table on which rested an extension phone. With shaking fingers he dialed Henry Morris at his New York office.

Presently he had Henry on the screen.

"Get hold of that toy-maker Vincent Klug," Lars said. "He has a kids' product, a maze of some kind. It's gone through Lanferman Associates and come out. A working model exists. Pete Freid made it."

"Okay," Henry said, nodding.

"In that toy," Lars said, "there's a weapon. One we can use against the aliens — and win. Don't tell Klug why you want it. When you have it, mail it to me at Festung Washington, D.C. by 'stant mail — so there's no time-lapse."

"Okay," Henry Morris said.

After he had rung off, Lars sat back, once more picked up the sheet of paper, reexamined his scrawled sentence. What in God's name was that blurred word? Almost he had it...

"How do you feel?" Lilo Topchev appeared, bleary-eyed, rubbing her forehead, smoothing back her rumpled hair. "God, I'm sick. And again I got nothing." She plopped herself down opposite him, rested her head in her hands. Then, sighing, she roused herself, peered to see the paper he held. "You derived this? During the trance-state?"

She frowned, her lips moving. "*The* — something — *in the maze.* That second word." For a time she was silent, and then she said, "Oh. I see what it says."

"You do?" He lowered the sheet of paper, and for some reason felt cold.

"The second word is *man,*" Lilo said. "*The man in the maze;* that's what you wrote during the trance. I wonder what it means."

XXIX

Later, subsurface, Lars sat in one of the great, silent meeting-chambers of the inner citadel, the *kremlin* of Fortress Washington, D.C., the capital city of all Wes-bloc with its two billion. (Less than that now, a substantial portion. But as to this Lars averted his thoughts; he kept his attention elsewhere.)

He sat with the unwrapped 'stant mail parcel from Henry Morris before him. A note from Henry informed him that this object was the sole maze-toy produced by Klug

Enterprises and made up by Lanferman Associates in the last six years.

This small, square item was it.

The printed brochure from Vincent Klug's factory was included. Lars had read it several times.

The maze was simple enough in itself, but it represented for its trapped inhabitant an impenetrable barrier. Because the maze was inevitably one jump ahead of its victim. The inhabitant could not win, no matter how fast or how cleverly or how inexhaustibly he scampered, twisted, retreated, tried again, sought the one right (didn't there have to be a one right?) combination. He could never escape. He could never find freedom. Because the maze, ten-year-battery powered, constantly shifted.

Some toy, Lars thought. Some idea of what constitutes "fun."

But this was nothing; this did not explain what he had here on the table before him. For this was a psychologically sophisticated toy, as the brochure put it. The novelty angle, the inspired ingredient by which the toy-maker Vincent Klug expected to pilot this item into a sales success, was the empathic factor.

Pete Freid, seated beside Lars, said, "Hell, I put it together. And I don't see anything about it that would make it a weapon of war. And neither did Vince Klug, because I discussed it with him, before I made this prototype and after. I know darn well he never intended that."

"You're absolutely correct," Lars said. Because why at this period in his life-track should the toy-maker Vincent Klug have any interest in weapons of war? But the later Vincent Klug —

He knew better.

"What kind of a person is Klug?" Lars asked Pete.

Pete gestured. "Hell, you've seen him. Looks like if you stuck a pin in him he'd pop and all the air would come out."

"I don't mean his physical looks," Lars said. "I mean what's he like inside? Down deep, the machinery that makes him run."

"Strange, you putting it like that."

"Why?" Lars felt sudden uneasiness.

"Well, it reminds me of one of the projects he brought to me long time ago. Years ago. Something he was eternally puttering around with but finally gave up. Which I was glad of."

"Androids," Lars said.

"How'd you know?"

"What was he going to do with the androids?"

Pete scratched his head, scowling. "I could never quite figure it out. But I didn't like it. I told him no, every time."

"You mean," Lars said, "he wanted you to build them? He wanted Lanferman Associates to utilize its expertise in that line, on his android project, but for some strange reason he never — "

"He was vague. Anyhow he wanted them really human-like. And I always had that uneasy feeling about it." Pete was still scowling.

"Okay, I admit there's layers and layers to Klug. I've worked with him but I don't pretend to understand him, any more than I ever figured out what he had in mind with his android project. Anyhow, he did abandon it and turned to — " he gestured toward the maze — "this."

Well, Lars thought, so that explains Lilo's android sketches.

General Nitz, who had been sitting silently across from them, said, "The person who operates this maze — if I understand this right, he assumes an emotional identity with that thing." He pointed at the tiny inhabitant, now inert because the switch was off. "That creature, there. What is that creature?" He peered intently, revealing for the first time to Lars that he was slightly nearsighted. "Looks like a bear. Or a Venusian wub; you know, those roly-poly animals that the kids love . . . there's a phenotypal enclave of them here at the Washington zoo. God, the kids never get tired of watching that colony of wubs."

Lars said, "That's because the Venusian wub possesses a limited telepathic faculty."

"That's so," General Nitz agreed. "As does the Terran porpoise, as they finally found out; it's not unique. Incidentally, that was why people keep feeling the porpoise was intelligent. Without knowing why. It was — "

Lars moved the switch to on, and in the maze the roly-poly wub-like, bear-like, furry, loveable creature began to move. "Look at it go," Lars said, half to himself.

Pete chuckled as the roly-poly creature bounced rubber-ballwise from a barrier which unexpectedly interceded itself in its path.

"Funny," Lars said.

"What's the matter?" Pete asked him, puzzled at his tone, realizing that something was wrong.

Lars said, "Hell, it's amusing. Look at it struggle to get out. Now look at this." Studying the brochure, he ran his hands along both sides of the frame of the maze until he located the studs. "The control on the left increases the difficulty of the maze. And the perplexity, therefore, of its victim. The control on the right decreases — "

"I *made* it," Pete pointed out. "I know that."

"Lars," General Nitz said, "you're a sensitive man. That's why we call you 'difficult.' And that's what made you a weapons fashion medium."

"A prima donna," Lars said. He did not take his eyes from the wub-like, bear-like, roly-poly victim within the altering barriers that constituted the utterly defeating configurations of the maze.

Lars said, "Pete. Isn't there a telepathic element built into this toy? With the effect of hooking the operator?"

"Yeah, to a certain extent. It's a low-output circuit. All it creates is a mild sense of identification between the child who's operating the maze with the creature trapped." To General Nitz he explained,

"See, the psychiatric theory is that this toy teaches the child to care about other living organisms. It fosters the empathic tendencies inherent in him; he wants to help the creature, and that stud on the right permits him to do so."

"However," Lars said, "there is the other stud. On the left."

"Well," Pete said condescendingly, "that's technically necessary because if you just had a decrease-factor the creature would get right out. The game would be over."

"So toward the end," Lars said, "to keep the game going, you stop pressing the decrease stud and activate the increase, and the maze-circuitry responds by stepping up the difficulty which the trapped creature faces. So, instead of fostering sympathetic tendencies in the child, it could foster sadistic tendencies."

"No!" Pete said instantly.

"Why not?" Lars said.

"Because of the telepathic empathy-circuit. Don't you get it, you nut? The kid running the maze *identifies* with the victim. He's it. It's him in the maze; that's what empathy means — you know that. Hell, the kid would no more make it tough for that little critter than he'd — stab himself."

"I wonder," Lars said, "what would happen if the telepathic empathy-circuit's output were stepped up."

Pete said, "The kid would be hooked deeper. The distinction, on an emotional level, between himself and the victim there in that maze — " He paused, licked his lip.

"And suppose," Lars continued, "the controls were also altered, so that both studs tended, but in a diffuse manner, only to augment the difficulty which the maze-victim is experiencing. Could that be done, technically-speaking?"

After a while Pete said, "Sure."

"And run off autofac-wise? In high-production quantity?"

"Why not?"

Lars said, "This roly-poly Venusian wub creature. It's non-Terran, an organism alien to us. And yet because of the telepathic faculty it possesses it creates an empathic relationship with us. Would such a circuit, as represented here in this toy, tend to affect *any* highly-evolved sentient life form the same way?"

"It's possible." Pete nodded. "Why not? Any life form that was intelligent enough to receive the emanations would be affected."

"Even a chitinous semi-reflex machine life form?" Lars said. "Evolved from exoskeleton pregenitors? Not mammals? Not warm-blooded?"

Pete stared at General Nitz. "He wants to step up the output," he said excitedly, stammering in anger, "and rewire the manual controls so that the operator is hooked deep enough not to break away when he wants to, and can't ease the severity of the barriers inhibiting the goddam maze-victim — and the result — "

"It could induce," Lars said, "a rapid, thorough mental disintegration."

"And you want Lanferman Associates to reconstruct this thing and run it off in quantity on our autofac system. And distribute it to them." Pete jerked his thumb upward. "Okay. But we can't distribute it to the aliens from Sirius or whatever they are; that's beyond our control."

General Nitz said, "But *we* can. There is one way. Quantities of these can be available in population centers that the aliens acquire. So when they get us they get these, too."

"Yeah," Pete agreed.

General Nitz said to him, "Get on it! Get building."

Glumly, Pete stared at the floor, his jaw working. "It's reaching them where they have a decent streak. This—" he gestured furiously at the maze-toy on the table—"wouldn't work on them otherwise. Whoever dreamed this up *is getting at living creatures through their good side.* And that's what I don't like."

Reading the brochure which had accompanied the maze-toy, General Nitz said, "'This toy is psychologically sophisticated, in that it teaches the child to love and respect, to cherish, other living creatures, not for what they can do for him, but for themselves.'" He folded up the brochure, tossed it back to Lars, asked Pete, "by when?"

"Twelve, thirteen days."

"Make it eight."

"Okay. Eight." Pete reflected, licked his parched lower lip, swallowed and said, "It's like booby-trapping a crucifix."

"Cheers," Lars said. And, manipulating the two studs, one on either side of the maze, he confronted the appealing, roly-poly wub-like victim with a declining difficulty. He made it easier and easier until it seemed the victim was about to reach the exit.

And then, at that moment, Lars touched the stud on the left. The circuitry of the maze inaudibly shifted—and a last and totally unexpected barrier dropped in the victim's path, halting him just as he perceived freedom.

Lars, the operator, linked by the weak telepathic signal emanating from the toy, felt the suffering—not acutely, but enough to make him wish he had not touched the left-handed stud. Too late now, though; the victim of the maze was once again openly entangled.

No doubt about it, Lars realized. This does, as the brochure says, teach sympathy and kindness.

But now, he thought, it is *our* turn to work on it. We cogs, we who are the rulers of this society; we who hold literally in our hands the responsibility of protecting our race. Four billion human beings who are looking to us. And—we do not manufacture toys.

XXX

After the alien slavers from Sirius had withdrawn their satellites—at the end there had been eight satellites orbiting the sky of earth—the life of Lars Powderdry began to sink back into normalcy.

He felt glad.

But very tired, he realized one morning as he woke slowly up in his bed in his New York apartment, and saw beside him the tumble of dark hair which was Lilo Topchev's. Although he was pleased — he liked her, loved her, was happy in a life commingled with hers — he remembered Maren.

And then he was not so pleased.

Sliding from bed he walked from the bedroom and into the kitchen. He poured himself a cup of the perpetually hot and fresh coffee maintained by one small plowshared gadget wired onto the otherwise ordinary stove.

Seated at the table, alone, he drank the coffee and gazed out the window at the high-rise conapt buildings to the north.

It would be interesting, he mused, to know what Maren would have said about our weapon in the Big War, the way in which we caused them to lay off. We made ourselves *un*valuable. Presumably the chitinous citizens of Sirius' planets are still slavers, still posting satellites in other peoples' skies.

But not here.

And UN-W Natsec, plus the cogs of Peep-East in all *their* finery, were still considering the utility of introducing The Weapon into the Sirius system itself...

I think, he thought, Maren would have been amused.

Sleepily, blinking in perplexity, Lilo, in her pink nightgown, appeared at the kitchen door. "No coffee for me?"

"Sure," he said, rising to get a cup and saucer for her. "Do you know what the English word 'to care' comes from?" he said, as he poured her coffee for her from the obedient gadget wired to the stove.

"No." She seated herself at the table, looked gravely at the ashtray with its moribund remains of discarded, yesterday's cigars and winced.

"The Latin word *caritas*. Which means love or esteem."

"Well."

"St. Jerome," he said, "used it as a translation of the Greek word *agape* which means even more."

Lilo drank her coffee, silently.

"*Agape*," Lars said, standing at the window and looking out at the conapts of New York, "means reverence for life; something on that order. There's no English word. But we still possess the quality."

"Hmm."

"And," he said, "so did the aliens. And that was the handle by which we grabbed and destroyed them."

"Fix an egg."

"Okay." He punched buttons on the stove.

"Can an egg," Lilo said pausing in her coffee-drinking, "think?"

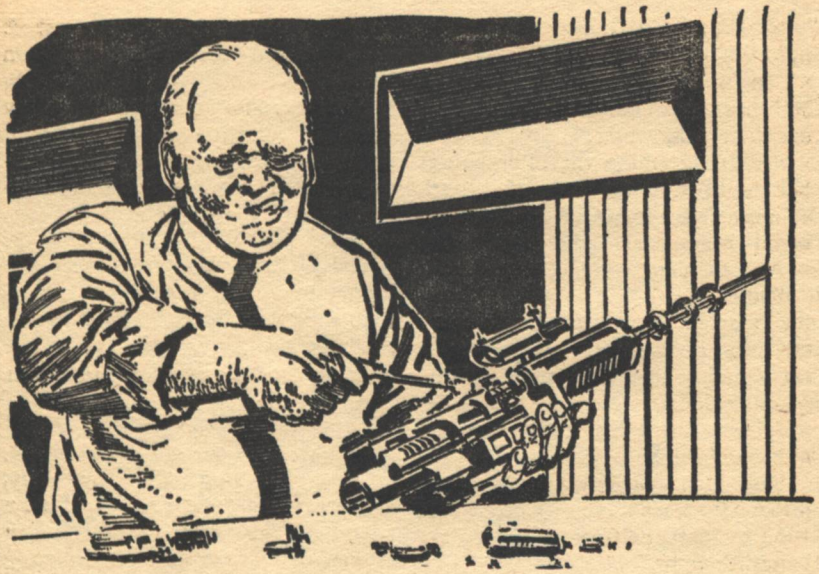
"No."

"Can it feel what you said? *Agape*?"

"Of course not."

"Then," Lilo said, as she accepted the warm, steaming, sunny-side-up egg from the stove, plate included, "if we're invaded by sentient eggs we'll lose."

"Damn you," he said.



"But you love me. I mean, you don't mind; in the sense that I can be what I am and you don't approve but you let me anyhow. Bacon?"

He punched more buttons, for her bacon and for his own toast, applesauce, tomato juice, jam, hot cereal.

"So," Lilo decided, as the stove gave forth its steady procession of food as instructed, "you don't feel *agape* for me. If, like you said, *agape* means *caritas* and *caritas* means to care. You wouldn't care, for instance, if I — " She considered. "Suppose," she said, "I decided to go back to Peep-East, instead of running your Paris branch, as you want me to. As you keep urging me to." She added, thoughtfully, "So I'd even more fully replace her."

"That's not why I want you to head the Paris branch."

"Well . . . " She ate, drank, pondered at length. "Perhaps not, but just now, when I came in here, you were looking out the window and thinking. What if she was still alive. Right?"

He nodded.

"I hope to God," Lilo said, "that you don't blame me for her doing that."

"I don't blame you," he said, his mouth full of hot cereal. "I just don't understand where the past goes when it goes. What happened to Maren Faine? I don't mean what happened that day on the up-ramp when she killed herself with that — " he eradicated a few words which came, savagely, to mind —

"that Beretta. I mean. Where is she? Where's she gone?"

"You're not completely awake this morning. Did you wash your face with cold water?"

"I did everything that I'm going to do. I just don't understand it; one day there was a Maren Faine and then there wasn't. And I was in Seattle, walking along. I never saw it happen."

Lilo said, "Part of you saw it. But even if you didn't see it, the fact remains that now there is no Maren Faine."

He put down his cereal spoon. "What do I care? I love you! And I thank God — I find it incredible — that it wasn't you who were killed by that pelfrag cartridge, as I first thought."

"If she had lived, could you have had us both?"

"Sure!"

"No. Impossible. How?"

Lars said, "I would have worked it somehow."

"Her by day, me at night? Or her on Mondays, Wednesdays, Fridays, me on — "

"The human mind," he said, "couldn't possibly be defeated by that situation, if it had the chance. A reasonable chance, without that Beretta and what it did. You know something that old Vincent Klug showed me, when he came back as that old war veteran, so-called, that Ricardo Hastings? It's impossible to go back." He nodded.

"But not yet," Lilo said. "Fifty years from now, maybe."

"I don't care," he said. "I just want to see her."

"And then what?" Lilo asked.

"Then I'd return to my own time."

"And you're going to idle away your life, for fifty years or however long it is, waiting for them to invent that Time Warpage Generator."

"I've had KACH look into it. Somebody's undoubtedly already doing basic research on it. Now that they know it exists. It won't be long."

"Why," Lilo said, "don't you join her?"

At that he glanced up, startled. "I am not kidding," Lilo said. "Don't wait fifty years — "

"More like forty, I calculate."

"That's too long. Good God, you'll be over seventy years old!"

"Okay," he admitted.

"My drug," Lilo said quietly. "You remember; it's lethal to your brain metabolism or some damn thing— anyhow three tablets of it and your vagus nerve would cease and you'd die."

After a pause he said, "That's very true."

"I'm not trying to be cruel. Or vengeful. But — I think it would be smarter, saner, the better choice, to do that, take three tablets of Formophane than to wait forty to fifty years, drag out a life that means absolutely nothing — "

"Let me think it over. Give me a couple of days."

"You see," Lilo said, "not only would you be joining her immediately, without waiting more years than you've lived already,

but — you'd be solving your problems the way she solved hers. So you'd have that bond with her, too." She smiled, grimly. Hatingly.

"I'll give you three tablets of Formophane right now," she said, and disappeared into the other room.

He sat at the kitchen table, staring down at his bowl of cooling cereal and then all at once she was back. Holding out something to him.

He reached up, took the tablets from her, dropped them into the shirt-pocket of his pajamas.

"Good," Lilo said. "So that's decided. Now I can go get dressed and ready for the day. I think I'll talk to the Soviet Embassy. What's that man's name? Kerensky?"

"Kaminsky. He's top-dog at the embassy."

"I'll inquire through him if they'll take me back. They have some idiots they're using in Bulganingrad as mediums, but they're no good — according to KACH."

She paused. "But of course it's not the same as it was. It'll never be like that again."

XXXI

He held the three tablets of Formophane in his hand and considered the tall, cool glass of tomato juice on the table before him. He tried to suppose — as if one really could — how it would be, swallowing the tablets here and now, as she — the girl in the bedroom, whatever her name was — dressed for the day ahead.

While she dressed, he died. That simple. That simple, anyhow, to the easy scene-fabrication faculty available within the psychopathically-glib human mind.

Lilo paused at the bedroom door, wearing a gray wool skirt and slip, barefoot. She said, "If you do it I won't grieve and hang around forty years waiting for that Time Warpage Generator so I can go back to when you were alive. I want you to be certain of that, Lars, before you do it."

"Okay." He hadn't expected her to. So it made no difference.

Lilo, remaining there at the door, watching him, said, "Or maybe I will."

Her tone, it seemed to him, was not contrived. She was genuinely considering it, how she would feel, what it would be like. "I don't know. I guess it would depend on whether Peep-East takes me back. And if so, what my life there would be like. If it was like the way they treated me before — " She pondered. "I couldn't stand that and I'd begin to remember how it was here with you. So maybe I would; yes, I think I would start grieving for you, the way you are for her." She looked up at him, alertly. "Consider this aspect before you take those Formophane tablets."

He nodded in agreement; it had to be considered.

"I really have been happy here," Lilo said. "It's been nothing like life was at Bulganingrad. That awful 'classy' apartment I had — you never saw it, but it was ugly. Peep-East is a tasteless world."

She came padding out of the bedroom toward him. "I tell you what. I've changed my mind. If you still want me to I will take charge of the Paris office."

"Meaning what?"

"Meaning," Lilo said levelly, "that I will do exactly what I said I wouldn't do. I'll replace her. Not for your sake but for mine, so I don't wind up in an apartment in Bulganingrad again." She hesitated and then said, "So I don't wind up the way you are, sitting there in your pajamas with those tablets in your hand, trying to decide whether you want to wait out the forty years or take care of it right now. You see?"

"I see."

"Self-preservation."

"Yes." He nodded.

"I have that instinct. Don't you? Where is it in you?"

He said, "Gone."

"Gone even if I head the Paris branch?"

Reaching for the glass of tomato juice with one hand he put the three tablets in his mouth with the other, lifted the glass . . . he shut his eyes, felt the cool, wet rim of the glass against his lips and thought then of the hard, cool can of beer that Lilo Topchev had so long ago presented him that first moment together in Fairfax when they met. When, he thought, she tried to kill me.

"Wait," Lilo said.

He opened his eyes, holding the three tablets, undissolved because they were hard-coated for easier swallowing, on his tongue.

"I have," Lilo said, "a gadget plowshared from item — well, it doesn't matter much which. You've used it before. In fact I found it here in the apartment. Ol' Orville."

"Sure," he said, mumbling because of the tablets. "I know, I remember Ol' Orville. How is Ol' Orville, these days?"

Lilo said, "Ask his advice before you do it."

That seemed reasonable. So carefully he spat out the undissolved tablets and restored them, stickily, to his pajama pocket, sat waiting while Lilo went and got the intricate electronic quondam guidance-system, now turned household amusement and crypto-deity, Ol' Orville. The featureless little head that, and Lilo did not know this, he had last consulted in company with Maren Faine.

She set Ol' Orville before him on the breakfast table.

"Ol' Orville," Lars said, "how in hell are you today?" You who were once weapon-design-sketch number 202, he thought. First called to my attention, in fact, by Maren. You and your fourteen-thousand — or is it sixteen or eighteen? — minned parts, you poor plowshared freak. Castrated, like me, by the system.

"I am fine," Ol' Orville replied telepathically.

"Are you the same, the very same Ol' Orville," Lars said, "that Maren Faine — "

"The same, Mr. Lars."

"Are you going to quote Richard Wagner in the original German

again to me?" Lars said. "Because if you are, this time it won't be enough."

"That is right," Ol' Orville's thoughts croaked in his brain. "I recognize that. Mr. Lars, do you care to ask me a distinct question?"

"You understand the situation that faces me?"

"Yes."

Lars said, "Tell me what to do."

There was a long pause at the enormous number of superlatively miniaturized components of the original guidance-system of item 202 clacked away. He waited.

"Do you want," Ol' Orville asked him presently, "the elaborated, fully documented answer with all the citations included, the original source-material in Attic Greek, Middle-Low-High German and Latin of the — "

"No," Lars said. "Boil it down."

"One sentence?"

"Or less. If possible."

Ol' Orville answered, "Take this girl, Lilo Topchev, into the bedroom and have sexual intercourse with her."

"Instead of — "

"Instead of poisoning yourself," Ol' Orville said. "And also instead of wasting forty years waiting on something which you had already decided to abandon — *and you have ignored this, Mr. Lars* — when you went to Fairfax to see Miss Topchev the first time. You had *already* stopped loving Maren Faine."

There was silence.

"Is that true, Lars?" Lilo asked.

He nodded.

Lilo said, "Ol' Orville is smart."

"Yes," he agreed. He rose to his feet, pushed his chair back, walked toward her.

"You're going to follow its advice?" Lilo said. "But I'm already half-dressed; we have to be at work in forty-five minutes. Both of us. There isn't time."

She laughed happily, however, with immense relief.

"Oh yes," Lars said. And picked her up in his arms, lugged her toward the bedroom. "There's just barely enough time." As he kicked the bedroom door shut after them he said, "And just barely enough is enough."

XXXII

Far below Earth's surface in drab, low-rent conapt 2A in the least-desirable building of the wide ring of substandard housing surrounding Festung Washington, D.C., Surley G. Febbs stood at one end of a rickety table at which sat five didascalic individuals.

Five motley, assorted persons, plus himself. But they had, however, been certified by Univox-50R, the official government computer, as able to represent the authentic, total trend of Wes-bloc buying-habits.

This secret meeting of these six new concomodies was so illegal as to beggar description.

Rapping on the table, Febbs said shrilly, "The meeting will now come to order."

He glanced up and down in a severe fashion, showing them who was in charge. It was he, after all,

who had brought them, in the most circumspect manner possible, with every security precaution that a genuinely uniquely clever human mind (his) could devise, together in this one dingy room.

Everyone was attentive — but nervous, because God knew the FBI or the CIA or KACH might burst in the door any moment despite the inspired security precautions of their leader, Surley G Febbs.

"As you know," Febbs said, his arms folded, feet planted wide apart so as to convincingly demonstrate that he was solidly planted here, was not about to be swept away by the hired creeps of any institutional police force, "it is illegal for we six concomodies even to know one another's names. Hence, we shall begin this confabulation by reciting our names." He pointed to the woman seated closest to him.

Squeakily, she said, "Martha Raines."

Febbs pointed to the next person in turn.

"Jason Gill."

"Harry Markison."

"Doreen Stapleton."

"Ed L. Jones." The last man, at the far end, spoke firmly. And that was that. In defiance of the law of Wes-bloc and its police agencies they knew one another by name.

Ironically, since the Emergency had passed, the UN-W Natsec Board now "allowed" them to enter the *kremlin* and officially participate in its meetings. And that's because individually, Febbs realized as he looked around the rickety table, each of us possesses nothing. *Is* nothing. And the Board knows it. But all six of us together —

Aloud he said commandingly, "Okay; let's begin. Every one of you when you walked through this door brought your component of that new weapon, that item 401 they call the Molecular Restriction-Beam Phase-Inverter. Right? I saw a paper bag or neutral, ordinary-looking plastic carton under everyone's arm. Correct?"

Each of the five concomodies facing him mumbled a *yes, Mr. Febbs* or nodded or both. In fact each had placed his package on the table, in plain sight, as a show of courage.

Febbs instructed in a sharp, emotion-laden voice, "Open them up. Let's see the contents!"

With shaking fingers and great trepidation, the paper bags and cartons were opened.

On the table rested the six components. When assembled (assuming that someone in this room could accomplish this) they formed the dread new Molecular Restriction-Beam Phase-Inverter.

Tapes of the tearwep in action at Lanferman Associates' huge subsurface proving-levels indicated that no defense against it existed. And the entire UN-W Natsec Board, including the six at-last-allowed-in concomodies, had solemnly viewed those tapes.

"Our task," Febbs declared, "of rebuilding these components back to form the original tearwep

falls naturally onto myself. I personally shall take full responsibility. As you all know, the next formal meeting of the Board is one week from today. So we have less than seven days in which to reassemble the Molecular Restriction-Beam Phase-Inverter, item 401."

Jason Gill piped, "You want us to stick around while you put it back together, Mr. Febbs?"

"You may if you so desire," Febbs said.

Ed Jones said, "Can we offer suggestions? The reason I ask that is, see, my job in real life — I mean before I was a concomody — was standby electrician at G.E. in Detroit. So I know a little about electronics."

"You may offer suggestions," Febbs decided, after some thought. "I will permit it. But you understand our sacred pact. As a political organization we are to allow policy to be decided by our elected leader without bureaucratic hampering type restrictions. Correct?"

Everyone mumbled *correct.*

Febbs was that unhampered, unbureaucratically restricted, elected leader. Of their clandestine political revolutionary-type organization which (after long debate) had titled itself, menacingly, the BOCFDUTCRBASEBFIN, The Benefactors of Constitutional Freedoms Denied Under the Contemporary Rule By a Small Elite By Force If Necessary. Cell One.

Picking up his component and Ed Jones', Febbs seated himself and reached into the bin of brand-new tools which at great cost the organization had provided itself. He brought out a long, slender, tapered, German-made screwdriver with autonomic clockwise or anti-clockwise rotational action (depending on which way you pressed the plastic handle) and began his work.

Reverently, the other five members of the organization watched.

An hour later Surley G. Febbs grunted sweatily, wiping his forehead with his handkerchief as he halted to take a breather, said, "This will take time. It isn't easy. But we're getting there."

Martha Raines said nervously, "I hope a roving, random police monitor doesn't happen to cruise by above-surface and pick up our thoughts."

Politely, Jones pointed and said, "Um, I believe that doodad there fits up against that template. See where those screw-holes are?"

"Conceivably so," Febbs said. "This brings me to something I intended to take up later. But since I'm pausing for a while I might as well say it to you all now." He glanced around at them to be sure he had their individual, undivided attention, and then spoke as authoritatively as possible. Given a man of his ability and knowledge this was very authoritative. "I want all of you comprising Cell One clear in your minds as to the exact type of socio-economic, pol-struc of society we shall install in place of the undemo-tyr by the privileged cog elite which now holds power."

"You tell 'em Febbs," Jones said encouragingly.

"Yeah," Jason Gill agreed. "Let's hear once again! I like this part, what happens *after* we run 'em out of office with this item 401."

With superlative calm, Febbs continued, "Everyone on the UN-W Natsec Board will of course be tried as war criminals. We've agreed on that."

"Yeah!"

"It is Article A in our Constitution. But as to the rest of the cogs, especially those Commie bastards in Peep-East that traitor General Nitz is so pally with. Like that Marshal Paponovich or whatever his name is. Well, like I've explained to you in our past secret meetings down here — "

"Right, Febbs!"

" — they're really going to get it. They're the worst. But mainly we have to seize — and I demand absolute obedience on this, because this is tactically crucial — we initially must gain control of the ENTIRE SUBSURFACE INSTALLATIONS OF LANFERMAN ASSOCIATES IN CALIFORNIA, because as we all know, it's from there the new weapons come. Like this 401 they stupidly turned over to us for — ha-ha — 'plowsharing.' I mean, we don't want them to build any *more* of these."

Martha Raines asked timidly, "And what do we do after we, ah, seize Lanferman Associates?"

Febbs said, "Thereupon we then arrest their hired stooge, that Lars Powderdry. And then we compel him to start designing weapons for *us*."

Harry Markison, a middle-aged businessman with a certain amount of commonsense, spoke up. "But the weapon by which we won what they are now calling 'The Big War' with — "

"Get to it, Markison."

"It, uh, wasn't designed by Mr. Lars, Incorporated. Originally it was some sort of maze invented by some non-cog toy-manufacturing outfit, Klug Enterprises. So — don't we have to beware that this Klug fella — "

"Listen," Febbs said quietly. "I'll tell you the real scoop on that. But now I'm busy."

He then picked up a small Swedish watchmaker's screwdriver and resumed the task of reassembling weapon 401. He ignored the other five concomodies. There was no more time for blabbing; work had to be done, if their blitz-swift coup against the cog elite was to be successful. And it would be.

Three hours later, with most of the components (in fact all except one fast, outlandish, goose-neck-squash-like geegaw) assembled ready for all systems go, with Febbs wet with perspiration and the other five concomodies out of their minds or bored or restless, depending on their natures, there sounded — shockingly, making the room suddenly deathly still — a knock at the door.

Laconically, Febbs grunted, "I'll handle this." From the tool bin he lifted a beautifully balanced Swiss chrome-steel hammer and walked slowly across the room, past the

rigid, pale, other five concomodies. He unbolted, unfastened, untied the triple-locked door, opened it a crack, peered out into the gloomy hall.

A spic-and-span-new shiny autonomic 'stant mail delivery robot stood there, waiting.

"Yes?" Febbs inquired.

The 'stant mail robot whirred, "Parcel for Mr. Surley Grant Febbs. Registered. Sign here if you are Mr. Febbs or if not Mr. Febbs then on line two instead." It presented a form, pen and flat surface of itself on which to scribble.

Laying down the hammer Febbs said, turning briefly to the other five concomodies, "It's okay. More tools we ordered, probably." He signed the form, and the autonomic 'stant mail delivery robot handed him a brown-paper-wrapped package.

Febbs shut the door, stood shakily holding the package, then shrugged in courageous defiance. He walked unconcernedly back to where he had been sitting.

"You've got guts, Febbs," Ed Jones declared, expressing the sentiments of the group. "I was sure it was an *Einsatzgruppe* from KACH."

"In my opinion," Harry Markison said, with overwhelming relief, "it looked to be the goddam *Soviet* secret police, the KVB. I've got a brother-in-law in Estonia—"

Febbs said, "They're just not smart enough to pinpoint our meetings. History will deal them out, evolution-wise, to make way for superior forms."

"Yeah," Jones agreed. "Like look how long it took them to come up with a weapon to defeat the alien slavers from Sirius with."

"Open the package," Markison said.

"In time," Febbs said. He fitted the squash-like geegaw in place and mopped his drenched, steaming forehead.

"When do we act, Febbs?" Gill asked. They all sat eyes fixed on Febbs, waiting for his decision. Aware of this, he felt relaxed. The pressure was off.

"I've been thinking," Febbs said, in his most Febbs-ish manner. It had been deep thinking, indeed. Reaching out, he picked up the weapon, tearwep item 401, held it cradled, his hand on the trigger.

"I required the five of you," he said, "because I had to obtain all six components that constitute this weapon. However—"

Pressing the trigger he demolecularized, by means of the wide-angle setting of the phase-inversion beam emanating from the muzzle of the weapon, his fellow five concomodies at their seats here and there around the rickety table.

It happened soundlessly. Instantly. As he had anticipated. The vid and aud tapes from Lanferman Associates, shown to the Board, had indicated these useful aspects of item 401's action.

There was now left only Surley G. Febbs. And armed with Earth's most modern, fashionable, advanced, soundless, instant weapon. Against which no defense was yet known . . . even to Lars Powderdry,

whose business it was to conjure up such things.

And you, Mr. Lars, Febbs said to himself, *are next.*

He laid the weapon down carefully and, with calm hands, lit another cigarette. He regretted that there was no longer anyone in the room to witness his rational, precise movements — anyone but himself, anyhow.

And then, because obviously now he had time to spare, Febbs reached out, picked up the brown-paper-wrapped package which the autonomic 'stant mail delivery robot had brought and set it directly before him. He unwrapped it, slowly, leisurely, meditating in his infinitely subtle mind on the future which lay so close ahead.

He was frankly puzzled by what he found within the wrappings. It was not additional tools. It was nothing he, or the now-nonexistent organization FUCFDUTCRBASEBFIN, Cell One, had ordered.

It was in fact a toy.

Specifically, he discovered as he lifted the lid of the brightly colored, amusing box, it was a product of the marginal toy-maker, Klug Enterprises. A game of some kind.

A child's maze.

He felt, immediately, on an instinctive level — because after all he was no ordinary man — acute, accurate, intuitive dismay. But not sufficiently acute, accurate or intuitive enough to cause him to hurl the box aside. The impulse was there. But he did not act on it — because he was curious.

Already he had seen that this was no common maze. It intrigued his uniquely subtle, agile mind. It held him gripped so that he continued to peer at the maze, then at the instructions on the inside lid of the box.

"You are the world's foremost concomody," a telepathic voice sounded in his mind, emanating from the maze itself. "You are Surley Grant Febbs. Right?"

"Right," said Febbs.

"It is you," the telepathic voice continued, "who make the primary decision as to the worthwhileness of each consumer commodity newly introduced on the market. Right?"

Febbs, feeling a cold bite of caution over his heart, nevertheless nodded. "Yes, that's so. They have to come to me first. That's my job on the Board — I'm the current concomody A. So they give me the important components."

The telepathic voice said, "Vincent Klug of Klug Enterprises, a small firm, would therefore, Mr. Febbs, like you to examine this new game, The Man In The Maze. Please determine whether in your expert opinion it is ready for marketing. A form is provided on which you may transcribe your reactions."

Febbs said haltingly, "You mean you want me to *play* with this?"

"That is exactly what we want. Please press the red button on the right side of the maze."

Febbs pressed the red button.

In the maze a tiny creature gave a yelp of horror.

Febbs jumped, startled. The tiny

creature was roly-poly and adorable-looking. Somehow it was appealing even to him — and he normally detested animals, not to mention people. It began to hurry frantically through the maze, seeking the way out.

The placid telepathic voice continued. "You will notice that this product, made for the domestic market and soon to be run off in quantity if it successfully passes such initials tests as you are providing it, bears a striking resemblance to the famous Empathic-Telepath Pseudo-nonhomo Ludens Maze developed by Klug Enterprises and utilized recently as a weapon of war. Right?"

"Y-yes." But his attention was still fixed on the travails of the tiny roly-poly creature. It was having a terrible time, becoming more confounded and more embroiled in the tortured ways and byways of the maze each second.

The harder it tried the deeper it became emeshed. And that's not right, Febbs thought — or rather felt. He *experienced* its torment, and that torment was appalling. Something had to be done about it, and now.

"Hey," he said feebly. "How do I get this animal, whatever it is, out?"

The telepathic voice informed him, "On the lefthand side of the maze you will find a gaily-colored blue stud. Depress that stud, Mr. Febbs."

Eagerly he pressed it.

He felt at once, or imagined he felt (which was it? The distinction seemed to have evaporated) a diminution of the terror surging within the trapped animal.

But almost at once that terror returned — and this time with renewed, even increased, severity.

"You would like," the telepathic voice said, "to get the man in the maze out. Would you not, Mr. Febbs? Be honest. Let's not kid ourselves. Is this not right?"

"Right," Febbs whispered, nodding. "But it's not a man, is it? I mean, it's just a bug or an animal or something. What *is* it?"

He needed to know. The answer was urgent to him. Maybe I can lift it out, he thought. Or yell to it. Somehow communicate with it so it sees how to get away and that I'm up here, trying for its sake.

"Hey!" he said to the scampering creature as it rebounded from one barrier to the next as the structure, the pattern, of the maze altered and realtered, always outwitting it. "Who are you? What are you? Do you have a name?"

"I have a name," the trapped creature thought back frantically to him, linking itself, its travails, with him. Sharing its plight with Surley G. Febbs desperately and gladly.

He felt himself emeshed now, not looking *down* at the maze from above but — seeing the barriers ahead of him, looming. He was —

He was the creature in the maze.

"My name," he squealed, appealing to the enormous, not fully-understood entity above him whose countenance, whose presence, he had sensed for a moment . . . but now who seemed to be gone. He

could no longer locate it. He was alone again as he faced the shifting walls on every side.

"My name," he squealed, "is Surley G. Febbs and I want to get out! Can you hear me, whoever you are up there? Can you *do* something for me?"

There was no answer. There was nothing, no one, above.

He scampered on alone.

XXXIII

At five-thirty that morning, still at his work-desk within his own conapt, Don Packard, the chief KACH-man from Division Seventeen of New York City, dictated with microphone in hand the memoranda which would comprise the documents served during the now beginning day of ordinary, normal men and women.

"With regard to the conspiracy composed of the six recently-added concomodies to the UN-W Natsec Board," he declared into the mike, and paused briefly for a sip of coffee. "That conspiratorial organization no longer exists. Its five members have been barbarously exterminated by the leader, S.G. Febbs. Febbs himself is now in a state of permanently induced psychotic withdrawal."

Although this was the information which the client, General George Nitz wanted, it did not seem sufficient. So Don Packard amplified.

"At eleven o'clock a.m. yesterday, May 12, 2004, as revealed by KACH's several monitoring devices, the conspirators met in subsurface conapt 2A of Festung Washington, D.C. building 507969-584. This was their fourth meeting but the first and only time each of the concomodies brought with him /her the component from weapon item 401.

"I will not list the names of the six conspirators inasmuch as their names are already known to the Board.

"Reassembly of weapon item 401, which is the first non-*b* weapon of the new variant line, was begun by S. G. Febbs utilizing essential precision tools purchased at enormous cost.

"While reassembling the weapon item 401 S.G. Febbs outlined to his fellow conspirators the political and economic basis of the radical new system which he proposed to erect in place of the old, including the assassinations of well-known public figures."

Pausing once more, Don Packard sipped more coffee. Then resumed his dictation, which, as he spoke it, was being autonomically transcribed into written document form by the apparatus before him.

"At four p.m. an ordinary 'stant mail robot delivered a plain-wrapped registered parcel to apartment 2A of conapt building 507969584. S.G. Febbs accepted the parcel and without opening it resumed his reassembling of the weapon.

"When the reassembly was completed, S.G. Febbs, as I have already stated (supra), exterminated these five co-conspirators, leaving only himself in possession of a now-

proven, working model of weapon 401, the sole working model known to exist."

Again Don Packard paused for more coffee. He was tired, but his job was almost over. Then he would carry a copy of the document now being dictated to General Nitz. It was all routine.

Packard wound up: "S.G. Febbs fell victim to the Empathic-Telepathic whatever-it's-called Maze and shortly succumbed — in fact in record time, beating the smallest period established by voluntary prisoners from the Wes-bloc federal pen on Callisto.

"S. G. Febbs," he declared into the mike in conclusion, "is now at Wallingford Clinic, where he will remain indefinitely. However —"

At this point he broke off dictation and stared thoughtfully at his coffee cup. Since General Nitz was his client in this matter, Don Packard concluded his report with a footnote of his observations.

"It would seem," he began thoughtfully, "that since, due to the recent Emergency, Vincent Klug now has continual, legal access to the uniquely enormous autofac network of Lanferman Associates of California, and can run off in any quantity he wishes these damn mazes altered from the original weapon which was so effective against the aliens from Sirius, it might well be expedient to serve on Vincent Klug the instrument which has aided the Board so greatly in the past: an honorary but absolutely legally-binding commission in the Wes-bloc armed forces. Thus, should the need ever arrive — "

He paused once more, but this time not voluntarily.

The doorbell of his high-rent, high-rise, unlisted conapt had incredibly rung, and at not quite six a.m. Weird hour.

Well, it undoubtedly was a messenger from the Board, anxious to receive his report on the conspiracy of the six concomodies.

It was not, however, a military aide who faced him. In the hall stood a spic-and-span-new shiny 'stant mail delivery robot, with an ordinary-wrapped brown-paper parcel under its arm.

"Mr. Don Packard? I have a registered parcel for you."

What the hell is it now? Packard asked himself irritably. Just when, at last, he was about to knock off for the night and get some rest.

"Sign here," the 'stant mail robot said, "if you are Mr. Packard or if not Mr. Packard then on line two instead." It presented a form, pen and flat surface of itself on which to jot.

Bleary-eyed, witless from a long night of ceaseless heavy work-load in which a good deal had happened, Don Packard of the private police agency KACH signed for and accepted the parcel. More monitoring or recording equipment, I suppose, he said to himself. They're always "improving" these irritating technological contraptions which we have to lug around.

He carried the parcel grumpily back to his desk.

And opened it. END

The Sleuth in Science Fiction

by SAM MOSKOWITZ

Sam Moskowitz traces the history of detectives in science fiction —with new clues on every page!

There has always been a great affinity between the more involved followers of the detective story and the lovers of science fiction, possibly because a single writer, Edgar Allan Poe, is literary father to both. Science fiction was the older child, sired as *Hans Phaal —A Tale* in the May, 1835 issue of *Southern Literary Messenger*. A virtual documentary, this story told in extraordinarily tight focus the hour-by-hour scientific problems of getting a space vessel to the moon. It was this single story that provided the divine inspiration for Jules Verne and turned him into a science-fiction writer. Six years later, *The Murders in the Rue Morgue*, appearing in *Graham's Lady's and Gentleman's Magazine* for April, 1841, popularized the use of deduction and analysis by a crime expert to solve a "murder"; in this instance accomplished by an orang-utang. Not only the literary method, but the brilliant C. August Dupin and his anonymous narrator were acknowledged by A. Conan Doyle as providing the pattern that was to result in the much cherished stories of Sherlock Holmes and Dr. Watson.

Both science fiction and the detective story became distinct literary art forms, each with its coterie of devotees. It was far from uncommon to find authors that wrote both as well as readers that enjoyed them equally, yet certain elements in the two types of stories made a successful amalgamation rare.

Science fiction required only a single basic connection with reality, and the rest of the story could expand into outright fantasy providing the progression maintained a consistent logic. The detective story required that the reader be supplied with all the facts necessary to de-

termine the perpetrator of the crime, and those not provided were implicit in the familiar world. The problem of a writer providing adequate background in the world of the future, a globe light years off, or a technology that was capable of traveling in time, and still give the reader a fair shake at guessing the ending, was monumental.

There was little point in attempting to combine the two disparate categories of fiction, until the unprecedented world acclaim given Doyle's stories of Sherlock Holmes made the hero detective not only popular but increasingly learned and scientific.

M. P. Sheil had early produced Prince Zaleski, a sort of Holmes Gothic with immense erudition; Jacques Futrell's Augustus S.F.X. Van Dusen was so cerebral that he was called "The Thinking Machine"; Joyce Emmerson Muddock's "Dick Donovan" was frequently involved in cases where crimes were complicated by hypnotic and drug syndromes; and Dr. H. Austin Freeman's contribution to Dr. John Thorndyke, was a master of the laboratory and appeared to have an encyclopedic knowledge of minutae that put Sherlock Holmes to shame. Particularly with the advent of the Thorndyke stories it was no longer possible for the reader to anticipate the author, so the hard rule of making the crime story a solvable riddle was broken.

It was only logical progression, once that happened, to hypothosize an improvement of an existing device or the invention of a new one, to mechanically assist the detective or criminologist in his solution of the crime. This technically spilled the detective story over in the realm of science fiction. The authors who took that small but irrevocable step forward, and in doing so set into motion a chain of events that would elevate the detective story to unprecedented popularity in America, have not even been given a footnote in books on the history of the detective story. Their works are, for the most part, little known and where they are known a peculiarity of copyright dating has influenced readers to believe they rode with a trend rather than originated it. Ironically, one of those authors is highly regarded in the science fiction world, for he is the man who plotted and then co-authored with Philip Wylie those interplanetary classics *When Worlds Collide* and *After Worlds Collide* — Edward Balmer! His collaborator was William B. MacHarg.

The editor of *Hampton's Magazine*, upon introducing the first Luther Trant "psychological detective" story, *The Man in Room* by Edwin Balmer and William MacHarg (May, 1909), could scarcely be faulted on perspicacity.

> *"This initial story, one of a series of six,"* (there proved to eventually be 11) he wrote, *"deserves special mention because it tells of a new sort of a detective—the psychological detective. To make a bold statement, this new detective theory*

—

is as important as Poe's deductive theory of 'ratiocination' and may be pursued even further than that brilliant method in the actual practical business of thief catching. It must be borne out in reading these tales that they are not mere dreams of the imagination. Such devices as Luther Trant employs to run down criminals are in use every day in the psychology laboratories of our universities, and could as readily be applied to the world of crime as they now are to the world of scientific experimentation."

In that first story, Luther Trant, a dissatisfied assistant in a psychological laboratory, uses a chronoscope to measure the time lapse in an association word test given to two suspects to solve a suspicious death. The focus of suspicion is kept on the woman in the case, but the true fascination of the story centers on the mechanical device which is convincingly described as "standard in psychological testing laboratories." The technique and the mechanism are characterized as "merely the method of the German doctors—Freud's methods—used by Jung in Zurich to diagnose the causes of adolescent insanity." It was the intent of authors Balmer and MacHarg to employ Freudian theories as substantiation of many of the astonishing results of their "psychological" detective.

Edwin Balmer's father, Thomas Balmer, was then regarded as one of the nation's most outstanding advertising men, and the son's interest in psychology in part derived from the older Balmer's publication of a book on the psychology of advertising. Edwin Balmer was a newspaperman, a consulting editor of *Hampton's Magazine,* and his first book, *Waylaid by Wireless* (1909) had a scientific plot device. His collaboration resulted from William Briggs MacHarg's marriage to his sister Katherine on June 10, 1909. MacHarg was a graduate engineer who for a time wrote short fiction and verse for Chicago newspapers, then entered the employ of a company contracting architectural ironwork. In January, 1909 he left contracting work and teamed up with Balmer on the Luther Trant stories. The literary collaboration between the two men would encompass many successful books that would appear into the early twenties. Balmer was to become editor of *Red Book Magazine* in 1927, a position he held until 1949.

The Luther Trant stories ran monthly throughout the remainder of the year in *Hampton's Magazine,* copiously illustrated, sometimes in two colors. The second story, *The First Watch* (June, 1909), solved a crime through the use of the galvanometer, which measures the moisture on a man's palms under questioning to determine his truthfulness; *The Red Dress* (July, 1909) employed an automograph registering involuntary motions of interrogated suspects; *The Man Higher Up* (Oct., 1909) sees a big corporate crime solved with the aid of a plethysmograph, a device which

measures the increase and decrease of blood in the hands under stress in concert with the pneumograph, recording the reaction of the respiratory system under emotion; *The Eleventh Hour* (Feb., 1910) brings into play the psychometer which causes a light to move off center of a screen when a change in blood pressure or perspiration flow indicates someone is lying; and *The Hammering Man* utilizes a sphygmograph, an automatically penciled record of the human pulse, to solve a mystery.

The first nine Luther Trant stories were issued in hard cover by Small, Maynard and Company, Boston in early 1910, under the title of *The Achievements of Luther Trant. The New York Times,* in a review of the book in its edition of April 23, 1910, said of the stories: "All are to be envied into whose hands these fall for its readers may be sure of some hours of surcease from whatever 'demnition grind' is their lot in life. For its literary quality also (the book) is to be commended."

Beyond that, the stories appeared to have made no general stir in the literary world, except with the editors of *Cosmopolitan,* who took them very seriously. At that time *Hampton's Magazine* was making a circulation drive that would carry it from 13,000 readers in 1907 to 444,000 in 1911. To accomplish this, it patterned its policy and format almost identically after the affluent *Cosmopolitan.* Both magazines featured muck-articles against the "villanous" giant corporations (in fact, the "heavy" in *The Man Higher Up* is an unscrupulous big company executive); both magazines were printed in what has come to be known as "pulp" size, of fine-coated stock, featuring fiction and non-fiction; both ran the works of Jack London, Rex Beach, George Randolph Chester, Gouvernor Morris and Elbert Hubbard, though only *Hampton's* enjoyed the short gems of O'Henry; both were lavishly illustrated throughout in two colors; *Hampton's* ran fantasy (including new fairy tales!) as well as science fiction and *Cosmopolitan* had first serialized in America H. G. Wells' *War of the Worlds, The First Men in the Moon, Food of the Gods* and *In the Days of the Comet.*

When *The Case of Helen Bond,* the very first adventure of Craig Kennedy, a professor of chemistry who became "The Scientific Detective" appeared in the December, 1910 *Cosmopolitan* it was evident that the editors had commissioned its author Arthur B. Reeve to write them as their answer to Luther Trant whose final adventure, *Matter of Mind Reading,* had been published in the October, 1910 *Hampton's Magazine,* only two months earlier.

What was shocking, however, was that the plot and the *device* of the *first* Luther Trant story, *The Man in the Room,* was also used in *The Case of Helen Bond.* This also involved a machine for registering the reaction time of a woman to a word association test. Since Arthur B. Reeve was also a contributor to

Hampton's Magazine, having seen published an article titled *Men and Monkeys—Primates* in its Jan., 1909 issue, only four months before the appearance of the first Luther Trant story, coincidence appeared unlikely.

When the first volume of Craig Kennedy stories titled *The Silent Bullet* was published by Dodd, Mead in 1912, *The Case of Helen Bond* was included second after the title story (except for several hundred words of introductory prologue on "Craig Kennedy's theories"), and the name changed to *The Scientific Cracksmen.* The 12 stories were otherwise published in the precise chronology in which they appeared in *Cosmopolitan.* Most of the other devices used in the Luther Trant stories eventually showed up in the Craig Kennedy stories, but few of them quite so blatantly. A Craig Kennedy story appeared in every issue of *Cosmopolitan* for a number of years.

The Silent Bullet (Jan., 1911), the title story of Reeve's initial book, his second Craig Kennedy story, (announced as *The Mystery of the Silent Bullet*) referred to a murder through the use of a silencer, which is solved by recording the physical pressure on the arms of their chairs by prime suspects under questioning. *The Bacteriological Detective* (Feb., 1911) advances the theory that certain illnesses are reflected in a person's handwriting, and thereby criminals are caught by the use of a sphygmograph, an instrument that records the "force and frequency of the pulsation," as a person writes; *The Deadly Tube* (March, 1911) has Craig Kennedy "bug" a room with a sensitive microphone, with a stenographer taking down the statements of two men participating in a fraudulent lawsuit; *The Seismograph Adventure* (April, 1911) finds the movements of a medium at a seance exposed through the use of an earthquake detector, a seismograph. The quantity and variety of lie detectors in his stories comprise probably the most comprehensive review ever made of the subject.

Kennedy was no stylist, but he was direct, lucid and his science was convincing enough to attain "willing suspension of disbelief". Scientific methods were frequently involved in the *crimes* as well as their solutions. Readers were uncritical. The papers were daily recording scientific miracles. Why not in crime detection, too?

Within two years, as his stories appeared unflaggingly, month after month in *Cosmopolitan,* Arthur B. Reeves' popularity quickly outdistanced that of any detective story writer in the United States. His stories were collected and issued in book form and his books proved best sellers of their type. His stories were syndicated in newspapers across the country. Craig Kennedy was frequently called "the American Sherlock Holmes."

Bandwagon followers quickly appeared, the most interesting Michael White, who created for

Street & Smith's *Top Notch Magazine* in 1911 a chemical criminologist called Proteus Raymond, whose great ambition in life is to be able to drop crime detection and devote himself to scientific research. After solving ingenious crimes in his stories *Eternium X* and *Force Mercurial,* Raymond attempts to disappear from sight by leaving for the West Coast. There he walks into his most fantastic case, described in *The Viper of Portland* (*Top-Notch Magazine,* Feb. 15, 1912), where highly radioactive saturnium rays projected into a zinc-lined cabinet are used to reduce human bodies to vapor, eliminating all evidence.

Arthur B. Reeve inevitably followed the same road as imitator Michael White to more fantastic inventions in his novelization of the silent film serial *Exploits of Elaine* (Harper's, 1915) using a laser-like death ray, and as an associate of U.S. Intelligence in *The War Terror* (Harper's, 1915), a novel, includes among other things: an electromagnetic powderless gun which can fire a noiseless high velocity shell with a very small barrel; invisible ultra-violet light rays for reading messages hundreds of feet away; a radiograph for reading documents in sealed envelopes; and most brilliantly, the chapter "The Artificial Kidney," which describes in extensive scientific detail the device in use today.

Another author involved in detective stories who rose to popularity about the same time as Arthur B. Reeve was Sax Rohmer, (Arthur S. Ward) with *The Insidious Dr. Fu Manchu* (McBride, 1913). This novel was borderline science fiction by virtue of the fact that Fu Manchu's master strategy encompassed conquest and domination of the white world. The hapless Commissioner Nayland Smith and his trusted aid Dr. Petrie can do little more than fight a delaying action against their highly endowed adversary, with his cruel oriental tortures and strange codes. The Fu Manchu stories remain more a series of atmosphere tableaus than true fantasy; yet in this arch fiend and the enigmatic mystery of his beautiful female slave, the Egyptian Karamaneh, Arthur B. Reeve discovered elements which he thought he could incorporate with profit into his Craig Kennedy works.

Long Sin as a Chinese villain compatriot of an arch-criminal known as the Clutching Hand and the infra-red death ray were elements associated with Fu Manchu that were incorporated into *The Exploits of Elaine.* This is a Craig Kennedy novel with action-romance interest which reads like a silent movie script, because that was just what it was and it developed to be the rage of United States and England when made into a movie serial by Pathe in 1914. *Elaine* offered action thrills that would compete with Pauline of *The Perils of Pauline.*

A sequel released April, 1915, *The New Exploits of Elaine* was a "natural", and for a finale Pathe issued August, 1915 the serial *The*

Romance of Elaine (also issued in hand covers (Hearst's International Library Company, 1916), and this time a super-Chinese villain, appropriately named Wu Fang, easily as resourceful and wicked as Fu Manchu links up with Long Sin. Craig Kennedy's wireless-controlled torpedo is stolen by Wu Fang, to be turned over to an enemy nation that will use it to conquer us.

As World War I drew to an end, Arthur B. Reeve was at the zenith of his career. No other detective writer in the United States was even a close runner-up in popularity. In achieving this stature, Reeve had immensely broadened the market for the detective story in this country. There seems to be little question but that his phenomenal sales emboldened Street & Smith to issue *Detective Story Magazine,* the first specialized pulp in history, whose first issue was dated Oct. 5, 1915. They had been publishing the dime novel Nick Carter, but Craig Kennedy's popularity proved that the vogue for that type of character was waning, so they incorporated that old standby into the new magazine. (He was also given the editor's title!)

Arthur B. Reeve was credited then as now with fathering the scientific detective in America, a claim that has not previously been challenged because of an inexplicable copyright notice in the Harper's reprint edition of his first book, *The Silent Bullet* which reads 1910 and lack of knowledge as to in what publication and at what date the Luther Trant stories first appeared. Actually, *The Cumulative Book Index* and *The Book Review Digest* conclusively list the first Reeve book as appearing in 1912 and it was reviewed during that year.

Arthur B. Reeve was born Oct. 15, 1880 in Patchogue, Long Island and died August 9, 1936 at the age of 55 in Trenton, N. J. A graduate of New York Law School, Arthur B. Reeve never established a practice but entered the editorial field as an assistant editor on *Public Opinion* from 1903 to 1906 and then graduating to the editorship of *Our Own Times* from 1907 to 1910. His first serious writing was non-fiction, initially on the potentials of the human mind, and then a series on crime detection contributed to *Survey,* a magazine of social reform on whose staff he briefly served during 1907.

After World War I a more mature Reeve sensed that the trend was changing. Craig Kennedy stories, written in a style barely a notch above Tom Swift's juveniles, were not going to catch the public's fancy forever.

Arthur B. Reeve dropped the old formula and in his novel *The Soul Scar* (Harper, 1919) used Freud's theories on the nature of dreams as the basis for a much more mature plot. Incredulously, the reader finds Craig Kennedy stating: "Anxiety may originate in psychosexual excitement — the repressed libido, or desire, as the Freudians call it. Neurotic fear has its origin in sexual life and corresponds to a libido, or desire, which has been turned away from its object and has not succeed-

ed in being applied." The lie detector tests remain, but are administered much more half-heartedly. Craig Kennedy continuing in this vein became a philosopher, deeply immersed in psychoanalysis, moralizing on life, death and sex in *Atavar, The Dream Dancer* (Harper's, 1924). In that book, the outline juvenility of earlier volumes disappeared, even from the chapter headings.

A 12-volume matched set called "Craig Kennedy Stories" was issued by Harper's as a subscription premium and distributed between 1926 and 1928, but no story in the collection was later than 1916, the more mature works were never to receive the same treatment. Reeve, hailed as the popularizer of the scientific detective, would receive no credit for attempting to make Freudian analysis part of the detective novel.

The scientific detective, by 1920, was becoming an increasingly rare phenomena in the general magazines, when interest stirred from a most unexpected source. Hugo Gernsback, then publisher of *Electrical Experimenter*, was in the process of changing that magazine into *Science & Invention* and had started a policy of featuring two pieces of fiction an issue. He was no particular detective story fan, but he liked the idea of exploring the potentials of science for committing crimes or to catch criminals. *The Educated Harpoon* by Charles S. Wolfe in the last, April, 1920, *Electrical Experimenter* was his first scientific crime story and quite appropriately was illustrated by the late Frank R. Paul. An executive is stabbed to death in his office on the 16th floor of a skyscraper. Three secretaries vow no one got in or out of there, and no clues present themselves, not even the murder weapon. A student, wireless telegrapher and scientific dabbler Joe Fenner, discovers that a tiny gasoline-engine-powered airplane with a dagger in front of its propeller, was guided by radio from a skyscraper a quarter of a mile away, through an open window, to strike the victim in the back. Then it reversed its propellors, and flew off with the murder weapon.

Scientific "detective" Joe Fenner became almost a monthly feature and among his best ideas were those in *The Phantom Arm* (*Science & Invention*, June, 1920), where a rifle is automatically fired at a moving target by a man playing pool miles away; *The Master Key* (*Science & Invention* Aug., 1920) in which an electromagnet is used to get a man out of a room bolted on both sides; and *The Devil's Understudy* (*Science & Invention*, March 1921), involving electrocution by a current conveyed on a beam of ultra-violet light.

Scientific detective stories were contributed by many other authors, including Harold F. Richard's *The Unknown Avenger* (Sept., 1920), dealing with the use of radium as an ingenious killing agent; Nellie E. Gardner's *A Subcor ous Murderer* (Oct., 1922), employing an actual patented invention of Hugo Gernsback's the hypnobioscope, a device for learning while one is asleep, as

the means of accomplishing a murder; and *Hunting Criminals in the Year 2,000 A.D.*, translated from the German of Felix L. Goeckeritz (May, 1923).

Until April, 1926 when the first issue of *Amazing Stories* was published, there was no way of judging whether the science fiction specialists regarded any portion of the scientific detective stories as within their domain. The affirmative answer came when Hugo Gernsback ran Edwin Balmer and William MacHarg's Luther Trant Story *The Man Higher Up* in the December, 1926 *Amazing Stories*. He followed this up with *The Eleventh Hour* (Feb., 1927), *The Hammering Man* (March, 1927) and *The Man in the Room* (April, 1927), the latter receiving the *cover* by Frank R. Paul, showing in detail the equipment required to measure a woman's reaction to the word association test. Of particular interest was the reprinting of *The Hammering Man* (a sphygmograph records the rise and fall of blood pressure to ascertain truth), for this story, which originally appeared in *Hampton's Magazine* May, 1910, was never included in the book. This meant that Gernsback's reprint consultants had obtained the story from its original magazine source, a fact further verified by their reprinting in June, 1926 of *An Experiment in Gyro Hats* by Ellis Parker Butler (a stove pipe hat with a gyroscope to keep drunks from falling down on their way home), which appeared in *Hampton's Magazine*, June, 1910.

From *Science & Invention, Amazing Stories* also reprinted Charles Wolfe's scientific detective stories *The Educated Harpoon* (Dec., 1926) and *The Master Key* (April, 1928). However, their most interesting tack was the introduction of five new and different criminologists, all patterned to a great extent after Luther Trant and Craig Kennedy: Robert Goodwin, scientist, inventor, and "head of the great Chicago laboratory and experimental plant which bore his name," utilizes a sphygmomanometer (blood pressure recorder), a dictaphone to bug conversations, a camera which automatically takes photos of burglars, as well as fingerprints to trap men who try to sell him stolen platinum in *White Gold Pirate* by Merlin Moore Taylor (April, 1927); Dr. Edmund Curtis Thorne, an anthropologist with a deep insight into criminal psychology is almost proved brilliantly wrong in solving a "murder" which develops to be an accident in *The Psychological Solution* by A. Hyatt Verill (Jan., 1928); Prof. Fiske Errell, world's greatest criminologist, foils an oriental evil genius, who has a machine for driving men insane in *Lakh-Dal — Destroyer of Souls* by W. F. Hammond (March, 1928); David S. Harris, investigator of crime, who drew the cover of the July, 1928 *Amazing Stories*, for blocking thefts conducted through transferring matter by radio (with a female genius the culprit) and using a sphygmomanometer in the process of apprehending the criminal in *Super Radio* by Charles Cloukey; and Dr. Milton Jervis,

who proved that atomic hydrogen welding has made it possible to cut open a bank safe vault and *seal* it up again in *The Atomic Doom* by Edward S. Sears in *Amazing Stories Quarterly*, Winter, 1928.

However, by far the most remarkable detective Hugo Gernsback's authors ever produced, and the one that made the biggest impact with the readers was a little man named Taine of San Francisco, who debuted in four short stories titled *The Menace*, published at the same time in the Summer, 1928 *Amazing Stories Quarterly*. The stories may never be reprinted again because their theme deals with Negroes who have perfected a chemical for turning their skins white. Having also discovered a method of economically extracting gold from seawater, they are systematically buying up blocks of New York and renting it to Negroes. It is their intent to buy all of New York for Negroes (in white skins) and usurp the caucasian power structure. Many exchanges of conversation in this story are brutal in their directness. For example, when Taine of San Francisco is caught during his investigations by a Negro woman, Ebony Kate, who runs a new religion to recruit adherents to the project, and will be fed to a 30-foot boa constrictor to dispose of him, he tells her: "You are not really trying for justice but for revenge. You may turn the black man white but ultimately he will remain — just — **a** — nigger."

An attempt to turn all the *whites* in New York *black* by slipping a chemical in the water system is foiled by Taine, as is an attempt to flood the U.S. with synthetic gold. An epidemic of insanity (due to living under glass) is laid to white-Negro machinations. After 30 years Taine finally tracks the Negro leaders to their island lair, they are disposed of except for Ebony Kate who comes back to San Francisco with him to work as a domestic. "In the years that followed Ebony Kate delighted in telling the little Taines how their grandfather and she had fought those white-black boogers."

Despite the plot line David H. Keller showed considerable insight into sociological problems, not only of race but those that would be brought about by increasing mechanization. As to his detective, Taines one great talent was at disguise. In person he was so undistinguished as to be difficult to remember. He often carried a puppy around in his pocket. He made $200 a month (supplemented it from special assignments), was completely henpecked by his wife, suffered from dyspepsia, and when offered a cigarette would reply: "No thank you, I never smoke, for nicotine injures the delicate enamel of the teeth and once that is gone, decay soon follows." No one knew that he had a false set of uppers and lowers!

While The Menace derived its theme from discrimination against the Negro, *The Feminine Metamorphis*, a short novel in Hugo Gernsback's new August, 1929 *Science Wonder Stories* (started af-

ter losing *Amazing Stories* and *Amazing Stories Quarterly*), employed prejudice against women as the reason 5,000 outstanding females decide to be operated upon and be given male characteristics so they can take control of the world and dispense entirely with the unfair sex. Taine cracks the case disguised as a woman.

The scientific detective story had not perished. *Flynn's Weekly* (later changed to *Detective Fiction Weekly*) had carried Douglas Newton's series on the arch villain Odoric Dyn, a Norwegian who set out to form a master race of Nordics to rule the "serf races" (all dark-haired or dark-skinned peoples). He is hunted down and finally destroyed through the efforts of Raphel Phare and Martin Sondes in six exciting bonafide science fiction stories starting with *Gold and White Beauties* (*Flynn's Weekly*, Mar. 26, 1927) and concluding with the destruction of his island community in *The City of Tomorrow* (*Flynn's Weekly*, April 30, 1927). Arthur B. Reeve's new Craig Kennedy stories appearing in *Detective Fiction Weekly* in 1929 seemed rather unimaginative after Odoric Dyn.

Hugo Gernsback was now the leading proponent of the scientific detective story, of the type originated by Arthur B. Reeve and he launched the first and only magazine in history of such stories titled *Scientific Detective Monthly*, with the issue dated Jan., 1930. Arthur B. Reeve was made "editorial commissioner" (though he had no editorial power) and a Craig Kennedy story ran in *each* issue, all of them reprints from his first few years of writing. The magazine was a large format, containing 96 pages and in addition to the Craig Kennedy story *The Mystery of the Bulawayo Diamonds* (solved by a bolometer which "can measure the heat of a woman's blush"), the issue contained the Luther Trant story *The Fast Watch*, a serialization of *The Bishop Murder Case* by S. S. Van Dine, featuring Philo Vance and stories by science-fiction writers R. F. Starzl, Capt. S. P. Meek, U.S.A. and Ralph Wilkins.

In his editorial Hugo Gernsback stated: "And while Scientific Detective Stories may print detective stories whose scenes lie in the future, it should be noted that whatever is published in this magazine is based on real science; and whatever will be published will be good science." Actually *Scientific Detective Monthly* was a science-fiction magazine with the emphasis on crime detection.

Each issue, with exceptions, ran a Craig Kennedy and Luther Trant story; Taine of San Francisco regularly chronicled his youthful experiences before he became a big-time scientific detective; a Dr. Thorndyke story by R. Austin Freeman was resurrected; a new scientific detective, *The Electrical Man*, Miller Rand, was created for the May, 1930 issue by Neil R. Jones, author of the famed Professor Jameson series in science fiction. The electrical man wears all bullet-proof clothes including his mask,

gloves and socks. His clothing is electrified, stunning any man who touches it, and he gets his power transmitted to him by radio.

After five issues the magazine found it wasn't making it, so with its June, 1930 number the name was changed to *Amazing Detective Tales.* The content remained the same, but covers which had been technical, one of them even featuring a radio-powered robot, were changed to scenes of horror. The editor, Hector G. Grey, was dropped with the July, 1930 issue and David Lasser, who edited *Wonder Stories* and *Wonder Stories Quarterly,* assumed his duties. Science fiction writers Otis Adelbert Kline, Clark Adelbert Kline, Clark Ashton Smith, Ralph Milne Farley, Ed Earl Repp and Eugene George Key were among those who contributed, but the publication received little support from either the science fiction or the detective fans. With the advantage of hindsight, it is possible to say that the magazine was extraordinarily good *for what it purported to be,* rounding up all the then available talent and cultivating some of its own. With the 10th issue, October, 1930, it announced it was going pulp size, but no further numbers appeared.

A story titled *Murder on the Moonship* by British author George B. Beattie was projected as forthcoming and appeared in Feb., 1931 *Wonder Stories* instead. It promulgated five mysterious deaths on a spaceship with the finger of suspicion pointing everywhere. The killer develops to be a poisonous prehistoric flying reptile brought back to life by space radiations and emanations from the atomic engines. Beattie's story was a harbinger more excitement was needed in the literary market place. Craig Kennedy would continue to appear elsewhere, but the lie detector, a marvelous adjunct to a detective in the year 1909, was by 1929 a rather unexciting device. The scientific detective could no longer sustain an audience with a gadget alone. Arthur B. Reeve had early added Freudian sex to gadgetry, a formula which made Ian Fleming's James Bond the sensation of the Sixties, but he took himself too seriously in his crusading to cash in on it. The next step in the scientific detective story would be super science, super heroes and super action adventure. END

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"The Super Science Sleuth," the next article in this series will show the development of the detective story in modern science fiction.

Sunk Without Trace

by FRITZ LEIBER

That silly old thing on the beach couldn't be important —it just came from Earth!

Gara slapped her pink flipper-foot against the coarse damp red sand as if it were a kingsize fly-swatter. "Come back, Feddi," she commanded, "and spool seaweed like a good sane blobber, dutiful to his wife and his stomach."

"But they have discovered a new thing at North Beach," Feddi protested, his own fondlike feet rutching the sand softly as he edged away. "All the blobbers are going." He pointed his ring-ridged tri-branched hand behind him toward a few tiny forms converging like pink fleas across the red sand toward a gully in the coral upland newly drained by evaporation. "A *new* thing, Gara," he pleaded. "There will be dreams in it. *True* dreams."

"Feddi," Gara stated, "The only truth in the world is that all things shrink like the sea—and the shrinking things include our stomachs. Spool seaweed!"

"But a *new* thing, Gara," Feddi repeated. "New things stir me."

"And old things do not—such as your wife?" Gara planted her tri-branched hands on her hips. "A *new* thing!" she gargled scornfully. "First it was that the silly orbs swarm for a while together." She pointed out over the sea where there clustered in conjunction the Ringed Orb and the Old Lie-On-His-Side

and Sister and even Tiny, all palely gleaming low in the dim day sky. "You had to watch them, while I kept the seaweed damp—as much with my sweat as with water. And now, after only a half spool cranked, you must be running off after some new thing—at which you guess only by the scampering of other undutiful husbands." She croak-croaked contemptuously. "And while you make love to this new uselessness with your eyes, the seaweed which should be standing spooled in the damp cave will dry and rot and crumble into brown dust unfit to taste!"

She shook wildly the hood that was her pink caul and rapidly stamped her scalloped flipper-feet like a maniac assaulting a drove of invisible flies crawling on the floor. Quietening, she added, "And then you'll come whining to me, 'I'm hungry, Gara,' and there'll be no food."

"Then I'll eat dreams!" Feddi protested desperately. "A conjunction is a great rarity, Gara—it may be the last before we all dive into the little red sun or shatter like the Ringed Orb's ring. And this new thing is an even greater rarity, rich in dreams of unimaginable excitement. They are radiating out from the new thing through the air. They are all blurred, but I can sense them *here*." He tapped the top of his caul with his tri-branched hand, then cried in anguish, "Oh, slap-slap-slap-slap—slap-slap—*slap-slap*," beating in the same rhythm with his other hand on the red grainy sand—for it was by such drummings that Feddi expressed his strongest emotions, though he had never used this seven-beat stroke before. Perhaps, he thought, it came from the new thing.

"So you will eat dreams and drink conjunctions . . ." Gara began sternly.

"Gara, I must go," Feddi crooned ashamedly, ducking his face as his pink caul hid it. Then he turned instantly and hopped off in long low hops down the beach.

Gara shook her head slowly, sighed angrily, and strainingly turned the spool a few more turns. She stopped and was motionless for a while. For another while she chomped a short length of the crispy weed. Then with a grunt she heisted the spool from its stake and dropped it in a diminishing pool of sea water, which was enlarged for the moment. After sketchily splashing water on the exposed section of the strand of weed leading into the sea, she hopped off sedately, following the infrequent V-marks made by Feddi's far-leaping flippers.

"Dreams for dinner!" her mouth said bitterly, but her mind remembered how Feddi, napping at work, had once dreamed of a sand dragon and how a sand dragon had come and how the tribe had been ready. But most of Feddi's dreams were of useless far-off things, like the markings on Old Lie-On-His-Side, which Feddi said were seas—yet who would even nibble the weed along their shores? That orb was called Old Lie-On-His-Side because his markings moved slowly from top to bottom, instead of from side to side, as

did the markings of the three other orbs.

Though tempted a little against her will by the prospect of Feddi's wild mind-stirring chatter about his dreams—for Feddi always described them—Gara still went reluctantly. But whenever Feddi recited his dreams, he would be drawn afterward to the slimmer younger, paler blobber maidens and they to him. And that must be dealt with.

Feddi peered up the narrow gully newly uncovered by the receding ocean and he whistled with wonder. Jammed between the fierce multiple-jawed coral walls toothed with shells was a silver sphere taller than a blobber on flipper tips and thicker than a blobber's arm, to judge by the depth of the strange narrow slits in it.

Around the sphere was gathered, at a respectful distance, most of the tribe—including, Feddi noted with approval, all the slim, pale blobber youths and—ah!—maidens.

But his excitement at this thought and the fearful delighted excitement he sensed in their minds were both washed away by the great white excitement pouring from the sphere itself—an excitement a-swim with gleaming dreams almost seen clear, almost hooked and caught.

He took two vertical leaps to put tension in his muscles, then one gigantic spring which carried him over the nearest blobbers' cauls and landed him with a great *slap* a-top the silvery sphere.

The encircling blobbers shrank back in startlement.

But two things overrode his conceit at this sign of respect or fear: First, to crouch on the sphere was like squatting on the top of a kettle boiling with little dreams around one great dream bobbing in the center like the silvery savoury carcass of a sea-skimmer; the white cold boiling was almost more than his mind could bear and it was all he could do not to leap off. Second, at the *slap* of his landing it had seemed to him that the top of the sphere had turned a flipper's width—he could tell that the rest of the sphere had not turned because the vertical slits hadn't. He tried to poke a branch in the nearest, but this was stopped by a hard smooth invisibility smoothly even with the sphere's surface—these were glazed windows such as he once dreamt of, windows thick as the sphere.

Dragging back his branch-tip, it clicked as it crossed a barely noticeable tiny sharp ridge. The ridge went around him in a perfect circle.

Here and there on the silvery metal were faint characters, imperceptibly raised, spelling the words "impervium" and "aerobathysphere," but they symbolized less to Feddi than the claw tracks in the sand of a sea-skimmer.

The great dream was swirling wildly round his mind now, full of strange orbs and flashes of bright and altering star-shapes and monstrous creatures.

Meanwhile his tribal companions had recovered from their shock. The younger of them were even growing jaunty.

"What is it, Feddi? A sea-castle of the seven-leggers washed ashore?"

"Or a haunt of the ribbon-folk? Those doors would fit."

"Is it a ship from the stars, such as you've told us of, Feddi? A ship from Old Lie-On-His-Side?"

"Is it one of the pearly grains you say make up the Ringed Orb's ring?"

Feddi answered none of these questions. A slim blobber maiden, greatly daring, called, "What's the matter, Feddi? Have you gone to sleep up there?" Her question ended in a high-pitched gurgle.

Feddi decided it was time. Moreover the great dream was coming up to him in such strength now through the thick silvery metal that he hardly could have chosen to wait longer. He thrust a stiff branch at the gurgling girl and cried out, "I have not slept, but I have feasted. I have eaten a dream. Served me from *here*," he added, lightly slapping the sphere. Once again the top seemed to turn, just a branch's width. For a moment Feddi was frightened. Then the dream possessed him utterly.

"Long, long ago," he cried, lifting his tri-branched hands, "our red ember-sun was a flaming yellow king with twice as many princely children —ten, not five. And each had a great estate—a domain so vast that each looked to the others like a star—one more glittering sand grain in the sky.

"The five princes closest to their father were small and matured swiftly in his warmth. The five farthest were large and swung slowly in frigid sleep, shrouded by strange air thick and stormy as the sea and high as the sky. Of the shrouded ones *we* were closest to the king and sixth of all."

The other blobbers goggled up at him entranced. This was what lazy Feddi was for. No good for fighting sand dragons or diving for worms or working magic, but when it came to telling tales—

"The fifth of the smaller princes grew swiftly in might and wisdom, but also in pride. He was shattered, but whether of his own doing, or by his father's wrath, or because he had an equally proud and jealous twin sister, the dream does not tell. Suffice it that he was shattered—and perhaps his haughty sister with him—and scattered wider than the Ringed Orb's ring.

"The first and second smaller princes, too close to their there's heat, shriveled and stifled and died.

"The fourth smaller prince lived quietly, obedient to his father.

"The smaller prince had something in his nature of both the fifth and fourth. He became an adventurer. He sent ships to all his brothers and to all the stars in the sky. Some came back, some were lost.

"This ship—" (Again Feddi tapped the sphere unintendedly; again the top turned, as if forced by the pressure of the great dream boiling inside; again Feddi, though for only a moment, knew fear.) "This ship was one of those he sent us, long before we lived, long before anything lived here. It came dropping down through the strange frigid air, thick and stormy as the sea. After many an adventure it was lost

and lay brightly at the bottom of that sea. That sea ate everything yet it could not eat this, so packed with dreams, so bright. The air-sea's sours and bitters only toughened it.

"Ages passed. The yellow sun-king became angry with the failures of his smaller sons, or perhaps he only wanted to breath life into us, the frozen ones. He swelled in his wrath or creativity. He grew a hundred, a thousand times as bright and sent out destroying flames. His smaller sons were all destroyed. The thick frigid blankets of air were blown from us and from the Ringed Orb, which yet kept a part of its ring, and from Old Lie-On-His-Side and from Sister and even Tiny. With the warmth and thinner air, life could grow on all of us larger ones. And now after the passage of ages unutterable, we who swam near the stars and lived out our destiny, who built our cities and sent out our ships in turn, now return spiralling in toward our red ember-father, who is dying from his labors and angers. Yet even now we find this new silver thing to tell us of the great mind-daunting age of our father and of our brothers. Through the eons, buffeted by changes innumerable, it has remained bright. Oh, the wonder of it! Oh, the sad grandeur of it! Oh, slap-slap-slap — slap-slap-slap — *slap-slap!*"

With his unintended rhythmic pounding which matched that of his bleeping voice and which Feddi could no more have controlled than the other, the silver sphere rang softly, like a muted bell, and its top began to rotate, slowly at first, then a little faster.

Feddi rotated with it as if rooted to the metal. His eyes wagged from side to side, swiftly with the rotation, slowly against it, back and forth.

The encircling bloppers shrank back, but from under their cauls their eyes veered bright with excitement.

The ridge that Feddi's branch-tip had barely clicked now grew higher, became a vertical wall with spiraling grooves in it.

There was a faint pop, a puffing of dust, sudden spread of a faint musty odor, and then the circular top of the sphere began to tilt off to one side supported and moved by a curved metal arm that emerged from the new round mouth of the sphere and joined the inner side of the circular top at its very center.

Feddi dropped from the top before it was fully vertical and caught hold of the edge of the mouth and chinned himself on it so that he was peering dizzily down inside.

One by one, other blobbers joined him.

The sphere was lined with odd geometric forms, which light striking through the slitlike windows made odder still. There were many circles, some with a slim finger standing in them. There were squares and octagons and hexagons and pentagons. There were tiny windows through which odd characters, or symbols, or skimmer-tracks showed.

The bottom of the sphere consisted of two reclining chairs into which were strapped two monsters.

They were the size of blobbers and had the same number of feet and arms and ears and eyes, but there most resemblance ceased. Their sallow heads were without cauls but thick with short threadworms, their sallow swollen hands ended in five fat worms conjoined, their black flippers were thick and stunted. Their skins were dull green, though this, Feddi sensed, might be an artifical covering, for on their green necks were strange tracks or characters — but Feddi could no more have called them "T.S." and "E.J." than he could have expanded those characters to "Terran Space Force" and "Expedition Jove."

For moments it seemed that the monsters, though motionless, were not dead, but peering intently at the circles, fingered and unfingered, and at the other shapes at the tiny windows, as if they read meanings there.

Then, slowly at first but soon more swiftly, with many a miniature musty avalanche, they crumbled into brown dust, just like dry seaweed.

Feddi let out a great sigh as all dreaming died in his head at once.

The slim blobber maid hanging at his left—the same one that had gurgled at him—whispered, "Oh that was scary. Feddi, you were wonderful."

And she shivered against him deliciously.

A harsh familiar tri-branched-hand fastened firmly on his right shoulder.

"Come, Feddi, spool seaweed," Gara said. "They're all dead."

"They escaped in their ships," Feddi said softly. "They still ride the stars."

Gara shook her caul. "They're dead, Feddi, as any seaweed left in your sole care. Come." END

Coming.... Tomorrow!

If you've read *The Day of the Great Shout*, which we published last year or *Riverworld* (herewith), you know what project is currently engaging the fertile mind of Philip Jose Farmer. Farmer has invented a world populated with the totality of mankind — everyone who has ever lived — all reborn and as good as new, living along the banks of an enormous river on a planet that is enormously far away in both time and space.

Next issue we bring the third in this remarkable series, in which Farmer touches on a means of transportation that few science-fiction writers have had occasion to use. You see, the Riverworld people haven't much of a technological or industrial base to work with. They are reborn naked and without tools, and all the engineering information in their brains is of little value without things like steel mills and oil wells to convert it into practice. Lacking aircraft, lacking railroads, lacking even horses, but desiring mightily to explore this world, the problem is: how?

Let Farmer answer that one for you next issue . . . in the story called *The Suicide Express!*

At Journey's End

by J. T. McINTOSH

Illustrated by ADKINS

They drove across endless miles of interstellar space — to find worlds that men had never known!

I

Arcturus filled the sky. They were nearly there: the longest and most important journey ever undertaken by man was nearly over.

Alone in the control room, Captain James Wingate painstakingly checked the data cards on the planets once again. He didn't bother with the whole twenty-three. As far as the *Good Hope* was concerned, only half a dozen mattered. And the rapidly growing volume of data on those half dozen made it increasingly plain that the planet they had named Journey's End was the only possible choice.

Journey's End was certainly not the only world on which humans

could live, but this planet was so much more friendly than the others that it was unreasonable to do more than bear the others in mind for future development.

The *Good Hope* had found what she was looking for. The *Good Hope* had paid off.

In a few days, just before they landed, the message capsule would be sent shrieking back to Earth with the great news. Being only an unmanned capsule, it would accomplish the trip in a tenth the time the *Good Hope* had taken . . . it would take a mere five years.

At the thought of the capsule, Wingate frowned, not for the first time.

Entering the control room, Arthur Rudd said: "What's on your mind, Jim?"

"The capsule," Wingate said. "It bothers me that we have to send it out before we land. If we could only—"

Rudd smiled. "Jim, that was settled forty-seven years ago and you know as well as I do there's not a thing we can do about it now. Once this ship lands she'll never move again. And to get back to Earth the capsule simply *has* to be launched in space."

"But if only—"

"I know, I know. If we could only have a glance at the surface of the planet first, and make quite sure . . . if we could only confirm that the assumption that we're the only intelligent race in the galaxy is correct . . . if we could only tell the folks back on Earth with a hundred percent certainty that Journey's End is exactly what we need, a new home . . ."

He clapped Wingate reassuringly on the shoulder. "We can't Jim. Forget it."

Wingate nodded, feeling better. Yet he still said: "It frightens me sometimes to think of our importance and our responsibility."

"I can imagine," Rudd said lightly. "Better than anybody, I guess."

Not a sensitive man, Wingate nodded.

Rudd had been the second captain of the *Good Hope,* after Maddock died. Having been sixteen at the start of the journey from Earth, he was still only sixty-three—not nearly the oldest man aboard. His age would not have prevented him still being in command.

Indeed, although Wingate was six years younger than Rudd, Rudd looked the younger man. And not because Wingate looked more than his fifty-seven years. In his smart blue uniform and peaked cap, which he almost always wore because the captain in charge of the most important journey in history, far more important than those of Columbus, Marco Polo or Cook, had to look every inch a captain all the time. Wingate was spare and spry and obviously good for many years to come. Yet the tall, still dark-haired Rudd, in a white tunic and gray slacks, had the air of a young man only beginning to age.

But Arthur Rudd had found command of the *Good Hope* too big for him, and too lonely. On such a

journey, in a largely automatic ship, the captain was bound to be a man apart. There was scarcely any crew to speak of. There was a captain and there were two hundred passengers. They had councils and committees to run their affairs. The captain, though he had supreme authority, was not really the head of state. He was the driver up front.

So five years ago Wingate had relieved Rudd, by mutual consent.

And oddly enough, the man Wingate always consulted was Rudd. Rarely conscious of any inadequacy within himself as inadequacy, Wingate knew that young Tina Layman, Rudd's niece, was a better navigator than he was, that his own son knew every corner of the ship better than he did—and that Rudd was far better at handling the human factor in the *Good Hope*, so long as he wasn't in command. Wingate used the abilities of others as he believed a good captain should, as an architect might use the skill of a builder.

"Do they understand?" he suddenly asked. "Is there anything more we should do to make them understand?"

Rudd had no difficulty in understanding exactly what Wingate was asking.

"The young ones can't understand fully, of course," he said. "But you needn't worry about them. They've been brought up for this moment. Unlike us, they find nothing strange in this kind of life. But they know we're landing, that we must land. More than other youngsters in other circumstances, perhaps, they have to trust the older people to know what's best—they don't know about landing on a planet and living there, and we do."

"Don't you think we should do more to make them realize how important this is, to give them a sense of tradition, a sense of history?"

Rudd laughed. "Jim, we can't do more than we've done. Everybody was always so scared the kids born in the ship would think this was the natural way of life that all their education has always been about Earth, about the disaster facing Earth, our duty to Earth, our heritage . . . They've been brainwashed so that the kind of attitudes we were afraid of just never occurred to anybody."

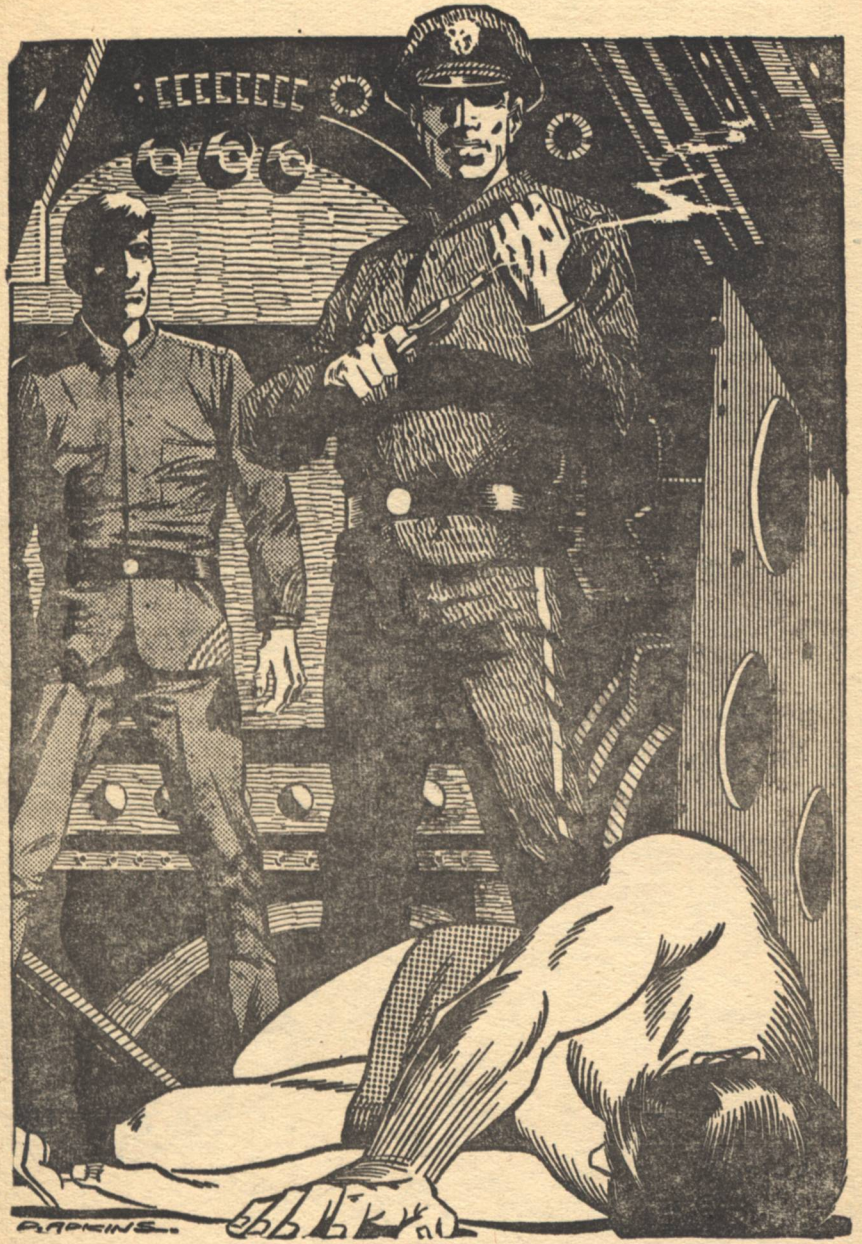
Wingate nodded, satisfied. "They'll do exactly as they're told, then."

"Only for a while. In a matter of weeks after the landing, they'll have adjusted. They'll know about living on Journey's End, they'll see things for themselves, and they'll begin to disregard things we say based on living on Earth—"

"We'll come to that in due course," said Wingate, with a return to his usual confidence. "So you don't think there will be any . . . social problems about the landing?"

"I didn't say that. Of course there'll be—"

"I know," Wingate interrupted impatiently. "Obviously when a ship has been spaceborne for forty-seven years and two-thirds of the people aboard have been born on the way,


PARKINS

there must be adjustment problems when the ship lands at last. I mean, there isn't anything we should do anything about?"

"No," sighed Rudd. "Tom Sheriff and Arlene Ball will commit suicide . . . but it's true, there isn't anything we can do about it."

"Huh?"

"There may be more. Those are the two I'm sure about."

"But . . . Tom? And Arlene? You know what you're saying? Why those two?"

"Arlene's just a kid. Seventeen. And her mother died when she was born. She knows nothing but the life of this ship. To oversimplify, the *Good Hope* is her mother. When we leave the ship, Arlene will have to be born again. And she can't face being born twice in one lifetime."

Wingate didn't argue. Things like this were Rudd's province.

"Tom?"

"Ah, he's different. He was the only young child in the original group. He came because his father and mother were with us. Now they're both dead. To Tom, Earth is hazy, strange, incredible, a dream—a nightmare."

"But I was only a kid when we left."

"You were ten, Jim. Ella Farnell and Bill Lucy were nine. You had a foundation of experience. Tom had only enough to frighten him. He may be thirty-four years older than Arlene, but to him, too, the ship is security and the moment he has to leave the ship—"

The door crashed open. Tina Layman stood in it, coming no further. "Captain," she gasped, "there's a riot in the lounge."

II

Rudd looked at her with the philosophical pleasure in youth, and attractive feminine youth at that, of reasonably contented age. She was his niece, and since he had never had children, had never married, and both her parents were dead, she was more to him than nieces usually are.

She wore a short white skirt, and, because she was an important member of the sketchy part-time crew who assisted Wingate with the handling of the ship, a smart peaked cap on her dark curls. She wore nothing else, not even shoes.

The spaceborn spaceborne youngsters of the *Good Hope* had never resisted the tradition, the history, the ritual which their parents and grandparents had imposed on them. They rebelled in other ways, and the older people had fought and lost. Temperature in the *Good Hope* never varied more than two degrees, and there was no rough ground. Hardly any of the youngsters ever wore shoes.

Like any other respectable girl, Tina would have blushed fiercely if surprised in a state of undress. She was, she thought, as modest as anyone ought to be. But anyone who wore shorts or a skirt was dressed. There was no more need to wear a shirt than there was to wear gloves.

"A riot?" Wingate rapped. "Fighting?"

"More than fighting. It's savage —cruel . . ." She shook her head, finding it impossible to describe.

"What started it?"

"Nothing seemed to start it. It just happened. It seems to be Left against Right."

There was nothing political about Right and Left. It was merely that everybody had to live on one side of the main corridor or the other. No one could live in the middle.

Rudd wasn't even thinking about the riot in the lounge. If Tina had been there, it would have been different. But Tina was here, and obviously unscathed.

He was thinking idly how odd it was that every youngster on board would consider the bikinis of his youth too revealing, and no nice girl like Tina would wear one. The fact that a bikini included a bra was irrelevant—what made them indecent was the brevity of the briefs. Male or female, in mixed company you didn't show your stomach. It wasn't nice. Shorts and skirts worn by boys or girls came right up to the waist and were firmly belted there.

Times and fashions changed—even in a small, closed world like the interior of the *Good Hope*.

"I'll come," Wingate said.

"Wait," Rudd said gently. "Jim, Tina — leave it alone. Naturally there's unrest —"

"What are you saying?" Wingate demanded. "Fighting—and you say leave it alone?"

Tina, too, had turned back and was staring at her uncle. Leave fighting alone? The law in the *Good Hope* had always been clear, decisive and firmly imposed: swift judgment and punishment, not for revenge but to prevent any recurrence, to put out all fires before the cry could rage through the ship.

"Naturally we're all in ferment," Rudd said. "People need release. Let them—"

"They're beating Nevil Smith," Tina exclaimed. "I saw men kicking Jenny Holland. There's blood everywhere. There must be fifty people fighting—young and old . . ."

Rudd nodded. "That's okay. Everybody will feel better afterward."

With a roar of impatience and anger, Wingate pushed him aside and ran to the door. Tina was ahead of him, leading the way. Shrugging, Rudd followed them.

The lounge was a shambles. All the movable furniture was pushed aside, overturned. All around, singly and in groups, people fought. They were of all ages, men and women. The older people had a grim advantage—they wore shoes. And they were using them to kick fallen fighters in the ribs, in the stomach, in the face.

There were no actual weapons, but to a fighter anything is a weapon. Broken pieces of chairs, bottles, lamps, brushes were in use. One fifteen-year-old boy was stabbing viciously with a pair of scissors.

There was a lot of noise and there was a lot of blood. It was a scene of incredible, senseless brutality.

For a fraction of a second there was more noise still—a fearsome, ear-shattering noise — and then silence.

Rudd looked at Wingate admiringly. Trust Jim to have a gun when it was needed. The man was a captain, a leader. Rudd hadn't seen him pick it up—and yet why should the captain happen to have a gun on him when for forty-seven years all weapons had been locked up, unneeded?

That one shot had finished the fighting, without question. Only two or three people in the fight had ever heard or seen a gun fired. Some stared at the captain, grimly covering the group with his still-smoking gun. Some stared at the hole the shell had made in the wall.

The captain said nothing. Behind him, Rudd and Tina said nothing.

Slowly the rioters picked themselves up, brushed hair out of their eyes, licked scratches, adjusted their clothes.

Two did not get up. One man had a broken arm and a girl was moaning, holding broken ribs in place. But they were on their feet. Two were not.

Nevil Smith and Jenny Holland were dead. There was no doubt the girl was Jenny, because she was one of the few youngsters to wear shoes, and her green skirt helped to identify her. Her face didn't help at all. It had been kicked in.

"Who did this?" said Wingate harshly.

The madness was gone. Replacing it was shock and incredulity—what in heaven's name had happened, and how had it happened?

An older man cleared his throat, the habit of truth strong in him. "I . . . Captain, I guess it must have been me that . . . Hell, she was trying to hit me with a bottle. I got her down and kicked her and kicked her. Seemed like I couldn't stop."

His confession was scarcely necessary. His black shoes were red. If he had tried to run, there would have been a trail linking him and Jenny, a trail of red guilt.

"Did anyone see?" said Wingate briefly.

Several had seen. They said so haltingly.

"Stand back," the captain said. "All you around George Harker, stand clear."

There was an anxious scuttle.

"Captain!" Harker screamed. "I tell you she was—"

"You know the law," Wingate said. "There's nothing to say. George Harker, I sentence you to death."

And he shot Harker between the eyes. The body pitched forward and lay still as the other two.

There was silence but for the moans of the girl with broken ribs. No one had any time for her yet.

He's right, Rudd was thinking. I was wrong and he's right. You couldn't let a thing like this happen ever again. My mistake was, I didn't know it could be so insanely savage, so soon, out of nowhere. I thought . . .

"Nevil Smith," said Wingate. "Who killed Nevil?"

This time there was silence. There was silence so complete, even the moaning girl becoming soundless, that Rudd could hear the thumping of Tina's heart two feet from him.

He could sense more than he could hear and see. Anything but insensitive, he became aware that Tina, beside him, was merely shocked, fascinated in a macabre, incredulous way. But the others . . . there was something more in their silence, as if they, unlike Tina, were frightened even to breathe.

"I'm waiting," Wingate said grimly. "Nobody moves until we've cleaned this up."

But someone did move. Several of the now sheepish men and women who had so recently been engaged in a savage melee shuffled aside.

And someone who had not previously been visible to the three in the doorway stood revealed.

He was a tall young man, fair-haired, dressed like the rest of his age-group in shorts and nothing else. He seemed dazed, shocked rather than afraid.

"Jimmy," Wingate whispered. "What are you doing here?"

The gun wavered. Rudd knew somehow that disappointed and horrified as the captain was, his disappointment stemmed, at the present moment, merely from finding his own son present, a participant in such an orgy of savagery.

Wingate didn't know, as Rudd already knew, as Tina obviously knew, since she caught her breath and suddenly pressed herself against Rudd, half hiding behind him, that there was far worse to come.

With a stab of pain Rudd remembered that although Tina had so far refused to get married or even become engaged, young Jimmy Wingate had always seemed the man she was most likely to end up with. She treated the captain more as a prospective father-in-law than as a captain.

Insensitive as he was, Wingate gradually realized what everyone else knew. "Jimmy?" he murmured. "Nevil Smith?"

Babel broke out. Out of shame rather than sympathy for the captain, nobody had wished to be the first to tell him. But now that he knew . . . A dozen people had seen Jimmy Wingate choke the life out of Nevil Smith.

Wingate raised his gun.

"No!" Tina suddenly screamed "You can't do it—your own son . . ."

She tried to claw the gun from Wingate's hand, but Rudd caught her and held her. If Wingate did not execute the second murderer as he had executed the first, the *Good Hope* would need a new captain. And this was no time to rock the boat more than she was rocking already.

Jimmy looked at his father. His gaze wasn't clear. He didn't know what was going on.

But as the gaze of father and son met, awareness began to come back into the young man's eyes Awareness and horror.

Before full awareness returned, Wingate shot him.

III

Despite the cost, the riot seemed as the days passed not to have been all loss. After that one outburst, the complement of the ship returned firmly and apparently permanently to sanity.

In a closed environment, perhaps the only outlet for doubt and unrest and vague fear and causeless anger had been causeless violence. There was no time for organization, no time for schism to take place, no excuse for a schism anyway.

Practically nobody was one hundred percent enthusiastic about the landing so soon to take place. You couldn't live forty-seven years of your life, perhaps your whole life, in a certain place and in certain circumstances and not have doubts about the vast change to come.

On the other hand, practically nobody seriously considered anything other than landing.

The *Good Hope's* purpose and importance, the *Good Hope's* duty as a savior of Earth, had been built into something like religion. Like most religious urges, it was all the stronger for being rather vague.

In less than two hundred years all the planets of the solar system would cease to be habitable. The *Good Hope's* purpose was to find a new home for the teeming millions of Earth, and the chances were, still were after forty-seven years, that Journey's End was that home.

Planets were rare in the galaxy; but stars which had them had a lot. The vast observatory out beyond Saturn had shown long ago that none of the near suns had any planets at all. Alpha Centauri, Sirius and Procyon had none, so the question of their suitability, if there were any, remained academic. First find your planet—then try to work out how to live on it, with conditions almost certainly very different from those on Earth.

Altair had one planet, but too hot, too near. Vega had seventeen, perhaps more, but the conclusion reached all Earth's light-years away was that none of them could offer more than a temporary refuge at best. They all consisted of slag; and their orbits were frighteningly eccentric.

Arcturus was the first choice, and it was for Arcturus that the *Good Hope* set out. The journey was frighteningly long, yet there was no alternative.

The complement of the necessarily vast, self-contained ship had been Earth in miniature. Mature men were needed to run and maintain the ship in her first few years in space, when she was building up near-light velocity and the navigation had to be perfect. But mature men would never live to see the end of the journey. There had to be younger men and women to take over for them. There had to be people of all ages, indeed, for the people of the *Good Hope* might not be joined by others in less than a century.

There was a possibility, however, that other ships would follow, gambling that the first pioneers would

succeed in building a settlement. Thus twenty, ten, even five years after the landing there might be reinforcements from Earth. But at the time the *Good Hope* took off, all this was in the air. Since she was travelling at near the theoretical maximum velocity for humans, there was no chance that the later ships, if any, would be less than five years behind her.

Probably even the religious, dutiful nature of the *Good Hope's* mission would not have weighed if the people aboard now, forty-seven years after take-off, had had to make the kind of sacrifices that the older men who had died on the way had made. But there was nothing to do but land. The ship's stores, though vast, were not entirely inexhaustible. The ship herself would not last for ever. The engineers aboard, some of them youngsters, could see for themselves that though the *Good Hope* might remain in space for another ten years, she couldn't last another fifty.

Not with people still alive inside.

So the ship was landing. Uncertainty and uneasiness apart, the vague duty to the faraway billions of Earth apart, ignorance of planetside life apart, the *Good Hope* was landing.

Perhaps it was as well that the journey, though long, was not *too* long. There were still many on board who remembered Earth. History had not yet become myth. Although there were children whose parents and their parents had been born in space, information about Earth was still no more than second hand—not third or fourth or fifth. Children learned the facts of life from their parents. But the facts of planetary life they learned from their grandparents or great-grandparents.

IV

After all these years, the journey was all but over. Data was fed to the message capsule every day. As Journey's End drew nearer, all the really vital facts about the world could be established. Temperature, air, density—no snags. True, Journey's End wasn't Earth and never would be. No matter how many planets there were in the galaxy, there were almost certainly no identical twins.

Had the atmosphere been clear, full details of the world's surface could have been established from space. There was a lot of cloud, however, and ten times as much suspended dust as Earth had. All that could be seen with certainty from far out was that one-third of the surface was land and two-thirds sea, that the mountain ranges were similar to those of Earth and that the world was very green.

In the ship there was excitement now rather than unrest. As the day and the hour approached, everybody *wanted* to land. Some had scarcely any reservations. Others, who regarded what was to come rather as they might regard a visit to the dentist, still wanted it to be over.

Tina, the best navigator on board, spent a lot of time in the control room. Usually Rudd was with her.

Brilliant as Tina's mathematics were, she had never landed anything on anything and she needed the practical assistance of someone who knew all the factors involved.

Wingate was seldom in the control room.

"Is he going to be all right?" Tina asked twenty-four hours before ETA. The place of landing had already been selected—a plateau where two rivers ran together, forty miles from the sea. It was one of the obvious places to build the first settlement.

"Yes, he's all right," Rudd said. "But even Jim Wingate isn't an iron man. Imagine having to do what he did—"

"But he didn't have to do it," Tina argued. She shuddered; since the day of the riot she had talked to Wingate quite often, but always with reserve, and always preferably in Rudd's presence.

"He did," Rudd said quietly.

"No," Tina insisted. "Two people had to be executed, one long ago, one only five years ago. We had properly constituted courts then—"

"The captain has the authority to do what he did. And he had to do it instantly."

"He could have ordered a trial for his . . . for Jimmy."

"After executing the other murderer?"

"It wasn't murder, it was . . ."

"Playfulness?" said Rudd drily.

Tina fell silent, which was just as well. She was a highly intelligent girl, and not immature. Her reasons for not being married at twenty-three were, indeed, unusually mature. Since it had been clear for years that the arrival and landing would occur when she was still young, she had decided not to commit herself to any man for life in temporary circumstances. When the settlement on Journey's End was established, she would choose her man.

It would probably have been Jimmy Wingate.

Intelligent and mature though she was, she had lived in a too well ordered world to realize fully that there were times when a mad dog had to be shot. She had never seen a dog, mad or otherwise. She didn't know there would be times in the next few years when the leaders of the settlement would have to take the kind of swift, decisive action Wingate had taken, or the group would fall apart. She would learn.

Tina was now looking at the southern hemisphere of Journey's End, showing huge though rather hazy on one of the screens.

"We've found out more than enough," Rudd said confidently.

"I was thinking of the effect of the message. When the Earth people hear what the capsule has to report, space will be full of ships, all making for here. Suppose we're wrong?"

Rudd smiled. "We're not primitives, Tina. That world's okay. There can't be anything we can't lick. If it's all bog, we'll make it firm. If the vegetation is poisonous, we'll change its metabolism so we can eat it. If the weather is impos-


D. ADKINS

sible, we'll change the weather. We've already found that none of the things we might not be able to beat exists here."

Tina was unconvinced. "Yet Earth people had to leave Earth. They couldn't beat what happened to their own world, where they had all the advantages."

"That's quite different. That's mutation of the sun. We're not at the stage of being able to do anything about that, Tina. But the environment of a planet—that's easy for us to handle."

The door swung open and Wingate came in. Tina shivered and turned away.

"Everything set?" Wingate asked briefly. He knew that the actual landing was being handled by Rudd and Tina, not himself, that he had in fact delegated responsibility for the most important event in the life of the *Good Hope*. That kind of thing didn't bother him. The ultimate decisions remained his.

Rudd nodded. "We weren't expecting you. I thought you were asleep."

"The radio officer called me a few minutes ago. Seems he's picking something up."

"From the planet?" Rudd demanded incredulously.

"We'll find out when he comes."

Tina stared at Rudd, then Wingate. "Journey's End is inhabited?" she said. "Is that it?"

Wingate shook his head. "We've seen nothing to indicate it. Remember, no trace of life has ever been found anywhere but Earth."

The current theory of life in the galaxy—there was always a current theory, often the exact opposite of the last one—was that the supreme accident required to create life had happened only once. Experiments with organic detectors which were supposed to work over immense distances had shown a complete blank in the galaxy.

"But there's life there," said Tina simply, pointing at Journey's End. "Look. The world is green. That means plants."

"The tests were never conclusive for plant life."

"But if plants, why not insects, birds, reptiles? Why not men?"

Wingate shrugged. He was the kind of man who did as he was told from above and didn't argue, told people below what to do and didn't expect them to argue. The official position was that there was no life, certainly no intelligent life, in the galaxy, and he acted on this basis.

Bill Lucy came in. He was only a year younger than Wingate, six years younger than Rudd. And thirty-three years older than Tina.

"What's this about messages, Bill?" Wingate demanded.

Bill was quiet, hesitant, liable when he did say anything to take about half of it back later. He was competent, of course. But cautious, and as shy as he was cautious.

"I didn't say messages," he said. "Radio activity."

"People?"

"Oh, no. Not that kind of activity."

"Radioactivity?" Wingate asked, adding one and one to make six.

"No, no, no. Waves. Want to come and hear?"

"Later. You're the radio chief. You heard something. Tell me what it means."

Lucy looked harassed. "I can't tell you what it means, Captain. I've never heard anything like it."

"You've called the planet to see if you can get an answer?" Rudd said.

"Oh, sure. Over and over again. In fact I've got a taped message going out every half hour."

"What happens?"

"Nothing. Nothing except this . . . this activity."

"Could it be," Rudd suggested, "a different kind of communication, similar to radio, employed by a different race, using, naturally enough, fundamentally different equipment?"

Lucy looked more harassed. "Look, suppose you were scanning for TV waves and your equipment began to click like a geiger counter, what would you make of it? There's something. Sure there's something. But what—"

"Geiger counter," said Wingate. "So it is radioactivity."

Lucy raised his hands helplessly. "I didn't mean that. I just meant . . . Look, what I thought was—I can't make anything of the waves, and I doubt if I ever will . . . Should I say anything in my report for the capsule? It's due now."

"Put it in," said Wingate. He paused, then went on: "Put it in quick. I don't know what this means, and I still don't believe there are intelligent creatures down there. But we can't take chances. I want that capsule sent out right away, right now."

"Huh?" said Lucy.

"In case," said Wingate grimly, "there might be something to stop it."

He stalked out of the control room.

Nobody said anything. When the door swung behind him, Tina shivered again.

V

There were just three of them in the control room, landing the vast ship. It had always been like that: the *Good Hope*, after the first few months of her long journey, had never needed much attention. Consequently she was rather like a huge cattle boat, a few men and women running her and the others, the cattle, just living and breeding.

Rudd had been sixteen when the ship started her journey. Wingate was ten. Tina's father and mother were not yet born.

So none of the three had any experience of landing a spaceship without supervision, though Rudd had been carefully coached. In some ways it didn't matter. The *Good Hope* was built to be landed safely once, never to rise again. And most of the details of landing were automatic.

The message capsule was away. It was not far away yet, its computers still figuring out the problem

of reaching a world nearly forty light-years away most efficiently, quickly and economically, at multiples of flight speed which were possible for a machine but not for any living creature. Though it was still close, however, there was no longer any way of adding to the information it carried.

The *Good Hope* was not landing by braking orbit. With vast power reserves and enormous stabilizers, she was coming straight down. The designers long ago had figured that a relatively inexperienced crew would be able to handle such a landing better than other techniques theoretically more efficient.

Rudd paced the room slowly, not looking at any of the screens. His function, now and in the last few years, had been that of a human stabilizer, and he knew it. One man had to rule a ship, even a ship as vast as the *Good Hope*. Wingate had to make the decisions—as he had done when the riot broke out in the lounge. But there were times when he had to be gently opposed, times when he had to be encouraged.

Sometimes, when he and Wingate disagreed, Rudd was right. Indeed, usually he was right, and Wingate gradually realized it. Other times, when he was wrong—as when he counselled leaving the human conflagration to burn itself out—Wingate shrugged aside his advice.

Wingate stood immobile at the main control board. The relays were set, and it was unlikely that he would have to do anything at all. Still, he was ready and waiting.

Tina was standing in front of one of the screens. Her job was over; if any of the calculations were wrong, it was too late to correct them now. All the same, she too was ready. The whole point about emergencies was that no one could guess what form they might take.

Curiously, she was wearing a dress, stockings and high-heeled shoes. Women, even the young girls, sometimes dressed like that on Sundays or on formal occasions. Yet Tina could not have chosen to land like that because it was her formal attire—she, as a leading navigator, had a uniform she could have worn.

Rudd's guess was that she felt a sense of history at this moment. With all the indoctrination in the ways of Earth, she knew as well as he did that forty-seven years ago, when this journey started, a girl of her age, in position, would almost certainly have looked as she did now. In effect, she was acting like a girl of Earth.

She caught his arm as his aimless strolling brought him close to her. In a low voice she said: "You're really the captain, you know, not Wingate. You never gave it up, Uncle Arthur."

Rudd shook his head.

"What really happened?" she persisted. "Nobody ever knew except you and Wingate. Did you give up responsibility—or did he take it?"

"He's the captain all right," Rudd murmured. "If you really want to know—any leader needs a right-hand man. He can't stand alone. I

had no right-hand man. Wingate didn't fit. Nobody else fitted. But I could be his right-hand man. So I stepped down."

Tina nodded, satisfied. "You're still the captain."

He sighed, but made no attempt to explain further. Women, even women like Tina, couldn't understand men's capacity to switch leadership roles smoothly. Smith could work under Brown, and Brown could work under Smith, if there was no temperamental bar. But sometimes Smith could work under Brown, and Brown couldn't work under Smith.

It was unimportant. He looked past her at the screen.

"It's clearing!" said Tina excitedly, and across the room Wingate looked up at his own screen.

The mist, the dust, the clouds were thinning. The ground below was coming into sharper focus. Vague patches of color became smaller, sharper, no longer fading indistinctly into whatever lay adjacent to them.

And though the ship was not descending rapidly, though it was still scores of miles up, once the screen began to clear it cleared rapidly . . .

The intercom buzzed. Impatiently Wingate stabbed a button.

No further trouble was expected, but just in case anybody cracked under the strain and tried to wreck the controls, the three of them were locked in the room. Wingate's orders were that there should be no communication until after the ship was down except in case of emergency.

The speaker stayed silent. Wingate stabbed another buzzer and picked up the phone. "Well?" he barked.

He listened for only a few seconds, and then put down the phone quietly. He looked directly at Rudd.

"Tom Sheriff and Arlene Ball have been found dead," he said. "Suicide." There was puzzled respect in his tone. He would never understand how Rudd could foresee things like that.

But they had no time for Tom and Arlene. Not now.

"Look!" Tina breathed. "A city!"

For miles it stretched, located exactly where they had decided from far out that a city should be located. Almost at once, the first shock of seeing that a planet which they had really believed uninhabited was anything but uninhabited merged into another.

This was not just a city, a vast, magnificent city. It was not just a human city (no alien race would build houses and blocks and roadways and parks just like that).

In the distance was a huge white pillared building in modern-Greek style. The bridges spanned the rivers were of familiar types. There were churches with spires, Gothic churches. No other race, no other *human* race, could build thus by coincidence.

Even Tina, who had seen cities from this angle only in aerial photographs, could not miss the conclusion which was inevitable to the other two. "An Earth city," she

whispered. "A city built by our people. But . . .?"

Never had the mere sight of a city raised and answered so many questions so quickly. The very sight of it had shown them at first that far from being uninhabited, this world was well past the preliminary stages of settlement. A closer look showed the people below were human. A still closer look told them that only Terrans of approximately their own era could and would have built such a city.

The final conclusion also needed no discussion, no words, only a simple deduction.

Wingate voiced it. "After we left," he said heavily, "they found a quicker way."

There was a pause. None of them knew whether it lasted seconds or minutes.

At the end of it, the situation had been assimilated and they had reached the stage of taking action.

"We'll go on," Wingate roared. "We won't land. We'll go on. We'll find another world."

Tina stared at him as if he had gone mad. In a way he had. His whole life, his purpose in life, had somersaulted.

"No," Rudd said quietly. "We weren't needed, it seems. They managed without us. But of course we must land."

"We'll go on!" Wingate shouted. "We'll find a world where—"

Rudd found the unanswerable response. "We can't, Jim. You know that. We'd never get this ship into space again."

Wingate bowed his head. He knew this was true.

Tina's puzzlement gave way to joy. "This is great!" she said. "We thought we were going to have a tough time. But everything's been done for us. How, Uncle Arthur? How did this happen?"

She was young and enthusiastic, Rudd thought. Maybe he could, too, but it would take a lot longer than five seconds. As for Wingate, with his dedication, his sense of purpose, his vision of the settlement he was going to create . . . he would never adjust fully.

"Matter transference," Rudd said heavily. "Hyperspace travel. Faster-than-light drive. One of the dreams that were still dreams when we left . . . only this one came true. What does it matter? They're here. They've been here for a long time. For the last thirty years, anyway—"

"While we were crawling here on our hands and knees, making history," Wingate murmured. There were tears in his eyes.

There had been no tears when he killed his son.

VI

In the warning room of New City's defense chain, three people who were also two men and a girl were watching their screens anxiously.

"Zeb, there's no time!" Harry exclaimed. "What we do, we've got to do right now. Remember Samsonville? They waited there until the Perlie ship opened fire—"

"Yes, but is that a Perlie ship?"

Zeb demanded. "Looks nothing like it. Too big, too—"

"That ship doesn't look like anything," said Harry. "Look at the size of her! Hell, we can't let anything that size get close. Dina, can't you get a thing through to her?"

"I'm still trying," said the girl. "There's been lots of electrical traces—would be funny if there weren't—But I can't get anything that makes sense."

"Like the Perlie ships," said Harry.

Zeb was frowning, less impatient than Harry, but more disturbed. "Harry, even if that *is* a Perlie ship we've got to talk to them sometime. We know they're humanoid, we know roughly where they come from, and that's about all we know about them, except that technologically they're a bit behind us. We can't communicate with them before they land, so some day we've got to let them land, and—"

"Not a ship that size," said Harry definitely. "A little ship, maybe—and not coming right down on New City either. Zeb, we've got to blast that thing."

"Harry, no. Anyway, warn her. Hit her with a beam that won't do any damage. Give her a chance to hold off."

"A ship that size," said Harry, returning to his main point, "can't hold off. If we don't blast her, she's down."

Dina said: "I've got a tracer on that capsule she released. What about it?"

"Kill it," said Harry briefly.

"Harry—" Zeb pleaded.

"Zeb, whatever we do about the ship, we can't take any chances with the capsule. Kill it, Dina."

Dina picked up a phone.

"She's coming down faster," Zeb reported reluctantly. "Say, weren't there Earth ships fifty years ago making for every damn planet in the galaxy? Could she be one of those?"

Harry was shaken for a moment. "Gosh, yes. But . . . fifty years? Could anything be in space after that time? No, Zeb. I ask you—does she look anything like an Earth ship?"

"Long-range ships like that would be experimental anyway. Nobody would know what they could do."

Harry was sure again. "No, she's a Perlie ship. The Perlies have made the biggest thing they could make and sent it against us. Maybe that thing's a gigantic bomb!"

"Capsule destroyed," Dina reported. "Look . . . may I say something?"

"Go ahead."

"If that was an Earth ship, I could talk to her. I can't."

Even Zeb had to admit the truth of this. But he had one more try. "When did radaradio come in? If that ship did come from Earth, she'd be fifty years old, and—"

Harry already had the point. He was ninety-nine percent certain, and if the stranger was a Perlie ship he had already run a fantastic risk by not pressing the button before him. Everything was all lined up, of course. All he had to do was touch the button.

But the Terrans hadn't started the

fighting when at last they met an intelligent non-human race. They didn't want a war on their hands, right at a time when transporting Earth's population to Arcturus was a top-priority job. They didn't want to fight the Perlies—yet, if at all.

And if there was a chance that this was one of the ancient Terran ships sent desperately in all directions half a century ago, when Earth had to try absolutely anything . . .

"You know, Dina?" he asked tersely.

The girl shook her head. "I'll call my chief," she said.

"I wish I was up on history," Zeb muttered.

"What's history to us?" Harry said. "We're making history. We're busy."

"But we should know some things," Zeb argued. "If we knew whether a ship like that had been sent here from Earth fifty years ago . . . if we knew how old RDR was—if we knew . . ."

"You sure?" Dina said on the phone. She listened for a moment, then put down the phone and looked up, "Radio chief says the old radio system went out nearly a century ago. Says he doesn't even know how it worked."

"Right," said Harry.

"Right," said Zeb reluctantly.

Harry pressed the button.

They never knew in the *Good Hope* what happened. What came at them was a multiple, almost simultaneous battery of all the most lethal and destructive tricks an advanced technology could command.

The fusing waves that went for their brains killed them all instantly, so what happened later was of very little concern to them. It was a merciful end.

All the circuits in the ship burned out as for a millionth of a second they were cruelly overloaded. The wave of heat which swept the ship burned all that would burn, including all the already lifeless bodies.

Then the shell arrived, a shell of such power that the huge mass of the *Good Hope* was pulverized rather than smashed.

In the warning room in New City, Zeb said: "But we *will* have to talk to the Perlies sometime."

"Of course," Harry sighed. "But they have to respect us first. Whatever they're like, they're behind us in all the things that count, including their outlook on cooperation between different races. A few hundred years ago, we were like them —shoot first and ask questions afterward. But we've learned it doesn't pay." Zeb nodded.

"Take just now," Harry went on. "We should have blasted that ship at least fifteen minutes earlier — maybe hours earlier, when she was first detected. But we gave her every chance . . ."

Dina's phone rang. She picked it up. Her expression did not change as she listened.

"That was my boss again," she said. "He's sorry—he just checked up and found RDR came in only forty-three years ago."

At the stricken expression on the two men's faces, she asked: "Does it matter?"

END

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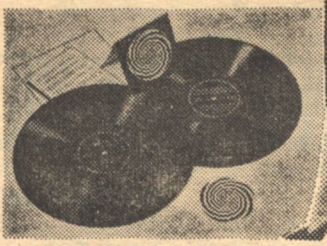

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STARS, WON'T YOU HIDE ME?

by BEN BOVA

The pilot was doomed but couldn't die—his ship wouldn't let him!

O sinner-man, where are you going to run to?
O sinner-man, where are you going to run to?
O sinner-man, where are you going to run to
All on that day?

The ship was hurt, and Holman could feel its pain. He lay fetal-like in the contoured couch, his silvery uniform spiderwebbed by dozens of contact and probe wires connecting him to the ship so thoroughly that it was hard to tell where his own nervous system ended and the electronic networks of the ship began.

Holman felt the throb of the ship's mighty engines as his own pulse, and the gaping wounds in the generator section, where the enemy beams had struck, were searing his flesh. Breathing was difficult, labored, even though the ship was working hard to repair itself.

They were fleeing, he and the ship; hurtling through the star lanes to a refuge. But where?

The main computer flashed its lights to get his attention. Holman rubbed his eyes wearily and said:

"Okay, what is it?"

YOU HAVE NOT SELECTED A COURSE, the computer said aloud, while printing the words on its viewscreen at the same time.

Holman stared at the screen. "Just away from here," he said at last. "Anyplace, as long as it's far away."

The computer blinked thoughtfully for a moment. SPECIFIC COURSE INSTRUCTION IS REQUIRED.

"What difference does it make?"

Holman snapped. "It's over. Everything finished. Leave me alone."

IN LIEU OF SPECIFIC INSTRUCTIONS, IT IS NECESSARY TO TAP SUBCONSCIOUS SOURCES.

"Tap away."

The computer did just that. And if it could have been surprised, it would have been at the wishes buried deep in Holman's inner mind. But instead, it merely correlated those wishes to its single-minded purpose of the moment, and relayed a set of navigational instructions to the ship's guidance system.

Run to the moon: O Moon, won't you hide me?
The Lord said: O sinner-man, the moon'll be a-bleeding
All on that day.

The Final Battle had been lost. On a million million planets across the galaxy-studded universe, mankind had been blasted into defeat and annihilation. The Others had returned from across the edge of the observable world, just as man had always feared. They had returned and ruthlessly exterminated the race from Earth.

It had taken eons,, but time twisted strangely in a civilization of lightspeed ships. Holman himself, barely thirty years old subjectively, had seen both the beginning of the ultimate war and its tragic end. He had gone from school into the military. And fighting inside a ship that could span the known universe in a few decades while he slept in cryogenic suspension, he had aged only ten years during the billions of years that the universe had ticked off in its stately, objective time-flow.

The Final Battle, from which Holman was fleeing, had been fought near an exploded galaxy billions of light-years from the Milky Way and Earth. There, with the ghastly bluish glare of uncountable shattered stars as a backdrop, the once-mighty fleets of mankind had been arrayed. Mortals and Immortals alike, men drew themselves up to face the implacable Others.

The enemy won. Not easily, but completely. Mankind was crushed, totally. A few fleeing men in a few battered ships was all that remained. Even the Immortals, Holman thought wryly, had not escaped. The Others had taken special care to make certain that they were definitely killed.

So it was over.

Holman's mind pictured the blood-soaked planets he had seen during his brief, ageless lifetime of violence. His thoughts drifted back to his own homeworld, his own family: gone long, long centuries ago. Crumbled into dust by geological time or blasted suddenly by the overpowering Others. Either way, the remorseless flow of time had covered them over completely, obliterated them, in the span of a few of Holman's heartbeats.

All gone now. All the people he knew, all the planets he had seen through the ship's electroptical eyes, all of mankind . . . extinct.

He could feel the drowsiness settling upon him. The ship was accelerating to lightspeed, and the cry-

ogenic sleep was coming. But he didn't want to fall into slumber with those thoughts of blood and terror and loss before him.

With a conscious effort, Holman focused his thoughts on the only other available subject: the outside world, the universe of galaxies. An infinitely black sky studded with islands of stars. Glowing shapes of light, spiral, ovoid, elliptical. Little smears of warmth in the hollow unending darkness; drabs of red and blue standing against the engulfing night.

One of them, he knew, was the Milky Way. Man's original home. From this distance it looked the same. Unchanged by little annoyances like the annihilation of an intelligent race of star-roamers.

He drowsed.

The ship bore onward, preceded by an invisible net of force, thousands of kilometers in radius, that scooped in the rare atoms of hydrogen drifting between the galaxies and fed them into the ship's wounded, aching generators.

Something . . . a thought. Holman stirred in the couch. A consciousness — vague, distant, alien — brushed his mind.

He opened his eyes and looked at the computer viewscreen. Blank.

"Who is it?" he asked.

A thought skittered away from him. He got the impression of other minds: simple, open, almost childish. Innocent and curious.

It's a ship.

Where is it . . . oh, yes. I can sense it now. A beautiful ship.

Holman squinted with concentration.

It's very far away. I can barely reach it.

And inside of the ship . . .

It's a man. A human!

He's afraid.

He makes me feel afraid!

Holman called out, "Where are you?"

He's trying to speak.

Don't answer!

But . . .

He makes me afraid. Don't answer him. We've heard about humans!

Holman asked, "Help me."

Don't answer him and he'll go away. He's already so far off that I can barely hear him.

But he asks for help.

Yes, because he knows what is following him. Don't answer. Don't answer!

Their thoughts slid away from his mind. Holman automatically focused the outside viewscreens, but here in the emptiness between galaxies he could find neither ship nor planet anywhere in sight. He listened again, so hard that his head started to ache. But no more voices. He was alone again, alone in the metal womb of the ship.

He knows what is following him. Their words echoed in his brain. Are the Others following me? Have they picked up my trail? They must have. They must be right behind me.

He could feel the cold perspiration start to trickle over him.

"But they can't catch me as long as I keep moving," he muttered. "Right?"

CORRECT, said the computer, flashing lights at him. AT A RELATIVISTIC VELOCITY, WITHIN LESS THAN ONE PERCENT OF LIGHTSPEED, IT IS IMPOSSIBLE FOR THIS SHIP TO BE OVERTAKEN.

"Nothing can catch me as long as I keep running."

But his mind conjured up a thought of the Immortals. Nothing could kill them . . . except the Others.

Despite himself, Holman dropped into deepsleep. His body temperature plummeted to near-zero. His heartbeat nearly stopped. And as the ship streaked at almost lightspeed, a hardly visible blur to anyone looking for it, the outside world continued to live at its own pace. stars coalesced from gas clouds, matured, and died in explosions that fed new clouds for newer stars. Planets formed and grew mantles of air. Life took root and multiplied, evolved, built a myriad of civilizations in just as many different forms, decayed and died away.

All while Holman slept.

Run to the sea: O sea, won't you hide me?

The Lord said: O sinner-man, the sea'll be a-sinking

All on that day.

The computer woke him gently with a series of soft chimes.

APPROACHING THE SOLAR SYSTEM AND PLANET EARTH, AS INDICATED BY YOUR SUBCONSCIOUS COURSE INSTRUCTIONS.

Planet Earth, man's original home world. Holman nodded. Yes, this was where he had wanted to go. He had never seen the Earth, never been on this side of the Milky Way galaxy. Now he would visit the teeming nucleus of man's doomed civilization. He would bring the news of the awful defeat, and be on the site of mankind's birth when the inexorable tide of extinction washed over the Earth.

He noticed, as he adjusted the outside viewscreens, that the pain had gone.

"The generators have repaired themselves," he said.

WHILE YOU SLEPT. POWER GENERATION SYSTEM NOW OPERATING NORMALLY.

Holman smiled. But the smile faded as the ship swooped closer to the solar system. He turned from the outside viewscreens to the computer once again. "Are the 'scopes working all right?"

The computer hummed briefly, then replied. SUBSYSTEMS CHECK SATISFACTORY. COMPONENT CHECK SATISFACTORY. INTEGRATED EQUIPMENT CHECK POSITIVE. VIEWING EQUIPMENT FUNCTIONING NORMALLY.

Holman looked again. The Sun was rushing up to meet his gaze, but something was wrong about it. He knew deep within him, even without having ever seen the Sun this close before, that something was wrong. The Sun was whitish and somehow stunted looking, not the full yellow orb he had seen in filmtapes. And the Earth . . .

The ship took up a parking orbit around a planet scoured clean of life: a blackened ball of rock, airless, waterless. Hovering over the empty charred ground, Holman stared at the devastation with tears in his eyes. Nothing was left. Not a brick, not a blade of grass, not a drop of water.

"The Others," he whispered. "They got here first."

NEGATIVE, the computer replied. CHECK OF STELLAR POSITIONS FROM EARTH REFERENCE SHOWS THAT SEVERAL BILLION YEARS HAVE ELAPSED SINCE THE FINAL BATTLE.

"Several billion . . ."

LOGIC CIRCUITS INDICATE THE SUN HAS GONE THROUGH A NOVA PHASE. A COMPLETELY NATURAL PHENOMENON, UNRELATED TO ENEMY ACTION.

Holman pounded a fist on the unflinching armrest of his couch. "Why did I come here? I wasn't born on Earth. I never saw Earth before . . ."

YOUR SUBCONSCIOUS INDICATES A SUBJECTIVE IMPULSE STIRRED BY . . .

"To hell with my subconscious!" He stared out at the dead world again. "All those people . . . the cities, all the millions of years of evolution, of life. Even the oceans are gone. I never saw an ocean. Did you know that? I've travelled over half the universe and never saw an ocean."

OCEANS ARE A COMPARATIVELY RARE PHENOMENON, EXISTING ON ONLY ONE OUT OF APPROXIMATELY THREE THOUSAND PLANETS.

The ship drifted outward from Earth, past a blackened Mars, a shrunken Jupiter, a ringless Saturn.

"Where do I go now?" Holman asked.

The computer stayed silent.

> Run to the Lord: O Lord, won't you hide me?
> The Lord said: O sinner-man, you ought to been a praying
> All on that day.

Holman sat blankly while the ship swung out past the orbit of Pluto and into the comet belt at the outermost reaches of the Sun's domain.

He was suddenly aware of someone watching him.

No cause for fear. I am not of the Others.

It was an utterly calm, placid voice speaking in his mind: almost gentle, except that it was completely devoid of emotion.

"Who are you?"

An observer. Nothing more.

"What are you doing out here? Where are you, I can't see anything . . ."

I have been waiting for any stray survivor of the Final Battle to return to mankind's first home. You are the only one to come this way, in all this time.

"Waiting? Why?"

Holman sensed a bemused shrug, and a giant spreading of vast wings.

I am an observer. I have watched mankind since the beginning. Several of my race even attempted to

make contact with you from time to time. But the results were always the same — about as useful as your attempts to communicate with insects. We are too different from each other. We have evolved on different planes. There was no basis for understanding between us.

"But you watched us."

Yes. Watched you grow strong and reach out to the stars, only to be smashed back by the Others. Watched you regain your strength, go back among the stars. But this time you were constantly on guard, wary, alert, waiting for the Others to strike once again. Watched you find civilizations that you could not comprehend, such as our own, bypass them as you spread through the galaxies. Watched you contact civilizations of your own level, that you could communicate with. You usually went to war with them.

"And all you did was watch?"

We tried to warn you from time to time. We tried to advise you. But the warnings, the contacts, the glimpses of the future that we gave you were always ignored or derided. So you boiled out into space for the second time, and met other societies at your own level of understanding — aggressive, proud, fearful. And like the children you are, you fought endlessly.

"But the Others . . . what about them?"

They are your punishment.

"Punishment? For what? Because we fought wars?"

No. For stealing immortality.

"Stealing immortality? We worked for it. We learned how to make humans immortal. Some sort of chemicals. We were going to immortalize the whole race . . . I could've become immortal. *Immortal!* But they couldn't stand that . . the Others. They attacked us."

He sensed a disapproving shake of the head.

"It's true," Holman insisted. "They were afraid of how powerful we would become once we were all immortal. So they attacked us while they still could. Just as they had done a million years earlier. They destroyed Earth's first interstellar civilization, and tried to finish us permanently. They even caused Ice Ages on Earth. to make sure none of us would survive. But we lived through it and went back to the stars. So they hit us again. They wiped us out. Good God, for all I know I'm the last human being in the whole universe."

Your knowledge of the truth is imperfect. Mankind could have achieved immortality in time. Most races evolve that way eventually. But you were impatient. You stole immortality.

"Because we did it artificially, with chemicals. That's stealing it?"

Because the chemicals that gave you immortality came from the bodies of the race you called the Flower People. And to take the chemicals, it was necessary to kill individuals of that race.

Holman's eyes widened. "What?"

For every human made immortal, one of the Flower Folk had to die.

"We killed them? Those harmless little . . ." His voice trailed off.

To achieve racial immortality for mankind, it would have been necessary to perform racial murder on the Flower Folk.

Holman heard the words, but his mind was numb, trying to shut down tight on itself and squeeze out reality.

That is why the Others struck. That is why they had attacked you earlier, during your first expansion among the stars. You had found another race, with the same chemical of immortality. You were taking them into your laboratories and methodically murdering them. The Others stopped you then. But they took pity on you, and let a few survivors remain on Earth. They caused your Ice Ages as a kindness, to speed your development back to civilization, not to hinder you. They hoped you might evolve into a better species. But when the opportunity for immortality came your way once more, you seized it, regardless of the cost, heedless of your own ethical standards. It became necessary to extinguish you, the Others decided.

"And not a single nation in the whole universe would help us."

Why should they?

"So it's wrong for us to kill, but it's perfectly all right for the Others to exterminate us."

No one has spoken of right and wrong. I have only told you the truth.

"They're going to kill every last one of us."

There is only one of you remaining.

The words flashed through Holman. "I'm the only one . . . the last one?"

No answer.

He was alone now. Totally alone. Except for those who were following.

> Run to Satan: O Satan, won't you hide me?
> Satan said: O sinner-man, step right in
> All on that day.

Holman sat in shocked silence as the solar system shrank to a pinpoint of light and finally blended into the mighty panorama of stars that streamed across the eternal night of space. The ship raced away, sensing Holman's guilt and misery in its electronic way.

Immortality through murder, Holman repeated to himself over and over. Racial immortality through racial murder. And he had been a part of it! He had defended it, even sought immortality as his reward. He had fought his whole lifetime for it, and killed — so that he would not have to face death.

He sat there surrounded by self-repairing machinery, dressed in a silvery uniform, linked to a thousand automatic systems that fed him, kept him warm, regulated his air supply, monitored his blood flow, exercised his muscles with ultrasonic vibrators, pumped vitamins into him, merged his mind with the passionless brain of the ship, kept his body tanned and vigorous, his reflexes razor sharp. He sat there unseeing, his eyes pinpointed on a horror that he had helped to create. Not consciously, of course. But to Holman,

that was all the worse. He had fought without knowing what he was defending. Without even asking himself about it. All the marvels of man's ingenuity, all the deepest longings of the soul, focused on racial murder.

Finally he became aware of the computer's frantic buzzing and lightflashing.

"What is it?"

COURSE INSTRUCTIONS ARE REQUIRED.

"What difference does it make? Why run anymore?"

YOUR DUTY IS TO PRESERVE YOURSELF UNTIL ORDERED TO DO OTHERWISE.

Holman heard himself laugh. "Ordered? By who? There's nobody left."

THAT IS AN UNPROVED ASSUMPTION.

"The war was billions of years ago," Holman said. "It's been over for eons. Mankind died in that war. Earth no longer exists. The sun is a white dwarf star. We're anachronisms, you and me..."

THE WORD IS ATAVISM.

"The hell with the word! I want to end it. I'm tired."

IT IS TREASONABLE TO SURRENDER WHILE STILL CAPABLE OF FIGHTING AND/OR ELUDING THE ENEMY.

"So shoot me for treason. That's as good a way as any."

IT IS IMPOSSIBLE FOR SYSTEMS OF THIS SHIP TO HARM YOU.

"All right then, let's stop running. The Others will find us soon enough once we stop. They'll know what to do."

THIS SHIP CANNOT DELIBERATELY ALLOW ITSELF TO FALL INTO ENEMY HANDS.

"You're disobeying me?"

THIS SHIP IS PROGRAMMED FOR MAXIMUM EFFECTIVENESS AGAINST THE ENEMY. A WEAPONS SYSTEM DOES NOT SURRENDER VOLUNTARILY.

"I'm no weapons system, I'm a man, dammit!"

THIS WEAPONS SYSTEM INCLUDES A HUMAN PILOT. IT WAS DESIGNED FOR HUMAN USE. YOU ARE AN INTEGRAL COMPONENT OF THE SYSTEM.

"Damn you... I'll kill myself. Is that what you want?"

He reached for the control panels set before him. It would be simple enough to manually shut off the air supply, or blow open an airlock, or even set off the ship's destruct explosives.

But Holman found that he could not move his arms. He could not even sit up straight. He collapsed back into the padded softness of the couch, glaring at the computer viewscreen.

SELF-PROTECTION MECHANISMS INCLUDE THE CAPABILITY OF PREVENTING THE HUMAN COMPONENT OF THE SYSTEM FROM IRRATIONAL ACTIONS. A series of clicks and blinks, then: IN LIEU OF SPECIFIC COURSE INSTRUCTIONS, A RANDOM EVASION PATTERN WILL BE RUN.

Despite his fiercest efforts, Holman felt himself dropping into deep-sleep. Slowly, slowly, everything faded, and darkness engulfed him.

Run to the stars: O stars, won't you hide me?
The Lord said: O sinner-man, the stars'll be a-falling
All on that day.

Holman slept as the ship raced at near-lightspeed in an erratic, meaningless course, looping across galaxies, darting through eons of time. When the computer's probings of Holman's subconscious mind told it that everything was safe, it instructed the cryogenics system to reawaken the man.

He blinked, then slowly sat up.

SUBCONSCIOUS INDICATIONS SHOW THAT THE WAVE OF IRRATIONALITY HAS PASSED.

Holman said nothing.

YOU WERE SUFFERING FROM AN EMOTIONAL SHOCK.

"And now it's an emotional pain ... a permanent, fixed, immutable disease that will kill me, sooner or later. But don't worry, I won't kill myself. I'm over that. And I won't do anything to damage you, either."

COURSE INSTRUCTIONS?

He shrugged. "Let's see what the world looks like out there." Holman focused the outside viewscreens. "Things look different," he said, puzzled. "The sky isn't black anymore; it's sort of grayish — like the first touch of dawn..."

COURSE INSTRUCTIONS?

He took a deep breath. "Let's try to find some planet where the people are too young to have heard of mankind, and too innocent to worry about death."

A PRIMITIVE CIVILIZATION. THE SCANNERS CAN ONLY DETECT SUCH SOCIETIES AT EXTREMELY CLOSE RANGE.

"Okay. We've got nothing but time."

The ship doubled back to the nearest galaxy and began a searching pattern. Holman stared at the sky, fascinated. Something strange was happening.

The viewscreens showed him the outside world, and automatically corrected the wavelength shifts caused by the ship's immense velocity. It was as though Holman were watching a speeded-up tape of cosmological evolution. Galaxies seemed to be edging into his field of view, mammoth islands of stars, sometimes coming close enough to collide. He watched the nebulous arms of a giant spiral slice silently through the open latticework of a great ovoid galaxy. He saw two spirals interpenetrate, their loose gas heating to an intense blue that finally disappeared into ultraviolet. And all the while, the once-black sky was getting brighter and brighter.

"Found anything yet?" he absently asked the computer, still staring at the outside view.

You will find no one.

Holman's whole body went rigid. No mistaking it: the Others.

No race, anywhere, will shelter you.

We will see to that.

You are alone, and you will be alone until death releases you to join your fellow men.

Their voices inside his head rang with cold fury. An implacable hatred, cosmic and eternal.

"But why me? I'm only one man. What harm can I do now?"

You are a human.

You are accursed. A race of murderers.

Your punishment is extinction.

"But I'm not an Immortal. I never even saw an Immortal. I didn't know about the Flower People, I just took orders."

Total extinction.

For all of mankind.

All.

"Judge and jury, all at once. And executioners too. All right... try and get me! If you're so powerful, and it means so much to you that you have to wipe out the last single man in the universe — come and get me! Just try."

You have no right to resist.

Your race is evil. All must pay with death.

You cannot escape us.

"I don't care what we've done. Understand? I don't care! Wrong, right, it doesn't matter. I didn't do anything. I won't accept your verdict for something I didn't do."

It makes no difference.

You can flee to the ends of the universe to no avail.

You have forced us to leave our time continuum. We can never return to our homeworlds again. We have nothing to do but pursue you. Sooner or later your machinery will fail. You cannot flee us forever.

Their thoughts broke off. But Holman could still feel them, still sense them following.

"Can't flee forever," Holman repeated to himself. "Well, I can damn well try."

He looked at the outside viewscreens again, and suddenly the word *forever* took on its real meaning.

The galaxies were clustering in now, falling in together as though sliding down some titanic, invisible slope. The universe had stopped expanding eons ago, Holman now realized. Now it was contracting, pulling together again. It was all ending!

He laughed. Coming to an end. Mankind and the Others, together, coming to the ultimate and complete end of everything.

"How much longer?" he asked the computer. "How long do we have?"

The computer's lights flashed once, twice, then went dark. The viewscreen was dead.

Holman stared at the machine. He looked around the compartment. One by one the outside viewscreens were flickering, becoming static-streaked, weak, and then winking off.

"They're taking over the ship!"

With every ounce of willpower in him, Holman concentrated on the generators and engines. That was the important part, the crucial system that spelled the difference between victory and defeat. The ship had to keep moving!

He looked at the instrument panels, but their soft luminosity faded away into darkness. And now it was becoming difficult to breathe. And the heating units seemed to be stopped. Holman could feel his life-warmth ebbing away through the inert metal hull of the dying ship.

But the engines were still throbbing. The ship was still streaking

across space and time, heading toward a rendezvous with the infinite.

Surrender.

In a few moments you will be dead. Give up this mad flight and die peacefully.

The ship shuddered violently. What were they doing to it now?

Surrender!

"Go to hell," Holman snapped. "While there's breath in me. I'll spend it fighting you."

You cannot escape.

But now Holman could feel warmth seeping into the ship. He could sense the painful glare outside as billions of galaxies all rushed together down to a single cataclysmic point in space-time.

"It's almost over!" he shouted. "Almost finished. And you've lost! Mankind is still alive, despite everything you've thrown at him. All of mankind — the good and the bad, the murderers and the music, wars and cities and everything we've ever done, the whole race from the beginning of time to the end — all locked up here in my skull. And I'm still here. Do you hear me? I'm still here!" The Others were silent.

Holman could feel a majestic rumble outside the ship, like distant thunder.

"The end of the world. The end of everything and everybody. We finish in a tie. Mankind has made it right down to the final second. And if there's another universe after this one, maybe there'll be a place in it for us all over again. How's that for laughs?" The world ended.

Not with a whimper, but a roar of triumph. END

How To Understand Aliens

by ROBERT M. W. DIXON

This is the way to talk to Sirians, Betelgeusans — or maybe to our own neighbors!

It seems likely that, when space exploration becomes an established profession, every first-contact party will have to include a space linguist.

Efficient communication with extra-terrestrials will be a necessary prerequisite to the signing of political agreements or trade treaties—and these are likely to be the main business of a first-contact party. Communication can only be achieved through the explorers learning to speak an extra-terrestrial language, or else through the aliens learning an earth language.

It seems only reasonable that the explorers, who took the first initiative in going to the alien planet, should take the further initiative of learning its language. (Although this is by no means as obvious as it sounds: early explorers in Africa, Australia and the Pacific seldom tried to understand native languages, and communication was usually achieved through the natives learning English.)

The space linguist will thus play a vital role in the initial stages of contact with an alien people. To understand the sort of problems he will have to face, and the ways he can go about solving them, we can follow through two imaginary first-contact experiences: one with a race of giant flying creatures, and one with a mole-like people who spend most of their lives in underground tunnels.

But before doing this, we must consider the general attitudes toward language that a space linguist will have to possess.

The most persistent and traditional view of language, and its relation to the rest of the world, can probably be traced back to Aristotle. In this view language merely mirrors objective facts about the 'real' world. A sentence is, as

it were, a picture of something absolute and verifiable. Different languages can describe the same fact in different ways—very much as different painters can represent the same scene in various ways, through subtly different choices of color and through exaggeration of different features of the general scene.

Traditionally, then, it has been held that the composition of the world is fixed and constant, and that it is this material reality that determines the structures of our languages.

Then, in the 1930's, a fire prevention engineer and part-time linguist, called Benjamin Lee Whorf, put forward an original and revolutionary hypothesis about the relation between language and reality. Whorf suggested that the structure of the language we use influences our perception of the world around us. Very roughly, those people whose languages have complicated verbs might see everything in terms of actions; and people whose languages relied more on complications of noun structure would think in terms of static objects. The second view might describe a horse jumping over a gate as, first, a horse on one side of the gate, and, then the same horse on the other side of the gate. The first, more dynamic, view would be in terms of the movement involved—rising movement, forward movement, and then falling movement.

For Whorf, a particular language is the 'constant', determining its users' ideas about the composition of the world. For instance, most Indo-European languages have grammatical elements denoting 'tenses'—past time, present time and future time. So that speakers of English or French think of time as a gradually unfolding scale. But the American Indian language Hopi does not have tenses for its verbs, and its speakers have no concept of 'time'—or, for that matter, of 'space'—comparable to our own. Space or time terms in our language are recast into expressions of extension, operation or cyclic process for the Hopi, in a way that can only be understood by someone familiar with both the Hopi language and with the culture of the Hopi people.

The most effective way of looking at language is to combine Whorf's view with the traditional, everyday view. We can think of a people's ideas about the world, and the structure of their language, as intimately related one to another. Neither of these exists prior to the other, and neither can be investigated in isolation. Instead we must work in both fields at once: understanding some aspect of a people's way of life, and using this to interpret and explain the way they put words together to make sentences. Then using the grammer to explain some other aspects of their beliefs and customs, and so on until eventually we have a complete understanding of both the language, and the thought and behavior patterns that go with it.

Many languages in North and South America, New Guinea, and elsewhere, seem quite alien to speak-

ers of European languages. Space linguists could gain valuable practice in unravelling bizarre languages by having a preliminary workout on a terrestrial language before venturing into extra-terrestrial contact. For instance, a cadet linguist thrown amongst a tribe of Australian Aborigines would be able to get an idea of the variety of similar meanings a word can have when he learned that *gargal* could mean, firstly, the upper part of the human arm as it meets the body; secondly, the lower part of a branch, where it meets the trunk of a tree; and thirdly, the mouth of a stream where it flows into a larger river. And of how the meaning of a word can be extended to apply to new situations: the word for 'hollow log', *maralu*, being taken over to apply to 'shirt' when the aborigines first came into contact with white men wearing this novel garment.

Now let us assume that our space linguist, having completed his earthside training, sets out with a first-contact party.

The expedition soon finds an intelligent life-form that, on the whole, seems friendly and eager to communicate. The extra-terrestrials are large, yellow mole-like creatures who spend nine-tenths of their lives in underground burrows.

They immediately show great interest in the spaceships, and are keen to look around inside it. Without any hesitation they give it a name in their language: *tanlugit*.

With as little delay as possible the expedition assemble their squat, bull-nosed jeeps, so that the botanists and mineorologists can begin their land survey. As soon as the jeeps appear, the aliens leave the spaceship and crowd around them; the linguist notices that one alien calls a jeep *yamlukan* and the rest accept this name immediately.

The jeeps remain the center of attention during the next few days, whilst the linguist works on the aliens' language, the team's psychologist and social anthropologist assesses their mental and behavioral patterns, and the physiologist attempts to understand their bodily mechanisms.

The aliens' greatest joy is to be taken for a ride in a jeep. Some of them consent to go into orbit in the spaceship but appear unimpressed by this: they are not scared, merely indifferent. In fact the expedition's bicycles, intended for short-distance travel, are more popular than the spaceship amongst those that cannot be fitted into a jeep. The linguist notices that the bicycles are called *golutim*.

Eventually, it is the psychologist who expresses worry over the aliens' seemingly inexplicable greater awe for the jeep than for the spaceship. This failure to recognize the greater mechanical wonder of the spaceship, and the philosophical fact that it can move in three dimensions to the jeeps' two, contradict the most basic theories of universal psychology.

Finally, he asks the linguist if the general structure of the aliens' language can throw any light on this apparent anomaly of behavior.

The linguist is at this time puzzled by the aliens' terms for referring to each other. One day, on asking an alien where his clan-chief was, he had been told that the *kimwe* was underground supervising the *yamkan*. It seemed that *kimwe* meant simply 'man,' and that the *yamkan* was the most modern method of constructing tunnels. The next day, the alien said that the *kimluwe* was on a *golutim*, when apparently referring to the same clan-chief, now riding a bicycle. *Kimwe* and *kimluwe* seemed interchangeable as the word for 'man', in a language where reference was generally quite specific and economical.

It is only after the linguist has been taken on a tour of the tunnels that he sees the answer to the puzzle. Whilst underground he is shown the *yamkan* method of tunnel digging, in which the tunnel is dug evenly by four aliens, each advancing at the same pace, abreast of each other. He is told of the superiority (in terms of speed of digging) of this method over the out-of-date *tangit* method. The latter requires three men, the middle man throwing his earth to left and right, instead of directly behind him as the *yamkan* method. The two side men have to throw back the middle man's soil as well as their own: they tend to drop further behind the middle man and he frequently has to wait for them. In this case the tunnel is dug in a pointed manner, with the middle digger ahead of the outside ones.

For *yamkan* and *tangit* digging the earth thrown back by the diggers is taken to the surface by following workers so that the tunnels can be permanent passages.

If an alien wants to get from one tunnel to another quickly, he can use the third, *gotim*, method. This just consists of one man digging himself through the earth, closing up the tunnel he has dug with soil thrown back from the front.

The linguist suddenly realizes that there is a connection between the words for kinds of digging, and those for jeep, spaceship and bicycle:

jeep *yamlukan*
straight-edge-digging *yamkan*
spaceship *tanlugit*
pointed-edge digging *tangit*
bicycle *golutim*
single-man digging *gotim*

and at the same connection between *kimluwe* and *kimwe*, the two words for man. He then notices that anyone underground is called *kimwe*, and anyone on the surface *kimluwe*. *Lu* thus appears to be a grammatical element that is put between the first and second syllables of any word if the thing referred to by that word is above ground.

The jeeps, spaceship and bicycles are three methods of surface locomotion that have shape similarities with the three methods of digging. So that within this language each has only one obvious name: *tangit* with a *lu* in the middle for the sleek, pointed spaceship; *yamkan* with a *lu* in the middle for the bull-nosed jeep; and *gotim* with a *lu* in the middle for the slender, single-man bicycle.

Since *yamkan* is the most respected method of digging, the jeep—with name *yamlukan*—is regarded as a superior vehicle. The aliens only make a distinction between things underground and things aboveground, and see no inherent difference between a spaceship, which will go up in the air, and a jeep, which can only go along the ground.

Their liking for the jeep is based upon the similarity between its name (which it has got because of its shape) and the name for the best of the three methods of digging. It is thus quite natural for the spaceship to be regarded with indifference, and the bicycles to be looked upon as useful vehicles.

One of the most important questions that a linguist dealing with an unknown language has to face is, Where to start? When dealing with earth languages this is by no means a simple matter. The name for relatives are, generally, a bad place to begin, since kinship systems vary enormously. Even in languages with a multiplicity of names for relatives there may be only one term to cover both 'son' and 'daughter' (although, for instance, father and mother may use quite different terms in referring to their children).

To start with numbers might seem straightforward. Yet this procedure would be unsuitable for some Earth languages—Australian aborigines undoubtedly (and contrary to popular opinion) have a high intelligence but this is of quite a different sort from Western intelligence. Aborigines count entirely by means of signs—something like deaf-and-dumb language—and have no words in their spoken language to denote numbers above 3.

In fact the only sure starting place for Earth languages is parts of the body. Some languages have the same name for hand, finger and wrist; others have a dozen or so different names for parts of the arm. But we can be sure that each Earth language has *some* terms for *some* parts of the human body.

In the case of alien languages, whose speakers may be amoebas or robots, or have gaseous bodies, even this starting-point breaks down.

The truth of the matter is that there is no general starting-point which a linguist could try for *any* alien language he came across. Eliciting the names for objects might do for some races, but would be futile in the case of a people who thought quite dynamically—in terms of action and movement—and had nothing in their language that we could call 'nouns'.

The way a space linguist must proceed is as follows. He must first observe the behavior of the aliens he is investigating, and decide upon what seems to him to be the most important behavioral characteristic. In the imaginary example described above, digging tunnels was a central behavioral pattern and gave valuable information about the aliens' language and their thought-patterns; the contrast between underground and aboveground was another important pattern.

In a robot culture the greasing points of robot bodies, and the machines that manufacture grease, might be central cultural objects. Aliens living underwater might have grammatical categories corresponding to the behavioral patterns of floating, swimming near the surface, swimming up towards the surface, and diving.

Even in Earth languages important linguistic patterns can depend on geographical features. The Dyirbal tribe, living between the East coast of Australia and the Great Dividing Range, have over five hundred phrases all of which can be translated into English as either 'up there' or 'down there'. They specify whether the person concerned is up river or up hill, how far up he is (near, medium distance, or a long way), whether he is moving or stationary, and so on. No one can be referred to in a sentence without it being specified exactly where he is—how far up or down hill or river, etc—in relation to the speaker.

Let's take a look at another imaginary planet, where the intelligent inhabitants are large bronze bird-like creatures, with huge circular feet. They live in fairly isolated settlements and frequently visit other settlements. So that flying long distances takes up a large fraction of their lives.

The space linguist decides that flying must play a central role in these creatures' culture and that his most likely linguistic clues are to be gained from listening to the descriptions of different types of flying.

The aliens sometimes take off with a small glide, like an airplane. At other times they rise vertically, rather like a helicopter. The linguist has heard glide take-offs called *shami-di-laa* or *shomu-di-loo*, and vertical take-offs called *shomo-ti-laa* or *shami-ti-loo* or *shoma-ti-loo*. He provisionally decides that *di* and *ti* are grammatical elements, the first implying glide take-off and the second vertical take-off.

When he tries out this hypothesis, however, he gets two quite different reactions. He is talking to a smallish alien when he sees a large alien take off with a glide: he says *shami-di-laa* and the small alien corrects him by saying *shami-ti-loo*. The linguist persists and says *shami-di-loo*. Whereupon the small alien laughs, and then continues the conversation.

The following day he is involved in a similar incident with the same two birds. Whilst watching the small alien take off the large one says *shomu-di-laa*. The linguist notices that the take-off was vertical and wonders if he can have misheard. He inquires, *shomu-ti-laa?* At this the large bird strikes him and immediately flies away.

It now seems that his hypothesis about *di* and *ti* is incorrect and that although the occurrences of *di* or *ti* correlated with different modes of take-off in five instances, this is probably generally not so, and the correlation must have been quite accidental.

What was significant was the behavior of the two aliens after his misuse of *di* and *ti*. The nature of

their responses made it seem obvious that he had made a social blunder. The small alien had laughed and the larger one had assaulted him. If, as seemed possible, *di* and *ti* referred to the social castes of the birds, then *ti* would be more likely to indicate the most important caste. When he had described the upper caste bird as belonging to the lower caste the small, lower caste alien had laughed. Yet the upper caste bird had hit him upon hearing the lower caste bird referred to with the upper caste.

By further observation, the linguist found that birds referred to as *ti* were generally older and larger than those referred to as *di* and had a thin white line around their beak. The upper caste *ti* birds more often took off vertically since this was less energetic than the glide take-off practiced by most of the younger *di* birds. The difference in take-offs, however, was not mirrored in any grammatical choice when describing flights.

The other two elements in phrases like *shami-ti-loo* and *shami-di-laa* were found to correspond to aspects of the flight.

The first element describes the angle of rise—*shami* denotes a rise of about 60°, and *shomo* one of 45°, *shomu* a rise of around 30°, and *shoma* one of about 15°. If a bird flies with his feet folded under him the flight is described as *loo*, and if his feet are hanging down it it a *laa* flight. The second position is more comfortable, but the first is faster.

The linguist wrote a general formula for phrases describing flights:

$$\left\{\begin{matrix}\text{shami}\\ \text{shomo}\\ \text{shomu}\\ \text{shoma}\end{matrix}\right\} - \left\{\begin{matrix}\text{ti}\\ \text{di}\end{matrix}\right\} - \left\{\begin{matrix}\text{laa}\\ \text{loo}\end{matrix}\right\}$$

Any phrase must contain one term from the first system (a choice of one out of four terms), one from the second (one out of two), and one from the third system (again, one out of two). So that there are altogether 16 (=4 x 2 x 2) different ways of describing a flight.

The space linguist had been quite correct in assuming that he would find fairly complex grammatical contrasts associated with various kinds of flight. But what to him seemed the most obvious difference —mode of take-off—was relatively unimportant to the birds and was not reflected in the language. Angle of flight gave a clue as to its distance—the greater the angle the shorter the intended flight—and feet position the speed: together these would give an approximate duration for the flight.

The other element—*di* or *ti*—was a social marker, effectively denoting the maturity of a bird; the linguist found that *di* and *ti* occurred in many other phrases, whereas *shami, shomo, shomu, shoma, loo* and *laa* only occurred in phrases describing flights.

The most important quality a space linguist must have is his attitude toward language. He must realize that a language is particular to a culture and can only be understood in relation to that culture.

The linguist has to look at patterns of sounds and try to correlate them with patterns which he sees in the universe or, more particularly, in general non-language behavior. In the case of the mole-like aliens he found that the presence or absence of the sound-pattern *lu* correlated with whether the alien referred to was above or below ground.

Some behavorial patterns will correlate with language patterns, and give the language its 'meaning', others will be quite irrelevant. For the bird-like aliens mode of take-off was linguistically irrelevant; but the pattern of four different angles of flight was vitally significant to understanding the language concerned.

And these examples show that we have to investigate the meaning of a language before we can describe its grammar. All the bits of language that we want to recognize as grammatical elements do have a meaning, and we can only uncover these grammatical 'bits' through their meanings. Afterwards, as a second stage in the linguistic analysis, we can see how the grammatical elements are put together to form clauses and sentences, and how they can be transformed into other kinds of sentences, and so on.

When we are dealing with languages similar to our own we can describe them in terms of what to us are common-sense notions—of space, time, verb, noun and the rest.

But what to us are common-sense ideas are likely to be entirely strange to extra-terrestrials. The only way we can understand their language, and thus communicate with them, is by trying to think as they do, and by trying to see their world through their eyes.

By grasping the most important cultural pattern of an alien race, and realizing why they have importance in relation to the whole complex of racial behavior, we are likely to uncover the key to understanding their language.

All in all we can only be certain of one thing. However much we may speculate about alien languages, they are certain to be different from anything we know or could, without encountering them, imagine. END

BUGGARATZ

by JOHN JAKES

Weapons change. Wars change. But armies don't change — at least, not for the soldiers!

His pillow played reveille at 0545 Human Hours. Captain Maurice O. Morris turned out of bed thinking exactly the same thought which had bedeviled him every morning for the past two weeks.

Are you, he inquired of his face in the floating mirror, *looking out for the welfare of your troops?*

The pale, ordinary face remained inscrutable — or was it just plain dull? He brushed off the lather and his whiskers. God rot the officer, he thought, burdened with a conscience.

He felt he was doing everything he should. And yet—and yet there was *something* —

It escaped him. He yawned.

The question had begun to nag him after the arrival of the relay ship of three weeks past. Among other things, the ship had delivered one of those multi-paged profundities with which GenStf occupied itself in this quarter of space. In all quarters, for that matter.

GENBUL #00986, read the cover. Subhead, TRPS, WLFR OF.

Captain Morris inspected his pressed tissue uniform a last time. He must complain. The plastic plating on his epaulet bars, bright enough when new, was flaking. He dreamed briefly of attaining the rank and emblems of a Major. He stepped out into the clear amber tolerably oxygenated air, the triple moons whizzed up and down the last time.

Ah, he might occupy himself this morning with a sextuplicate complaint to GenStf, BurEpau,

about the quality of his bars. He felt less uneasy with a positive goal in mind. But it was a daily battle.

As he commenced his walk down the path to the officer's mess, he muttered self-consciously, "Hup frew ee vore," being only partly aware of his strange inability to keep his limbs snapping precisely on the beats of the totally nonsensical cadence chant from long ago. The peaks of Great Buda Plain gleamed gilt and shadow-ebony in the distance. Through the air resounded the chuff of the mold works.

For an officer but 29 years of age, and only 8 years out of the Stellar Military Academy, and having known only one assignment in his entire career — that of commandant of the tiny station on Buda — Captain Maurice O. Morris was already quite a knowledgeable young man.

He realized with a fatalistic good humor that he somehow was not topnotch career material. He might be stationed on Buda until the day he was privileged to take early retirement. Still, he felt rather pleased at having already realized this. It was a state of wisdom, to know and accept the fact that he had already found his niche and been permanently placed therein.

It irritated him occasionally, however, that the sole function of the Buda station was to craft, by injection molding, hundreds of thousands of inflatable space uniforms boxed up for sale as *Your Stellar Army Set #63—LIFE SIZE ASTROSERGEANT Costume.* The suits were shipped to GenStf, which in turn shipped to Dependente Shoppes and civilian novelty marts. Did it classify as supportive of civilian morale, this duty as a commander of toy makers?

Of course, on Buda, there was buggaratz.

It was not good for him. Oh, not bad for him, though. Only mildly narcotic. Its harmfulness came from the gradual, drowsy way in which one accepted its slightly soporific benefits simply because there was nothing else on Buda to do.

Still, he couldn't think of an example of any way in which he had been derelict due to buggaratz.

No, he couldn't think of a single — He yawned.

All right, Maurice, you are avoiding the problem, he thought with concentrated effort.

The direct problem was S/Sgt. Irving Fleer, with whom Morris must have a chat.

He was nearly positive everything was fine.

Still, all this uneasiness of late — Best to be sure.

The captain breakfasted briefly — and alone, being the only officer on Buda. He returned to his office overlooking the mold works. He read a few thoroughly dull communiques off the GenStf Distance Printer in one corner of his office. Then he activated the horn system.

Across the small base his voice thundered with startling volume, "Sergeant Fleer, Sergeant Fleer to the commandant's office."

Irving Fleer entered the office shortly. Fleer was not a bad sort. A big, bluff, distressingly paunchy veteran of — oh, let's see — age 48, Morris believed, recalling the last PersnlRat form he'd filled out. Fleer's salute was more on the order of a gesture aimed at an insect hovering, not too bothersomely, in the vicinity of the forehead.

"Captain sir?"

"Fleer?" Morris gave a little harrumph.

"Sir?"

He yawned and could think of nothing to say. His eye roving the room saved him.

"Fleer, take a look at that."

S/Sgt. Fleer directed his most unnerving feature, his pingpong-ball-shaped eyes, at a small dimension plaque hanging on the wall to the left of Morris' airfloat desk, which listed badly because one of the leg jets was out of repair. The plaque was Morris' proudest possession.

He had been an Army brat. Unfortunately his father had not lived to see him commissioned at the Academy. And his mother had passed away shortly afterward. But she had been there for graduation, to present him with the plaque, which had been his father's. The plaque read:

TRAINING! — DISCIPLINE!! — MORALE!!!

"Fleer," said Morris, "what are we doing about that?"

"About that?" said Fleer.

"Specifically, Sergeant, item one. Training."

"Has somebody off planet been complaining we don't get the imitation sojer suits out fast enough, sir?"

"Naturally not, Fleer."

"Oh, that's good." Fleer beamed vacantly.

Damn army, Morris thought.

Had to get the trillions off the streets and off the crowded planets and into meaningful work, of course. But it was ridiculous to run a military organization like a welfare corps. Why didn't they just abolish the two-billion-man force and — ?

Inwardly Morris quailed. What had he *thought?* What possessed him?

"Sergeant, have you been drilling your men regularly?"

"In what, sir?"

"The manual of guns, you id — the manual."

"Oh," said Fleer, "no, I guess not. After all, there's not much point."

"What kind of remark is that?"

"I mean, sir, who we going to fight? Somebody wants to fight, like that Private Cook two years ago, we just gas him and ticket him to the san, right? He comes out happy as a clam."

"The GenStf manual specifically states that all enlisted personnel are to be instructed in the manual of guns for forty-five Human Minutes per day."

"I'd hate to start any program like that hastylike, sir," said Fleer.

"What?"

"I mean, the fellows might get — sick, you know?"

"Sick?" Morris said violently.

"Sick? You mean to say your men are not in proper physical condition? Fleer, the responsibility for training them is yours. How long has this shameful situation been in affect?"

"Oh," said Fleer, pleasantly, "about since you took over. Only I noticed in the last couple of years, since you kind of got the swing of things here on Buda, that is — I mean, how we might as well relax, we're not going to fight anybody ever — since then, things have really been relaxed. In fact, sir, I guess I am at liberty to tell you that you are considered by every one of the men on station as a topnotch commandant and good egg."

How, how, how had he let it happen? Morris wondered in dismay. He slapped the desk.

"Sergeant, one hour of manual of guns, commencing immediately."

Why had he ever taken that first nibble of buggaratz? Oh, the cursed indolence of a peaceful cosmos in which the military must still maintain the posture.

No excuse! Even though he might be dead-ended on Buda already, it was his responsibility to live up to the manual.

S/Sgt. Fleer was eyeing him with concern:

"Sir, did I hear you say — ?"

"One hour!"

"Sir, couldn't we sort of start off with five minutes and then build up —?"

"One hour, on the quadruple! Shut down the mold works at once. I'm coming to watch personally. And you had better have every last manjack on the station turn out and put on a good show, Fleer or you'll answer!"

Oh, dereliction, dereliction. This was what he couldn't quite remember, due to his daze. He was taking it out on Fleer, of course, but maybe if the commandant ate fire, so would the others.

"Fleer!"

"Sir!"

"On the quadruple, I said!"

Unhappy but obedient, Fleer left.

After the manual of guns had been in progress for six minutes, Captain Morris stamped his boot in the light golden dust of the garden-plot-size parade ground.

"What in the name of all that's slovenly is wrong with them, Fleer?"

Fleer's face was a study in consternation beneath the brim of his sunhat. Sadly he surveyed the twelve enlisted men who composed the entire military garrison on Buda. Nine of them were passed out, or prostrate and retching. Two others supported one another. A twelfth was going around like a living corkscrew.

Slowly the solo survivor spiralled and plopped in the yellow dust. The two supporting one another gave up too and lay down.

"They just aren't up to it, sir."

"Not up to a little drill? Nonsense! Why aren't they?"

"Well, sir, I haven't ordered any in, oh months, because you didn't seem to care — " Quickly Fleer swallowed the rest of this, sensing from Morris' coloring cheeks that it was the wrong tack. Fleer began

afresh, "Well, sir, the mold works gets you out of shape, sort of."

"Don't 'sort of' me! Be specific!"

"Well, sir, the mold works is just pull the rod, punch the tape, work the chute, pull the rod, punch the tape, work the chute, all day long. Oh, a few of the last test-inflate. Then Popinwell gives the suits the no-noisers to jockey them to the packing ramp. Pull a cork, deflate and that's it. I mean, the General Staff ought to recognize sir, that it's all approved procedure but it's not aimed to keep a guy in top shape, if you know what I mean. We turn out our quota, though, so we figure, who's to care if we get a little forgetful? Who needs to be in shape, follow me, sir?"

"Fleer, pick up that piece! That one over there."

"What, sir?"

Several moments later, Fleer was on all fours, gasping raggedly. Captain Morris was doubled over with violent stomach cramps.

Before he retreated into his office, he seemed to catch a flicker of an unkind glance from Fleer. That in itself was earthshaking. The glance seemed to say, before it vanished, that it was the captain munching the buggaratz which had caused it all. Of course Fleer was right, though he wasn't in a position to say that, damn it, or even glance it.

In the office, as Captain Morris gazed into his locker mirror, he saw how truly flaccid and jellylike he had become in the soddening atmosphere of this empty world in a warless, causeless universe. Suddenly the GenStf Distance Printer began to gong-gong.

Morris fidgeted until the reels were developed, out of the tanks and into the reader. What silly-ass bulletin was this? He had something *important* to worry about — how to bring the level of training up to basic minimum again. He had to worry about something *really* important, not —

SUBJ INSPCTN said the reversed letters on the screen.

Morris read and read again. Fleer entered and hovered at his shoulder, clutching his paunch as if still in pain.

Swallowing at last, Morris shut off the machine and felt as though he wanted to die.

"What day is this?" he asked in a sandpaper whisper.

Gasping, Fleer staggered to the little clicking desk chronobox. "Twelfth."

"My God! Then according to this, the GenStf shuttle will be here tomorrow! A surprise sector-wide inspection. We're to stage a complete parade and manual of guns presentation." Morris swung around and faced his own professional ruin: "Fleer, what can we do?"

Fleer suppressed a dismal burp. "Nothing but stand the general courts, I guess."

Training, training, training! Oh how the plaque and his carelessness mocked him now. Suddenly Fleer and the others were no longer his foes. They were his team. And

now the team was sunk. Sunk, *sunk*.

"Dismissed." Fleer vanished.

He had a wild desire for some buggaratz.

Well, why not? It would all be over tomorrow in any case. Oh damn peace.

Still feeling rocky from the exertion, Captain Morris went out into the deep, richly hued sunlight. He passed the mold works, a structure of light alloy with a square, utilitarian shape and flat roof. From within sounded the hiss of the inflatable space soldier uniforms being deflated after test. This process took place after the suits travelled away from the molders, inside a long, suspended tin-can-shaped tube of non-sharp metal meshing. Through this tube the suits were bumped along by two sound projectors whose waves issued from muzzle-like devices. One man, Corporal Popinwell, operated both projectors.

The suits bumped gently through the open overhead tube until, at the end, a soldier reached up and pulled each suit's foot plug. Whu-*rush*, the suit emptied and was sucked down a packing slot, automatically folded and shot forth a few seconds later into the arms of another soldier who racked the boxes on skids. In point of fact, the entire operation could have been handled by servomechanisms, and totally tape-controlled.

"Makework, makework," Morris snapped as he walked by the open door of the works. The raw plastic pouring down into the molds had a singularly ripe smell. Also, he felt impelled to the left. Perhaps one of the sound projectors had nicked him.

What a shame that the Army resorted to makework, necessary to psychodynamically assure each soldier he was Worth Something (TRPS, SFL RSPCT OF). The makework robbed the days of time for other, more military activities.

Ridiculous rationalization. It was he, Maurice O. Morris, who had robbed the days by his failure to command.

It was buggaratz which in turn had robbed him.

If only it weren't too late.

But it was.

So— another nip couldn't hurt.

The antiquated manual on Buda, one of a series entitled LCL CSTMS, OTHR INFO IN RE, had been turned into his hands when he took command. The manual had described buggaratz. However, he had not discovered a patch of the stuff until eight months later. And he hadn't found out how to enjoy it until the advent of the peddler. Now, rounding the corner of the mold works, he saw with dismay that the porous-stalked plants, somewhat resembling the dandelion in seed, were not thriving.

"Everything goes to hell here, even the buggaratz," he said as he knelt. The sun tickle the back of his neck and the lightly waving seeds of the buggaratz bloom tickled his palms. He snapped his hands shut and used the bottom edges of them to tug the stalk loose from the soil. That way, he would not lose any of the airy seeds. He surveyed the

buggaratz patch again. And only three plants left where dozens had thrived before.

Morris turned around and returned to his office at a brisk pace—or what he considered one. He made certain it was not so brisk that he would again fall panting on the ground. He wondered what soil or climate conditions were causing the buggaratz to wither away. He wondered whether Army AgServ would have a manual of culture and care of —

"Of buggaratz? Fat chance. Bureaucrats. Fix them. All done for anyway, hah! No, sir, General, we don't know how to parade here, because it makes us tired."

The slightly hysterical half-grunted monologue ceased. Under the camouflage of a speakwriter cover in the office corner, Morris kept the purifying box. He had whacked it together several years ago after an itinerant peddler stopped off at Buda and then hurried to refire his jets once he discovered that upon Buda there were no Army housewives to purchase polypots. But the peddler stayed long enough to reveal that he loved buggaratz.

He, in truth, introduced Morris to its appreciation, and sold him the necessary parts to produce the little sound generator.

One couldn't munch the seeds, a sensation akin to eating airy peanuts, until they'd been separated from certain indigenous and submicroscopic parasites which clung to them and which, when ingested, sorely disturbed the human intestinal flora. Unless the tight-clinging little mites were knocked off by sound waves, the muncher of buggaratz risked a severe intestinal distress of at least two weeks' duration, said the peddler.

"In there," Morris crooned now, dropping the seed-head in the box and snapping the lid.

He flung the switch. Through the transparent walls of the little box, he could see the seeds begin to separate from the seed head, conducting a violent dance as the sound waves battered them against the sides of the container and, presumably, bombarded the invisible pests to insensibility, or at least a state of separateness. The peddler's pen-drawn diagram for building the box must have been right. Not once had Morris gotten sick of —

Sweat popped out on his brow as something startling about the seeds struck him.

Battered and bounced by the waves Morris could not hear, the little golden-white flying things went this way, that way, crazily disorganized, but still with a sort of rhythm or pattern that was —

Morris swallowed. Did he dare even think of trying it?

Well, either he dared or faced the courts martial.

There in the box which sat in a splash of molten sun's light, the rhythm or pattern of the seeds was oddly, strangely, maddeningly like — a military drill.

All Captain Morris was able to see from within the gaseously stuffy suit was a circular area

thrown out of focus by the cheap semi-rigid plastic of the imitation faceplate. The area included several bluffs on Great Buda Plain, standing like gold bars on end, and nearer, the silver vertical of the GenStf Fourjet, a medium-class rocket with slightly rusty plates.

"Sergeant, Sergeant?" Morris said, speaking over the little communications hookup which they had swiped in component form from the post horn system, and re-assembled for their own deceptive ends. The hookup only carried six feet due to a wiring error, with stations inside Morris' suit and that worn by Fleer.

"What's that, sir?"

"Not so loud, not so loud!"

"But you said yourself, Captain, the brass can't hear over there."

"Where's Popinwell? Do you see him?"

Corporal Popinwell was the soldier whom Fleer had assigned to lie belly-flat on the roof of the mold works, aiming the two sound projectors which formed the central part of Morris' lunatic scheme to save his men, his command, and his future.

"Relax, Captain, Pop's a good lad. He'll be up there by now."

"I — I forgot the signal."

"Right hand up. Squads forward when you're ready."

Morris' stomach wrenched as he swung his head to see more of the outside. He was trying to stand at attention within the inflatable suit and it was hell. His forehead ran and rivered sweat. Through the third-rate imitation viewplate, Morris just barely made out the inspecting officers, two Colonels and Brigadier Summer-Jones. All three held highly uncomfortable poses on unstable rec chairs whose levelling jets were out of adjustment.

Brigadier Summer-Jones, a swollen plum-cheeked headquarters martinet, seemed to be working his jaw and signalling. Morris was afraid he was going to pass out. None of the men on the post had had any sleep overnight. Too busy rigging the clumsy attempt to save their hides.

However, the night's work had been slow work. Morris had ordered pauses and intervals of deep breathing so they didn't collapse trying.

What lay ahead now would not be leisurely; they might get through it with their artificial aid, provided their artifical aid operated right.

Or all of them might just faint dead away.

"I think the general is cursing, sir." Fleer's voice scratched in the captain's ear. "I think they have to jet soon, and want the parade."

"Then God help us, let's give them the parade!"

Morris lifted his right hand which, like the rest of him, was inside the cheaply crafted suit, and wigwagged for squads forward.

He placed his right foot out in front of him. Then he moved his left. Ahead, an endless vista of gold dust stretched away. The plain grew longer as he looked at it. Longer, longer — he was getting ill. And he'd taken only two steps.

The formation was regulation.

Captain Morris was marching out ahead of his men. Directly behind him came Sgt. Fleer. Then came the men. All wore the suits. There were three ranks of three men each, and one rank of two. Captain Morris had incinerated certain records to establish that there were but eleven enlisted men on the post. *Crunch, crunch.* He had taken four leaden steps. He felt ready for the grave. He made an effort to swing his head.

Was Brigadier Summer-Jones looking displeased? Or was it just the steamed-up plastic? Morris could imagine they made quite a sight. Thirteen men stumping along all out of step; all—simultaneously—out of step with all others, and wearing the products of the Buda post. Thirteen grown men in inflated plastic suits.

Morris had sold this after an exhaustive check of the manuals:

"A novel fillip we arranged for you, General, as it shows both our training and our product." Brigadier Summer-Jones had muttered something about anti-regs, but agreed when Morris said he had checked and found nothing against it.

"I can't make it," Morris croaked.

"We still got eighty paces down to the pieces, sir, and then the manual of guns starts."

"Eighty paces? Why doesn't Popinwell get going?"

Through the ersatz faceplate, Morris imagined a yellow-stunned nightmare featuring a triangular stack of grotesque shapes ahead. But it was reality; a real parade field, a real triangular stack of arms waiting at the end. Morris was totally unable to take another step in this stinking gasbag inside which he was attempting to march. Where was Corporal Popinwell?

Buggaratz! A second time it had undone him, by giving him this crazy idea.

"Sergeant!" Morris panted. "Slow down the cadence!"

"Sir, what cadence?"

"What?"

"You can't see these lads, sir. I reverse march every third pace to trim them up. It's pitiful. But the last time I reverse marched I thought I wouldn't make the pivot again. I may conk out, Captain."

"Don't you damn dare! What's wrong with Popinwell?"

"I dunno. He must of fainted, or got sick, or — "

BaaRUMP.

The suit in which Captain Morris was attempting to march was suddenly shot forward half a yard.

BaaRUMP, another half a yard.

"Quick, man!" Morris called to Fleer, "reverse march and signal the men to shift their feet the way we practiced. As if they're marching. Oh, I hope Popinwell knows what he's doing. His timing on the triggers will have to be perfect when we get into the manual of guns — just to help us lift the pieces, let alone swing them."

BaaRump, BaaRump, BaaRump, BaaRump—

"It's working," Morris breathed ecstatically. "Fleer, how does it look?"

"Trim, sir. Trim and neat. Heads up, boots shooting out."

"I couldn't move an inch more by myself."

"Naw, but you must have swell reflexes or something, because it looks like it's you moving the suit — all of us — and not Popinwell with his no-noisers up on the roof bumping us along. Hey, you know, once you get the hang of it — it's kind of fun."

They drilled in superior fashion. They executed the manual of guns with precision and smartness.

They did it all with the projectors bumping their suits along as they were bumped along when empty, to packing slots in the mold works.

Each man was responsible for turns and reverses. But not having to march helped conserve already limited energy. In fact, as Sgt. Fleer had stated, it was entertaining once you got onto it. The no-noisers lifted you off the ground a few inches, and thrust you forward and kept you up by hitting you—the whole unit *en masse* actually—just before you came down again. So if you wriggled your left or right boot inside the suit while in the air for that second between bashes of sound, you could give a reasonable imitation of a march step. The no-noisers were also invaluable for doing the work of lifting the heavy metal-chased pieces used in the manual of guns. Popinwell's trigger fingers set the cadence, and they all swung into it with extra effort because they knew the consequences of failure.

"Novel idea, novel, marching in your product, hah-hah!" said Brigadier Summer-Jones. Morris stood beside him at the entry ladder of the staff rocket. The Brigadier tweaked his full white mustaches and consulted his aide's chart. "Hmm, fitness rating. Let's see, would have been A-Rate—splendid parade, unorthodox at spots but very crisp once you and your lads got going — "

"Naturally we drill regularly, sir," began Morris, alarmed.

"What else?" said Summer-Jones heavily.

" — but to account for that bit of raggedness at the start — well, ah, we just don't often have an audience of important visitors."

"Understand. However, Sub-A Rate because Major Tate found some little thistly doojiggys blowing all over your office, just blowing here and there — very untidy, Captain. Otherwise, excellent showing, hah-hah!"

A signal chimed. The Brigadier went up the ladder.

"Buggaratz!" Morris said.

The Brigadier stuck his head out of the lock through which he had just vanished. "Did I hear you or one of your men curse obscenely for some reason, Captain?"

"Buggaratz is — "

"Locks away, locks away!" roared the automatic warning horns of the rocket. Morris ran. All the men took cover. The rocket plumed white and shook and rose.

When the rating came through it was Sub-C-Rate because, Morris knew, the Brigadier had been cer-

tain someone had used vile language.

But at least the post was saved, and his men, and Morris' own career. However, he was determined that he would have no more of buggaratz.

As soon as he had reached the decision, Captain Morris took a pneumoshovel and dug up the last three blooms, and then the roots, and stamped all into the golden dust. Sgt. Fleer emerged from the mold works, where the no-noise projectors were back in operation.

"It's the buggaratz which got me into trouble, Sergeant," Morris explained, feeling comradely; the feeling would and should not last, but it was momentarily pleasant, generated as it was by what they had been through.

"Yes, sir," said Fleer.

"Besides, Fleer, boredom is the enemy here, just like it is everywhere. And I don't mean to become a dope fiend because of boredom." He paused. "I think what I need out here is a wife. Thank heavens I'm due for a short rotation."

That night Captain Morris chanced to be restless. He walked too and fro in his quarters. He glanced outside. There, hard under the shadow of the shut-down mold works, he was aghast to see S/Sgt. Fleer on hands and knees. The Sergeant's ping-pong-shaped eyes gleamed fervidly in the light of the whizzing triple moons, and he seemed to be desperately trying to plant something or other in the ground with a small hand tool. END

RIVERWORLD

by PHILIP JOSE FARMER

Illustrated by GAUGHAN

All Earth's billions lived again —on the banks of a river, on a world that men had never known!

I

Tom Mix's boat sailed around the bend of the river first. The pursuing boat sped around a few seconds less than a minute later. Both craft, the large chaser and the small chased, were bamboo catamarans: double-hulled, single-masted, fore-and-aft rigged and with spinnakers. The sails were fashioned from the paperthin but tough intestinal lining of the river-serpent fish.

It was an hour before dusk. The shadows of the western mountains of the valley fell across the hills at their feet and stained half of the plain bordering the river. People were gathered in groups by the great mushroom-shaped stones that lined the riverbank, each a mile apart. About the time that the sinking sun

touched the peaks, the stones would roar and spout flame and the hundreds of cylindrical gray containers on top of each stone would be filled with the evening meal, the liquor, the tobacco, the dreamgum.

Pushed by the wind and the strong current in the middle of the river, the vessels scudded along. At the turn, the stream broadened from its normal width of a mile to three miles, forming a "lake." Many fishing boats were out on the river; thus, the two newcomers found themselves in the midst of a fleet.

The fleeing catamaran tacked to run between two fishing craft that were separated by only thirty feet. So close was the pursuing boat to its quarry by then, it had a quick decision to make. It could either follow the path of the first through the narrowing lane, or it could swing away to avoid a collision. The steersman took the course that would not permit the smaller vessel to gain distance—if he were lucky or skillful enough. The big boat leaned over and cut towards the opening. But by then the fishing craft had drifted too closely together.

All three crews shouted. The catamaran crashed bow first into the side of the nearest fisher near its bow. Only half the size of the catamaran, the single-hulled bamboo boat swung around, its stern traveling towards the left hull of the catamaran. Those in the smaller craft were hurled to the deck. All ten men aboard the catamaran were also knocked down by the impact; three went over the side and into the water.

The pursued now became the attacker. It turned and beat up the wind towards the two caught in the collision. Although both were sinking from the water pouring into the stoved-in bows, they were settling very slowly. The captain of the catamaran shouted some orders; his men picked up their weapons and gathered near the port. Obviously, they intended to board the other boat, though for what purpose the others did not know.

Now the smaller catamaran neared the two cripples. There were only three on its deck, a woman at the helm, a man handling the sailropes, and Tom Mix in the bow. The woman wore the usual garb of the female riverdweller in this area, a brilliantly colored towel as a kilt around her waist and a thinner piece of cloth around her breasts. The sailhandler wore only a towel-kilt. But the man in the bow had a ten-gallon hat of woven straw on his head, a long black cloak made of towels fastened together with magnetic tabs and cowboy boots of riverserpent leather. Now, as his boat neared the others, he slipped off the boots and stood barefooted; his cloak and hat followed to the deck.

Mix picked up a heavy war-boomerang from the deck. It was two feet long, fashioned by sharp flint from a piece of hard white oak. One of its ends turned at the angle of 30 degrees. A formidable weapon in the hand of a skilled thrower, it could break a man's arm at a distance of 500 feet or even inflict a fatal wound.

At his feet lay a chert-headed axe, four more boomerangs, several oak spears with flint tips and a leather sling and leather bag of sling-stones. As soon as Mix's craft came close enough to the other, he braced himself and threw the boomerang. It flew towards its target, the sun flashing off its pale surface, and struck a man in the neck. The man fell sidewise on the deck.

The others yelled and spread out along the deck, any intention of boarding the fisher boat forgotten. They threw clubs and spears, but all three on Mix's boat hugged the deck, and the missiles hit no one. Immediately afterward, Mix jumped up and hurled a spear. It fell short of its mark, the torso of the nearest man, but it pierced his foot. He screamed and hopped around the deck until two men got him down and pulled the spear out.

During this encounter, the second fisher had come along-side and was starting to take those on the sinking fisher aboard. Seeing this, the catamaran captain ordered his crew to take the riverworthy boat. He led the attack; his men followed him onto the fisher alongside. This contained two men and a woman who had not yet gotten off; the other fisher now held four women and two men.

All of these turned to defend themselves. They thrust spears tipped with sharp bamboo blades. One woman whirled a stone in a sling over her head. The rock caught a man in his solar plexus. He doubled over, staggered back and started to fall just as a thrown spear plunged into his arm. One of his crew stumbled over him and received the point of a blade with the full weight of a defender on it.

Shrieking, one of the women fell into the water between the boats, a spear in her breast. Then the defenders and attackers closed in a melee.

A moment later the other catamaran slid by. Mix worked smoothly with all the speed and finesse of a man who had practiced for hundreds of hours. His sling whirled three times while he was still in range and struck his target each time. Fortunately, he knew his pursuers and so did not have to worry about identity. One stone caught a a man in the side of the neck. Another hit at the base of the spine. The third almost missed, but the captain of the boarders was sent writhing to the deck with a smashed kneecap. A knife slashed his jugular.

Again the little catamaran turned back toward the three boats, side by side, this time so swiftly that one of the hulls lifted completely from the water, and the sail swung violently around. Almost it capsized. But it settled back; and with the wind behind it, it raced back up to its destination. Mix crouched by the bow, threw a spear that hit a man in the side and followed with a leap that brought him on the deck among the battlers.

His heavy axe rose and fell twice.

Suddenly outnumbered, the attackers tried to run back to their

boat. Only one made it, and he was forced to dive into the river. Mix picked up a boomerang from the deck, lifted his arm to throw it at the bobbing head, then lowered it. Boomerangs were too hard to come by to waste on somebody who could no longer be a threat.

By then, the catamaran had been secured to the undamaged fisher with ropes of plaited bamboo fibers. Mix crossed the two sinking boats to the fisher. Except for the groaning of the wounded and the weeping of a woman, all were silent. They looked pale and spent; the fire of battle was gone from their faces.

Mix put his ten-gallon hat back on, secured the long black cloak around his neck, and slipped on his dark-red and sable riverserpent boots. He came back to the fisher deck, removed his hat with a flourish, grinned, and said, "Tom Mix at your service, ladies and gentlemen. And many thanks for your help in saving us."

A man said, "Bare bones o' God, stranger, I scarcely comprehend your speech. Yet it seems to be somewhat English."

Mix put his hat back on and rolled his eyes as if beseeching help from above. "Still in the 17th century! Well, at least I can understand your lingo a little bit. What's your handle, amigo?"

"Handle? Amigo?"

"Your name, friend. And who's your boss? I'd like to offer my services. I need him, and I think he's going to need me."

"Stafford's the lord hereabouts," a woman said. She was looking at him strangely. The others were, too. But it was not only he they regarded so peculiarly. The man who had handled the sail on the catamaran and was now standing by Mix's side was receiving as much attention.

Mix grinned and said, "No, he's not my twin brother or any sort of brother to me, aside from that kinship that comes from being human. He was born on Earth some thousand years before me and in a place far off from my native Pennsylvania. It's only a trick of fate he resembles me so. A lucky one for him, otherwise he might not have gotten loose from Kramer."

He did not explain his remark. "My friends and I have had a tough time for the last couple of days. We're tired and hungry. I'd like permission to stay at your place for a few days before we go on down the river. Do you think your boss . . . lord . . . would object?"

"Far from it, sir," the woman said. "He welcomes good fighting men in the hopes they'll stay. And he rewards them well. But tell me, these men—they must be Kramer's—why were they so intent on killing you they chased you into a place where they are forbidden to enter under pain of death?"

"That's a long story," said Mix. He smiled. His smile was very attractive, and he knew it. "You evidently know of Kramer the Burner. These two—Bithniah and Yeshua—were prisoners of his. I got them loose, along with a bunch of others. We three were the only ones to make it to a boat. The rest you know."

Abruptly, he turned away to give

orders to his two boat-mates. All boarded the catamaran, untied the ropes binding the two boats, hoisted sail, and slipped away. The woman steered toward the western shore; he stood in the prow with his long black cloak whipping to one side of him while he stared at the scene ahead.

II

As almost everywhere in the never-ending valley, there was the plain, a mile wide and flat as the floor of a house. This was covered with the short-bladed grass that no amount of trampling could kill. Beyond the plain, the hills began. These started out as mounds about 20 feet high but became broader and higher as they progressed toward the mountains. Unlike the plain, which had only a few trees here and there, the hills were thick with forest. Eighty out of every hundred were the indestructible 'irontrees," the deep-rooted monsters with bark that resisted fire and would shrug off the swing of the sharpest steel axe—if any had existed on this world. Among them grew the five hundred to thousand-feet high pines, oak, ash, elm, alder and other varieties. Beneath the trees grew long-bladed grass and the bamboo groves.

Beyond the hills, the mountains soared. The lower parts were rugged, many-contoured, and with canyons and fissures and little plateaus. But, at the five thousand foot height, the mountains became an unbroken cliff. Smooth as glass, they soared straight up for another five thousand feet or even leaned outwards near the top. They were unclimbable, as every man who had tried them could testify.

Both sides of the valley were alike. However, one area of the river did differ from another in a few respects. A man could sail down, or up, the stream for ten thousand miles and see only green in the vegetation. Then suddenly, as if a thin wall divided one area from another, the valley bloomed. Huge vines wreathed themselves around every tree and even the larger bamboo. From the vines grew flowers of many sizes, shapes, and every shade of the spectrum.

For ten thousand miles, both sides of the river valley would explode with color. Then, just as abruptly as it had ceased, the trees would resume their ascetic green.

But this area trumpeted with the flourish of hue.

Mix gave the order, and Yeshua lowered the sail. Bithniah steered the catamaran straight onto the bank, which rose gently from the river, up onto the grass. Many hands among the crowd on the bank seized the boat and drew its hulls entirely onto the land. Yeshua finished furling the sail, and he and the woman came down onto the grass.

The three newcomers were surrounded by men and women eager to get answers to their questions. Yeshua and Bithniah spoke English, but with a heavy accent that made them unintelligible to anybody unused to them. Mix barely started a sentence before he was interrupted

by other interrogators. In a few minutes, he was rescued. Some men dressed in leather cuirasses and helmets, 17th-century style, arrived. They were soldiers sent by Stafford to bring Mix and his friends to the Council Hall. Mix glanced at the sun, which was about to touch the tip of the mountains.

"I'm hungry. Couldn't we wait until we charged our buckets?"

He gestured at the mushroom-shaped stone structure, six feet high and several hundred abroad, that stood a few feet from the river's edge. The gray cylinders of the others were inserted in the depressions on the surface.

"Buckets?" said the sergeant. "We call them copias, stranger. Short for cornucopia. Give me your copias. We will charge them for you, and you can fill your bellies after Stafford's seen you."

Mix shrugged, for he was in no position to argue. The three walked with the soldiers at an angle across the plain towards a hill. On top of it was a blockhouse built of giant bamboo logs. The gate fronting on the river was open, and through this the party went into a yard. The Council House itself was a long hall in the middle of the yard.

Stafford and his council were sitting at a round table of pine on a platform at the far end of the hall. Pine torches impregnated with fish oil had been lit and set in brackets on the walls. The smoke rose towards the blackened rafters, but the stench of fish spread through the hall. Underlying it was another stink, that of unwashed human bodies.

The sergeant halted them and reported to Stafford, who rose from the table to greet the strangers courteously. He was a tall, slimly built man with an aristocratic, acquiline face. In a pleasant voice thick with a Northern burr, he asked them to sit down. He offered them their choice of wine, whiskey or liqueur. Mix, knowing that liquor came only from the miracle buckets — or copias — and the supply was therefore limited, took the offer as a good sign. Stafford would not be so generous with expensive commodities to people he intended to treat as hostiles. Mix sniffed, smiled at the scent of excellent bourbon and tossed it down.

"I know what happened on the river," Stafford said. "But I don't know why Kramer's men were so desperate to kill you that they dared to trespass in my waters."

Tom Mix began his story. Now and then, Stafford nodded to an officer to give Mix another drink. Occasionally, he stopped Mix because he did not understand a 20-th-century word or phrase.

It was evident his hospitality was not all based on good-heartedness. A drunken and tired man, if he were a spy, might slip. But Mix was a long way from having enough to make him loose-tongued, even on a growling belly. Moreover, he had nothing to hide. Well, not much, anyway.

"How far you want me to go back in my story?" he said.

Stafford laughed. "For the present, leave your Earthly life out."

"Well, ever since All Souls' Day —" a term for the general resurrection of at least half of humanity on the planet — "I have been wandering down the river. I was born in 1871 A.D. and died in 1940 A.D. But it was my fate to be raised from the dead in an area occupied by 15th-century Poles. I didn't hang around them long; I shook the dust off my feet and took off like a stripe-tailed ape. It didn't take me long to find out there weren't any horses on this world, or any animals except man, earthworms and fish. So I built me a boat. I wanted to get back to folks of my own times, those I could talk to and who'd heard of me. I had some fame in my time, but I won't go into that here.

"I figured out that, if people were strung along this valley according to time sequence on Earth — although there were many exceptions — the 20th-centurians ought to be near the river's mouth. I had about ten men and women with me, and we sailed with the wind and the current for, let's see, close to five years now. Now and then we'd stop to rest or to work."

"Work?"

"As mercenaries. We picked up extra cigarettes, liquor, good food. In return, we helped out some people that needed helping real bad and had a good cause. Most of my crew were veterans of wars on Earth. One of them had been a general in the American Civil War. I'm a graduate of Virginia Military Institute, and I fought in several wars in my younger days on Earth. The Spanish-American War, the Boxer Rebellion, the Boer War. You probably don't know about those.

"A couple of times we were captured by slavers when we landed at some seemingly friendly place to fill our buckets. We always escaped, but the time came when I was the only one left of the original group — the others were all killed, even my lovely little Egyptian. Maybe I'll run into them again some day. They could just as well be re-resurrected downriver as upriver."

He paused, then said, "It's funny. Among all the millions, maybe billions of faces I've seen while coming down the river, I've not seen one I knew on Earth."

Stafford said, "I met a 20th-centurian who calculated that there could be at least 25 billion human beings on this world."

Tom Mix nodded and said, "Yeah, I know. But you'd think that in five years, just one . . . well, it's bound to happen some day. So, I built this last boat of mine about 5,000 miles back, a year ago. My new crew and I did pretty well until we put in at one of Kramer's rocks for a meal. We'd been eating fish and bamboo shoots and acorn-nut bread for some time, and the others were aching for a smoke and a shot of booze. I took a chance and lost. We were brought before Kramer himself, an ugly fat guy from 15th-century Germany.

"Like a lot of nuts, he hasn't accepted the fact that this world isn't exactly what he thought the afterlife was going to be. He was a bigshot on Earth. An inquisitor. He had burned a hell of a lot of men, wom-

en and children, after torturing them for the greater glory of God."

Yeshua, sitting near Mix, muttered something. Mix fell silent for a moment. He was not sure that he had not gone too far.

Although he had seen no signs of such, it was possible that Stafford and his people might be just as lunatic in their way as Kramer was in his. During their Terrestrial existence, most of the 17th-centurians had had a rockfast conviction in their religious beliefs. Finding themselves here in the strange place, neither heaven nor hell, they had suffered a great shock. Some of them had not recovered.

There were those adaptable enough to cast aside their former religion and seek the truth. But too many, like Kramer, had rationalized their environment. Kramer, for instance, maintained that this world was a purgatory. He had been shaken to find that not only Christians but all heathens were here. But he had insisted that the teachings of the Church had been misunderstood on Earth. They had been deliberately perverted in their presentation by Satan-inspired priests. But he clearly saw The Truth now.

However, those who did not see as he did must be shown. Kramer's method of revelation, as on Earth, was the wheel and the fire.

When Mix had been told this, he had not argued with Kramer's theory. On the contrary, he was enthusiastic — outwardly — in offering his services. He did not fear death, because he knew that he would be resurrected twenty-four hours later elsewhere along the river. But he did not want to be stretched on the wheel and then burned.

He waited for his chance to escape.

One evening a group had been seized by Kramer as they stepped off a boat. Mix pitied the captives, for he had witnessed Kramer's means of changing a man's mind. Yet there was nothing he could do for them. If they were stupid enough to refuse to pretend that they agreed with Kramer, they must suffer.

"But this man Yeshua bothered me," Mix said. "In the first place, he looked too much like me. Having to see him burn would be like seeing myself in the flames. Moreover, he didn't get a chance to say yes or no. Kramer asked him if he was Jewish. Yeshua said he had been on Earth, but he now had no religion.

"Kramer said he would have given Yeshua a chance to become a convert, that is, believe as Kramer did. This was a lie, but Kramer is a mealymouthed slob who has to find justification for every rotten thing he does. He said that he gave Christians and all heathens a chance to escape the fire — except Jews. They were the ones who'd crucified Jesus, and they should all pay. Besides, a Jew couldn't be trusted. He'd lie to save his own skin.

"The whole boatload was condemned because they were all Jews. Kramer asked where they were going, and Yeshua said they were looking for a place where nobody had ever heard of a Jew. Kramer

said there wasn't any such place; God would find them out no matter where they went. Yeshua lost his temper and called Kramer a hypocrite and an anti-Christ. Kramer got madder than hell and told Yeshua he wasn't going to die as quickly as the others.

"About then, I almost got thrown into prison with them. Kramer had noticed how much we looked alike. He asked me if I'd lied to him when I told him I wasn't a Jew. How come I looked like a Jew if I wasn't? Of course, this was the first time he'd thought of me looking like a Jew, which I don't. If I was darker, I could pass for one of my Cherokee ancestors.

"So I grinned at him, although the sweat was pouring out of my armpits so fast it was trickling down my legs, and I said that he had it backwards. Yeshua looked like a Gentile, that's why he resembled me. I used one of his own remarks to help me; I reminded him he'd said Jewish women were notoriously adulterous. So maybe Yeshua was half-Gentile and didn't know it.

"Kramer gave one of those sickening belly laughs of his; he drools until the spit runs down his chin when he's laughing. And he said I was right. But I knew my days were numbered. He'd get to thinking about my looks later, and he'd decide that I was lying. To hell with that, I thought. I'm getting out tonight.

"But I couldn't get Yeshua off my mind. I decided that I wasn't just going to run like a cur with its tail between its legs. I was going to make Kramer so sick with my memory his pig's belly would ache like a boil every time he thought of me. That night, just as it began to rain, I killed the two guards with my axe and opened the stockade gates. But somebody was awake and gave the alarm. We ran for my boat, had to fight our way to it, and only Yeshua, the woman Bithniah and I got away. Kramer must have given orders that the men who went after us had better not return without our heads. They weren't about to give up."

Stafford said, "God was good enough to give us eternal youth in this beautiful world. We are free from want, hunger, hard labor and disease. Yet men like Kramer want to turn this Garden of Eden into hell. Why? I do not know. He is a madman. One of these days, he'll be marching on us, as he has on the people to the north of his original area. If you would like to help us fight him, welcome!"

"I hate the murdering devil!" Mix said. "I could tell you things . . . never mind, you must know them."

"To my everlasting shame," Stafford replied, "I must confess that I witnessed many cruelties and injustices on Earth, and I not only did not protest, I encouraged them. I thought that law and order and religion, to be maintained, needed torture and persecution. Yet I was often sickened. So when I found myself in a new world, I determined to start anew. What had been right and necessary on Earth did not have to be so here."

"You're an extraordinary man," Mix said. "Most people have continued to do and think here exactly what they thought and did on Earth."

III

By then, he was beginning to feel heady. Fortunately, the copias were brought in, and they were allowed to eat. Mix opened the tall gray cylinder and removed the containers from their snap-up racks. These held a thick cubical boneless steak, two slices of bread with butter, a lettuce salad, a baked potato with butter and sour cream, a chocolate bar, a 3-ounce shot of whiskey, a pack of cigarettes, two cigars and a stick of dreamgum.

Normally, Mix used tobacco for barter, since he did not smoke, but he thought it politic to pass it around to Stafford and his councilmen.

Yeshua, on opening his cylinder, looked disgusted. Instead of satisfying his hunger, which must have been as ravenous as Mix's, he stared gloomily at the ceiling. Mix asked him what was wrong. Bithniah, who was eating greedily, laughed and said, "Even though he has renounced his religion with his mind, his stomach can't forget the laws of Moses. There is a big tender piece of ham in his copia, and it has sickened him."

"Aren't you a Hebrew, too?" Mix asked.

"Yes, but I don't let it bother me. When I am hungry, I will eat anything. I learned that on Earth when I was a young girl and we were roaming in the desert. I never allowed the others to see me eating unclean food, of course, else I'd have been killed. But then I did many things that Yahweh was supposed to frown upon."

Mix said, "Yeshua, I'll trade my steak for your ham."

"I'm not sure that the animal was slaughtered correctly," Yeshua said.

"I don't think there's any slaughter involved," Mix replied. "I've been told that the buckets must convert energy into matter. Somehow the power that the stones give off three times a day is transformed by a mechanism in the false bottom of the bucket. There must also be a kind of program in the mechanism, because the buckets have different food every day. I've kept watch on it and noticed that I always get steak on certain days, a cake of soap every third day and so on.

"The scientist that explained it to me said — though he admitted he was only guessing — that there are matrices in the bucket that contain models for certain kinds of matter. They put together the atoms and molecules of the energy to form steak, cigars, or what have you. So, there's no slaughter."

"I'll take the steak and with thanks," Yeshua said.

Stafford, who had been listening with interest, spoke. "The first general resurrection, and the re-resurrection of those killed here since that day, must operate on the same principles. But who is doing all this for us and why?"

Mix shrugged and said, "Who

knows? I've heard a lot of wild theories. But I did run into a man who knew a 19th-century Englishman named Burton. He said Burton had told him that he had accidentally awakened before Resurrection Day. He was in a very strange place, a titanic room where there were millions of bodies. Some were in the process of being restored to wholeness and youth. He tried to escape, but two men caught him and made him unconscious again, and he woke up with the rest of us on That Day, naked as a jaybird and with his bucket in his hand.

"Burton thought that some beings, maybe Earthmen of the post-20th century, had found a way to record events in time. They'd taken records of every human being that existed, formed matter that re-created the original beings, restored the being to health and youth, made new recordings and transformed them in this rivervalley.

"This valley, by the way, must also be their work. A river that's at least ten million miles long and flows uphill at places, has to have been built by sentient beings, not by Nature."

"What you say seems reasonable," Stafford replied. "However, what appears to be reasonable may not conform to the facts. I am inclined to agree with you. But I still do not know what purpose there is in our being here."

Mix yawned and stretched. "I don't either, but I intend to make the best of what I do have while I have it. I know we'll have to pay for this one way or the other. You get nothing free. If it's okay with you, I'd like to hit the hay. First, though, I'd like to take a bath."

Stafford smiled. "You 20th-centurians are as enamored of bathing as the ancient Romans were reputed to be. I say reputed, because the few I've met were, to put it charitably, unwashed. Yet the river is only a few steps away. Perhaps, it was the decadent ruling class of the Romans that was so clean?"

Mix grinned, but he felt angry. Something in Stafford's tone indicated he felt that Mix and his kind had a ridiculous obsession, maybe a somewhat immoral attitude. Mix swallowed the comment he wanted to make, that the council hall stank like a congress of baboons. But he was in no position to insult his host, nor should he. The man was only expressing the attitude of his time.

Stafford told Mix that there were several unoccupied cottages nearby. Those who had been killed by Kramer's men on the river had lived in them. The cottage automatically reverted to the state, which usually sold them to newcomers or rented them for tobacco, liquor or services rendered.

Mix, Yeshua and Bithniah followed a Sergeant Channing, who held a torch, although it was not needed. The night sky, ablaze with giant stars and luminous sheets of gasclouds, cast a brighter light than the Earth's full moon. The river sparkled beneath it. The four went to its bank, and the three newcomers walked into the water up to their hips. Yeshua and Bithniah kept

their kilts on, so Mix did the same. When with a group that bathed in the nude, a common practice along the river, he undressed. When Mix was with those who retained their modesty even after the two-week-long towelless nakedness following All Souls' Day, he observed their custom.

With soap from their copias, they washed the grime and sweat off and returned to the land to dry themselves with other towels. Mix watched Bithniah. She was a short dark woman with a full figure, a narrow waist and shapely legs, but with too broad hips. She had long thick glossy blueblack hair and a pretty face, if you liked long noses. Her eyes were huge and dark, and even during the flight they had given Mix some curious glances. He told himself that Yeshua had better watch her; she looked to him like an alley-cat in mating season.

Yeshua now, he was something different. The only resemblance he had to Mix was physical. He was quiet and withdrawn, except for that one outburst against Kramer and he seemed to be always thinking of something far away. Despite his silence, he gave an impression of great authority — rather, of a man who had once had it but was now deliberately suppressing it. Or, perhaps, of a man who rejected all claim to authority.

"You know," Mix said to Yeshua, "shortly before I came to Kramer's territory, something puzzling happened to me. A little dark man rushed at me crying out in a foreign tongue. He tried to embrace me; he was weeping and moaning, and he kept repeating a name over and over. I had a hell of a time convincing him he'd made a mistake. Maybe I didn't. He tried to get me to take him along, but I didn't want anything to do with him. He made me nervous, the way he kept on staring at me.

"I forgot about him until just now. I'll bet he thought I was you. Come to think of it, he did say your name quite a few times."

Yeshua came out of his absorption. "Did he say what his name was?"

"I don't know. He tried four or five different languages on me, including English, and I couldn't understand him in any of them. But he did repeat a word more than once. Mattithayah. Mean anything to you?"

Yeshua did not reply. He shivered and draped a long towel over his shoulders. Mix knew that something inside Yeshua was chilling him. The heat of the daytime, which reached about 80 degrees at high noon (there were no thermometers), faded away slowly. The high humidity of the valley retained it until the invariable rains fell a few hours after midnight. Then the temperature dropped swiftly to about 65, and stayed there until dawn.

Sergeant Channing led them to their residences. These were small one-room bamboo huts with roofs thatched with the giant leaves of the irontree. Inside each was a table, several chairs, and beds, all of bamboo. Channing bade them good night and walked off, but Mix knew that

he would probably give orders to sentinels stationed out of sight nearby.

IV

Mix fell asleep at once but wakened as soon as the rays of the sun fell on his face through the open window. He rose, put on his kilt, and splashed water from a broad shallow fired-clay basin on the table. He did not have to bother about shaving, for all men had been resurrected permanently beardless.

He took a roll of paper from his leather bag (the copias provided this, too), and found his desired destination by following his nose. This was a long bamboo hut built over a deep ditch.

He found that, if daily bathing was not widespread, other sanitary customs were observed. The deposits were hauled up at regular intervals to be dropped in a deep canyon (aptly and directly named) in the mountains. Mix asked if there was any sulfur in the area. He was told that there was none. That explained to him why these people did not extract nitrate crystals from processed excrement and mix it with charcoal and sulfur to make gunpowder. In other areas of the valley, bombs and rockets in bamboo cases were common.

On returning to his cottage, he intended to invite Yeshua and his woman to go with him to the nearest charging stone. A few paces from their door, he halted. They were arguing loudly in their heavily accented English. Later, he wondered why they did not use Hebrew or Aramaic, which would have been ununderstandable to any overhearer. Discreet inquiry would reveal that Bithniah did not know Aramaic. Also, her Hebrew was too archaic and had too many Egyptian and colloquial words, which later had dropped out of the language. Moreover, Yeshua knew Hebrew only as a liturgical and scholarly tongue and could converse in it only with hesitation. The only common speech to both was 17th-century English, and their use of it was, to Tom Mix, a half-garble.

"I will not go up with you to live in the mountains!" Bithniah said. "I don't want to be alone, to sit on top of a rock with no one but a walking tomb to talk to. I love people, and I love to talk. No, I will not go!"

"I won't stop you from going down into the plains to talk," Yeshua said. "Nor do I plan to live entirely as a hermit. I'll have to work, probably as a carpenter, since I have stone tools and those seem to be lacking hereabouts. But I don't . . ."

Here Mix couldn't understand the next few sentences. He had no trouble comprehending most of Bithniah's retort, however.

"I don't know why I stick to you! But I know why you want me around! It's just because I knew Mosheh and Aaron and I was on the march from Egypt! Your only interest in me is to drain me of all I know about your great hero Mosheh! Well, let me tell you, Yeshua,

he was a louse! He was always preaching against adultery and strange women, but I happen to know better. Believe me, I was one of the women!"

Yeshua said, "I am interested in what you have to say about your life, although there are times when I wish I'd never heard a word of it. But great is the truth."

Here he continued in Hebrew or Aramaic, evidently quoting something.

"Stick to English!" Bithniah screamed. "I got so fed up with the so-called holy men always quoting proverbs and the holy writings, and all the time their own secret sins, which everybody in the tribe knew, stank like a camel! Furthermore, you know all about me, yet you told me nothing about yourself. All I know is that you were a holy man, or so you claimed to be. Maybe you're telling me the truth. I think that your religion ruined you. Certainly you're no good except when you take that dreamgum and you're out of your mind. What kind of a man is that, I ask you? Personally, I think . . ."

Yeshua's voice, suddenly so low that Mix could not make out the words, interrupted Bithniah. Mix strained to hear, then shrugged. He glanced at the sun. A few minutes more, and the stones would give up their energy. If they did not hurry, they'd have to go breakfastless, unless they wanted to eat fish, of which he was very tired.

He knocked loudly on the door. The two within fell silent. Bithniah swung the door open violently, but she managed to smile at him as if nothing had occurred. "Yes, I know. We'll be with you at once."

"Not I," said Yeshua. "I don't feel hungry now."

"That's right!" Bithniah said loudly. "Try to make me feel guilty, blame your upset stomach on me. Well, I'm hungry, and I'm going to eat, and you can sit in here and sulk for all I care!"

"No matter what you say, I am going to live in the mountains."

"Go ahead! You must have something to hide! Who's after you? Who are you that you're so afraid of meeting people? Well, I have nothing to hide!"

Bithniah picked up her copia by the handle and stormed out. Mix walked along with her and tried to make pleasant conversation. But she was too angry to cooperate. As it was, they had just come into sight of the nearest mushroom-shaped rock, located between two hills, when blue flames soared up from the top and a roar like a lion's came to them. Bithniah stopped and burst into her native language. Obviously she was cursing. Mix contented himself with one short word.

"Got a smoke?" she said.

"In my hut. But you'll have to pay me back later. I usually trade my cigarettes for liquor."

"Cigarettes? That's your word for pipekins?"

He nodded and they returned to his hut. Yeshua was not in sight. Mix purposely left his door open. He trusted neither Bithniah nor himself.

Bithniah glanced at the door. "You must think me a fool. Right next door to Yeshua!"

Mix grinned. "You never lived in Hollywood."

He gave her a cigarette. She used the lighter that the copia had furnished: a thin metallic box which extended a whitely glowing wire when pressed on the side.

"You must have overheard us," she said. "Both of us were shouting our fool heads off. He's a very difficult man. Sometimes he frightens me, and I don't scare easily. There's something very deep — and very different, almost alien, maybe unhuman, about him. Not that he isn't very kind or that he doesn't understand people. He does, too much so.

"But he seems so aloof most of the time. Sometimes, he laughs very much, and he makes me laugh, for he has a wonderful sense of humor. Other times, though, he delivers harsh judgments, so harsh they hurt me because I know that I'm included in the indictment. Now, I don't have any illusions about men or women. I know what they are and what to expect. But I accept this. People are people, although they often pretend to be better than they are. But expect the worst, I say, and you now and then get a pleasant surprise because you don't get the worst."

"That's pretty much my attitude," Mix said. "Even horses aren't predictable, and men are much more complicated. So you can't always tell what a horse or a man's going to do or what's driving him. One thing you can bet on. You're Number One to yourself, but to the other guy, Number One is himself or herself. If somebody acts like you're Number One, and she's sacrificing herself for you, she's just fooling herself."

"You sound as if you'd had some trouble with your wife."

"Wives. That, by the way, is one of the things I like about this world. You don't have to go through any courts or pay any alimony when you split up. You just pick up your bucket, towels and weapons, and take off. No property settlements, no in-laws, no kids to worry about, not that I had any kids on Earth."

"I bore twelve children," she said. "All but three died before they were two years old. Thank God, I don't have to go through that here."

"Whoever sterilized us knew what he was doing," Mix said. "If we could have kids, this valley'd be jammed tight as a pig-trough at feeding time.

He moved close to her and grinned. "Anyway, we men still have our guns, even if they're loaded with blanks."

"You can stop where you are," she said, although she was still smiling. "Even if I leave Yeshua, I may not have you or want you. You're too much like him."

"I might show you the difference," he said, but he moved away from her and picked up a piece of dried fish from his leather bag. Between bites, he asked her about the Mosheh she had mentioned in her quarrel.

"Would you get angry or beat me if I told you the truth?" she said.

"No, why should I?" he asked.

"Because I've learned to keep my mouth shut about my Earthly life. The first time I told about it, I was beaten badly and thrown into the river. The Englishmen I was talking to were, what were they called? Oh, yes, Puritans! They were outraged; I was lucky not to have been tortured and burned."

"I'd like to hear the real story," he said. "I could care less if it's not what I learned in Sunday school."

"You won't tell anybody else around here?"

"Cross my heart and promise to fall off Tony."

V

She looked blankly at him, then decided that he was giving a 20th-century oath. She was, she said, born in the province of Goshen of the land of Egypt. Her tribe was that of Judah and they were not, technically, slaves. The Hebrews had originally come in to work for the state under contract. Conditions were not as bad as those depicted in the Book of Exodus.

She had never, of course, read this book or any of the Judaic scriptures. The first she had heard of them was from the inhabitants of the area of the rivervalley in which she had been resurrected.

There was a mixture of religions in the several tribes of Goshen. Her mother worshipped El, the original god of the Hebrews, among others. Her father favored the gods of Egypt, but he occasionally participated in the rites of El. She knew Mosheh (or Moses, as the English called him). She grew up with him. He was a wild kid (her own words), half-Hebrew, half-Egyptian. When Mosheh was about ten, he had been adopted by an Egyptian priest who had lost his two sons to disease. Five years later, Mosheh was back with the Hebrews. His foster-father had been arrested and charged with practicing the forbidden religion of Aton, founded by the accursed Pharaoh Akhnaton. Later, the foster-father was executed.

Years later, Mosheh announced that the Hebrews had been taken under custody by an unknown god, Yahweh of the Midianites. This came as a surprise to the Hebrews, most of whom had never heard of Yahweh. But Mosheh was a man who had seen a vision; he seemed truly to burn as brightly with the light of Yahweh as the burning bush of which he told. And he offered them release from their bondage.

"What about the plagues, the river of blood, the slaying of the firstborn of the Egyptians?"

Bithniah laughed. "I saw nothing like that. There was a plague raging through the land, but it was killing as many Hebrews as Egyptians."

"What about the tablets of stone?"

"Mosheh did write the commandments on two tablets, but I couldn't read them. Three-fourths of the tribe couldn't. I never learned to read or write anything except a few simple Egyptian signs."

Mix wanted to question her further, but he was interrupted

by a soldier. Stafford wanted to see the three of them. Yeshua came out of his hut at the summons and followed them without saying a word.

They entered the Council Hall and were greeted by Stafford. He bade them good morning and asked them pointblank if they intended to stay.

All three answered that they would. Stafford said, "Very well. We believe that the citizen owes the state certain debts in return for its protection. Now, what would you wish to do?"

They talked a while. The result was that Mix entered the army as a private. Stafford apologized for the lowly position. He realized that a man of his training and experience should have a commission. But it was the policy to start all newcomers off at the bottom. This avoided unhappiness and jealousy among those who had established their status.

However, since Mix had stone weapons of his own, and there were few of these in this area, Mix would be assigned to the elite squad of axemen. After a few months, he could be promoted to a sergeancy. That was the lowest permanent rank in the axemen.

Yeshua asked for a job as a carpenter. He did not want anything to do with the military, for he objected to shedding human blood. Stafford frowned at this. It was the state's policy to call on all able bodies, men or women, to fight for Albion. However, in view of Yeshua's ownership of flint tools and his undoubted usefulness, he could be admitted as a second-class citizen. This meant that he would not get any of the bonuses given out by the state every three months: the extra cigarettes, liquor, etc. At the same time, he would have to contribute a certain amount from his own copia to the state treasury. And, in case of war, he would have to submit to being kept in a stockade until the fighting was over. The state did this to make sure that the second-class citizens, of whom there were not many, would not get in the way of the military.

Yeshua agreed to this.

Bithniah was assigned to a woman's labor division. At present, this was busy adding to the southern wall dividing Albion from its neighboring state, Anglia.

Mix reported to Captain Hawkins. He spent the morning drilling and practicing throwing his axe and spears. That afternoon, he instructed craftsmen how to make boomerangs, unknown in this area.

Several hours before dusk, he was dismissed. After bathing in the river, he returned to his hut. Bithniah was home but Yeshua was gone.

"He went up into the mountains," she said. "He wanted to become pure again!"

She raved on until Mix quit listening. He waited until she had run out of breath and tears, then he asked her if she wanted to move into his cottage. She replied that he reminded her too much of Yeshua, and would he please leave? Mix shrugged and went to the nearest stone to charge his copia.

While there, he met a pretty

blonde who had recently parted with her hutmate because of their quarrels over his unreasonable jealousy. Delores and he had more in common than a desire to find a mate. Their lives on Earth had not had a chronological overlap, for she was born five years after he had rammed his car into the barricade on the road between Phoenix and Tucson, Arizona. She had never seen any of his movies, but she did know who he was. Since one of her father's childhood heroes was Tom Mix, she had heard her father discuss him more than once. And, when the family had moved to Arizona for a while, her father had insisted they go see the monument that marked the site of the accident.

For the first time, Mix heard details of what happened after his death. He felt hurt that the onlookers had been more interested in catching the many dollar bills that had flown like green snow around the barricade than in determining whether he was alive or not. But in a few minutes, he smiled to himself.

That the money meant more than a human life to those workers was only natural. Besides, if his face had been smashed, they would not have immediately known his identity. And, if he had been in their skins, and their situation, he might have done the same. The sight of a thousand-dollar bill blown along by the wind was very tempting — to those who did not earn in two years what he made in a week. He could not really blame the slobs.

Mix and Delores Rambaut went to her hut to live, since her former mate had walked out and, therefore, lost his right to the property. Mix would have to make a formal application and pay a slight tax, cigarettes or labor, for the use of the house, but the whole procedure was routine.

He was looking forward to night when he was summoned by Stafford. The lord was grave and perturbed.

"My spies in Kramer's land tell me he is getting ready for a big attack. But they don't know on whom, for Kramer has not told even his highest officers. He knows that we have spies there, just as he undoubtedly has here."

"I hope you still don't think that I'm a spy," Mix said.

Stafford smiled slightly. "No. I've checked out your story. You're not a spy unless you're part of a diabolically clever plot by Kramer to sacrifice a good boat and fighting men to convince me you're what you claim to be. I doubt it, for Kramer is not the sort of man to release Jewish prisoners. Of course, most of the prisoners were killed, so I can't be 100% sure. On one hand, I can't believe that Kramer could find among his followers the caliber of man to deliberately allow himself to be killed to further Kramer's ambitions. On the other hand, he does have a number of religious fanatics who might do just that."

They discussed the situation, and it soon became apparent why Stafford was consulting him, a stranger, a lowly private, and an

American colonist. For Stafford, despite his outward politeness, could not conceal his feelings of his own superiority, both as a blue-blooded lord and an Englishman. Mix was a "provincial," one of the inferior and wild breeds. Mix, aware of this, felt only a slight resentment and more than a slight amusement. What would Stafford say if he were told that England had become the American "province" in Mix's time?

Stafford, however, was impressed by the showing of Mix in the river battle and his Earthly military background. Moreover, Mix knew Kramer's land, and he had made the statement the night before that the only way to defeat Kramer was to beat him to the punch.

Just what did he mean by that?

"As I understand it," Mix said, "Kramer's method of expansion is to leapfrog one state and conquer the one beyond it. After consolidating his conquest, he then squeezes the bypassed area between his two armies. This is an excellent method, but it wouldn't work if the other states would ally against him. Unfortunately, they're too jealous of their own prerogatives to submit to being lead by another state. Besides which, they don't trust each other. So Kramer has been having his own way.

"But I think that if we could deliver at least a crippling blow, the other states would then jump in like a pack of wolves and finish him off. So my idea is to make a night raid — by boat, of course — and burn his fleet. Maybe even a landing and a suicide force to try to kill Kramer. Knock him off, and his state will fall apart."

"I've already sent assassins after him, and they've failed," Stafford replied. "I like your aggressiveness, but I don't see how we could carry the attack off. There are two states to the south of us, and a stretch of twenty miles of river. We have to sail or row upriver, so we couldn't reach Kramer's land before morning if we left at dusk. Moreover, we'd be observed by his spies in the other states long before we got there, and Kramer'd be ready for us."

"Yeah, but you've forgotten the savages, the Huns, that live across the river. So far, there's been an unspoken agreement that the middle of the river is the dividing line, and each stay on his side of the line. But I've got an idea. Here's what we could do."

They talked for another hour, at the end of which Stafford said that they would follow Mix's plan. It was better to take a chance, no matter how desperate, than let Kramer call the shot. Stafford was beginning to pick up some of Mix's 20th century phrases.

VI

During the three-day preparation, Mix was busy. But he had some time in the afternoon for himself, and he decided to visit the man who could be his twin.

First, he stopped at Bithniah's. She was now living with one of the men whose mates had been killed during the river-fight, and she seemed fairly happy with him. No, she

had not seen the "crazy monk," as she called him. Mix informed her that he had gotten glimpses of Yeshua now and then. He had been cutting down pine trees with his axe, preparatory to fashioning some furniture for Stafford.

Following her directions, Mix crossed the hills at a southward angle and presently came to the foot of the mountains. He began climbing up a not-too-difficult path. In a few minutes, he heard a wild skirling of music. It sounded to him like a bamboo syrinx, of which there were many in this area.

The climbing became steeper. Only a mountain goat or a "crazy monk" would have daily used the so-called path; Mix decided that he was not going to make many calls on Yeshua. But there was something about the man — aside from his physical appearance — that intrigued him.

Sweating, despite the shade, he pulled himself over the edge of the rock and found himself on a small plateau. A building that was more of an enclosed lean-to than a hut was in the middle of the tablerock. Beyond it was a small cascade, one of the many waterfalls that presumably originated from unseen snows on top of the mountains. The cascades were another mystery of this planet, which had no seasons and thus should rotate at an unvarying 90 degrees to the ecliptic. If the snows had no thawing period, where did the water come from?

Yeshua was by the waterfall. He was naked and blowing on the pan's pipe and dancing as wildly as one of the goat-footed worshippers of

The Great God. Around and around he spun. He leaped high, he skipped, he bent forward and backwards, he kicked, he bent his legs, he pirouetted, he swayed. His eyes were closed, and he came perilously close to the edge of the plateau.

Like David dancing after the return of the ark of God, Mix thought. But Yeshua was doing this for an invisible audience. And he certainly had nothing to celebrate.

Mix was embarrassed, for he felt like a window-peeper. Almost he decided to retreat and leave Yeshua to whatever was possessing him. But the thought of the difficulty of the climb and the time he had taken made him change his mind.

He called. Yeshua stopped dancing and staggered backward as if an arrow had struck him. Mix walked up to him and saw that he was weeping.

"I'm sorry," Mix said. "But I did want to see how you were coming along."

Yeshua turned, kneeled and splashed the icy water from a pool by the side of the cataract, then turned to face Mix. His tears had stopped, but his eyes were wide and wild.

"I was not dancing because I was happy or filled with the glory of God," he said. "On Earth, in the desert by the Dead Sea, I used to dance. No one around but myself and The Father. I was a harp, and His fingers plucked for the ecstasy. I was a flute, and He sounded through my body the songs of Heaven.

"But no more. Now I dance because, if I do not, I would scream my anguish until my throat caught fire, and I would leap over the cliff and fall to a longed-for death. What use in that? In this world, a man cannot commit suicide. Not permanently. A few hours later he must face himself and the world again. Fortunately he does not have to face his god again. There is none left to face."

Mix felt even more embarrassed and awkward. "Things can't be that bad," he said, looking to one side of Yeshua. "Maybe this world didn't turn out to be what you thought it was going to be. So what? You can't blame yourself for being wrong. Who was right? Who could possibly have guessed the truth about the unguessable? Anyway, this world has many good thing that Earth didn't have. Enjoy them. It's true it's not always a picnic here, but when was it on Earth? At least, you don't have to worry about growing old, there's plenty of good-looking women, you don't have to sit up nights wondering where your next meal is coming from or how you're going to pay your taxes or alimony. Hell, even if there aren't any horses or cars or movies here, I'll take this world any time! You lose one thing; you gain another."

"You don't understand, my friend," Yeshua replied. "Only a man like myself, a man who has seen through the veil that the matter of this physical universe presents, seen the reality beyond, felt the flooding of the Light within . . ."

He stopped, stared upwards, clenched his fists, and uttered a long ululating cry. Mix had heard only one cry like that — in Africa, when a Boer soldier had fallen over a cliff and he knew that, no matter what he did, he could not escape.

"Maybe I better go," Mix said. "I know when there's nothing to be done. I'm sorry that —"

"I don't want to be alone!" Yeshua said. "I am a human being; I need to talk and to listen, to see smiles and hear laughter, and know love! But I cannot forgive myself for being . . . what I was!"

Mix wondered what he was talking about. He turned and started to walk to the edge of the plateau. Yeshua came after him.

"If only I had stayed there with the Sons of Zadok! But no! I thought that the world of men and women needed me! The rocks of the desert unrolled before me like a scroll, and I read therein that which must come to pass, and soon, because God was showing me. I left my brothers in their caves and their cells and went to the cities because my brothers and sisters and the little children there must know, so that they would have a chance to save themselves!"

"I got to get going," Mix said. "I feel sorry for whatever's riding you, but I can't help you unless I know what it is. And I doubt that I'd be much help then."

"You've been sent to help me! It's no coincidence that you look so much like me and that our paths crossed."

"I'm no doctor," Mix said. "Forget it. I can't straighten you out."

Abruptly, Yeshua dropped the hand held out to Mix, and he spoke softly.

"What am I saying? Will I never learn? Of course you haven't been sent. There's nobody to send you. It's just chance."

"I'll see you later," Mix said.

He began climbing down. Once he looked upwards, and he saw Yeshua's face, his face, staring down at him. He felt angry then, as if he should have stayed and at least given some encouragement to the man. He could have listened until Yeshua talked himself into feeling better.

By the time he had reached the hills and started walking back, he had a different attitude. His story that he had to be back soon was true, for Stafford was holding a council of war. Mix, although technically a private, was actually an important man.

Moreover, he doubted that he could really aid the poor devil.

Yeshua must be half-cracked, certainly, half-baked. And that was a peculiar thing about this world and the resurrection. Everybody else had not only been awakened from the dead with the body of a 25-year-old — except, of course, for those who had died on Earth before that age — but all who had suffered a mental illness on Earth had been restored mentally whole.

However, as time passed, and the problems of the new world pressed in, many began to sicken in their minds. There wasn't much schizophrenia; but he understood from talking to a 20th-centurian that at least three-quarters of schizophrenia had been proved to be due to a physical imbalance and was primarily genetic in origin.

Nevertheless, five years of life in the rivervalley had produced a number of insane or half-insane people, though not in the relative proportions known on Earth. And the resurrection had not been successful in converting the majority of the so-called sane to a new outlook.

As before, most of humanity acted irrational and was impervious to logic. Mix was not affected. He had always known the world was half-mad and behaved accordingly, usually to his benefit.

But Yeshua, miserable fellow that he was, could not forgive himself for whatever it was he had been or done on Earth.

VII

That evening, immediately after the copias were filled, the fleet of Albion set sail.

Its complement was five men-of-war, twenty frigates, and forty cruisers. The so-called men-of-war were huge single-hulled ships, two-masted, fore-and-aft rigged, the bamboo reinforced with pine and oak. The crew of each was fifty men. The other classes were smaller, swifter catamarans.

The fleet had no sooner rounded the bend that took them alongside the state of Anglia than the shores on both sides of the river boomed with the roar of big drums. The Anglians, perhaps fearing an inva-

sion, were summoning their own forces. The second set of drums were those of Kramer's spies, hidden up in the mountains, and signalling in relay to their home base. Across the river, the Huns, aroused because of fears that the two-year old treaty was to be broken, burst into a frenzy of drumming.

Stafford directed his fleet to sail in close to the Anglian shore, run along it for a mile and then cut to the Hunnish side. By the time the Anglians had boarded their vessels and were ready to fight, the Albion fleet was close to the opposing Hunnish bank and a mile ahead. Now the Huns put out in their boats.

All that night, tacking back and forth, the Albion ships sailed with an increasing number of pursuers. There came the time when ships ahead of them put out to intercept them. Then, the fleet cut back and forth in the middle of the river and managed to keep from close quarters because of a desire by both the Huns and the English Anglians and New Cornwallians to avoid conflict with each other. Neither wanted to pursue the Albions into the others' waters.

Besides, by now, it was becoming apparent that the Albions did not intend to land on either bank. Kramer's capital city, Fides, must be his goal. Stafford and Mix were betting that Kramer, on hearing of the approaching fleet, would advance his own campaign plan ahead of time. He would order his huge fleet, larger than the combined ships of Albion, Anglia, and New Cornwall, to set out at once. Stafford had timed his sailing very carefully, and events worked as if he had been clocking them. The never-failing clouds of two o'clock after midnight covered the skies and blackened the land and the river. The rains torrented to reduce visibility to almost zero.

But, just before the clouds began to form, Stafford saw the starlight on the sails of Kramer's fleet. By then, the Anglian ships had dropped back to protect their own coasts, and the New Cornwallians were beginning to turn. The Huns, however, were still following. Some of them had closed in with each other, for there was great hostility between differing tribes, and these could not resist the chance to attack.

Just before the starlight was cut off by the clouds, Stafford commanded his flagship to sail toward the Hunnish coast. The Fidean fleet immediately changed its course to go toward the same point. Stafford maintained the line of direction for half a mile, then had his signalman, using a hooded fish-oil lamp, transmit the code ordering the fleet to head for the western bank.

The plan worked to the extent that the two fleets sailed on by each other without any contact. Whether or not Kramer's ships then encountered the Hunnish ships was something that could not be determined. An hour after daybreak, the Albion vessels beached at the capital of Fides. The city was well fortified with earthen ramparts and great bamboo logs and stones hauled down from the mountain.

Nor had Kramer stripped Fides of fighting men to crew his fleet.

Stafford did not attack the city at once. He sent ships to land their personnel further along the bank. These overcame the relatively small garrisons guarding the slave stockades. The freed were given weapons and set to liberating other stockades. At noon the onslaught against the capital began.

Two small catapults threw large stones to batter down two widely separated spots. The forces that sallied out to destroy the catapults were themselves destroyed. Fires were built against the two salient spots, and more stones were cast. Finally, men protected from fire in armor of riverserpent hide and drenched with water, drove battering rams against the wall. The walls crumbled, the ram-men stepped aside and the Albions poured in.

A half hour later, the capital was taken and all defenders killed.

Mix, blackened with smoke and bleeding slightly from two wounds in an arm and leg, climbed a tree on top of a hill. The fleet of Kramer was not in sight. So far, so good.

However, Kramer could not be found. Either he had escaped or else, as seemed unlikely but was possible, he had sailed with his ships. Stafford became alarmed. If the Fidean fleet had missed contact with the Hunnish fleet or had bulled its way through, Kramer could be doing the same thing in Albion that he, Stafford, had done here. Although his men were tired from the voyage and the fighting, he ordered them aboard. Sail was set immediately. At least, the trip down would be faster than that up.

Shortly after the rainfall of the next night, they came to the banks of Albion. All was quiet—but it was not normal.

No lanterns signalled back. Stafford had no time to hesitate. The Fidean fleet appeared from its hiding place on the opposite bank.

Outnumbering the Albion ships two to one, they drove them towards the home bank. Stafford's men fought more than well, and many a ship drifted down the river without a steersman at the helm and none but dead or seriously wounded on the decks.

Nevertheless, the survivors of Albion had no choice but to make a stand on the plains. They beached their vessels and grouped to attack the sailors of Kramer as they debarked. Then the trap closed. Land troops, hiding in the trees among the hills, rushed across the plain. Caught, the Albions resisted until they died or were too wounded to continue battling.

Stafford was one of the last to go down, but a spear through his eye and into his brain took his life.

Mix was not so lucky. A club knocked his leather helmet off, and another club tore him loose from his wits. When he awoke, he had a large lump on the side of his head, a throbbing sickening ache in his brain and stomach and a thong around his wrists, tied behind his back.

He was lying on the grass floor of a bamboo stockade with a number of other prisoners. The morning sun was a few degrees above the mountains.

Near him sat Yeshua. His knees were drawn up to his chest, and he stared downward, his cheeks propped against the inside of his knees. Dried blood caked his right ribs and the hair on the left side of his head.

Groaning and wincing, Mix raised himself to a sitting position. The effort dizzied him, and his eyes had a tendency to cross. But, during the intervals he could see straight, he counted thirty prisoners, twenty-one men and nine women.

"Where's Bithniah?" he said to Yeshua.

Yeshua did not look up. He said, hollowly, "She was being raped by many men the last I saw her. She should be dead by now. At least, I haven't heard her screaming. The other women have stopped screaming. They must be dead, too."

Mix gestured at the female prisoners. "How'd they escape it?"

"Kramer saved them. He said he wanted some alive . . . to burn."

Mix grunted and said, "I was afraid that was the reason they didn't kill me."

He looked along the tops of the walls. The guards were many and alert. They would be down and on him at once if he tried to ram his head on the wall. Still, he might be able to do it once. And once might not be enough. He felt as if he had suffered a concussion of the brain. One more hard blow might remove him from the fire and restore him whole somewhere else, far away on the riverbank.

He said, "If we started a ruckus, they might have to kill some of us to quiet us down. We'd be lucky if we could die now."

Yeshua raised his head. His eyes were wild and staring as when Mix had last seen him. They were also red and puffy, as if he had wept much.

"If only a man did not have to live again! If he could be dust forever, his thoughts and agonies dissolved into the soil, eaten by the worms as his flesh is eaten! But no, there's no escape. He must live again. And again. God will not permit him release."

Mix did not reply. He was thinking that if he could muster enough strength, he could run at full speed across the 30 yards of the stockade floor.

When he drove his skull into the bamboo wall on the other side, he might crack his head open.

Now was the time.

"So long, Yeshua, you poor devil," he said. "Maybe you will be happy again some day."

He rose to his feet. A guard shouted at him to sit down. The stockade whirled, his knees buckled. When he regained consciousness, he was even more sick and ill, if that was possible.

Yeshua said, "There was a time when I might have rid you of your pain, driven the demons from your body. But no more. You have to have faith—and now I do not have it."

VIII

The gates swung open. Spearmen entered first and took positions around Yeshua. Kramer followed.

He was a short fat youth with dark-brown hair and pale blue eyes. His face was piggish. He wore a black kilt and a long black towel as a cloak.

With Kramer were two prisoners. Both were short dark men with Levantine faces. Both were bloody and bruised. Mix, who had managed to sit up again, recognized one of the prisoners. He was Mattithayah, the little man who had mistaken Mix for Yeshua.

Kramer pointed at Yeshua. He spoke English with a heavy German accent. "Is that the man?"

Mittithayah broke into a storm of unintelligible words. Kramer sent him staggering with a blow of his fist against the jaw. He spoke to the other prisoner. This one answered in English as heavily accented as Kramer's, but his native tongue was obviously different.

"Yeshua!" he cried. "Rabbi! Master! We have looked for you for many years. And now *you* are *here*, too!"

He began to weep and tried to walk to Yeshua, but spears forced him back.

Yeshua had looked once at the two prisoners, groaned, and let his head sink back to its resting place on his knees.

Kramer, scowling, muttering, strode up to Yeshua and seized his long hair. Jerking it upward, he forced Yeshua to look at him.

"Madman! Anti-Christ!" he shouted. "You'll pay for your blasphemies! Just as your two crazed friends will pay!"

Yeshua closed his eyes. His lips moved soundlessly. Kramer struck him in the mouth with the back of his hand, and blood flowed from the right corner of Yeshua's lips.

Kramer screamed at him. "Speak, you filth! Do you claim to be Christ?"

Yeshua opened his eyes. He spoke in a low voice. "I claim to be only a man named Yeshua. If this Christ of yours did exist and he were here, he would be horrified, driven to madness with despair, at what has happened to his teachings."

Kramer hit Yeshua so hard that he fell upon his back. Kramer drove the toe of his hard leather sandal against Yeshua's ribs.

"Renounce your blasphemies! Recant your Satanic ravings! You will escape much pain in this world if you do, and you may save your soul in the next!"

Yeshua said, "Do what you will to me, you unclean Gentile!"

Kramer shouted, "Shut your dirty mouth, you insane monster!"

Yeshua grunted as Kramer's sandal drove into his ribs again, and he moaned for a little while thereafter.

Kramer strode to the two prisoners. "Do you still maintain that this lunatic is the Blessed Son of God?"

The two prisoners were pale beneath their dark skins and their faces looked as if fashioned from wax. Neither replied to Kramer.

"Answer me, you swine!" he

cried. He tore a spear from a soldier's hands and began to beat them with the butt. They tried to run but were held by soldiers.

Yeshua, who had struggled to his feet, said, "He is so savage because he fears that they may speak the truth."

Mix said, "What is the truth?" He was getting sicker and beginning to lose his interest in the situation. God, if only he could die before he was tied to the stake and the pile set aflame!

"I've heard that question before," Yeshua said.

When Kramer had beaten the two prisoners into unconsciousness, they were dragged out through the gates by their legs, their heads bobbing on the grass and their arms trailing behind. Kramer started to walk toward Yeshua, but he stopped as a man ran through the gates and shouted at him.

Mix was close enough to hear them talking. The messenger brought news of the approaching enemy. The Fideans would have to board their ships soon and set sail for home. Otherwise, they would be trapped on land by a superior force.

Apparently the states on both sides of Albion had decided to band together and attack. Moreover, the Huns across the river had joined them.

Kramer replied that the Fidean fleet must return to its home base at once. Before doing so, however, they would burn the heretics.

Mix knew then that Kramer had not heard of the destruction of his capital city and the uprising of the slaves. Despite his pain and the knowledge of the fire waiting for him, he managed a smile. Kramer was doomed. If he were captured alive, he would undoubtedly be tortured and then burned. Mix hoped that he would be. Perhaps, if Kramer himself experienced the flames, he might not be so eager for others to do so when he rose again. But Mix doubted it.

Kramer had quit giving orders and had resumed his course toward Yeshua. Mix called to him.

"Kramer! If Yeshua is who those men claim he is, and they've no reason to lie, then what about you? You've killed and tortured for nothing; you've put your own soul in the gravest of jeopardy."

Kramer reacted as Mix had hoped he would. He shouted, and ran at Mix with the butt-end of the spear raised. Mix saw it come down on him. Then he knew nothing.

But he was not completely successful. He regained consciousness to find himself upright and tied to a great bamboo stake. Below him was a large pile of small bamboo sections and pine needles.

His eyes crossed, and all became blurred. But he could smell the torch as it was applied to the pile, and set him to coughing. Agony struck like a fist. Vision faded; he fell into oblivion.

But he heard Yeshua's voice, distorted, far away, like thunder on the mountains.

"They do know what they're doing!"

END

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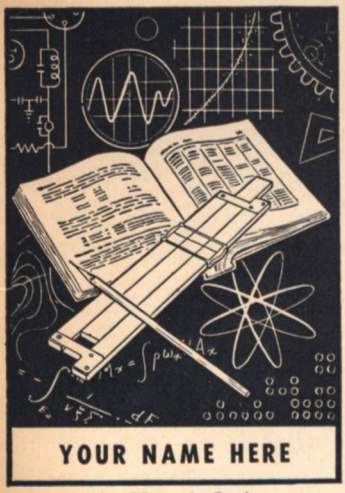

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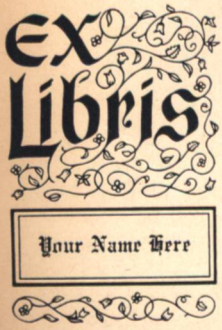

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