

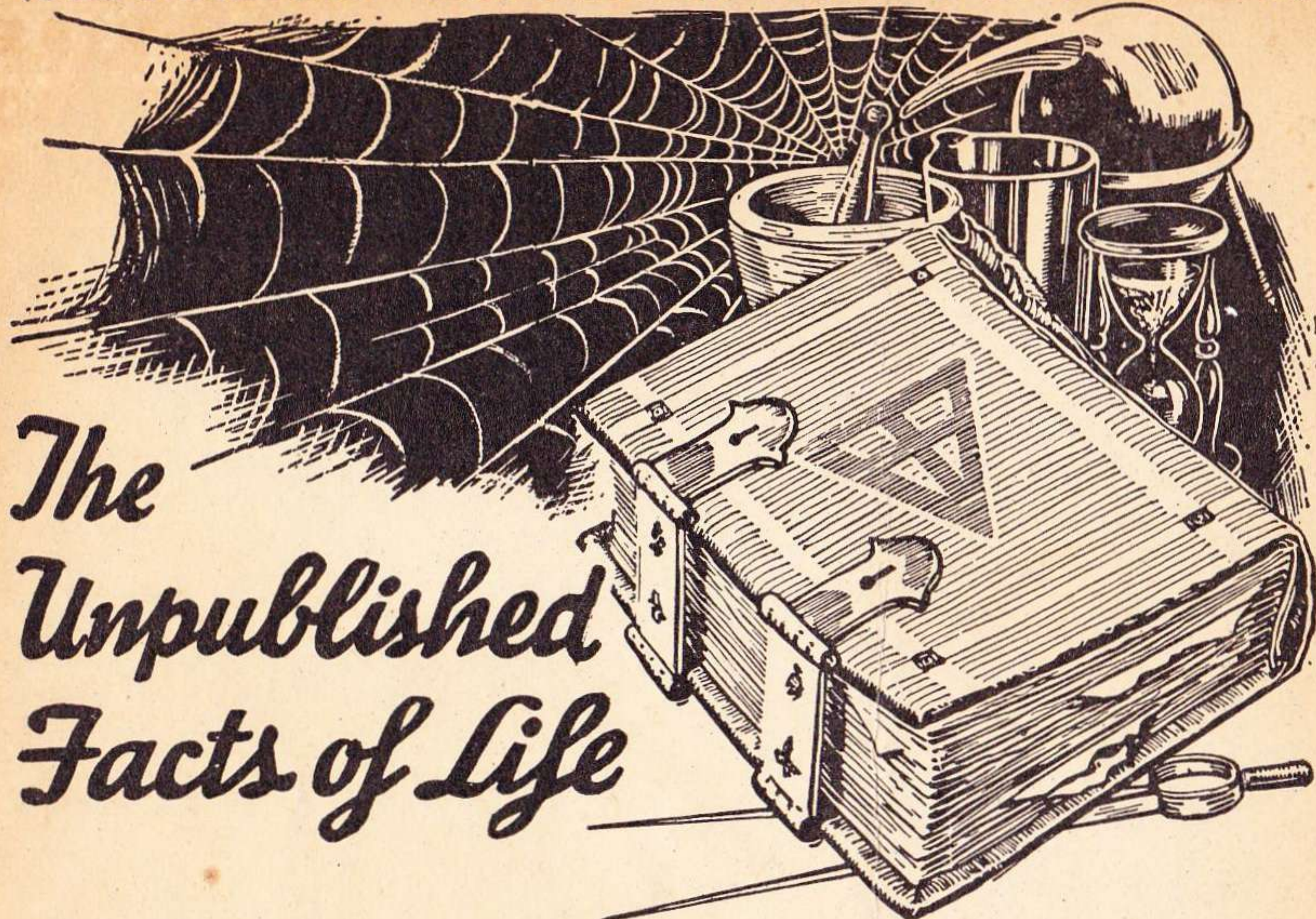
SPACE SCIENCE FICTION

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ULLR UPRISING
BY H. BEAN PIPER
CHRISTOPHER MORRISON

FEBRUARY 1953 35c



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SPACE SCIENCE FICTION

FEBRUARY, 1953

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SPACE SCIENCE FICTION is published monthly by Space Publications, Inc., 175 Fifth Avenue, New York 10, N. Y. All stories in this issue are new and have not previously been published. No actual persons are designated in works of fiction, either by name or character; any similarity is coincidental. Copyright 1953 by Space Publications, Inc. All rights, including translation reserved. Entry as second-class matter applied for at the Post Office, at New York, N. Y. Subscriptions \$3.50 per year in the United States and Possessions; \$4.50 per year in Canada; \$5.00 elsewhere. Not responsible for unsolicited manuscripts or art work. All submissions must include return postage to expedite the return of manuscripts not acceptable.

\$3.50 per year in U. S. A.

PRINTED IN U. S. A.

 173

35¢ per copy

AN EDITORIAL ON IMMORTALITY

If a little genie appeared out of a lamp or a Mazda bulb and gave the average man one gift, unlimited and complete, the chances are most people would choose money out of habit. But if they had a little time to think it over, they'd change that to a request for immortality.

Nobody really wants to die, provided they aren't already half-dead from extreme age, painful sickness, or mental despair over something or other. The only problem would be to phrase the wish in such a way that the genie couldn't trick one—such as giving immortality without lasting youth, or in some form that would make it eternally painful. But a little caution should take care of it—what people want, of course, is simple enough: eternal life under conditions of perfect physical health and no aging beyond the body's optimum balance between youthfulness and maturity.

That can probably never be had. But a lot of science fiction stories have concerned themselves with extremely long life, into the thousands of years, with the other conditions about as given. Since it is one of man's oldest wish-dreams, it is inevitable that it should be a recurrent theme in fiction, just as is telepathy. And there is some hope in science that a few steps in this direction may some day be taken.

But I suspect the people who wish for it and who write about it haven't done much real thinking on the subject. First, are you going to limit it, or not? You can't have the whole world immortal—even in a limited sense. Overpopulation is bad enough already, under normal circumstances. We'd soon overpopulate the whole Solar System, even if the other planets can be made habitable. And we can forget the stars; the enormous amounts of fuel needed to reach them, even with 100 per cent efficient conversion of matter to energy, will make more than colonization by a limited number impossible around other suns. But if you limit your immortality to a few, where do you draw that limit?

Also, if there is no such limit, you've practically put a stop to the race making any progress within itself. If you choose only the best men—how, nobody knows—you've put a permanent block in the way of younger and perhaps even better men getting into their positions.

But what about some of the consequences, even forgetting these limits? What kind of politics will exist in a world of immortality? We know that older people tend to be more conservative—not just because

they're older, but because they have formed their ideas under earlier circumstances, and keeping up with a changing world is rough going. Will things reach a static condition and stay there? Will the immortals have all the power? Will there be wars? Stop and think a minute on that one. Men who can figure on living to an age of a thousand years, all of it physically good, may not be willing to lop off most of it as quickly as a man who knows he is only giving up a very few years. Where will you get your soldiers?

What about finance? At present, money draws interest. In the case of an immortal, getting rich is no particular problem. Even at 1 per cent interest, compounded annually, money doubles in about 70 years. Starting with a thousand dollars, in a thousand years this would be over sixteen million! But that money doesn't come from nowhere! What happens to such things as interest when a larger number of people are willing to wait around for it to pile up?

What about morals and mores? Half of the things we do—such as marriage, the way we bring up our children, our entertainment, etc., are all based on the fact that we know we live for a few years and then go phht!

Trying to imagine one immortal man in the world is tough enough; we can't possibly guess what it might mean to him, and what his problems of keeping up would be. He might get used to having his friends die off quickly, but just what psychological changes would occur within him?

Trying to imagine a world of immortals, or one where even a great many people are immortal, is almost impossible. It's a lot easier to guess what would happen with the psi factor loose, even! Man is a mortal animal—and to change that definition would be to change man and all his establishments to an almost unimaginable degree.

That, of course, is the business of science fiction—imagining that which isn't imaginable. It seems strange that more writers haven't gone into it in any great detail. If writers haven't, why haven't the readers, who are free to take up almost any question in the letter columns of the magazines?

Or is this such a deeply ingrained wish-dream that nobody wants to talk about it, and be logical about it? Is it something which can't stand the light of day, and which would automatically be a fool's wish? I don't know the answers, but I'd like to have them from someone who thinks he has!

Until then, I'll stick to the safe and sure request for scads of money whenever the genie decides to pop up out of the cathode ray tube!

LESTER DEL REY

ULLR UPRISING



**A STORY IN TWO PARTS
BY H. BEAM PIPER**

ILLUSTRATED BY ORBAN



"The heathen geeks, they wear no breeks," the Terrans sang. But on a crazy world like Ullr, clothes didn't make the fighting man. There both red and yellow meant danger—and blood! First of two parts.

The big armor-tender vibrated, gently and not unpleasantly, as the contragravity field alternated on and off. Sometimes it rocked slightly, like a boat on the water, and, in the big screen which served in lieu of a window at the front of the control-cabin, the dingy-yellow landscape would seem to tilt a little. The air was faintly yellow, the sky was yellow with a greenish cast, and the clouds were green-gray.

No human had ever set foot on the surface, or breathed the air, of Niflheim. To have done so would have been instant death; the air was a mixture of free fluorine and fluoride gasses, the soil was metallic fluorides, damp with acid rains, and the river was pure hydrofluoric acid. Even the ordinary spacesuit would have been no protection; the glass and rubber and plastic would have disintegrated in a matter of minutes. People came to Niflheim, and worked the mines and uranium refineries and chemical plants, but they did so inside power-driven and contragravity-lifted armor, and they lived on artificial satellites two thousand miles off-planet. Niflheim was worse than airless; much worse.

The chief engineer sat at his controls, making the minor lateral adjustments in the vehicle's

position which were not possible to the automatic controls. At his own panel of instruments, a small man with grizzled black hair around a bald crown, and a grizzled beard, chewed nervously at the stump of a dead cigar and listened intently. A large, plump-faced, young man in soiled khaki shirt and shorts, with extremely hairy legs, was doodling on his notepad and eating candy out of a bag. And a black-haired girl in a suit of coveralls three sizes too big for her, and, apparently, not much of anything else, lounged with one knee hooked over her chair-arm, staring into the screen at the distant horizon.

"I can see them," the girl said, lifting a hand in front of her. "At two o'clock, about one of my hand's-breaths above the horizon. But only four of them."

The man with the grizzled beard put his face into the fur around the eyepiece of the teleopic-visor and twisted a dial. "You have good eyes, Miss Quinton," he complimented. "The fifth's inside the handling machine. One of the Ullrans. Gork-rink."

The largest of the specks that had appeared on the horizon resolved itself into a handling-machine, a thing like an oversized contragravity-tank, with a bull-

dozer-blade, a stubby derrick-boom instead of a gun, and jointed, claw-tipped, arms at the sides. The smaller dots grew into personal armor—egg-shaped things that sprouted arms and grab-hooks and pushers in all directions. The man with the grizzled beard began talking rapidly into his hand-phone, then hung it up. There was a series of bumps, and the armor-tender, weightless on contragravity, shook as the handling-machine came aboard.

"You ever see any nuclear bombing, Miss Quinton?" the young man with the hairy legs asked, offering her his candy-bag.

"Only by telecast, back Sol-side," Paula Quinton replied, helping herself. "Test-shots at the Federation Navy proving-ground on Mars. I never even heard of nuclear bombs being used for mining till I came here, though."

"It'll be something to see," he promised. "These volcanoes have been dormant for, oh, maybe as long as a thousand years; there ought to be a pretty good head of gas down there. The volcanoes we shot three months ago yielded a fine flow of lava with all sorts of metals—nickel, beryllium, vanadium, chromium, iridium, as well as copper and iron."

"What sort of gas were you speaking about?" she asked.

"Hydrogen. That's what's going to make the fireworks; it combines explosively with fluorine. The hydrogen-fluorine combination is what passes for combustion here: the result is hydrofluoric acid, the local equivalent of water. The subsurface hydrogen is produced when the acid filters down through the rock, combines with pure metals underneath."

The door at the rear of the control-cabin opened, and Juan Murillo, the seismologist, entered, followed by an assistant, who was not human. He was a biped, vaguely humanoid, but he had four arms and a face like a lizard's, and, except for some equipment on belt, he was entirely naked.

He spoke rapidly to Murillo, in a squeaking jabber. Murillo turned.

"Yes, if you wish, Gorkrink," he said, in *Lingua Terra*. Then he turned back to Gomes as the Ullran sat down in a chair by the door.

"Well, she's all yours, Lourenço; shoot the works."

Gomes stabbed the radio-detector button in front of him.

Out on the rolling skyline, fifty miles away, a lancelike ray of

blue-white light shot up into the gathering dusk—a clump of five rays, really, from five deep shafts in an irregular pentagon half a mile across, blended into one by the distance. An instant later, there was a blinding flash, like sheet-lightning, and a huge ball of varicolored fire belched upward, leaving a series of smoke-rings to float more slowly after it. The fireball flattened, then spread to form the mushroom-head of a column of incandescent gas that mounted to overtake it, engorging the smoke-rings as it rose, twisting, writhing, changing shape, turning to dark smoke in one moment and belching flame and crackling with lightning the next.

“In about half an hour,” the large young man told Paula Quinton, “the real fireworks should be starting. What’s coming up now is just small debris from the nuclear blast. When the shock-waves get down far enough to crack things open, the gas’ll come up, and then steam and ash, and then magma.”

“Well, even this was worth staying over for,” the girl said, watching the screen.

“You going on to Ullr on the *City of Canberra*?” Lourenço Gomes asked. “I wish I were; I have to stay over and make another shot, in a month or so, and

I’ve had about all of Niflheim I can take, now.”

“When are you going to Terra?” the girl asked him.

“Terra? I don’t know; a year, two years. But I’m going to Ullr on the next ship—the *City of Pretoria*—if we get the next blast off in time. They want me to design some improvements on a couple of power-reactors at Keegark so I’ll probably see you when I get there.”

“Here she comes!” the chief engineer called. “Watch the base of the column!”

The pillar of fiery smoke and dust, still boiling up from where the bombs had gone off far underground, was being violently agitated at the bottom. A series of new flashes broke out, lifting and spreading the incandescent radioactive gasses, and then a great gush of flame rose. A column of pure hydrogen must have rushed up into the vacuum created by the explosion; the next blast of flame, in a lateral sheet, came at nearly ten thousand feet above the ground. Then geysers of hot ash and molten rock spouted upward; some of the white-hot debris landed almost at the acid river, half-way to the armor-tender.

“We’ve started a first-class earthquake, too,” Murillo said, looking at the instruments.

"About six big cracks opening in the rock-structure. You know, when this quiets down and cools off, we'll have more ore on the surface than we can handle in ten years, and more than we could have mined by ordinary means in fifty."

"Well, that finishes our work," the large young man said, going to a kit-bag in the corner of the cabin and getting out a bottle. "Get some of those plastic cups, over there, somebody; this one calls for a drink."

The Ullran, in the background, rose quickly and squeaked apologetically. Murillo nodded. "Yes, of course, Gorkrink. No need for you to stay here." The Ullran went out, closing the door behind him.

"That taboo against Ullrans and Terrans watching each other eat and drink," Paula Quinton commented. "But you were speaking to him in *Lingua Terra*; I didn't know any of them understood it."

"Gorkrink does," Murillo said, uncorking the bottle and pouring into the plastic cups. "None of them can speak it, of course, because of the structure of their vocal organs, any more than we can speak their languages without artificial aids. But I can talk to him in *Lingua Terra* without having to put one of those damn

gags in my mouth, and he can pass my instructions on to the others. He's been a big help; I'll be sorry to lose him."

"Lose him?"

"Yes, his year's up; he's going back to Ullr on the *Canberra*. He's from Keegark; claims to be a prince, or something. But he's a damn good worker. Very smart; picks things up the first time you tell him. I'll recommend him unqualifiedly for any kind of work with contragravity or mechanized equipment."

They all had drinks, now, except the chief engineer, who wanted a rain-check on his.

"Well, here's to us," Murillo said. "The first A-bomb miners in history . . ."

II

Carlos von Schlichten, General of the troops on Ullr, threw his cigarette away and set his monocle more firmly in his eye, stepping forward to let Brigadier-General Themistocles M'zangwe and little Colonel Hideyoshi O'Leary follow him out of the fort. On the little hundred-foot-square parade ground in front of the keep, his aircar was parked, and the soldiers were assembled.

Ten or twelve of them were Terrans—a couple of lieutenants,

sergeants, gunners, technicians, the sergeant-driver and corporal-gunner of his own car. The other fifty-odd were Ullrans. They stood erect on stumpy legs and broad, six-toed feet. They had four arms apiece, one pair from true shoulders and the other connected to a pseudo-pelvis midway down the torso. Their skins were slate-gray and rubbery, speckled with pinhead-sized bits of quartz that had been formed from perspiration, since their body-tissues were silicone instead of carbon-hydrogen. Their narrow heads were unpleasantly saurian; they had small, double-lidded red eyes, and slit-like nostrils, and wide mouths filled with opalescent teeth. Being cold-blooded, they needed no clothing, beyond their belts and equipment, and the emblem of the Chartered Ullr Company painted on their chests and backs. They had no need for modesty, since all were of the same gender—true, functional hermaphrodites; any individual among them could bear young, or fertilize the ova of any other individual.

Fifteen years before, when he had come to Ullr as a newly commissioned colonel in the army of the Ullr Company, it had taken him some time to adjust. But now his mind disregarded them and went on worrying about the

mysterious disappearance of pet animals from Terran homes; there must be some connection with the subtle change he had noticed in the attitudes of the natives, but he couldn't guess what. He didn't like it, though, any more than the beginning of cannibalism among the wild Jeel tribesmen. Or the visit of Paula Quinton on Ullr as field-agent for the Extraterrestrials' Rights Association; now was no time to stir up trouble among the natives, unless his hunch was wrong.

He shrugged it aside and climbed into the command-car, followed by M'zangwe and O'Leary. Sergeant Harry Quong and Corporal Hassan Bogdanoff took their places in the front seat; the car lifted, turned to nose into the wind, and rose in a slow spiral.

"Where now, sir?" Quong asked.

"Back to Konkrook; to the island."

The nose of the car swung east by south; the cold-jet rotors began humming, and the hot-jets were cut in. The car turned from the fort and the mountains and shot away over the foothills toward the coastal plains. Below were forests, yellow-green with new foliage of the second grow-

ing-season of the equatorial year, veined with narrow dirt roads and spotted with occasional clearings. Farther east, the dirty gray woodsmoke of Ullr marked the progress of the charcoal-burnings. That was the only natural fuel on Ullr; there was too much silica on Ullr and not enough of anything else; what would be coal-seams on Terra were strata of silicified wood. And, of course, there was no petroleum. There was less charcoal being burned now than formerly; the Ullr Company had been bringing in great quantities of synthetic thermoconcentrate-fuel, and had been setting up nuclear furnaces and nuclear-electric power-plants, wherever they gained a foothold on the planet.

As planets went, Ullr was no bargain, he thought sourly. At times, he wished he had never followed the lure of rapid promotion and fanatically high pay and left the Federation regulars for the army of the Ullr Company. If he hadn't, he'd probably be a colonel, at five thousand sols a year, but maybe it would be better to be a middle-aged colonel on a decent planet than a Company army general at twenty-five thousand on this combination icebox, furnace, wind-tunnel and stonepile, where the

water tasted like soapsuds and left a crackly film when it dried; where the temperature ranged, from pole to pole, between two hundred and fifty and minus a hundred and fifty Fahrenheit and the Beaufort-scale ran up to thirty; where nothing that ran or swam or grew was fit for a human to eat.

Ahead, the city of Konkrook sprawled along the delta of the Konk river and extended itself inland. The river was dry, now. Except in Spring, when it was a red-brown torrent, it never ran more than a trickle, and not at all this late in the Northern Summer. The aircar lost altitude, and the hot-jet stopped firing. They came gliding in over the suburbs and the yellow-green parks, over the low one-story dwellings and shops, the lofty temples and palaces, the fantastically-twisted towers, following a street that became increasingly mean and squalid as it neared the industrial district along the waterfront.

Von Schlichten, on the right, glanced idly down, puffing slowly on his cigarette. Then he stiffened, the muscles around his right eye clamping tighter on the monocle. Leaning forward, he punched Harry Quong lightly on the man's right shoulder.

"Yes, sir; I saw it," the Chinese-Australian driver replied. "Terrans in trouble; bein' mobbed by geeks. Aircar parked right in the bloody middle of it."

The car made a twisting, banking loop and came back, more slowly. Von Schlichten had the handset of the car's radio, and was punching out the combination of the Company guardhouse on Gongonk Island; he held down the signal button until he got an answer.

"Von Schlichten, in car over Konkrook. Riot on Fourth Avenue, just off Seventy-second Street." No Terran could possibly remember the names of Konkrook's streets; even native troops recruited from outside found the numbers easier to learn and remember. "Geeks mobbing a couple of Terrans. I'm going down, now, to do what I can to help; send troops in a hurry. Kragan Rifles. And stand by; my driver'll give it to you as it happens."

The voice of somebody at the guardhouse, bawling orders, came out of the receiver as he tossed the phone forward over Harry Quong's shoulder; Quong caught it and began speaking rapidly and urgently into it while he steered with the other hand. Von Schlichten took one of the five-pound spiked riot-maces

out of the rack in front of him.

Bogdanoff rose into the ball-turret and swung the twin 15-mm.'s around, cutting loose. Quong brought the car in fast, at about shoulder-height on the mob. Between them, they left a swath of mangled, killed, wounded, and stunned natives. Then, spinning the car around, Quong set it down hard on a clump of rioters as close as possible to the struggling group around the two Terrans. Von Schlichten threw back the canopy and jumped out of the car, O'Leary and M'zangwe behind him.

There was another aircar, a dark maroon civilian job, at the curb; its native driver was slumped forward over the controls, a short crossbow-bolt sticking out of his neck. Backed against the closed door of a house, a Terran with white hair and a small beard was clubbing futilely with an empty pistol. He was wounded, and blood was streaming over his face. His companion, a young woman in a long fur coat, was laying about her with a native bolo-knife.

Von Schlichten's mace had a spiked ball-head, and a four-inch spike in front of that. He smashed the ball down on the back of one Ullran's head, and

jabbed another in the rump with the spike.

"*Zak! Zak!*" he yelled, in pidgin-Ullran. "*Jik-jik*, you lizard-faced Creator's blunder!"

The Ullran whirled, swinging a blade somewhere between a big butcher-knife and a small machete. His mouth was open, and there was froth on his lips.

"*Znidd suddabit!*" he shrieked.

Von Schlichten parried the cut on the steel shaft of his mace. "*Suddabit* yourself!" he shouted back, ramming the spike-end into the opal-filled mouth. "And *znidd* you, too," he added, recovering and slamming the ball-head down on the narrow saurian skull. The Ullran went down, spurting a yellow fluid about the consistency of gun-oil.

Ahead, one of the natives had caught the wounded Terran with both lower hands, and was raising a dagger with his upper right. The girl in the fur coat swung wildly, slashing the knife-arm, then chopped down on the creature's neck.

Another of them closed with the girl, grabbing her right arm with all four hands and biting at her; she screamed and kicked her attacker in the groin, where an Ullran is, if anything, even more vulnerable than a Terran. The native howled hideously, and von Schlichten, jumping over a

couple of corpses, shoved the muzzle of his pistol into the creature's open mouth and pulled the trigger, blowing its head apart like a rotten pumpkin and splashing both himself and the girl with yellow blood and rancid-looking gray-green brains.

O'Leary, jumping forward after von Schlichten, stuck his dagger into the neck of a rioter and left it there, then caught the girl around the waist with his free arm. M'zangwe dropped his mace and swung the frail-looking man onto his back. Together, they struggled back to the command-car, von Schlichten covering the retreat with his pistol. Another rioter was aiming one of the long-barreled native air-rifles, holding the ten-inch globe of the air-chamber in both lower hands. Von Schlichten shot him, and the native literally blew to pieces.

For an instant, he wondered how the small bursting-charge of a 10-mm. explosive pistol-bullet could accomplish such havoc, and assumed that the native had been carrying a bomb in his belt. Then another explosion tossed fragmentary corpses nearby, and another and another. Glancing quickly over his shoulder, he saw four combat-cars coming in, firing with 40-mm. auto-cannon and 15-mm. machine-guns. They

swept between the hovels on one side and the warehouses on the other, strafing the mob, darted up to a thousand feet, looped, and came swooping back, and this time there were three long blue-gray troop-carriers behind them.

These landed in the hastily-cleared street and began disgorging native Company soldiers—Kragan mercenaries, he noted with satisfaction. They carried a modified version of the regular Terran Federation infantry rifle, stocked and sighted to conform to their physical peculiarities, with long, thorn-like, triangular bayonets. One platoon ran forward, dropped to one knee, and began firing rapidly into what was left of the mob. Four-handed soldiers can deliver a simply astonishing volume of fire, particularly when armed with auto-rifles having twenty-shot drop-out magazines which can be changed with the lower hands without lowering the weapon.

There was a clatter of shod hoofs, and a company of King Jaikark of Konkrook's cavalry came trotting up on their six-legged, lizard-headed, quartz-speckled, mounts. Some of these charged into side alleys, joyfully lancing and cutting down fleeing rioters, while others dismounted,

three tossing their reins to a fourth, and went to work with their crossbows. Von Schlichten, who ordinarily entertained a dim opinion of the King of Konkrook's soldiery, admitted, grudgingly, that it was smart work; four hands were a big help in using a crossbow, too.

A Terran captain of native infantry came over, saluting.

"Are you and your people all right, general?" he asked.

Von Schlichten glanced at the front seat of his car, where Harry Quong, a pistol in his right hand, was still talking into the radio-phone, and Hassan Bogdanoff was putting fresh belts into his guns. Then he saw that they had gotten the wounded man into the car. The girl, having dropped her bolo, was leaning against the side of the car.

"We seem to be, Captain Pedolsky. Very smart work; you must have those vehicles of yours on hyperspace-drive . . . How is he, colonel?"

"We'd better get him to the hospital, right away," O'Leary replied. "I think he has a concussion."

"Harry, call the hospital. Tell them what the score is, and tell them we're bringing the casualty in to their top landing stage . . . Why, we'll make out very nicely,

captain. You'd better stay around with your Kragans and make sure that these geeks of King Jaikark's don't let the riot flare up again and get away from them. And don't let them get the impression that they can maintain order around here without our help; the Company would like to see that attitude discouraged."

"Yes, sir; I understand." Captain Pedolsky opened the pouch on his belt and took out the false palate and tongue-clicker without which no Terran could do more than mouth a crude and barely comprehensible pidgin-Ullran. Stuffing the gadget into his mouth, he turned and began jabbering orders.

Von Schlichten helped the girl into the car, placing her on his right. The wounded civilian was propped up in the left corner of the seat, and Colonel O'Leary and Brigadier-General M'zangwe took the jump-seats. The driver put on the contragravity-field, and the car lifted up.

"Them, see if there's a flask and a drinking-cup in the door pocket next you," he said. "I think Miss Quinton could use a drink."

The girl turned. Even in her present disheveled condition, she was beautiful—a trifle on the pe-

tite side, with black hair and black eyes that quirked up oddly at the outer corners. Her nails were black-lacquered and spotted with little gold stars, evidently a new feminine fad from Terra.

"I certainly could, general . . . How did you know my name?"

"You've been on Ullr for the last three months; ever since the *City of Canberra* got in from Nifflheim. On Ullr, there aren't enough of us that everybody doesn't know all about everybody else. You're Dr. Paula Quinton; you're an extraterrestrial sociographer, and you're a field-agent for the Extraterrestrials' Rights Association, like Mohammed Ferriera, here." He took the cup and flask from Themistocles M'zangwe and poured her a drink. "Take this easy, now; Baldur honey-rum, a hundred and fifty proof."

He watched her sip the stuff cautiously, cough over the first mouthful, and then get the rest of it down.

"More?" When she shook her head, he stoppered the flask and relieved her of the cup. "What were you doing in that district, anyhow?" he wanted to know. "I'd have thought Mohammed Ferriera would have had more sense than to take you there, or go there, himself, for that matter," he added quickly.

"We went to visit a friend of his, a native named Keeluk, who seems to be a sort of combination clergyman and labor-leader," she replied. "I'm going to observe labor conditions at the North Pole mines in a short while, and Mr. Keeluk was going to give me letters of introduction to friends of his at Skilk. We talked with Mr. Keeluk for a while, and when we came out, we found that our driver had been killed and a mob had gathered. Of course, we were carrying pistols; they're part of this survival-kit you make everybody carry, along with the emergency-rations and the water desilicator. Mr. Ferriera's wasn't loaded, but mine was. When they rushed us, I shot a couple of them, and then picked up that big knife . . . I never in my life saw anything as beautiful as you coming through that mob swinging that war-club!"

The aircar swung out over Konkrook Channel and headed toward the blue-gray Company buildings on Gongonk Island, and the Company airport.

"Just what happened, while you and Mr. Ferriera were in Keeluk's house, Miss Quinton?" O'Leary asked, trying not to sound official. "Was Keeluk with you all the time? Or did he go

out for a while, say fifteen or twenty minutes before you left?"

"Why, yes, he did." Paula Quinton looked surprised. "How did you guess it? You see, a dog started barking, behind the house, and he excused himself and . . ."

"A dog?" von Schlichten almost shouted. The other officers echoed him.

"Why, yes . . ." Paula Quinton's eyes widened. "But there are no dogs on Ullr, except a few owned by Terrans. And wasn't there something about . . . ?"

Von Schlichten had the radio-phone and was calling the command car at the scene of the riot. The sergeant-driver answered.

"Von Schlichten here; my compliments to Captain Pedolsky, and tell him he's to make immediate and thorough search of the house in front of which the incident occurred, and adjoining houses. For his information, that's Keeluk's house. Tell him to look for traces of Governor-General Harrington's col-lie, or any of the other terrestrial animals that have been disappearing—that goat, for instance, or those rabbits. And I want Keeluk brought in, alive and in condition to be interrogated."

"But, what . . .?" the girl began, her voice puzzled.

"That's why you were attacked," he told her. "Keeluk was afraid to let you get away from there alive to report hearing that dog, so he went out and had a gang of thugs rounded up to kill you."

"But he was only gone five minutes."

"In five minutes, I can put all the troops in Konkrook into action. Keeluk doesn't have radio or TV—we hope—but he has his forces concentrated, and he has a pretty good staff."

"But Mr. Keeluk's a friend of ours. He knows what our Association is trying to do for his people . . ."

"So he shows his appreciation by setting that mob on you. Look, he has a lot of influence in that section. When you were attacked, why wasn't he out trying to quiet the mob?"

"When they jumped you, you tried to get back into the house," M'zangwe put in. "And you found the door barred against you."

"Yes, but . . ." The girl looked troubled; M'zangwe had guessed right. "But what's all the excitement about the dog? What is it, the sacred totem-animal of the Ullr Company?"

"It's just a big brown collie named Stalin. But somebody stole it, and Keeluk was keeping

it. We want to know why. We don't like geek mysteries—not when they lead to murderous attacks on Terrans, at least."

It seemed to satisfy her, as the aircar let down on the hospital landing stage. But it didn't satisfy von Schlichten. He could smell trouble brewing. Just what could the geeks do with a dog? Nothing, so far as he could tell—but they didn't go in for such behavior without what they considered a good reason. Good for them, that is!

III

Governor-General Sidney Harrington had a ruddy outdoorsman's face and a ragged gray mustache; in his old tweed coat spotted with pipe ashes, he might have been any of a dozen-odd country-gentlemen of von Schlichten's boyhood in the Argentine. His face was composed enough for the part, too. But beyond him in the governor's office, Lieutenant-Governor Eric Blount matched von Schlichten's frown, his sandy-haired and younger face puckered in worry.

"We picked up a few of Keeluk's goon-gang," von Schlichten was reporting. "But I doubt if they'll tell us anything we don't already know. The dog was gone, but we found where it had been

kept; at least one of the rabbits had been there, too. No trace of the goat. Anyhow, the riot's been put down. The Kragans and some of King Jaikark's infantry are patrolling the section. Jaikark's troops are busy making mass arrests. Either more slaves for the King's court favorites or else our Prime Minister Gurgurk wants to use them for patronage."

Blount nodded. "Gurgurk's building quite a political organization, lately. He must be about ready to shove Jaikark off the throne."

"Oh, Gurgurk wouldn't dare try anything like that," Harrington said. "He knows we wouldn't let him get away with it."

"Then why's he subsidizing this Mad Prophet Rakkeed?" Blount wanted to know. "Rakkeed is preaching a holy war against all Terrans and against Jaikark. Gurkarg subsidizes Rakkeed, and . . ."

"You haven't any proof of that," the governor protested.

Blount shrugged, his face looking grim. Von Schlichten knew how he felt. They couldn't prove it, but both knew that Rakkeed had been getting funds from the hands of Gurgurk. The prophet had been stepping up his crusade against the Terrans, and Gurgurk wasn't the only one backing him. The Prime Minister prob-

ably figured on using Rakkeed to stir up an outbreak; then Gurgurk could step in, after Jaikark was killed, put down the revolt he helped incite, and claim to be the best friend of the Company. But the question was whether Rakkeed could be used that way. He was becoming more of a menace than Gurgurk could ever be. Everywhere they turned, Rakkeed was at the bottom of their trouble—just in this case, where Keeluk was one of Rakkeed's followers.

His power seemed to be growing, too. There were rumors that he had been entertained at the palace in Keegark, just as he was usually entertained by the big shipowning nobles here at Konkrook; come to think of it, the last time here, he'd been guest of the Keegarkan ambassador. He went all over Ullr, crusading, traveling coolie-class in disguise on Company ships, according to their best information.

Blount sighed heavily. "This damned dog business worries me."

"Worries me, too," Harrington said. "I'm fond of that mutt, and God only knows what sort of stuff he's been getting to eat."

"I'm a lot more worried about why Keeluk was hiding him, and

why he was willing to murder the only two Terrans on Konkrook who trust him, to prevent our finding out he had Stalin," Blount struck in.

Von Schlichten chain-lit another cigarette and stubbed out the old one. "Maybe Keeluk turned him over to Rakkeed to kill before a congregation of his followers—killing us in effigy. Or maybe they figure we worship Stalin, and getting him would give them power over us. I wish I knew a little more about Ullran psychology."

"One thing," Blount said. "It doesn't take any Ullran psychologist to know about eighty per cent of them hate us poisonously."

"Oh, rubbish!" Harrington blew the exclamation out around his pipe stem with a gush of smoke. "A few fanatics hate us, but nine-tenths of them have benefitted enormously from us."

"And hate us more deeply with each new benefit," Blount added. "They resent everything we've done for them."

"Yes, this spaceport proposition of King Orgzild of Keegark looks like it, doesn't it?" Harrington retorted. "He hates us so much he's offered us a spaceport at his city . . ."

"At what cost?" Blount asked. "He takes the land from some

noble he executes for treason and gives it to us—together with forced labor. We furnish everything else. We get a port we don't need, and he gets all the business it'll bring. In fact, considering that Rakkeed is a welcome guest there, I wonder if he isn't fomenting trouble here at Konkrook to make us move our main base to Keegark. He's so sure we'll accept already that he's started building two new power-reactors to handle the additional demand from increased business."

"Where's he getting the plutonium?" von Schlichten asked, suspiciously.

"He just bought four tons of it from us, off the *City of Pretoria*," Harrington replied.

"A hell of a lot of plutonium," Blount said. "I wonder if he has any idea of what else plutonium can be used for?"

"Oh, God, I hope not!" Harrington exclaimed. "Bosh! What about those letters Keeluk gave the Quinton girl?"

"All addressed to rabidly anti-Terran Rakkeed disciples," von Schlichten replied. "We couldn't find any indication of a cipher, but the gossip about Keeluk's friends might have had code-meanings. I'll have to advise her to have nothing to do with any

of the people Keeluk gave her letters to."

"Think she'll listen to you? These Extraterrestrial Rights Association people are a lot of blasted fanatics, themselves. They think we're a gang of bloody-fisted, flint-hearted imperialists."

"Oh, they're not as bad as all that. Old Mohammed Ferriera's always been decent enough. And the Association's really done a lot of good in other places."

A calculating look came into Harrington's eye. "She was going to Skilk, eh? And you're going there yourself, to investigate some of this Rakkeed worry of Eric's. Why not invite her along, and maybe you can plant a couple of ideas where they'll do the most good. We all know there are a lot of things at the polar mines that would look bad to anybody who didn't understand. And with all this trouble being stirred up now . . ."

It was his first admission that there *was* trouble, but von Schlichten let it pass. "Her company wouldn't be any heavy cross to bear," he replied. "I won't guarantee anything, of course . . ."

The intercom-speaker on the table whistled, and Harrington flipped a switch and spoke into the box. "Governor," a voice

replied out of it, "there's a geek procession just landed from a water-barge in front, coming up the roadway to Company House. A platoon of Jaikark's Household Guards with a royal litter, Spear of State, gift-litter, nobles and such."

"Gurgurk with indemnity for the riot, eh? Let them in, give them an honor guard of Kragans, but kept their own gun-toters outside. Take them to Reception Hall until I signal from Audience Hall, then herd them in." He flipped back the switch and turned back. "We'll have to let them wait or they'll think we're worried. But you see—everything's going along normal lines."

Blount nodded, but his face showed disbelief. And von Schlichten grumbled unhappily to himself, without knowing why, until they finally went out to the big Audience Hall to meet the delegation.

Governor-General Sidney Harrington, on the comfortably-upholstered bench on the dais of the Audience Hall, didn't look particularly regal. But then, to a Terran, any of the kings of Ullr would have looked like a freak birth in a lizard-house at a zoo; it was hard to guess what impression Harrington would make

on the Ullran psychology.

He took the false palate and tongue-clicker, officially designated as an "enunciator, Ullran" and, colloquially, as a geek-speaker, out of his coat pocket and shoved it into his mouth. Von Schlichten and Blount put in theirs, and Harrington pressed the floor-button with his toe. After a brief interval, the wide doors at the other end of the hall slid open, and the Konkrookan notables, attended by a dozen Company native-officers and a guard of Kragan Rifles, entered. The honor-guard advanced in two columns; between them marched an unclad and heavily armed native carrying an ornate spear with a three-foot blade upright in front of him with all four hands. It was the Konkrookan Spear of State; it represented the proxy-presence of King Jaikark. Behind it stalked Gurkurk, the Konkrookan equivalent of Prime Minister or Grand Vizier; he wore a gold helmet and a thing like a string-vest made of gold wire, and carried a long sword with a two-hand grip, a pair of Terran automatics built for a hand with six-four-knuckled fingers, and a pair of matched daggers. He was considerably past the Ullran prime of life—seventy or eighty, to judge from the worn appearance

of his opal teeth, the color of his skin, and the predominantly reddish tint of his quartz-speckles. The retinue of nobles behind Gurgurk ran through the whole spectrum, from a princeling who was almost oyster-gray to the Keegarkan Ambassador, who was even blacker and more red-speckled than Gurgurk.

Four slaves brought up in the rear, carrying an ornately inlaid box on poles. When the spear-bearer reached the exact middle of the hall, he halted and grounded his regalia-weapon with a thump. Gurgurk came up and halted a couple of paces behind and to the left of the spear, and most of the other nobles drew up in two curved lines some ten paces to the rear; the ambassador and another noble came up and planted themselves beside Gurgurk.

The Governor-General rose slowly and descended from the dais, advancing to within ten paces of the Spear, von Schlichten and Blount accompanying him.

"Welcome, Gurgurk," Harrington gibbered through his false palate. "The Company is honored by this visit."

"I come in the name of my royal master, His Sublime and Ineffable Majesty, Jaikark the

Seventeenth, King of Konkrook and of all the lands of the Konk Isthmus," Gurgurk squeaked and clicked. "I have the honor to bring with me the Lord Ambassador of King Orgzild of Keegark to the court of my royal master."

"And I," the ambassador said, after being suitably welcomed, "am honored to be accompanied by Prince Gorkrink, special envoy from my master, His Royal and Imperial Majesty King Orgzild, who is in your city to receive the shipment of power-metal my royal master has been honored to be permitted to purchase from the Company."

More protocol about welcoming Gorkrink. Then Gurgurk cleared his throat with a series of barking sounds.

"My royal master, His Sublime and Ineffable Majesty, is prostrated with grief," he stated solemnly. "Were his sorrow not so overwhelming, he would have come in His Own Sacred Person to express the pain and shame which he feels that people of the Company should be set upon and endangered in the streets of the royal city."

"The soldiers of His Sublime and Ineffable Majesty came most promptly to the aid of the troops of the Company, did they not, General von Schlichten?" Har-

rington asked, solemn-faced.

"Within minutes, Your Excellency," von Schlichten replied gravely. "Their promptness, valor and efficiency were most exemplary."

Gurgurk spoke at length, expressing himself as delighted, on behalf of his royal master, at hearing such high praise from so distinguished a soldier. Eric Blount contributed a short speech, beseeching the gods that the deep and beautiful friendship existing between the Chartered Ullr Company and His Sublime etcetera would continued unimpaired. The Keegarken Ambassador spoke his piece, expressing on behalf of King Orgzild the deepest regret that the people of the Company should be so molested, and managing to hint that things like that simply didn't happen at Keegark.

The Prince Gorkrink then spoke briefly, in sympathy. Von Schlichten noticed that a few of his more recent quartz-specks were slightly greenish in tinge, a sure sign that he had, not long ago, been exposed to the fluorine-tainted air which men and geeks alike breathed on Niflheim. When a geek prince hired out as a laborer for a year on Niflheim, he did so for only one purpose—to learn Terran technologies.

Gurgurk then announced that so enormous a crime against the friends of His Sublime etcetera had not been allowed to go unpunished, signalling behind him with one of his lower hands for the box to be brought forward. The slaves carried it to the front, set it down, and opened it, taking from it a rug which they spread on the floor. On this, from the box, they placed twenty-four newly severed opal-grinning heads, in four neat rows. They had all been freshly scrubbed and polished, but they still smelled like crushed cockroaches.

The three Terrans looked at them gravely. A double-dozen heads was standard payment for an attack in which no Terran had been killed. Ostensibly, they were the heads of the ringleaders; in practice, they were usually lopped from the first two-dozen prisoners or overage slaves at hand, without regard for whether the victims had ever heard of the crime they were expiating.

There was another long speech from Gurgurk, with the nobles behind him murmuring anti-phonal agreement—standard procedure, for which there was a standard pun, geek chorus—and a speech of response from Sid Harrington. Standing stiffly through the whole rigamarole, von Schlichten waited for it to

end, as, finally, it did.

They walked back from the door, whence they had escorted the delegation, and stood looking down at the saurian heads on the rug. Harrington raised his voice and called to a Kragan sergeant whose chevrons were painted on all four arms.

"Take this carrion out and stuff it in the incinerator," he ordered.

"Wait a minute," von Schlichten told the sergeant. Then he disgorged and pouched his geek-speaker. "See that head, there?" he asked, rolling it over with his toe. "I killed that geek, myself, with my pistol. And Hid O'Leary stuck a knife in that one." He walked around the rug, turning heads over with his foot. "This was a cut-rate head-payment; they just slashed off two-dozen heads at the scene of the riot. Six months ago, Gurgurk wouldn't have tried to pull anything like this. Now he's laughing up his non-existent sleeve at us."

"That's what I've been preaching, all along," Eric Blount took up after him. "These geeks need having the fear of Terra thrown into them."

"Oh, nonsense, Eric; you're just as bad as Carlos, here!" Harrington tut-tuted. "Next, you'll be saying that we ought to

depose Jaikark and take control ourselves."

"Well, what's wrong with that, for an idea?" von Schlichten demanded.

"My God!" Harrington exploded. "Don't let me hear that kind of talk again! We're not *conquistadores*; we're employees of a business concern, here to make money honestly, by exchanging goods and services with these people . . ."

He turned and walked away, out of the Audience Hall, leaving von Schlichten and Blount to watch the removal of the geek-heads.

"You know, I went a little too far," von Schlichten confessed. "Or too fast, rather."

"We can't go too slowly, though," Blount replied.

Von Schlichten nodded seriously. "Did you notice the green specks in the hide of that Prince Gorkrink?" he asked. "He's just come back from Niflheim. Probably on the *Canberra*, three months ago."

"And he's here to get that plutonium, and ship it to Keegark on the *Oom Paul Kruger*," Blount considered. "I wonder just what he learned, on Niflheim."

"I wonder just what's going on at Keegark," von Schlichten said. "Orgzild's pulled down a

regular First-Century-model iron curtain. You know, four of our best native Intelligence operatives have been murdered in Keegark in the last three months, and six more have just vanished there."

"Well, I'm going there in a few days, myself, to talk to Orgzild about this spaceport deal," Blount said. "I'll have a talk with Hendik Lemoyne and Colonel MacKinnon. And I'll see what I can find out for myself."

"Well, let's go have a drink," von Schlichten suggested.

But he kept remembering the falsehood of Gurgurk's indemnity. When the Ullrans started making a mockery of such things, it was no time for Harrington's trusting policies. The smell of trouble was suddenly stronger in his nostrils. "

IV

Von Schlichten and Bount entered the bar together. Going to a bartending machine, von Schlichten dialed the cocktail they had decided upon and inserted his key to charge the drinks to his account, filling a four-portion jug.

As they turned away, they almost collided with Hideyoshi O'Leary and Paula Quinton. The girl wore a long-sleeved gown to

conceal a bandage on her right wrist, and her face was rather heavily powdered in spots; otherwise she looked none the worse for recent experiences. Von Schlichten invited her and her escort to join him and Blount. Colonel O'Leary was carrying a cocktail jug and a couple of glasses; finding a table out of the worst of the noise, they all sat down together.

"I suppose you think it's a joke, our being nearly murdered by the people we came to help," Paula began, a trifle defensively.

"Not a very funny joke," von Schlichten told her. "It's been played on us till it's lost its humor."

"Yes, geek ingratitude's an old story to all of us," Blount agreed. "You stay on this planet very long and you'll see what I mean."

"You call them that, too?" she asked, as though disappointed in him. "Maybe if you stopped calling them geeks, they wouldn't resent you the way they do. You know, that's a nasty name; in the First Century Pre-Atomic, it designated a degraded person who performed some sort of revolting public exhibition . . ."

"As far as that goes, you know what the geek name for a Terran is?" Blount asked. "*Suddabit*."

She looked puzzled for a moment, then slipped in her enun-

ciator. Even in the absence of any native, she used her handkerchief to mask the act.

"Suddabit," she said, distinctly. "Sud-da-a-bit." Taking out the geek-speaker, she put it away. "Why, that's exactly how they'd pronounce it!"

"And don't tell me you haven't heard it before," O'Leary said. "The geeks were screaming it at you, over on Seventy-second Street, this afternoon. *Znidd suddabitt*; kill the Terrans. That's Rakkeed the Prophet's whole gospel."

"So you see," Eric Blount rammed home the moral, "this is just another case of nobody with any right to call anybody else's kettle black . . . Cigarette?"

"Thank you." She leaned toward the lighter-flame O'Leary had snapped into being. "I suspect that of being a principle you'd like me to bear in mind at the Polar mines, when I see, let's say, some laborer being beaten by a couple of overseers with three foot lengths of three-quarter-inch steel cable."

"If you think the natives who work at the mines feel themselves ill-treated, you might propose closing them down entirely and see what the native reaction would be," von Schlichten told her. "Independently-hired free

workers can make themselves rich, by native standards, in a couple of seasons; many of the serfs pick up enough money from us in incentive-pay to buy their freedom after one season."

"Well, if the Company's doing so much good on this planet, how is it that this native, Rakkeed, the one you call the Mad Prophet, is able to find such a following?" Paula demanded. "There must be something wrong somewhere."

"That's a fair question," Blount replied, inverting a cocktail jug over his glass to extract the last few drops. "When we came to Ullr, we found a culture roughly like that of Europe during the Seventh Century Pre-Atomic. We initiated a technological and economic revolution here, and such revolutions have their casualties, too. A number of classes and groups got squeezed pretty badly, like the horse-breeders and harness-manufacturers on Terra by the invention of the automobile, or the coal and hydroelectric interests when direct conversion of nuclear energy to electric current was developed, or the railroads and steamship lines at the time of the discovery of the contra-gravity-field. Naturally, there's a lot of ill-feeling on the part of merchants and artisans who weren't able or willing to adapt

themselves to changing conditions; they're all backing Rakkeed and yelling '*Znidd suddabit!*' now. But it is a fact, which not even Rakkeed can successfully deny, that we've raised the general living standard of this planet by about two hundred per cent."

Both jugs were empty. Colonel O'Leary, as befitted his junior rank, picked them up; after a good-natured wrangled with von Schlichten, Blount handed the colonel his credit-key.

"The merchants in the North don't like us; beside spoiling the caravan-trade, we're spoiling their local business, because the landowning barons, who used to deal with them, are now dealing directly with us. At Skilk, King Firkked's afraid his feudal nobility is going to force a Runnymede on him, so he's been currying favor with the urban merchants; that makes him as pro-Rakkeed and as anti-Terran as they are. At Krink, King Jonkvank has the support of his barons, but he's afraid of his urban bourgeoisie, and we pay him a handsome subsidy, so he's pro-Terran and anti-Rakkeed. At Skilk, Rakkeed comes and goes openly; at Krink he has a price on his head."

"Jonkvank is not one of the

assets we boast about too loudly," Hideyoshi O'Leary said, pausing on his way from the table. "He's as bloody-minded an old murderer as you'd care not to meet in a dark alley."

"We can turn our backs on him and not expect a knife between our shoulders, anyhow," von Schlichten said. "And we can believe, oh, up to eighty per cent of what he tells us, and that's sixty per cent better than any of the other native princes, except King Kankad, of course. The Kragans are the only real friends we have on this planet." He thought for a moment. "Miss Quinton, are you doing sociographic research-work here, in addition to your Ex-Rights work?" he asked. "Well, let me advise you to pay some attention to the Kragans."

"Oh, but they're just a parasite-race on the Terrans," Dr. Paula Quinton objected. "You find races like that all through the explored Galaxy—pathetic cultural mongrels."

Both men laughed heartily. Colonel O'Leary, returning with the jugs, wanted to know what he'd missed. Blount told him.

"Ha! She's been reading that thing of Stanley-Browne's," he said.

"What's the matter with Stanley-Browne?" Paula demanded.

"Stanley-Browne is one author you can depend on," O'Leary assured her. "If you read it in Stanley-Browne, it's wrong. You know, I don't think she's run into many Kragans. We ought to take her over and introduce her to King Kankad."

Von Schlichten allowed himself to be smitten by an idea. "By Allah, so we had!" he exclaimed. "Look, you're going to Skilk, in the next week, aren't you? Well, do you think you could get all your end-jobs cleared up here and be ready to leave by 0800 Tuesday? That's four days from today."

"I'm sure I could. Why?"

"Well, I'm going to Skilk, myself, with the armed troopship *Aldebaran*. We're stopping at King Kankad's Town to pick up a battalion of Kragan Rifles for duty at the Polar mines, where you're going. Suppose we leave here in my command-car, go to Kankad's Town, and wait there till the *Aldebaran* gets in. That would give us about two to three hours. If you think the Kragans are 'pathetic cultural mongrels', what you'll see there will open your eyes. And I might add that the nearest Stanley-Browne ever came to seeing Kankad's Town was from the air, once, at a distance of more than four miles."

"Well, general, I'll take you up," she said. "But I warn you; if this is some scheme to indoctrinate me with the Ullr Company's side of the case and blind me to unjust exploitation of the natives here, I don't propagandize very easily."

"Fair enough, as long as you don't let fear of being propagandized blind you to the good we're doing here, or impair your ability to observe and draw accurate conclusions. Just stay scientific about it and I'll be satisfied. Now, let's take time out for lubrication," he said, filling her glass and passing the jug.

Two hours and five cocktails later, they were still at the table, and they had taught Paula Quinton some twenty verses of *The Heathen Geeks, They Wear No Brecks*, including the four printable ones.

Four days later they stood together as the aircar passed over the Kraggork Swamps—pleasantly close together, von Schlichten realized. For the moment, he could almost forget the queer, intangible tension that had been growing steadily, and the feeling that things were nearing a breaking point of some kind.

Von Schlichten was scanning the horizon ahead. He pulled over a pair of fifty-power binoculars

on a swinging arm and put them where she could use them.

"Right ahead, there; just a little to the left. See that brown-gray spot on the landward edge of the swamp? That's King Kankad's Town. It's been there for thousands of years, and it's always been Kankad's Town. You might say, even the same Kankad. The Kragan kings have always provided their own heirs, by self-fertilization. The offspring is an exact duplicate of the single parent. The present Kankad speaks of his heir as 'Little Me,' which is a fairly accurate way of putting it."

He knew what she was seeing through the glasses—a massive butte of flint, jutting out into the swamp on the end of a sharp ridge, with a city on top of it. All the buildings were multi-storied, some piling upward from the top and some clinging to the sides. The high watchtower at the front now carried a telecast-director, aimed at an automatic relay-station on an unmanned orbiter two thousand miles off-planet.

"They're either swamp-people who moved up onto that rock, or they're mountaineers who came out that far along the ridges and stopped," she said. "Which?"

"Nobody's ever tried to find out. Maybe if you stay on Uller

long enough, you can. That ought to be good for about eight to ten honorary doctorates. And maybe a hundred sols a year in book royalties."

"Maybe I'll just do that, general . . . What's that, on the little island over there?" she asked, shifting the glasses. "A clump of flat-roofed buildings. Under a red-and-yellow danger-flag."

"That's Dynamite Island; the Kragans have an explosives-plant there. They make nitroglycerine, like all the thalassic peoples; they also make TNT and propellants. Learned that from us, of course. They also manufacture most of their own firearms, some of them pretty extreme—up to 25-mm. for shoulder rifles. Don't ever fire one; it'd break every bone in your body."

"Are they that much stronger than us?"

He shook his head. "Just denser; heavier. They're about equal to us in weight-lifting. They can't run, or jump, as well as we can. We often come out here for games with the Kragans, where the geeks can't watch us. And that reminds me—you're right about that being a term of derogation, because I don't believe I've ever knowingly spoken of a Kragan as a geek, and in fact they've picked up the word from us and apply it to all non-Kra-

gans. But as I was saying, our baseball team has to give theirs a handicap, but their football team can beat the daylights out of ours. In a tug-of-war, we have to put two men on our end for every one of theirs. But they don't even try to play tennis with us."

"Don't the other natives make their own firearms?"

"No, and we're not going to teach them how!"

The aircar came in, circling slowly over the town on the big rock, and let down on the roof of the castle-like building from which the watchtower rose. There were a dozen or so individuals waiting for them—the five Terrans, three men and two women, from the telecast station, and the rest Kragans. One of these, dark-skinned but with speckles no darker than light amber, armed only with a heavy dagger, came over and clapped von Schlichten on the shoulder, grinning opalescently.

"Greetings, Von!" he squawked in Kragan, then, seeing Paula, switched over to the customary language of the Takkad Sea country. "It makes happiness to see you. How long will you stay with us?"

"Till the *Aldebaran* gets in from Konkrook, to pick up the

Rifles," von Schlichten replied, in Lingua Terra. He looked at his watch. "Two hours and a half . . . Kankad, this is Paula Quinton; Paula, King Kankad."

He took out his geek-speaker and crammed it into his mouth. Before any other race on Ullr, that would have been the most shocking sort of bad manners, without the token-concealment of the handkerchief. Kankad took it as a matter of course. At some length, von Schlichten explained the nature of Paula's sociographic work, her connection with the Extraterrestrials' Rights Association, and her intention of going to the Arctic mines. Kankad nodded.

"You were right," he said. "I wouldn't have understood all that in your language. If I had read it, maybe, but not if I heard it." He put his upper right hand on Paula's shoulder and uttered a clicking approximation of her name. He turned and introduced another Kragan, about his own age, who wore the equipment and insigna of a Company native-major and was freshly painted with the Company emblem. "This is Kormork. He and I have borne young to each other. Kormork, you watch over Paula Quinton." He managed, on the second try, to make it more or less recognizable. "Bring her

back safe. Or else find yourself a good place to hide."

Kankad introduced the rest of his people, and von Schlichten introduced the Terrans from the telecast-station. Then Kankad looked at the watch he was wearing on his lower left wrist.

"We will have plenty of time, before the ship comes, to show Paula the town," he suggested. "Von, you know better than I do what she would like to see."

He led the way past a pair of long 90-mm. guns to a stone stairway. Von Schlichten explained, as they went down, that the guns of King Kankad's town were the only artillery above 75-mm. on Ullr in non-Terran hands. They climbed into an open machine-gun carrier and strapped themselves to their seats, and for two hours King Kankad showed her the sights of the town. They visited the school, where young Kragans were being taught to read Lingua Terra and studied from textbooks printed in Johannesburg and Sydney and Buenos Aires. Kankad showed her the repair-shops, where two-score descendants of Kragan river-chieftains were working on contragravity equipment, under the supervision of a Scottish-Afrikander and his Malay-Portugues wife;

the small-arms factory, where very respectable copies of Terran rifles and pistols and auto-weapons were being turned out; the machine-shop; the physics and chemistry labs; the hospital; the ammunition-loading plant; the battery of 155-mm. Long Toms, built in Kankad's own shops, which covered the road up the sloping rock-spine behind the city; the printing-shop and bookbindery; the observatory, with a big telescope and an ingenious orrery of the Beta Hydrae system; the nuclear-power plant, part of the original price for giving up brigandage.

Half an hour before the ship from Konkrook was due, they had arrived at the airport, where a gang of Kragans were clearing a berth for the *Aldebaran*. From somewhere, Kankad produced two cold bottles of Cape Town beer for Paula and von Schlichten, and a bowl of some boiling-hot black liquid for himself. Von Schlichten and Paula lit cigarettes; between sips of his bubbling hell brew, Kankad gnawed on the stalk of some swamp-plant. Paula seemed as much surprised at Kankad's disregard for the eating taboo as she had been at von Schlichten's open flouting of the convention of concealment when he had put in his geek-speaker.

"This is the only place on Ullr where this happens," von Schlichten told her. "Here, or in the field when Terran and Kragan soldiers are together. There aren't any taboos between us and the Kragans."

"No," Kankad said. "We cannot eat each others' food, and because our bodies are different, we cannot be the fathers of each others' young. But we have been battle-comrades, and work-sharers, and we have learned from each other, my people more from yours than yours from mine. Before you came, my people were like children, shooting arrows at little animals on the beach, and climbing among the rocks at dare-me-and-I-do, and playing war with toy weapons. But we are growing up, and it will not be long before we will stand beside you, as the grown son stands beside his parent, and when that day comes, you will not be ashamed of us."

It was easy to forget that Kankad had four arms and a rubbery, quartz-speckled skin, and a face like a lizard's.

"I want Little Me, when he's old enough to travel, to visit your world," Kankad said. "And some of the other young ones. And when Little Me is old enough to take over the rule of our people,

"I would like to go to Terra, myself."

"You're going," von Schlichten assured him. "Some day, when I return, I'll see that you make the trip with me."

"Wonderful, Von!" Kankad was silent for a moment. When he spoke again, it was in Kragan, and quickly. "If we live so long, old friend. There is trouble coming, though even my spies cannot find what that trouble is. And two days ago in Keegark, two of my people died trying to learn it. I ask you—be careful!"

Then he switched hastily back to the language Paula could understand, apologizing. It gave von Schlichten time to wipe the worry from his face before she turned back to him, though it was worse news than he had expected. If Kankad thought things were bad enough to add his own spies to those of the Company, things couldn't be much worse. In fact, anything that brought whatever it was out into the open would be better.

He was still fretting over it as they said their good-byes to Kankad and boarded the *Aldebaran* for Skilk.

V

The last clatter of silverware and dishes ceased as the native

servants finished clearing the table. There was a remaining clatter of cups and saucers; liqueur-glasses tinkled, and an occasional cigarette-lighter clicked. At the head table, the voices seemed louder.

"... don't like it a millisol's worth," Brigadier-General Barney Mordkovitz, the Skilk military CO, was saying to the lady on his right. "They're too confounded meek. Nowadays, nobody yells '*Znidd suddabit!*' at you. They just stand and look at you like a farmer looking at a turkey the week before Christmas, and that I don't like!"

"Oh, bosh!" Jules Keaveney, the Skilk Resident-Agent, at the head of the table, exclaimed. "If they don't bow and scrape to you and get off the sidewalk to let you pass, you say they're insolent and need a lesson. If they do, you say they're plotting insurrection."

"What I said," Mordkovitz repeated, "was that I expect a certain amount of disorder, and a certain minimum show of hostility toward us from some of these geeks, to conform to what I know to be our unpopularity with many of them. When I don't find it, I want to know why."

"I'm inclined," von Schlichten came to his subordinate's sup-

port, "to agree. This sudden absence of overt hostility is disquieting. Colonel Cheng-Li," he called on the local Intelligence officer and Constabulary chief. "This fellow Rakkeed was here, about a month ago. Was there any noticeable disorder at that time? Anti-Terran demonstrations, attacks on Company property or personnel, shooting at aircars, that sort of thing?"

"No more than usual, general. In fact, it was when Rakkeed came here that the condition General Mordkovitz was speaking of began to become conspicuous."

Von Schlichten nodded. "And I might say that Lieutenant-Governor Blount has reported from Keegark, where he is now, that the same unnatural absence of hostility exists there."

"Well, of course, general," Keaveney said patronizingly, "King Orgzild has things under pretty tight control at Keegark. He'd not allow a few fanatics to do anything to prejudice these spaceport negotiations."

"I wonder if the idea back of that spaceport proposition isn't to get us concentrated at Keegark, where Orgzild could wipe us all out in one surprise blow," somebody down the table suggested, and others nodded.

"Oh, Orgzild wouldn't be crazy enough to try anything like that," Commander Dirk Prinsloo, of the *Aldebaran*, declared. "He'd get away with it for just twelve months—the time it would take to get the news to Terra and for a Federation Space Navy task-force to get here. And then, there'd be little bits of radioactive geek floating around this system as far out as the orbit of Beta Hydrae VII."

"That's quite true," von Schlichten agreed. "The point is, does Orgzild know it? I doubt if he even believes there is a Terra."

"Then where in Space does he think we come from?" Keaveney demanded.

"I believe he thinks Niffheim is our home world," von Schlichten replied. "Or, rather, the string of orbiters and artificial satellites around Niffheim. Where he thinks Niffheim is, I wouldn't even try to guess."

"Yes. After he'd wiped us out, he might even consider the idea of an invasion of Niffheim with captured contragravity ships," Hideyoshi O'Leary chuckled. "That would be a big laugh—if any of us were alive, then, to do any laughing."

"You don't really believe that, general?" Keaveney asked. His tone was still derisive, but under

the derision was uncertainty. After all, von Schlichten had been on Ullr for fifteen years, to his two.

"Any question of geek psychology is wide open as far as I'm concerned; the longer I stay here, the less I understand it." Von Schlichten finished his brandy and got out cigarette-case and lighter. "I have an idea of the sort of garbled reports these spies of his who spend a year on Niflheim as laborers bring back."

"You know the line Rakkeed's been taking, of course," Colonel Cheng-Li put in. "He as much as says that Niflheim's our home, and that the farms where we raise food, here, and those ever-green plantings on Konk Isthmus and between here and Grank are the beginning of an attempt to drive all native life from this planet and make it over for ourselves."

"And that savage didn't think an idea like that up for himself; he got it from somebody like Orgzild," the black-bearded brigadier-general added. "You know, the main base off Niflheim is practically self-supporting, with hyproponic-gardens and animal-tissue culture vats. And it's enough bigger than one of the *City* ships to pass for a little world. Yes; somebody like Org-

zild, or King Firkked, here, could easily pick up the idea that that's our home planet."

"The Company ought to let us stockpile nuclear weapons here, just to be on the safe side," another officer, farther down the table, said.

"Well, I'm not exactly in favor of that," von Schlichten replied. "It's the same principle as not allowing guards who have to go in among the convicts to carry firearms. If somebody like Orgzild got hold of a nuclear bomb, even a little old First-Century H-bomb, he could use it for a model and construct a hundred like it, with all the plutonium we've been handing out for power reactors. And there are too few of us, and we're concentrated in too few places, to last long if that happened. What this planet needs, though, is a visit by a fifty-odd-ship task-force of the Space Navy, just to show the geeks what we have back of us. After a show like that, there'd be a lot less *znidd suddabit* around here."

"General, I deplore that sort of talk," Keaveney said. "I hear too much of this mailed-fist-and-rattling-sabre stuff from some of the junior officers here, without your giving countenance and encouragement to it. We're here to earn dividends for the stockhold-

ers of the Ullr Company, and we can only do that by gaining the friendship, respect and confidence of the natives . . .”

“Mr. Keaveney,” Paula Quinton spoke. “I doubt if even you would seriously accuse the Extraterrestrials Rights Association of favoring what you call a mailed fist and rattling sabre policy. We’ve done everything in our power to help these people, and if anybody should have their friendship, we should. Well, only five days ago, in Konkrook, Mr. Mohammed Ferriera and I were attacked by a mob, our native aircar driver was murdered, and if it hadn’t been for General von Schlichten and his soldiers, we’d have lost our own lives. Mr. Ferriera is still hospitalized as a result of injuries he received. It seems that General von Schlichten and his Kragans aren’t trying to get friendship and confidence; they’re willing to settle for respect, in the only way they can get it—by hitting harder and quicker than the natives can.”

Somebody down the table—one of the military, of course—said, “Hear, hear!” Von Schlichten came as close as a man wearing a monocle can to winking at Paula. Good girl, he thought; she’s started playing on the Army team, and about time!

“Well, of course . . .” Keaveney began. Then he stopped, as a Terran sergeant came up to the table and bent over Barney Mordkovitz’ shoulder, whispering urgently. The black-bearded brigadier rose immediately, taking his belt from the back of his chair and putting it on. Motioning the sergeant to accompany, he spoke briefly to Keaveney and then came around the table to where von Schlichten sat, the Resident-Agent accompanying him.

“Message just came in from Konkrook, general,” he said softly. “Governor Harrington’s dead.”

It took von Schlichten all of a second to grasp what had been said. “Good God! When? How?”

“Here’s all we know, sir,” the sergeant said, giving him a radioprint slip. “Came in ten minutes ago.”

It was an all-station priority telecast. Governor-General Harrington had died suddenly, in his room, at 2210; there were no details. He glanced at his watch; it was 2243. Konkrook and Skilk were in the same time-zone; that was fast work. He handed the slip to Mordkovitz, who gave it to Keaveney.

“You from the telecast station, sergeant?” he asked. “All right, in that case, let’s go.”

As he hurried from the banquet-room, he could hear Keaveney tapping on his wine-glass.

"Everybody, please! Let me have your attention! There has just come in a piece of the most tragic news . . ."

A woman captain met him just inside the door of the big sound-proofed room of the telecast station, next to the Administration Building.

"We have a wavelength open to Konkrook, general," she said. "In booth three."

Another girl, a tech-sergeant, was in the booth; on the screen was the image of a third young woman, a lieutenant, at Konkrook station. The sergeant rose and started to leave the booth.

"Stick around, sergeant," von Schlichten told her. "I'll want you to take over when I'm through." He sat down in front of the combination visiscreen and pickup. "Now, lieutenant; just what happened?" he asked. "How did he die?"

"We think it was poison, general. General M'zangwe has ordered autopsy and chemical analysis. If you can wait about ten minutes, he'll be able to talk to you, himself."

"Call him. In the meantime, give me everything you know."

"Well, at about 2210, the Kra-

gan guard-sergeant on that floor heard ten pistol-shots, as fast as they could be fired semi-auto, in the governor's room. The door was locked, but he shot it off with his own pistol and went in. He found Governor Harrington on the floor, wearing only his gown, holding an empty pistol. He was in convulsions, frothing at the mouth, in horrible pain. Evidently he'd fired his pistol, which he kept on his desk, to call help; all the bullets had gone into the ceiling. One of the medics got there in five minutes, just as he was dying. He'd written his diary up to noon of today, and broken off in the middle of a word. There was a bottle and an overturned glass on his desk. The Constabulary got there a few minutes later, and then Brigadier-General M'zangwe took charge. A white rat, given fifteen drops from the whiskey-bottle, died with the same symptoms in about ninety seconds."

"Who had access to the whiskey-bottle?"

"A geek servant, who takes care of the room. He was caught, an hour earlier, trying to slip off the island without a pass; they were holding him at the guardhouse when Governor Harrington died. He's now being questioned by the Kragans." The girl's face was bleakly re-

morseless. "I hope they do plenty to him!"

"I hope they don't kill him before he talks."

"Wait a moment, general; we have General M'zangwe, now," the girl said. "I'll switch you over."

The screen broke into a kaleidoscopic jumble of color, then cleared; the chocolate-brown face of M'zangwe was looking out of it.

"I heard what happened, how they found him, and about that geek chamber-valet being arrested," von Schlichten said. "Did you get anything out of him?"

"He's admitted putting poison in the bottle, but he claims it was his own idea. But he's one of Father Keeluk's parishioners, so . . ."

"Keeluk! God damn, so that was it!" von Schlichten almost shouted. "Now I know what he wanted with Stalin, and that goat, and those rabbits! Of course they'd need terrestrial animals, to find out what would poison a Terran! Who's in charge at Konkrook now?"

"Not much of anybody. Laviola, the Fiscal Secretary, and Hans Meyerstein, the Banking Cartel's lawyer, and Howlett, the Personnel Chief, and Buhrmann, the Commercial Secretary, have

made up a sort of quadrumvirate and are trying to run things. I don't know what would happen if anything came up suddenly . . ." A blue-gray uniformed arm, with a major's cuff-braid, came into the screen, handing a slip of paper to M'zangwe; he took it, glanced at it, and swore. Von Schlichten waited until he had read it through.

"Well, something has, all right," the African said. "Just got a call from Jaikark's palace—a revolt's broken out, presumably headed by Gurgurk; Household Guards either mutinied or wiped out by the mutineers, all but those twenty Kragan Rifles we loaned Jaikark. They, and about a dozen of Jaikark's courtiers and their personal retainers, are holding the approaches to the King's apartments. The native-lieutenant in charge of the Kragans just radioed in; says the situation is desperate."

"When a Kragan says that, he means damn near hopeless. Is this being recorded?" When M'zangwe nodded, he continued. "All right. Use the recording for your authority and take charge. I'm declaring martial rule at Konkrook, as of now, 2258. Tell Eric Blount what's happened, and what you've done, as soon as you can get in touch with him at Keegark. I'm leaving for Kon-

crook at once! I ought to get in by 0800.

"Now, as to the trouble at the Palace. Don't commit more than one company of Kragans and ten airjeeps and four combat-cars, and tell them to evacuate Jaikark and his followers and our Kragans to Gongonk Island. And alert your whole force. These geek palace revolutions are always synchronized with street-rioting, and this thing seems to have been synchronized with Sid Harrington's death, too. Get our Kragans out if you can't save anybody else from the Palace, but sacrificing thirty or forty men to save twenty is no kind of business. And keep sending reports; I can pick them up on my car radio as I come down." He turned to the girl sergeant. "Keep on this; there'll be more coming in."

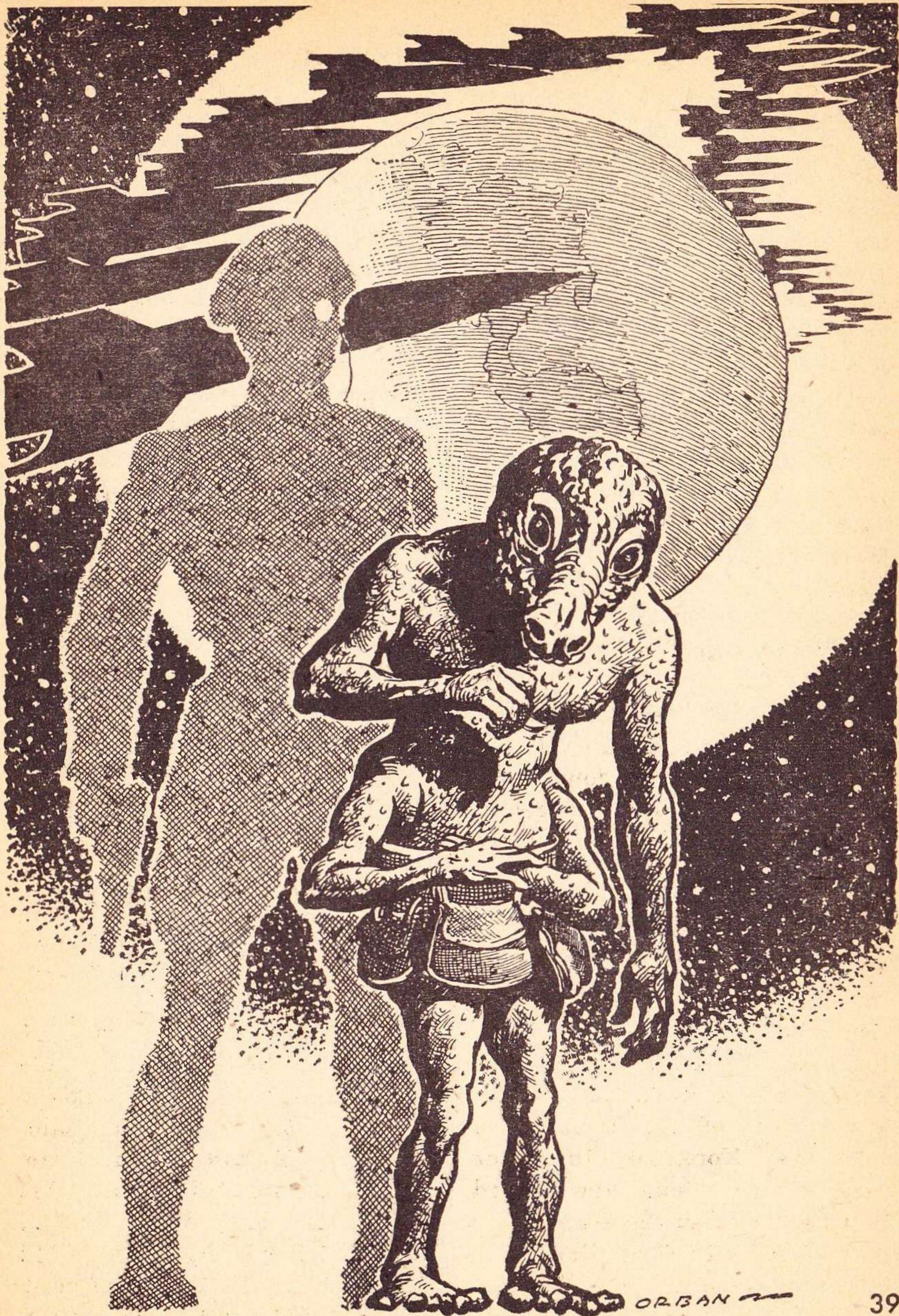
He rose and left the booth. If we can pull Jaikark's bacon off the fire, he was thinking, the Company can dictate its own terms to him afterward; if Jaikark's killed, we'll have Gurgurk's head off for it, and then take over Konkrook. In either case, it'll be a long step toward getting rid of all these geek despots. And with Eric Blount as Governor-General . . .

The inner door of the sound-

proofed telecast-room burst open, three men hurried inside, and it slammed shut behind them. In the brief interval, there had been firing audible from outside. One of the men had a pistol in his right hand, and with his left arm he supported a companion, whose shoulder was mangled and dripped blood. The third man had a burp-gun in his hands. All were in civilian dress—shorts and light jackets. The man with the pistol holstered it and helped his injured companion into a chair. The burp-gunner advanced into the room, looked around, saw von Schlichten, and addressed him.

"General! The geeks turned on us!" he cried. "The Tenth North Ullr's mutinied; they're running wild all over the place. They've taken their barracks and supply-buildings, and the lorry-hangars and the maintenance-yard; they're headed this way in a mob. Some of the Zirk Cavalry's joined them."

"Have any ammo left for that burp-gun? Come on, then; let's see what it's like at Company House," von Schlichten said. "Captain Malavez, you know what to do about defending this station. Get busy doing it. And have that girl in booth three tell Konkrook what's happened here, and say that I won't be coming



down, as I planned, just yet."

He opened the door, and the rattle of shots outside became audible again. The civilian with the burp-gun knew better than to let a general go out first; elbowing von Schlichten out of the way, he crouched over his weapon and dashed outside. Drawing his pistol, von Schlichten followed, pulling the door shut after him.

Darkness had fallen, while he had been inside; now the whole Company Reservation was ablaze with electric lights. Somebody at the power-plant had thrown on the emergency lights. There was a confused mass of gray-skinned figures in front of Company House, reflected light twinkling on steel over them; from the direction of the native-troops barracks more natives were coming on the run. On the roof of a building across the street, two machine-guns were already firing into the mob. From up the street, a hundred-odd saurian-faced native soldiers were coming at the double, bayonets fixed and rifles at high port; with them ran several Terrans. Motioning his companion to follow, von Schlichten ran to meet them, falling in beside a Terran captain who ran in front.

"What's the score, captain?"

he asked the panting captain.

"Tenth North Ullr and the Fifth Cavalry have mutinied; so have these rag-tag Auxiliaries. That mob down there's part of them." He was puffing under the double effort of running and talking. "Whole thing blew up in seconds; no chance to communicate with anybody..."

A Terran woman, in black slacks and an orange sweater, ran across the street in front of them, pursued by a group of enlisted "men" of the Tenth North Ullr Native Infantry, all shrieking "*Znidd suddabit!*" The fugitive ran into a doorway across the street; before her pursuers were aware of their danger, the Kragans had swept over them. There was no shooting; the slim, cruel-bladed bayonets did the work. From behind him, as he ran, von Schlichten could hear Kragan voices in a new cry: "*Znidd geek! Znidd geek!*"

The mob were swarming up onto the steps and into the semi-rotunda of the storm-porch. There was shooting, which told him that some of the humans who had been at the banquet were still alive. He wondered, half-sick, how many, and whether they could hold out till he could clear the doorway, and, most of all, he found himself thinking of Paula Quinton.

Skidding to a stop within fifty yards of the mob, he flung out his arms crucifix-wise to halt the Kragans. Behind, he could hear the Terrans and native-officers shouting commands to form front.

"Give them one clip, reload, and then give them the bayonet!" he ordered. "Shove them off the steps and then clear the porch!"

The hundred rifles let go all at once, and for five seconds they poured a deafening two thousand rounds into the mutineers. There was some fire in reply; a Zirk corporal narrowly missed him with a pistol; he saw the captain's head fly apart when an explosive rifle-bullet hit him, and half a dozen Kragans went down.

"Reload! Set your safeties!" von Schlichten bellowed. "Charge!"

Under human officers, the North Ullr Native Infantry would have stood firm. Even under their native-officers and sergeants, they should not have broken as they did, but the best of these had paid for their loyalty to the Company with their lives. At that, the Skilkan peasantry who made up the Tenth Infantry, and the Zirk cavalrymen, tried briefly to fight as individuals, shrieking "*Znidd sud-*

dabit!" until the Kragans were upon them, stabbing and shooting. They drove the rioters from the steps or killed them there, they wiped out those who had gotten into the semicircle of the storm-porch. The inside doors, von Schlichten saw, were open, but beyond them were Terrans and a dozen or so Kragans. Hideyoshi O'Leary and Barney Mordkovitz seemed to be in command of these.

"We had about thirty seconds' warning," Mordkovitz reported, "and the Kragans in the hall bought us another sixty seconds. Of course, we all had our pistols . . ."

"Hey! These storm-doors are wedged!" somebody discovered. "Those goddam geek servants . . .!"

"Yeah; kill any of them you catch," somebody else advised. "If we could have gotten these doors closed . . ."

The mob, driven from the steps, was trying to re-form and renew the attack. From up the street, the machine-guns, silent during the bayonet-fight, began hammering again. The mob surged forward to get out of their fire, and were met by a rifle-blast and a hedge of bayonets at the steps; they surged back, and the machine-guns flailed them again. They started

to rush the building from whence the automatic-fire came, and there was a fusilade and a shriek of "*Znidd geek!*" from up the street. They turned and fled in the direction from whence they had come, bullets scourging them from three directions at once.

For a moment, von Schlichten and the three Terrans and eighty-odd Kragans who had survived the fight stood on the steps, weapons poised, seeking more enemies. The machine-guns up the street stuttered a few short bursts and were silent. From behind, the beleaguered Terrans and their Kragan guards were emerging. He saw Jules Keaveney and his wife; Commander Prinsloo of the *Aldebaran*; Harry Quong and Bogdanoff. Ah, there she was! He heaved a breath of relief and waved to her.

The Kragans were already setting about their after-battle chores. A couple of hundred more Kragans, led by Native-Major Kormork, the co-parent of young with King Kankad, came up at the double and stopped in front of Company House.

"We were in quarters, aboard the *Aldebaran* and in the guest-house at the airport," Kormork reported. "We were attacked,

fifteen minutes ago, by a mob. We took ten minutes beating them off, and five more getting here. I sent Native-Captain Zeerjeek and the rest of the force to re-take the supply-depot and the shops and lorry hangars, which had been taken, and relieve the military airport, which is under attack."

"Good enough. I hope you didn't spread yourself out too thin. What's the situation at the commercial airport?"

"The two ships, the *Aldebaran* and the freighter *Northern Star*, are both safe," Kormork replied. "I saw them go on contragravity and rise to about a hundred feet."

"Whose crowd is that you have?" he asked the Terran lieutenant who had taken over command of the first force of Kragans.

"Company 6, Eighteenth Rifles, sir. We were on duty at the guardhouse; fighting broke out in the direction of the native barracks. A couple of runners from Captain Retief of Company 4 came in with word that he was being attacked by mutineers from the Tenth N.U.N.I. but that he was holding them back. So Captain Charbonneau, who was killed a few minutes ago, left a Terran lieutenant and a Kragan native-lieu-

tenant and a couple of native-sergenats and thirty Kragans to hold the guardhouse, and brought the rest of us here."

Von Schlichten nodded. "You'd pass the military airport and the power-plant, wouldn't you?" he asked.

"Yes, sir. The military airport's holding out, and I saw the red-and-yellow danger-lights on the fence around the power-plant."

That meant the power-plant was, for the time, safe; somebody'd turned twenty thousand volts into the fence.

"All right. I'm setting up my command post at the telecast station, where the communication equipment is." He turned to the crowd that had come out onto the porch from inside. "Where's Colonel Cheng-Li?"

"Here, general." The Intelligence and Constabulary officer pushed through the crowd. "I was on the phone, talking to the military airport, the commercial airport, ordnance depot, spaceport, ship-docks and power plant. All answer. I'm afraid Pop Goode, at the city power-plant, is done for; nobody answers there, but the TV-pickup is still on in the load-dispatcher's room, and the place is full of geeks. Colonel Jarman's coming here with a lorry to get combat-car crews;

he's short-handed. Port-Captain Leavitt has all the native labor at the airport and spaceport herded into a repair dock; he's keeping them covered with the forward 90-mm. gun of the *Northern Star*. Lorry-hangars, repair-shops and maintenance-yards don't answer."

"That's what I was going to ask you. Good enough. Harry Quong, Hassan Bogdanoff!"

His command-car crew front-and-centered.

"I want you to take Colonel O'Leary up, as soon as my car's brought here . . . Hid, you go up and see what's going on. Drop flares where there isn't any light. And take a look at the native-labor camp and the equipment-park, south of the reservation . . . Kormork, you take all your gang, and half these soldiers from the Eighteenth, here, and help clear the native-troops barracks. And don't bother taking any prisoners; we can't spare personnel to guard them."

Kormork grinned. The taking of prisoners had always been one of those irrational Terran customs which no Ullran regarded with favor, or even comprehension.

VI

There was fresh intelligence from Konkrook, by the time he

returned to the telecast station. Mutiny had broken out there among the laborers and native troops, who outnumbered the Terrans and their Kragan mercenaries on Gongonk Island by five thousand to five hundred and fifteen hundred respectively. The attempt to relieve Jaikark's palace had been called off before the relief-force could be sent; there was heavy and confused fighting all over the island, and most of the combat contragravity and about half the Kragan Rifles had had to be committed to defend the Company farms across the Channel, on the mainland, south of the city. There had also been an urgent call for help from Colonel Rodolfo MacKinnon, in command of Company troops at the Keegark Residency.

He called Keegark; a girl, apparently one of the civilian telecast technicians, answered.

"We must have help, General von Schlichten," she told him. "The native troops, all but two hundred Kragans, have mutinied. They have everything here except Company House—docks, airport, everything. We're trying to hold out, but there are thousands of them."

"What happened to Eric Blount and your Resident-Agent, Mr. Lemoyne?"

"We don't know. They were at

the Palace, talking to King Orgzild. We've tried to call the Palace, but we can't get through. General, we must have help..."

A call came in, a few minutes later, from Krink, five hundred miles to the north-east across the mountains; the Resident-Agent there, one Francis Xavier Shapiro, reported rioting in the city and an attempted palace-revolution against King Jonkvank, and that the Residency was under attack. By way of variety, it was the army of King Jonkvank that had mutinied; the Sixth North Ullr Native Infantry and the two companies of Zirk cavalry at Krink were still loyal, along with the Kragans.

There was a pattern to all this. Von Schlichten stood staring at the big map, on the wall, showing the Takkad Sea area at the Equatorial Zone, and the country north of it to the Pole, the area of Ullr occupied by the Company. He was almost beginning to discern the underlying logic of the past half-hour's events when Keaveney, the Skilk Resident, blundered into him in a half-daze.

"Sorry, general; didn't see you." His face was ashen, and his jowls sagged. "My God, it's happening all over Ullr! Why, it's the end of all of us!"

"It's not quite that bad, Mr. Keaveney." He looked at his watch. It was now nearly an hour since the native troops here at Skilk had mutinied. Insurrections like this usually succeeded or failed in the first hour. "If we all do our part, we'll come out of it all right," he told Keaveney, more cheerfully than he felt, then turned to ask Brigadier-General Mordkovitz how the fighting was going at the native-troops barracks.

"Not badly, general. Colonel Jarman's got some contragravity up and working. They blew out all four of the Tenth N.U.N.I.'s barracks; the Tenth and the Zirks are trying to defend the cavalry barracks. Some of our Kragans managed to slip around behind the cavalry stables. They're leading out hipposaurs, and sniping at the rear of the cavalry barracks."

"That'll give us some cavalry of our own; a lot of these Kragans are good riders . . . How about the repair-shops and maintenance-yard and lorry-hangars? I don't want these geeks getting hold of that equipment and using it against us."

"Kormork's outfit are trying to take back the lorry-hangars. Jarman's got a couple of airjeeps and a combat-car helping them."

"... won't be one of us left by

this time tomorrow," Keaveney was wailing, to Paula Quinton and another woman. "And the Company is finished!"

Colonel Cheng-Li, the Intelligence officer, approached Keaveney and tried to quiet him. At the same time, a woman in black slacks and an orange sweater—the one whose pursuers had been overrun by the Kragans at the beginning of the fighting—approached von Schlichten.

"General; King Kankad's calling," she said. "He's on the screen in booth four."

Kankad's face was looking out of the screen at him, with Phil Yamazaki, the telecast operator at Kankad's Town, standing behind him.

"Von!" The Kragan spoke almost as though in physical pain. "What can I do to help? I have twenty thousand of my people here who are capable of bearing arms, all with firearms, but I have transport for only five hundred. Where shall I send them?"

Von Schlichten thought quickly. Keegark was finished; the Residency stood in the middle of the city, surrounded by two hundred thousand of King Orgzild's troops and subjects. Sending Kankad's five hundred warriors and his meager contragravity there would be the same as

shovelling them into a furnace. The people at Keegark would have to be written off, like the twenty Kragans at Jaikark's palace.

"Send them to Konkrook," he decided. "Them M'zangwe's in command, there; he'll need help to hold the Company farms. Maybe he can find additional transport for you. I'll call him."

"I'll send off what force I can, at once," Kankad promised. "How does it go with you at Skilk?"

"We're holding, so far," he replied.

Captain Inez Malavez, the woman officer in charge of the station, put her head into the booth.

"General! Immediate-urgency message from Colonel O'Leary," she said. "Native laborers from the mine-labor camp are pouring into the mine-equipment park. Colonel O'Leary's used all his rockets and mg-ammunition trying to stop them."

"Call you back, later," von Schlichten told Kankad. "I'll see what Them M'zangwe can do about transport; get what force you can started for Konkrook at once."

He left the booth. "Barney!" he called. "General Mordkovitz! Who's the ranking officer in direct contact with the Eighteenth

Rifles? Major Falkenberg?"

"That's right."

"Well, tell him to get as many of his Kragans as he can spare down to the equipment-park." He turned to Inez Malavez. "You call Jarman; tell him what O'Leary reported, and tell him to get cracking on it. Tell him not to let those geeks get any of that equipment onto contragravity; knock it down as fast as they try to lift out with it. And tell him to see what he can do in the way of troop-carriers or lorries, to get Falkenberg's Rifles to the equipment-park . . . How's business at the lorry-hangars and maintenance-yard?"

"Kormork's still working on that," the girl captain told him. "Nothing definite, yet."

In one corner of the big room, somebody had thumbtacked a ten-foot-square map of the Company area to the floor. Paula Quinton and Mrs. Jules Keaveney were on their knees beside it, pushing out handfuls of little pink and white pills that somebody had brought in two bottles from the dispensary across the road, each using a billiard-bridge. The girl in the orange sweater had a handful of scribbled notes, and was telling them where to push the pills. There were other objects on the map,

too—pistol-cartridges, and cigarettes, and foil-wrapped food-concentrate wafers. Paula, seeing him, straightened.

"The pink are ours, general," she said. "The white are the geeks." Von Schlichten suppressed a grin; that was the second time he'd heard her use that word, this evening. "The cigarettes are airjeeps, the cartridges are combat-cars, and the wafers are lorries or troop-carriers."

"Not exactly regulation map-markers, but I've seen stranger things used . . . Captain Malavez!"

"Yes, sir?" The girl captain, rushing past, her hands full of teleprint-sheets, stopped in mid-stride.

"What we need," he told her, "is a big TV-screen, and a pick-up mounted on some sort of a contragravity vehicle at about two to five thousand feet directly overhead, to give us an image of the whole area. Can do?"

"Can try, sir. We have an eight-foot circular screen that ought to do all right for two thousand feet. I'll implement that at once."

Going into a temporarily idle telecast booth, he called Konkrook, and finally got Themistocles M'zangwe on the screen.

"How is it, now?" he asked.

"Getting a little better," the Graeco-African replied. "Half an hour ago, we were shooting geeks out the windows, here; now we have them contained between the spaceport and the native-troops and labor barracks, and down the east side of the island to the farms. We have the wire around the farms on the island electrified, and we're using almost all our combat contragravity to keep the farms on the mainland clear." He hesitated for a moment. "Did you hear about Eric Blount and Lemoyne?"

Von Schlichten shook his head.

"The whole party that were at Orgzild's palace were massacred. Some of them were lucky enough to get killed fighting. The geeks took Eric and Hendrik alive; rolled them in a puddle of thermoconcentrate fuel and set fire to them. When we can spare the contragravity, we're going to drop something on the Kee-geek embassy, over in town."

Von Schlichten grimaced, but he'd expected something like it. He told M'zangwe about King Kankad's offer. "His crowd ought to be coming in in a couple of hours. What can you scrape up to send to Kankad's Town to airlift Kragans in?"

"Well, we have three hundred-and-fifty-foot gun-cutters, one

90-mm. apiece. The *Elmoran*, the *Gaucha*, and the *Bushranger*. But they're not much as transports, and we need them here pretty badly. Then, we have five fertilizer and charcoal scows, and a lot of heavy transport lorries, and two one-eighty-foot pickup boats."

"How about the *Piet Joubert*?" von Schlichten asked. "She was due in Konkrook from the east about 1300 today, wasn't she?"

M'zangwe swore. "She got in, all right. But the geeks boarded her at the dock, within twenty minutes after things started. They tried to lift out with her, and the Channel Battery shot her down into Konkrook Channel, off the Fifty-sixth Street docks."

"Well, you couldn't let the geeks have her, to use against us. What do you hear from the other ships?"

"*Procyon's* at Grank; we haven't had any reports of any kind from there, which doesn't look so good. The *Northern Lights* is at Grank, too. The *Oom Paul Kruger* should have been at Bwork, in the east, when the gun went off. And the *Jan Smuts* and the *Christiaan De Wett* were both at Keegark; we can assume Orgzild has both of them."

"All right. I'm sending *Alde-*

baran to Kankad's, to pick up more reenforcements for you."

Leaving the booth, he heard, above the clatter of communications-machines and the hubbub of voices, Jules Keaveney arguing contentiously. Evidently Colonel Cheng-Li's efforts to drag the Resident out of his despondency had been an excessive success.

"But it's crazy! Not just here; everywhere on Ullr!" Keaveney was saying. "How did they do it? They have no telecast equipment."

"You have me stopped, Jules," Mordkovitz was replying. "I know a lot of rich geeks have receiving sets, but no sending sets."

The pattern that had been tantalizing von Schlichten took visible shape in his mind. For a moment, he shelved the matter of the *Aldebaran*.

"They didn't need sending equipment, Barney," he said. "They used ours. Sid Harrington was poisoned in Konkrook. The news, of course, was sent out at once, as the geeks knew it would be, to every residency and trading-station on Ullr, and that was the signal they'd agreed upon, probably months in advance!"

"Well, what was our Intelli-

gence doing; sleeping?" Keaveney demanded angrily.

"No; they were writing reports for your civil administration blokes to stuff in the wastebasket, and being called mailed-fist-and-rattling-sabre alarmists for their pains." He turned away from Keaveney. "Barney, where is Dirk Prinsloo?"

"Aboard his ship. He hitched a ride to the airport with Jarman, when he was here picking up air-crews."

"Call him. Tell him to take the *Aldebaran* to Kankad's Town, at once; as soon as he arrives there, which ought to be about 1100, he's to pick up all the Kragans he can pack aboard and take them to Konkrook. From then on, he'll be under Them M'zangwe's orders."

"To Konkrook?" Keaveney fairly howled. "Are you nuts? Don't you think we need reinforcements here, too?"

"Yes, I do. I'm going to try to get them," von Schlichten told him. "Now pipe down and get out of people's way."

He crossed the room, to where two Kragans, a male sergeant, and the ubiquitous girl in the orange sweater were struggling to get a big circular TV-screen up, then turned to look at the situation-map. A girl tech-sergeant was keeping Paula Quin-

ton and Mrs. Jules Keaveney informed.

"Start pushing geeks out of the Fifth Zirk Cavalry barracks," the sergeant was saying. "The one at the north end, and the one next to it; they're both on fire, now." She tossed a slip into the wastebasket beside her and glanced at the next slip. "And more pink pills back of the barracks and stables, and move them a little to the north-west; Kragans as skirmishers, to intercept geeks trying to slip away from the cavalry barracks."

A young Kragan with his lower left arm in a sling and a daub of antiseptic plaster over the back of his head came up and gave him a radioprint slip. Guido Karamessinis, the Resident-Agent at Grank, had reported, at last. The city, he said, was quiet, but King Yoorkerk's troops had seized the Company airport and docks, taken the *Procyon* and the *Northern Lights* and put guards aboard them, and were surrounding the Residency. He wanted to know what to do.

Von Schlichten managed to get him on the screen, after awhile.

"It looks as though Yoorkerk's trying to play both sides at once," he told the Grank Resident. "If the rebellion's put down, he'll come forward as

your friend and protector; if we're wiped out elsewhere, he'll yell '*Znidd suddabit!*' and swamp you. Don't antagonize him; we can't afford to fight this war on any more fronts than we are now. We'll try to do something to get you unfrozen, before long."

He called Krink again. A girl with red-gold hair and a dusting of freckles across her nose answered.

"How are you making out?" he asked.

"So far, fine, general. We're in complete control of the Company area, and all our native-troops, not just the Kragans, are with us. Jonkvank's pushed the mutineers out of his palace, and we're keeping open a couple of streets between there and here. We airlifted all our Kragans and half the Sixth N.U.N.I. to the Palace, and we have the Zirks patrolling the streets on 'saur-back. Now, we have our lorries and troop-carriers out picking up elements of Jonkvank's loyal troops outside town."

"Who's doing the rioting, then?"

She named three of Jonkvank's regiments. "And the city hoodlums, and priests from the temples of one sect that followed Rakkeed, and the whole passel of Skilkan fifth columnists."

"How long do you think it'd take, with the equipment you have, to airlift all of Jonkvank's loyal troops into the city?"

"Not before this time tomorrow."

"All right. Are you in radio communication with Jonkvank now?"

"Full telecast, audio-visual," the girl replied. "Just a minute, general."

He put in his geek-speaker. Within a few minutes, a saurian Ullran face was looking out of it at him; a harsh-lined, elderly, face, with an old scar, quartz-crusted, along one side.

"Your Majesty," von Schlichten greeted him.

Jonkvank pronounced something intended to correspond to von Schlichten's name. "We have image-met under sad circumstances, general," he said.

"Sad for both of us, King Jonkvank; we must help one another. I am told that your soldiers in Krink have risen against you, and that your loyal troops are far from the city."

"Yes. That was the work of my War Minister, Hurkkirk, who was in the pay of King Firkked of Skilk, may Jeels devour him alive! I have Hurkkirk's head here somewhere. I can have it found, if you want to see it."

"Dead traitors' heads do not interest me, King Jonkvank," von Schlichten replied, in what he estimated that the Krinkan king would interpret as a tone of cold-blooded cruelty. "There are too many traitors' heads still on traitors' shoulders . . . What regiments are loyal to you, and where are they now?"

Jonkvank began naming regiments and locating them, all at minor provincial towns at least a hundred miles from Krink.

"Hurkkirk did his work well; I'm afraid you killed him too mercifully," von Schlichten said. "Well, I'm sending the *Northern Star* to Krink. She can only bring in one regiment at a trip, the way they're scattered; which one do you want first?"

Jonkvank's mouth, until now compressed grimly, parted in a gleaming smile. He made an exclamation of pleasure which sounded rather like a boy running along a picket fence with a stick.

"Good, general! Good!" he cried. "The first should be the regiment Murderers, at Furnk; they all have rifles like your soldiers. Have them brought to the Great Square, at the Palace here. And then, the regiment Fear-Makers, at Jeelznidd, and the regiment Corpse-Reapers, at . . ."

"Let that go until the Murder-

ers are in," von Schlichten advised. "They're at Furnk, you say? I'll send the *Northern Star* there, directly."

"Oh, good, general! I will not soon forget this! And as soon as the work is finished here, I will send soldiers to help you at Skilk. There shall be a great pile of the heads of those who had part in this wickedness, both here and there!"

"Good. Now, if you will pardon me, I'll go to give the necessary orders . . ."

As he left the booth, he saw Hideyoshi O'Leary in front of the situation-map, and hailed him.

"Harry and Hassan are getting the car re-ammoed; they dropped me off here. Want to come up with us and see the show?" O'Leary asked, as he saw the general.

"No, I want you to go to Krink, as soon as Harry brings the car here again." He told O'Leary what he intended doing. "You'll probably have to go around ahead of the *Star* and alert these regiments. And as soon as things stabilize at Krink, prod Jonkvank into airlifting troops here. You're authorized, in my name, to promise Jonkvank that he can assume political control at Skilk, after we've

stuffed Firkked's head in the dustbin."

Jules Keaveney, who always seemed to be where he wasn't wanted, heard that and fairly screamed.

"General von Schlichten! That is a political decision! You have no authority to make promises like that; that is a matter for the Governor-General, at least!"

"Well, as of now, and until a successor to Sid Harrington can be sent here from Terra, I'm Governor-General," von Schlichten told him, mentally thanking Keaveney for reminding him of the necessity for such a step. "Captain Malavez! You will send out an all-station telecast, immediately: Military Commander-in-Chief Carlos von Schlichten, being informed of the deaths of both Governor-General Harrington and Lieutenant-Governor Blount, assumes the duties of Governor-General, as of 0001 today." He turned to Keaveney. "Does that satisfy you?" he asked.

"No, it doesn't. You have no authority to assume a civil position of any sort, let alone the very highest position . . ."

Von Schlichten unbuttoned his holster and took out his authority, letting Keaveney look into the muzzle of it.

"Here it is," he said. "If

you're wise, don't make me appeal to it."

Keaveney shrugged. "I can't argue with that," he said. "But I don't fancy the Ullr Company is going to be impressed by it."

"The Ullr Company," von Schlichten replied, "is six and a half parsecs away. It takes a ship six months to get from here to Terra, and another six months to get back. A radio message takes a little over twenty-one years, each way." He holstered the pistol again.

"That brings up another question, general," one of Keaveney's subordinates said. "Can we hold out long enough for help to get here from Terra?"

"By the time help could reach us from Terra," von Schlichten replied, "we'll either have this revolt crushed, or there won't be a live Terran left on Ullr." He felt a brief sadistic pleasure as he watched Keaveney's face sag in horror. "On this planet, there's not more than a three months' supply of any sort of food a human can eat. And the ships that'll be coming in until word of our plight can get to Terra won't bring enough to keep us going. We need the farms and livestock and the animal-tissue culture plant at Konkrook, and the farms at Krink and on the plateau back of Skilk,

and we need peace and native labor to work them."

Nobody seemed to have anything to say after that, for awhile. Then Keaveney suggested that the next ship was due in from Nifheim in three months, and that it could be used to evacuate all the Terrans on Ullr.

"And I'll personally shoot any able-bodied Terran who tries to board that ship," von Schlichten promised. "Get this through your heads, all of you. We are going to break this rebellion, and we are going to hold Ullr for the Company and the Terran Federation." He looked around him. "Now, get back to work, all of you," he told the group that had formed around him and Keaveney. "Miss Quinton, you just heard me order my adjutant, Colonel O'Leary, on detached duty to Krink. I want you to take over for him. You'll have rank and authority as colonel for the duration of this war."

She was thunderstruck. "But I know absolutely nothing about military matters. There must be a hundred people here who are better qualified than I am . . ."

"There are, and they all have jobs, and I'd have to find replacements for them, and replacements for the replacements. You won't leave any vacancy to

be filled. And you'll learn, fast enough." He went over to the situation-map again, and looked at the arrangements of pink and white pills. "First of all, I want you to call Jarman, at the military airport, and have an airjeep and driver sent around here for me. I'm going up and have a look around. Barney, keep the show going while I'm out, and tell Colonel Quinton what it's all about."

VII

He looked at his watch, as the light airjeep let down into the street. Oh-one-fifteen—two hours and a half since the mutiny at the native-troops barracks had broken out. The Company reservation was still ablaze with lights, and over the roof of the hospital and dispensary and test-lab he could see the glare of the burning barracks. There was more fire-glare to the south, in the direction of the mine-equipment park and the mine-labor camp, and from that direction the bulk of the firing was to be heard.

The driver, a young lieutenant, slid back the duraglass canopy for him to climb in, then snapped it into place when he had strapped himself into his seat, and hit the controls.

They lifted up, the driver turning the nose of the airjeep in the direction of the flames and explosions and magnesium-lights to the south and tapping his booster-button gently. The vehicle shot forward and came floating in over the scene of the fighting. The situation-map at the improvised headquarters had shown a mixture of pink and white pills in the mine-equipment park; something was going to have to be done about the lag in correcting it, for the area was entirely in the hands of loyal Company troops, and the mob of laborers and mutinous soldiers had been pushed back into the temporary camp where the workers had been gathered to await transportation to the Arctic. As he had feared, the rioting workers, many of whom were trained to handle contra-gravity equipment, had managed to lift up a number of dump-trucks and power-shovels and bulldozers, intending to use them as improvised air-tanks, but Jarman's combat-cars had gotten on the job promptly and all of these had been shot down and were lying in wreckage, mostly among the rows of parked mining-equipment.

From the labor-camp, a surprising volume of fire was being

directed against the attack which had already started from the retaken equipment-park.

Hovering above the fighting, aloof from it, he saw six long troop-carriers land and disgorge Kragan Rifles who had been released by the liquidation of resistance at the native-troops barracks. A little later, two air-tanks floated in, and then two more, going off contragravity and lumbering forward on treads to fire their 90-mm. rifles. At the same time, combat-cars swooped in, banging away with their lighter auto-cannon and launching rockets. The titanium prefab-huts, set up to house the laborers and intended to be taken north with them for their stay on the polar desert, were simply wiped away. Among the wreckage, resistance was being blown out like the lights of a candelabrum.

He took up the handphone and called HQ.

"Von Schlichten; what's the wavelength of the officer in command at the equipment-park?"

A voice at the telecast station furnished it; he punched it out.

"Von Schlichten, right overhead. That you, Major Falkenberg? Nice going, major; how are your casualties?"

"Not too bad. Twenty or thirty Kragans and loyal Skil-

kans, and eight Terrans killed; about as many wounded."

"Pretty good, considering what you're running into. Get many of your Kragans mounted on those hipposaurs?"

"About a hundred; a lot of 'saurs got shot, while we were leading them out from the stables."

"Well, I can see geeks streaming away from the labor-camp, out the south end, going in the direction of the river. Use what cavalry you have on them, and what contragravity you can spare. I'll drop a few flares to show their position and direction."

Anticipating him, the driver turned the airjeep and started toward the dry Hoork River. Von Schlichten nodded approval and told him to release flares when over the fugitives.

"Right," Falkenberg replied. "I'll get on it at once, general."

"And start moving that mine-equipment up into the Company area. Some of it we can put into the air; the rest we can use to build barricades. None of it do we want the geeks getting hold of, and the equipment-park's outside our practical perimeter. I'll send people to help you move it."

"No need to do that, sir; I have about a hundred and fifty loyal North Ullrans—foremen,

technicians, overseers—who can handle it."

"All right. Use your own judgment. Put the stuff back of the native-troops barracks, and between the power-plant and the Company office-buildings, and anywhere else you can." The lieutenant nudged him and pushed a couple of buttons on the dashboard. "Here go the flares, now."

Immediately, a couple of airjeeps pounced in, to strafe the fleeing enemy. Somebody must have already been issuing orders on another wavelength; a number of Kragans, riding hipposaurs, were galloping into the light of the flares.

"Now, let's have a look at the native barracks and the maintenance-yards," he said. "And then, we'll make a circuit around the Reservation, about two-three miles out. I'm not happy about where Firkked's army is."

The driver looked at him. "I've been worrying about that, too, sir," he said. "I can't understand why he hasn't jumped us, already. I know it takes time to get one of these geek armies on the road, but . . ."

"He's hoping our native-troops and the mine laborers will be able to wipe us out, themselves," von Schlichten said.

There was nothing going on in

the area between the native barracks and the mountains except some sporadic firing as small patrols of Kragans clashed with clumps of fleeing mutineers. All the barracks, even those of the Rifles, were burning; the red-and-yellow danger-lights around the power-plant and the water-works and the explosives magazines were still on. Most of the floodlights were still on, and there was still some fighting around the maintenance-yard. It looked as though the survivors of the Tenth N.U.N.I. were in a few small pockets which were being squeezed out.

There was nothing at all going on north of the Reservation; the countryside, by day a checkerboard of walled fields and small villages, was dark, except for a dim light, here and there, where the occupants of some farmhouse had been awakened by the noise of battle.

Then, two miles east of the Reservation, he caught a new sound—the flowing, riverlike, murmur of something vast on the move.

“Hear that, lieutenant?” he asked. “Head for it, at about a thousand feet. When we’re directly above it, let go some flares.”

“Yes, sir.” The younger man had lowered his voice to a whis-

per. “That’s geeks; headed for the Reservation.”

“Maybe Firkked’s army,” von Schlichten thought aloud. “Or maybe a city mob.”

The noises were growing clearer, louder. He picked up the phone and punched the wavelength of the military airport.

“Von Schlichten; my compliments to Colonel Jarman. Tell him there’s a geek mob, or possibly Firkked’s regulars, on the main highway from Skilk, two miles east of the Reservation. Get some combat contragravity over here, at once. We’ll light them up for you. And tell Colonel Jarman to start flying patrols up and down along the Hoork River; this may not be the only gang that’s coming out to see us.”

The sounds were directly below, now—the scuffing of horny-soled feet on the dirt road, the clink and rattle of slung weapons, the clicking and squeaking of Ullran voices.

The lieutenant said: “Here go the flares, sir.”

Von Schlichten shut his eyes, then opened them slowly. The driver, upon releasing the flares, had nosed up, banked, turned, and was coming in again, down the road toward the advancing column. Von Schlichten peered

into his all-armament sight, his foot on the machine-gun pedal and his fingers on the rocket buttons. The highway below was jammed with geeks, and they were all stopped dead and staring upward, as though hypnotized by the lights. It was obviously a mob. A second later, they had recovered and were shooting—not at the airjeep, but at the four globes of blazing magnesium. Then he had the close-packed mass of non-humanity in his sights; he tramped the pedal and began punching buttons. He still had four rockets left by the time the mob was behind him.

"All right, let's take another pass at them. Same direction."

The driver put the airjeep into a quick loop and came out of it in front of the mob, who now had their backs turned and were staring in the direction in which they had last seen the vehicle. Again, von Schlichten plowed them with rockets and harrowed them with his guns. Some of the Skilkans were trying to get over the high fences on either side of the road—really stockades of petrified tree-trunks. Others were firing, and this time they were shooting at the airjeep. It took one hit from a heavy shello-saur-rifle, and immediately the driver banked and turned away from the road, heading back.

"Dammit, why did you do that?" von Schlichten demanded, lifting his foot from the gun-pedal. "Are you afraid of the kind of popguns those geeks are using?"

"I am not afraid to risk my vehicle, or myself, sir," the lieutenant replied, with the extreme formality of a very junior officer chewing out a very senior one. "I am, however, afraid to risk my passenger. Generals are not expendible, sir."

He was right, of course. Von Schlichten admitted it. "I'm too old to play cowboy, like this," he said. "Back to the Reservation; telecast station."

Looking back over his shoulder, he saw eight or ten more flares alight, and the ground-flashes of exploding shells and rockets; the air above the road was sparkling with gun-flames. Jarman must have had some contragravity ready to be sent off on the instant.

While he had been out, somebody had gotten a TV-pickup mounted on a contragravity-lifter and run up to two thousand feet, on the end of a steel-tough tensilon mooring-line. The big circular screen was lit, showing the whole Company Reservation, with the surrounding countryside foreshortened

by perspective to the distant lights of Skilk. The map had been taken up from the floor, and a big terrain-board had been brought in from the Chief Engineer's office and set up in its place. In front of the screen, Paula Quinton, Barney Mordkowitz, Colonel Cheng-Li, and, conspicuously silent, Jules Keaveney, sat drinking coffee and munching sandwiches. Half a dozen Terrans, of both sexes, were working furiously to get the markers which replaced the pink and white pills placed on the board, and one of Captain Inez Malavez' non-coms, with a headset, was getting combat reports directly from the switch-board. Everything was clicking like well-oiled machinery.

On the TV-screen, the Residency area was ablaze with light, and so were the ship-docks, the airport and spaceport, the shops, and the maintenance-yard. On the terrain-board, the latter was now marked as completely in Company hands. The ruins of the native-troops barracks were still burning, and there was a twinkle of orange-red here and there among the ruins of the labor-camp. Much of the equipment for the Polar mines had already been shifted into defensible ground. The rest of the circle was dark, except for the

distant lights of Skilk, where the nuclear power plant was apparently still functioning in native hands.

Then, without warning, a spot of white light blazed into being south-east of the Company area and south-west of Skilk, followed by another and another. Instantly, von Schlichten glanced up at the row of smaller screens, and on one of them saw the view as picked up by a patrolling air-jEEP.

The army of King Firkked of Skilk had finally put in its appearance, about three miles south of the Reservation. The Skilkan regulars had been marching in formation, some on the road and some along parallel lanes and paths. They had the look of trained and disciplined troops, but they had made the same mistake as the rabble that had been shot up on the north side of the Reservation. Unused to attack from the air, they had all halted in place and were gaping open-mouthed, their opal teeth gleaming in the white flare-light.

In the big screen, it could be seen that Colonel Jarman had thrown most of his available contragravity at them, including the combat-cars that had already started to form the second wave of the attack on the mob to the

north. Other flares bloomed in the darkness, and the fiery trails of rockets curved downward to end in yellow flashes on the ground.

The airjeep with the pickup circled back; the troops on the road and in the adjoining fields had broken. The former were caught between the fences which made Ullran roads such death-traps when under air-attack. The latter had dispersed, and were running away, individually and by squads; at first, it looked like a panic, but he could see officers signalling to the larger groups of fugitives to open out, apparently directing the flight. By this time, there were ten or twelve combat-cars and about twenty airjeeps at work. In the moving view from the pickup-jeep, he saw what looked like a 90-mm. rocket land in the middle of a company that was still trying to defend itself with smallarms fire on the road, wiping out about half of them.

"The next time they're air-struck, they won't stay bunched," Mordkovitz stated. "A lot of them didn't stay bunched this time, if you noticed. And they'll keep out from between the fences."

In the large screen, a quick succession of gun-flashes leaped up from the direction of the

Hoork River; shells began bursting over the scene of the attack. The screen tuned to the pickup on the airjeep went dead; in the big screen, there was a twinkling of falling fire. Almost at once, thirty or forty rocket-trails converged on the gun-position, and, for a moment, explosions burned like a bonfire.

"They had a 75-mm. at the rear of the column," somebody called from the big switchboard. "Lieutenant Kalanang's jeep was hit; Lieutenant Vermaas is cutting in his pickup on the same wavelength."

The small screen lighted again. In the big screen, a cluster of magnesium-lights then appeared above where the Skilkan gun had been; in the small screen, there was a stubbled grain-field, pocked with craters, and the bodies of fifteen or twenty natives, all rather badly mangled. An overturned and apparently destroyed 75-mm. gun lay on its side.

"As far as we know, that was the only 75-mm. gun Firkked had," Colonel Cheng-Li said. "He has at least six, possibly ten, 40-mm's. It's a wonder we haven't seen anything of them."

"Well, there's no way of being sure," Jules Keaveney said, "but I have an idea they're all at or around the Palace. Firkked

knows about how much contra-gravity we have. He's probably wondering why we aren't bombing him, now."

"He doesn't know we've sold the Palace to King Jonkvank for an army," von Schlichten said. "And that reminds me; how much contragravity could Firkked scrape together, for an attack on us? I've been expecting a geek *Luftwaffe* over here, at any moment."

Colonel Cheng-Li studied the smoking tip of his cigarette for a moment. "Well, Firkked owns, personally, three ten-passenger aircars, a thing like a troop-carrier that he transports some of his courtiers around in, four air-jeps armed with a pair of 15-mm. machine-guns apiece, and two big lorries. There are possibly two hundred vehicles of all types in Skilk and the country around, but some of them are in the hands of natives friendly to us."

Von Schlichten nodded. "And there'll be oodles of thermoconcentrate-fuel, and blasting explosives. Colonel Quinton, suppose you call Ed Wallingsby, the Chief Engineer, right away; have him commissioned colonel. Tell him to get to work making this place secure against air-attack, to consult with Colonel Jarman, and to get those geeks

Leavitt has penned in the repair-dock at the airport and use them to dig slit-trenches and fill sandbags and so on. He can use Kragan limited-duty wounded to guard them . . . Mr. Keaveney, you'll begin setting up something in the way of an ARP-organization. You'll have to get along on what nobody else wants. You will also consult with Colonel Jarman, and with Colonel Wallingsby. Better get started on it now. Just think of everything around here that could go wrong in case of an air attack, and try to do something about it in advance."

VIII

At 0245, an attack developed on the north-western corner of the Reservation, in the direction of the explosives magazines. It turned out to be relatively trivial. Remnants of the mob that had been broken up by air attack on the road had gotten together and were making rushes in small bands, keeping well spread out. Beating them off took considerable ammunition, but it was accomplished with negligible casualties to the defenders. They finally stopped coming around daylight.

In the meantime, Themistocles M'zangwe called from Konkrook. "About six hundred of Kankad's

people have gotten in, already, in the damndest collection of vehicles you ever saw," he reported. "Kankad must be using every scrap of contragravity he has; it's a regular airborne Dunkirk-in-reverse. Kankad sent word that he's coming here in person, as soon as he has things organized at his place. And the geeks, here, have scraped together an air-force of their own—farm-lorries, aircars, that sort of thing—and they're using them to bomb us here and at the mainland farm, mostly with nitroglycerine. We've shot down about twenty of them, but they're still coming. They tried a boat-attack across the Channel. We've been doing some bombing, ourselves; we made a down-payment for Eric Blount and Hendrik Lemoyne. Took a fifty-ton tank off a fuel-lorry, fitted it with a detonator, filled it with thermoconcentrate, and ferried it over on the *Elmoran* and dumped it on the Keegarkan Embassy. It must have landed in the middle of the central court; in about fifteen seconds, flames were coming out every window in the place." His face became less jovial. "We had something pretty bad happen here, too," he said. "That Konkrook Fencibles rabble of Prince Jaizerd's mutinied, along with the others;

they got into the hospital and butchered everybody in the place, patients and staff. The Kragans got there too late to save anybody, but they wiped out the Fencibles. Jaizard himself was the only one they took alive, and he didn't stay that way very long."

"How are you making out with your Civil Administration crowd?"

M'zangwe grimaced. "I haven't had to put any of them under actual arrest, so far, but we've had to keep Buhrmann away from the communications equipment by force. He wanted to call you up and chew you out for not evacuating everybody in the North to Konkrook."

"Is he crazy?"

"No, just scared. He says you're going to get everybody on Ullr massacred by detail, when you could save Konkrook by bringing them all here."

"You tell him I'm going to hold this planet, not just one city. Tell him I have a sense of my duty to the Company and its stockholders, if he hasn't; put it in those terms and he may understand you."

By 0330, it was daylight; the attacks against the north-west corner of the perimeter stopped entirely. Wallingsby had the

three-hundred-odd Skilkan laborers at work; he had gathered up all the tarpaulin he could find, and had the two sewing-machines in the tentmaker's shop running on sandbags. Jules Keaveney, to von Schlichten's agreeable surprise, had taken hold of his ARP assignment, and was doing an efficient job in organizing for fire-fighting, damage-control and first aid. Colonel Jarman had his airjeeps and combat-cars working in ever-widening circles over the countryside, shooting up everything in sight that even looked like contragravity equipment. Some of these patrols had to be recalled, around 1030, when sporadic nuisance-sniping began from the side of the mountain to the west. And, along with everything else, Paula Quinton managed to get a complete digest prepared of the situation elsewhere in the Terran-occupied parts of the planet.

The situation at Konkrook was brightening steadily. The second wave of Kankad's improvised airlift, reenforced by contragravity from Konkrook, had come in; there were now close to two thousand fresh Kragans on Gongonk Island and the mainland farms, Kankad himself with them. The *Aldebaran* had reached Kankad's Town, and

was loading another thousand Kragans . . . There was nothing more from Keegark. A message from Colonel MacKinnon had come in at dawn, to the effect that the geeks had penetrated his last defenses and that he was about to blow up the Residency; thereafter Keegark went off the air . . . By 0730, the *Northern Star* had landed the regiment Murderers, armed with first-quality Terran infantry-rifles and a few machine-guns and bazookas, at the Palace at Krink, and by 0845 she had returned with another regiment, the Jeel-Feeders. The three-street lane connecting the Palace and the Residency had been widened to six, and then to eight . . . Guido Karamessinis, at Grank, was still at uneasy peace with King Yoorkerk, who was still undecided whether the rebels or the Company were going to be the eventual victors, and afraid to take any irrevocable step in either direction.

At 1100, Paula Quinton and Barney Mordkovitz virtually ordered him to get some sleep. He went to his quarters at Company House, downed a spaceship-captain's-size drink of honey-rum, and slept until 1600. As he dressed and shaved, he could hear, through the open window,

the slow sputter of small arms-fire, punctuated by the occasional *whump-whump-whump* of 40-mm. auto-cannon or the hammering of a machine-gun.

Returning to his command-post at the telecast station, the terrain-board showed that the perimeter of defense had been pushed out in a bulge at the north-west corner; the TV-screen pictured a crude breast-work of petrified tree-trunks, sandbags, mining machinery, packing-cases and odds-and-ends, upon which Wallingsby's native laborers were working under guard while a skirmish-line of Kragans had been thrown out another four or five hundred yards and were exchanging pot-shots with Skilkans on the gullied hillside.

"Where's Colonel Quinton?" he asked. "She ought to be taking a turn in the sack, now."

"She's taking one," Major Falkenberg told him. "General Mordkovitz chased her off to bed a couple of hours ago, called me in to take her place, and then went out to replace me. Colonel Guilliford's in the hospital; got hit about thirteen hundred. They're afraid he's going to lose a leg."

More reports came in. The entire garrison of the small Residency at Kwurk, the most north-

ern of the eastern shore Free Cities, had arrived at Kankad's Town in two hundred-foot contragravity scows and five aircars. Two of the aircars arrived half an hour behind the rest of the refugee flotilla, having turned off at Keegark to pay their respects to King Orgzild. They reported the Keegark Residency in ruins, its central buildings vanished in a huge crater; the *Jan Smuts* and the *Christiaan De Wett* were still in the Company docks, both apparently damaged by the blast which had destroyed the Residency. One of the aircars had rocketed and machine-gunned some Keegarkans who appeared to be trying to repair them; the other blew up King Orgzild's nitroglycerine plant. Von Schlichten called Konkrook and ordered a bombing-mission against Keegark organized, to make sure the two ships stayed out of service.

The *Northern Star* was still bringing loyal troops into Krink. King Jonkvank, whom von Schlichten called, was highly elated.

"We are killing traitors wherever we find them!" he exulted. "The city is yellow with their blood; their heads are piled everywhere! How is it with you at Skilk? Do the heads fall?"

"We have killed many, also," von Schlichten boasted. "And tonight, we will kill more; we are preparing bombs of great destruction, which we will rain down upon Skilk until there is not one stone left upon another, or one infant of a day's age left alive!"

Jonkvank reacted as he was intended to. "Oh, no, general; don't do all that!" he exclaimed. "You promised me that I should have Skilk, on the word of a Terran. Are you going to give me a city of ruins and corpses? Ruins are no good to anybody, and I am not a Jeel, to eat corpses."

Von Schlichten shrugged. "When you are strong, you can flog your enemies with a whip; when you are weak, all you can do is kill them. If I had five thousand more troops, here . . ."

"Oh, I will send troops, as soon as I can," Jonkvank hastened to promise. "All my best regiments. But, now that we have stopped this sinful rebellion, here, I can't take chances that it will break out again as soon as I strip the city of troops."

Von Schlichten nodded. Jonkvank's argument made sense; he would have taken a similar position, himself.

"Well, get as many as you can over here, as soon as possible,"

he said. "We'll try to do as little damage to Skilk as we can, but . . ."

At 1830, Paula joined him for her breakfast, while he sat in front of the big screen, eating his dinner. There had been light ground-action along the southern end of the perimeter—King Firkked's regulars, reenforced by Zirk tribesmen and levies of townspeople, all of whom seemed to have firearms, were filtering in through the ruins of the labor-camp and the wreckage of the equipment-park—and there was renewed sniping from the mountainside. The long afternoon of the northern Autumn dragged on; finally, at 2200, the sun set, and it was not fully dark for another hour. For some time, there was an ominous quiet, and then, at 0030, the enemy began attacking in force, driving herds of livestock—lumbering six-legged brutes bred by the North Ullrans for food—to test the defenses for electrified wire and landmines. Most of these were shot down or blown up, but a few got as far as the wire, which, by now, had been strung and electrified completely around the perimeter.

Behind them came parties of Skilkan regulars with long-handled insulated cutters; a cou-

ple of cuts were made in the wire, and a section of it went dead. The line, at this point, had been rather thinly held; the defenders immediately called for air-support, and Jarman ordered fifteen of his remaining twenty airjeeps and five combat-cars into the fight. No sooner were they committed than the radar on the commercial airport control-tower picked up air vehicles approaching from the north, and the air-raid sirens began howling and the searchlights went on.

The contragravity which had been sent to support the ground-defense at the south side of the Reservation turned to meet this new threat, and everything else available, including the four heavy air-tanks, lifted up. Meanwhile, guns began firing from the ground and from rooftops.

There had been four aircars, ordinary passenger vehicles equipped with machine-guns on improvised mounts, and ten big lorries converted into bombers, in the attack. All the lorries, and all but one of the makeshift fighter-escort, were shot down, but not before explosive and thermoconcentrate bombs were dumped all over the place. One lorry emptied its load of thermoconcentrate-bombs on the control-building at the airport, starting a raging fire and put-

ting the radar out of commission. A repair-shop at ordnance-depot was set on fire, and a quantity of small-arms and machine-gun ammunition piled outside for transportation to the outer defenses blew up. An explosive bomb landed on the roof of the building between Company House and the telecast station, blowing a hole in the roof and demolishing the upper floor. And another load of thermoconcentrate, missing the power-plant, set fire to the dry grass between it and the ruins of the native-troops barracks.

Before the air-attack had been broken up, the soldiers of King Firkked and their irregular supporters were swarming through the dead section of wire. They had four or five big farm-tractors, nuclear-powered but unequipped with contragravity-generators, which they were using like ground-tanks of the First Century. This attack penetrated to the middle of the Reservation before it was stopped and the attackers either killed or driven out; for the first time since daybreak, the red-and-yellow lights came on around the power-plant.

As soon as the combined air and ground attack was beaten off, von Schlichten ordered all

his available contragravity up, flying patrols around the Reservation and retaliatory bombing missions against Skilk, and began bombarding the city with his 90-mm. guns. A number of fires broke out, and at about 0200 a huge expanding globe of orange-red flame soared up from the city.

"There goes Firkked's thermo-concentrate stock," he said to Paula, who was standing beside him in front of the screen.

Half an hour later, he discovered that he had been over-optimistic. Much of the enemy's supply of Terran thermoconcentrate had been destroyed, but enough remained to pelt the Reservation and the Company buildings with incendiaries, when a second and more severe air-attack developed, consisting of forty or fifty makeshift lorry-bombers and fifteen aircars.

Like the first, the second air-attack was beaten off, or, more exactly, down. Most of the enemy contragravity was destroyed; at least two dozen vehicles crashed inside the Reservation. As in the first instance, there was a simultaneous ground attack from the southern side, with a demonstration-attack at the north end. It was full daylight before the last of the at-

tackers was either killed or driven out.

Five minutes later, the *Northern Star* came bulking over the mountains from the west.

IX

Von Schlichten raced for the telecast station, to receive a call from a Colonel Khalid ib'n Talal, aboard the approaching ship.

"I've one of Jonkvank's regiments, the Jeel-Feeders, armed with Terran 9-mm. rifles and a few bazooks; I have a company of our Zirks, with their mounts, and a battalion of the Sixth N.U.N.I.; I also have four 90-mm. guns, Terran-manned," he reported. "What's the situation, general, and where do you want me to land?"

Von Schlichten described the situation succinctly, in an ancient and unprintable military cliché. "Try landing south of the Reservation, a little west of the ruins of the labor-camp," he advised. "The bulk of Firkked's army is in that section, and I want them run out as soon as possible. We'll give you all the contragravity and fire support we can."

The *Northern Star* let down slowly, firing her guns and dropping bombs; as she descended, rifle-fire spurted from all her

lower-deck portholes. There was cheering, human and Ullran, from inside the battered defense-perimeter; combat-cars, airjeeps, and improvised bombers lifted out to strafe the Skilkans on the ground, and the four airtanks moved out to take position and open fire with their 90-mm.'s, helping to flush King Firkked's regulars and auxiliaries out of the gullies and ruins and drive them south along the mountain, away from where the ship would land and also away from the city of Skilk. The *Northern Star* set down quickly, and troops and artillery began to be unloaded, joining in the fighting.

It was five hundred miles to Krink; three hours after lifting out, the *Northern Star* was back again, with two more of King Jonkvank's infantry regiments, and by 1300, when the fourth load arrived from Krink, the fighting was entirely on the eastern bank of the dry Hoork River. This last contingent of reinforcements was landed in the eastern suburbs of Skilk and began fighting their way into the city from the rear.

It was evident, however, that the pacification of Skilk would not be accomplished as rapidly as von Schlichten wished—street fighting, against a determined enemy, is notoriously slow

work—and he decided to risk the *Northern Star* in an attack against the Palace itself, and, over the objections of Paula Quinton, Jules Keaveney, and Barney Mordkovitz, to lead the attack in person.

Inside the city, he found that the Zirk cavalry from Krink had thrust up one of the broader streets to within a thousand yards of the Palace, and, supported by infantry, contragravity, and a couple of airtanks, were pounding and hacking at a mass of Skilkans whose uniform lack of costume prevented distinguishing between soldiery and townsfolk. Very few of these, he observed, seemed to be using firearms; with his glasses, he could see them shooting with long Northern air-rifles and a few Takkad Sea crossbows. Either weapon would shoot clear through a Terran or half-way through an Ullran at fifty yards, but at over two hundred they were almost harmless. There were a few fires still burning from the bombardment of the night before—Ullran, and particularly North Ullran, cities did not burn well—and the blaze which had consumed the bulk of Firkked's stock of thermoconcentrate fuel had long ago burned out, leaving an area of six or

eight blocks blackened and lifeless.

The ship let down, while the six combat-cars which had accompanied her buzzed the Palace roof, strafing it to keep it clear, and the Kragans aboard fired with their rifles. She came to rest on seven-eighths weight reduction, and even before the gangplanks were run out, the Kragans were dropping to the flat roof, running to stairhead penthouses and tossing grenades into them.

The taking of the Palace was a gruesome business. Knowing exactly how much mercy they would have shown had they been storming the Residency, Firkked's soldiers and courtiers fought desperately and had to be exterminated, floor by floor, room by room, hallway by hallway. They had to fight for every inch downward.

Driving down from above, von Schlichten and his Kragans slithered over floors increasingly greasy with yellow Ullran blood. He had picked up a broadsword at the foot of the first stairway down; a little later, he tossed it aside in favor of another, better balanced and with a better guard. There was a furious battle at the doorways of the Throne Room; finally, climbing over the bodies of their own

dead and the enemy's, they were inside.

Here there was no question of quarter whatever, at least as long as Firkked lived; North Ullran nobles did not surrender under the eyes of their king, and North Ullran kings did not surrender their thrones alive. There was also a tradition, of which von Schlichten was mindful, that a king must only be killed by his conqueror, in personal combat, with steel.

With a wedge of Kragan bayonets around him and the picked-up broadsword in his hand, he fought his way to the throne, where Firkked waited, a sword in one of his upper hands, his Spear of State in the other, and a dagger in either lower hand. With his left hand, von Schlichten detached the bayonet from the rifle of one of his followers and went forward, trying not to think of the absurdity of a man of the Sixth Century A.E., the representative of a civilized Chartered Company, dueling to the death with swords with a barbarian king for a throne he had promised to another barbarian, or of what could happen on Ullr if he allowed this four-armed monstrosity to kill him.

It was not as bad as it looked, however. The ornate Spear of

State, in spite of its long, cruel-looking blade, was not an especially good combat-weapon, at least for one hand, and Firkked seemed confused by the very abundance of his armament. After a few slashes and jabs, von Schlichten knocked the unwieldy thing from his opponent's hand. This raised a fearful ullulation from the Skilkan nobility, who had stopped fighting to watch the duel; evidently it was the very worst sort of a bad omen. Firkked, seemingly relieved to be disencumbered of the thing, caught his sword in both hands and aimed a round-house swing at von Schlichten's head; von Schlichten dodged, crippled one of Firkked's lower hands with a quick slash, and lunged at the royal belly. Firkked used his remaining dagger to parry, backed a step closer his throne, and took another swing with his sword, which von Schlichten parried on the bayonet in his left hand. Then, backing, he slashed at the inside of Firkked's leg with the thousand-year-old *coup-de-Jarnac*. Firkked, unable to support the weight of his dense-tissued body on one leg, stumbled; von Schlichten ran him neatly through the breast with his sword and through the throat with the bayonet.

There was silence in the throne-room for an instant, and then, with a horrible collective shriek, the Skilkans threw down their weapons. One of von Schlichten's Kragans slung his rifle and picked up the Spear of State with all four hands, taking his post ceremoniously behind the victor. A couple of others dragged the body of Firkked to the edge of the dais, and one of them drew his leaf-shaped short-sword and beheaded it.

At mid-afternoon, von Schlichten was on the roof of the Palace, holding the Spear of State, with Firkked's head impaled on the point, while a Terran technician aimed an audio-visual recorder.

"This," he said, with the geekspeaker in his mouth, "is King Firkked's Spear of State, and here, upon it, is King Firkked's head. Two days ago, Firkked was at peace with the Company, and Firkked was King in Skilk. If he had not dared raise his feeble hand against the might of the Ullr Company, he would still be alive, and his Spear would still be borne behind him. So must all those who rise against the Company perish . . . Cut."

The camera stopped. A Kragan came forward and took the Spear of State, with its grisly

burden, carrying it to a nearby wall and leaning it up, like a piece of stage property no longer required for this scene but needed for the next. Von Schlichten took out his geek-speaker, wiped and pouched it, and took his cigarette case from his pocket.

"Well, this is the limit!" Paula Quinton, who had come up during the filming of the scene, exploded. "I thought you had to kill him yourself in order to encourage your soldiers; I didn't think you wanted to make a movie of it to show your friends."

Von Schlichten tapped the cigarette on the gold-and-platinum case and stared at her through his monocle.

"Sit down, colonel." He lit the cigarette. "Your politico-military education still needs a little filling in. At Grank, we have two ships. One is the *Northern Lights*, sister ships of the *Northern Star*. The other is the cruiser *Procyon*, the only real warship on Ullr, with a main battery of four 200-mm. guns. How King Yoorkerk was able to get control of those ships I don't know, but there will be a board of inquiry and maybe a couple of courts-martial, when things get stabilized to a point where we can afford such luxuries. As

it is, we need those ships desperately, and as soon as he gets in, I'm sending Hideyoshi O'Leary to Grank with the *Northern Star* and a load of Kragan Rifles, to pry them loose. The audio-visual of which this is the last scene is going to be one of the crowbars he's going to use."

"But why did you have to fight Firkked, yourself?" she asked.

"I had to kill him, myself, with a sword; according to local custom, that makes me King of Skilk."

"Why, your Majesty!" She rose and curtsied mockingly. "But I thought you were going to make Jonkvank King of Skilk."

He shook his head. "Just Vice-roy," he corrected. "I'm handing the Spear of State *down* to him, not up to him; he'll reign as my vassal, and, consequently, as vassal of the Company, and before long, he won't be much more at Krink, either. That'll take a little longer—there'll have to be military missions, and economic missions, and trade-agreements, and all the rest of it, first—but he's on the way to becoming a puppet-prince."

Half an hour later, a large and excessively ornate air-launch, specially built at the Konkrook

shipyards for King Jonkvank, was sighted coming over the mountain from the east. An escort of combat-cars was sent to meet it, and a battalion of Kragans and the survivors of Firkked's court were drawn up on the Palace roof.

"His Majesty, Jonkvank, King of Krink!" the former herald of King Firkked's court, now herald to King Carlos von Schlichten, shouted, banging on a brass shield with the flat of his sword, as Jonkvank descended from his launch, attended by a group of his nobles and his Spear of State, with Hideyoshi O'Leary and Francis X. Shapiro shepherding them. As the guests advanced across the roof, the herald banged again on his shield.

"His Majesty, Carlos von Schlichten,"—which came out more or less as Karlok vonk Zlikdenk—"King, by right of combat, of Skilk!"

Von Schlichten advanced to meet his fellow-monarch, his own Spear of State, with Firkked's head still grinning from it, two paces behind him.

Jonkvank stopped, his face contorted with saurian rage.

"What is this?" he demanded. "You told me that I could be King of Skilk; is this how a Terran keeps his word?"

"A Terran's word is always

good, Jonkvank," von Schlichten replied, omitting the titles, as was proper in one sovereign addressing another. "My word was that you should reign in Skilk, and my word stands. But these things must be done decently, according to custom and law. I killed Firkked in single combat. Had I not done so, the Spear of Skilk would have been left lying, for any of the young of Firkked to pick up. Is that not the law?"

Jonkvank nodded grudgingly. "It is the law," he admitted.

"Good. Now, since I killed Firkked in lawful manner, his Spear is mine, and what is mine I can give as I please. I now give you the Spear of Skilk, to carry in my name, as I promised."

The Kragan who was carrying the ceremonial weapon tossed the head of Firkked from the point; another Kragan kicked it aside and advanced to wipe the spear-blade with a rag. Von Schlichten took the spear and gave it to Jonkvank.

"This is not good!" one of the Skilkan nobles protested. "That you should rule over us, yes. You killed Firkked in single combat, and you are the soldier of the Company, which is mighty, as all here have seen. But that this foreigner be given the Spear of Skilk, that is not at all good!"

Some of the others, emboldened by his example, were jabbering agreement.

"Listen, all of you!" von Schlichten shouted. "Here is no question of Krink ruling over Skilk. Does it matter who holds the Spear of Skilk, when he does so in my name? And King Jonkvank will be no foreigner. He will come and live among you, and later he will travel back and forth between Krink and Skilk, and he will leave the Spear of Krink in Krink, and the Spear of Skilk in Skilk, and in Skilk he will be a Skilkan. That is how it must be."

That seemed to satisfy everybody except Jonkvank, and he had wit enough not to make an issue of it. He even had the Spear of Krink carried back aboard his launch, out of sight, and when he accompanied von Schlichten, an hour later, to see Hideyoshi O'Leary off for Grank, he had the Spear of Skilk carried behind him. When he was alone with von Schlichten, in the room that had been King Firkked's bedchamber, however, he exploded.

"What is all this foolishness which you promised these people in my name and which I must now carry out? That I am to leave the Spear of Skilk in Skilk

and the Spear of Krink in Krink, and come here to live . . ."

"You wish to hold Skilk?" von Schlichten asked.

"I intend to hold Skilk. To begin with, there shall be a great killing here. A very great killing: of all those who advised that fool of a Firkked to start this business; of those who gave shelter to the false prophet, Rakked, when he was here; of the faithless priests who gave ear to his abominable heresies and allowed him to spew out his blasphemies in the temples; of those who sent spies to Krink, to corrupt and pervert my soldiers and nobles; of those who . . ."

"All that is as it should be," von Schlichten agreed. "Except that it must be done quickly and all at once, before the memories of these crimes fade from the minds of the people. And great care must be taken to kill only those who can be proven to be guilty of something; thus it will be said that the justice of King Jonkvank is terrible to evildoers but a protection and a shield to those who keep the peace and obey the laws. And when the priests are to be killed, it should be done under the direction of those other priests who were faithful to the gods and whom King Firkked drove out of their temples, and it must be done in

the name of the gods. Thus will you be esteemed a pious, and not an impious, king. It must not be allowed to seem that the city has come under foreign rule. And you must not change the laws, unless the people petition you to do so, nor must you increase the taxes, and you must not confiscate the estates of those who are put to death, for the death of parents is always forgiven before the loss of patrimonies. And you should select certain Skilkan nobles, and become the father of their young, and above all, you must leave none of the young of Firkked alive, to raise rebellion against you later."

Jonkvank nodded, deeply impressed. "By the gods, Karlok vonk Zlikdenk, this is wisdom! Now it is to be seen why the likes of Firkked cannot prevail against you, or against the Company as long as you are the Company's upper sword-arm!"

Honesty tempted von Schlichten, for a moment, to disclaim originality for the principles he had just enunciated, even at the price of trying to pronounce the name of Niccolo Machiavelli with a geek-speaker.

The sun slid lower and lower toward the horizon behind them as the aircar bulleted south along the broad valley and dry

bed of the Hoork River, nearing the zone of equal day and night. Hassan Bogdanoff drove while Harry Quong finished his lunch, then changed places to begin his own. Von Schlichten got two bottles of beer from the refrigerated section of the lunch-hamper and opened one for Paula Quinton and one for himself.

"What are we going to do with these geeks,"—she was using the nasty and derogatory word unconsciously and by custom, now—"after this is all over? We can't just tell them, 'Jolly well played; nice game, wasn't it?' and go back to where we were Wednesday evening."

"No, we can't. There's going to have to be a Terran seizure of political power in every part of this planet that we occupy, and as soon as we're consolidated around the north of Takkad Sea, we're going to have to move in elsewhere," he replied. "Keegark, Konkrook, and the Free Cities, of course, will be relatively easy. They're in arms against us now, and we can take them over by force. We had to make that deal with Jonkvank, or, rather, I did, so that will be a slower process, but we'll get it done in time. If I know that pair as well as I think I do, Jonkvank and Yoor-kerk will give us plenty of pre-

texts, before long. Then, we can start giving them government by law instead of by royal decree, and real courts of justice; put an end to the head-payment system, and to these arbitrary mass arrests and tax-delinquency imprisonments that are nothing but slave-raids by the geek princes on their own people. And, gradually, abolish serfdom. In a couple of centuries, this planet will be fit to admit to the Federation, like Odin and Freya."

"Well, won't that depend a lot on whom the Company sends here to take Harrington's place?"

"Unless I'm much mistaken, the Company will confirm me," he replied. "Administration on Ullr is going to be a military matter for a long time to come, and even the Banking Cartel and the mercantile interests in the Company are going to realize that, and see the necessity for taking political control. And just to make sure, I'm sending Hid O'Leary to Terra on the next ship, to make a full report on the situation."

"You think it'll be cleared up by then? The *City of Montevideo* is due in from Niflheim in a little under three months."

"It'll have to be cleared up by then. We can't keep this war go-

ing more than a month, at the present rate. Police-action, and mopping-up, yes; full-scale war, no."

"Ammunition?" she asked.

He looked at her in pleased surprise. "Your education has been progressing, at that," he said. "You know, a lot of professional officers, even up to field rank in the combat branches, seem to think that ammo comes down miraculously from Heaven, in contragravity lorries, every time they pray into a radio for it. It doesn't; it has to be produced as fast as it's expended, and we haven't been doing that. So we'll have to lick these geeks before it runs out, because we can't lick them with gunbutts and bayonets."

"Well, how about nuclear weapons?" Paula asked. "I hate to suggest it—I know what they did on Mimir, and Fenris, and Midgard, and what they did on Terra, during the First Century. But it may be our only chance."

He finished his beer and shoved the bottle into the waste-receiver, then got out his cigarettes. "There isn't a single nuclear bomb on the planet. The Company's always refused to allow them to be manufactured or stockpiled here."

"I don't think there'd be any

criticism of your making them, now, general. And there's certainly plenty of plutonium. You could make A-bombs, at least."

"There isn't anybody here who even knows how to make one. Most of our nuclear engineers could work one up, in about three months, when we'd either not need one or not be alive."

"Dr. Gomes, who came in on the *Pretoria*, two weeks ago, can make them," she contradicted. "He built at least a dozen of them on Niflheim, to use in activating volcanoes and bringing ore-bearing lava to the surface."

Von Schlichten's hand, bringing his lighter to the tip of his cigarette, paused for a second. Then he completed the operation, snapped it shut, and put it away.

"When did all this happen?"

She took time out for mental arithmetic; even a spaceship officer had to do that, when a question of interstellar time-relations arose.

"About three-fifty days ago, Galactic Standard. They'd put off the first shot, six bombs, before I got in from Terra. I saw the second shot a day or so before I left Niflheim on the *Canberra*. Dr. Gomes had to stay over till the *Pretoria* to put off the third shot. Why?"

"Did you run into a geek

named Gorkrink, while you were on Nif?" he asked her. "And what sort of work was he doing?"

"Gorkrink? I don't seem to remember . . . Oh, yes! He was helping Dr. Murillo, the seismologist. His year was up after the second shot; he came to Ullr on the *Canberra*. Dr. Murillo was sorry to lose him. He understood *Lingua Terra* perfectly; Dr. Murrillo could talk to him, the way you do with Kankad, without using a geek-speaker."

"Well, but what sort of work . . .?"

"Helping set and fire the A-bombs . . . Oh! Good Lord!"

"You can say that again, and deal in Allah, Shiva, and Kali," von Schlichten told her. "Especially Kali . . . Harry! See if you can get some more speed out of this can. I want to get to Konkrook while it's still there!"

It wouldn't be there long, the way things looked. King Orgzild had four tons of plutonium, and with Prince Gorkrink probably able to build A-bombs, Keegark would be set to bring Ullr its first taste of nuclear warfare. Von Schlichten shuddered as he pictured that happening. At the moment, shuddering was about the only thing he could do.

(TO BE CONCLUDED)

THE HUNTERS

BY WILLIAM MORRISON

ILLUSTRATED BY VAN DONGEN

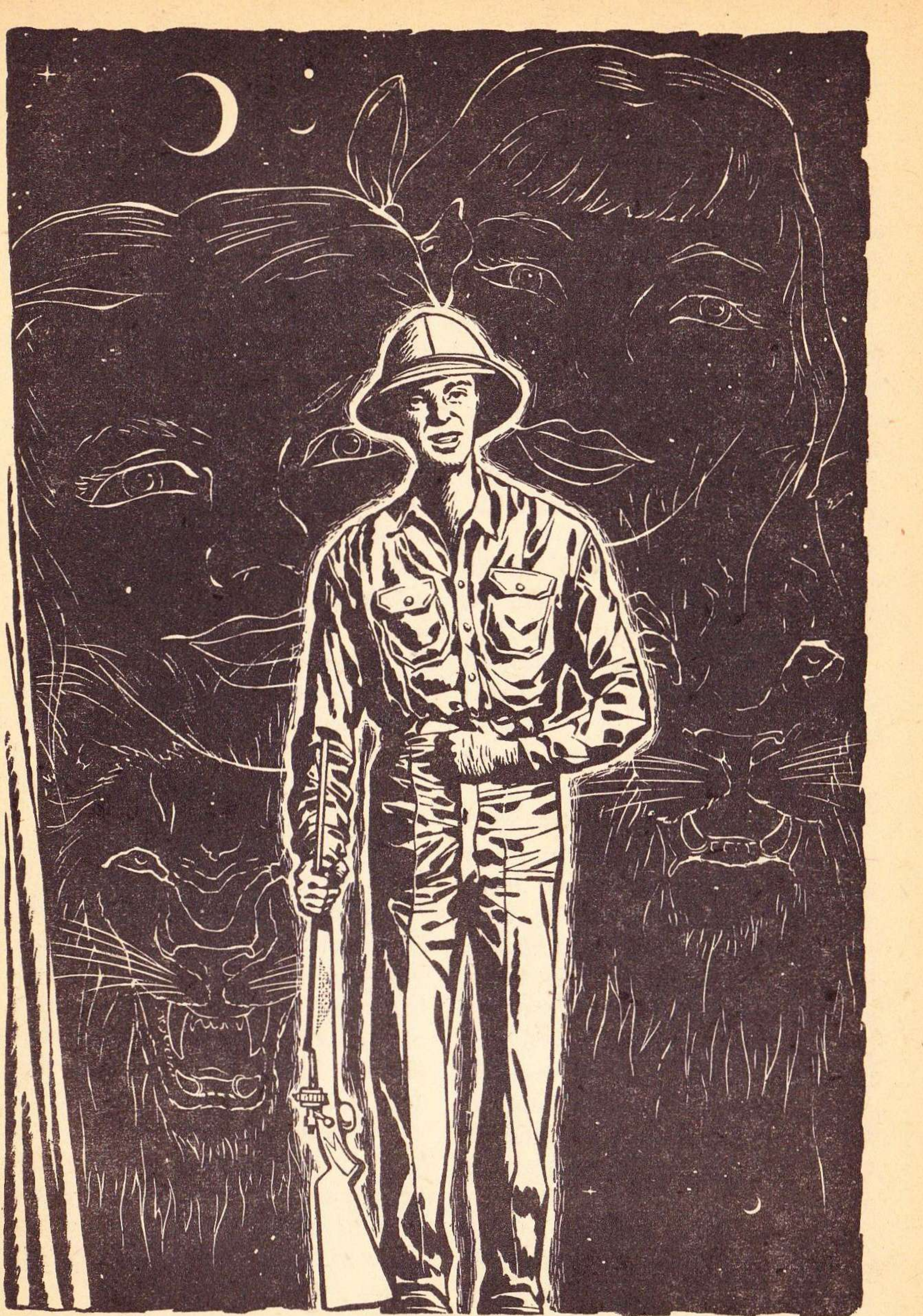
To all who didn't know him, Curt George was a mighty hunter and actor. But this time he was up against others who could really act, and whose business was the hunting of whole worlds.

There were thirty or more of the little girls, their ages ranging apparently from nine to eleven, all of them chirping away like a flock of chicks as they followed the old mother hen past the line of cages. "Now, now, girls," called Miss Burton cheerily. "Don't scatter. I can't keep my eye on you if you get too far away from me. You, Hilda, give me that water pistol. No, don't fill it up first at that

fountain. And Frances, stop bouncing your ball. You'll lose it through the bars, and a polar bear may get it and not want to give it back."

Frances giggled. "Oh, Miss Burton, do you think the polar bear would want to play catch?"

The two men who were looking on wore pleased smiles. "Charming," said Manto. "But somewhat unpredictable, despite all our experiences, *muy amigo*."



"No attempts at Spanish, Manto, not here. It calls attention to us. And you are not sure of the grammar anyway. You may find yourself saying things you do not intend."

"Sorry, Palit. It wasn't an attempt to show my skill, I assure you. It's that by now I have a tendency to confuse one language with another."

"I know. You were never a linguist. But about these interesting creatures—"

"I suggest that they could stand investigation. It would be good to know how they think."

"Whatever you say, Manto. If you wish, we shall join the little ladies."

"We must have our story prepared first."

Palit nodded, and the two men stepped under the shade of a tree whose long, drooping, leaf-covered branches formed a convenient screen. For a moment, the tree hid silence. Then there came from beneath the branches the chatter of girlish voices, and two little girls skipped merrily away. Miss Burton did not at first notice that now she had an additional two children in her charge.

"Do you think you will be able to keep your English straight?" asked one of the new little girls.

The other one smiled with

amusement and at first did not answer. Then she began to skip around her companion and chant, "I know a secret, I know a secret."

There was no better way to make herself inconspicuous. For some time, Miss Burton did not notice her.

The polar bears, the grizzlies, the penguins, the reptiles, all were left behind. At times the children scattered, but Miss Burton knew how to get them together again, and not one was lost.

"Here, children, is the building where the kangaroos live. Who knows where kangaroos come from?"

"Australia!" clanged the shrill chorus.

"That's right. And what other animals come from Australia?"

"I know, Miss Burton!" cried Frances, a dark-haired nine-year-old with a pair of glittering eyes that stared like a pair of critics from a small heart-shaped face. "I've been here before. Wallabies and wombats!"

"Very good, Frances."

Frances smirked at the approbation. "I've been to the zoo lots of times," she said to the girl next to her. "My father takes me."

"I wish my father would take

me too," replied the other little girl, with an air of wistfulness.

"Why don't you ask him to?" Before the other little girl could answer, Frances paused, cocked her head slightly, and demanded, "Who are you? You aren't in our class."

"I'm in Miss Hassel's class."

"Miss Hassel? Who is she? Is she in our school?"

"I don't know," said the other little girl uncertainly. "I go to P. S. 77—"

"Oh, Miss Burton," screamed Frances. "Here's a girl who isn't in our class! She got lost from her own class!"

"Really?" Miss Burton seemed rather pleased at the idea that some other teacher had been so careless as to lose one of her charges. "What's your name, child?"

"I'm Carolyn."

"Carolyn what?"

"Carolyn Manto. Please, Miss Burton, I had to go to the bathroom, and then when I came out—"

"Yes, yes, I know."

A shrill cry came from another section of her class. "Oh, Miss Burton, here's another one who's lost!"

The other little girl was pushed forward. "Now, who are *you*?" Miss Burton asked.

"I'm Doris Palit. I went with Carolyn to the bathroom—"

Miss Burton made a sound of annoyance. Imagine losing *two* children and not noticing it right away. The other teacher must be frantic by now, and serve her right for being so careless.

"All right, you may stay with us until we find a policeman—" She interrupted herself. "Frances, what are you giggling at now?"

"It's Carolyn. She's making faces just like you!"

"Really, Carolyn, that isn't at all nice!"

Carolyn's face altered itself in a hurry, so as to lose any resemblance to Miss Burton's. "I'm sorry, Miss Burton, I didn't really mean to do anything wrong."

"Well, I'd like to know how you were brought up, if you don't know that it's wrong to mimic people to their faces. A big girl like you, too. How old are you, Carolyn?"

Carolyn shrank, she hoped imperceptibly, by an inch. "I'm two—"

An outburst of shrill laughter. "She's two years old, she's two years old!"

"I was going to say, I'm twelve. Almost, anyway."

"Eleven years old," said Miss

Burton. "Old enough to know better."

"I'm sorry, Miss Burton. And honest, Miss Burton, I didn't mean anything, but I'm studying to be an actress, and I imitate people, like the actors you see on television—"

"Oh, Miss Burton, please don't make her go home with a policeman. If she's going to be an actress, I'll bet she'd love to see Curt George!"

"Well, after the way she's behaved, I don't know whether I should let her. I really don't."

"Please, Miss Burton, it was an accident. I won't do it again."

"All right, if you're good, and cause no trouble. But we still have plenty of time before seeing Mr. George. It's only two now, and we're not supposed to go to the lecture hall until four."

"Miss Burton," called Barbara Willman, "do you think he'd give us his autograph?"

"Now, children, I've warned you about that. You mustn't annoy him. Mr. George is a famous movie actor, and his time is valuable. It's very kind of him to offer to speak to us, especially when so many grown-up people are anxious to hear him, but we mustn't take advantage of his kindness."

"But he likes children, Miss Burton! My big sister read in a

movie magazine where it said he's just crazy about them."

"I know, but—he's not in good health, children. They say he got jungle fever in Africa, where he was shooting all those lions, and rhinoceroses, and elephants for his new picture. That's why you mustn't bother him too much."

"But he looks so big and strong, Miss Burton. It wouldn't hurt him to sign an autograph!"

"Oh, yes, it would," asserted one little girl. "He shakes. When he has an attack of fever, his hand shakes."

"Yes, Africa is a dangerous continent, and one never knows how the dangers will strike one," said Miss Burton complacently. "So we must all remember how bravely Mr. George is fighting his misfortune, and do our best not to tire him out."

In the bright light that flooded the afternoon breakfast table, Curt George's handsome, manly face wore an expression of distress. He groaned dismally, and muttered, "What a head I've got, what a head. How do you expect me to face that gang of kids without a drink to pick me up?"

"You've had your drink," said Carol. She was slim, attractive, and efficient. At the moment she was being more efficient than attractive, and she could sense his

resentment. "That's all you get. Now, lay off, and try to be reasonably sober, for a change."

"But those kids! They'll squeal and giggle—"

"They're about the only audience in the world that won't spot you as a drunk. God knows where I could find any one else who'd believe that your hand shakes because of fever."

"I know that you're looking out for my best interests, Carol. But one more drink wouldn't hurt me."

She said wearily, but firmly, "I don't argue with drunks, Curt. I just go ahead and protect them from themselves. No drinks."

"Afterwards?"

"I can't watch you the way a mother watches a child."

The contemptuous reply sent his mind off on a new tack. "You could if we were married."

"I've never believed in marrying weak characters to reform them."

"But if I proved to you that I could change—"

"Prove it first, and I'll consider your proposal afterwards."

"You certainly are a cold-blooded creature, Carol. But I suppose that in your profession you have to be."

"Cold, suspicious, nasty—and reliable. It's inevitable when I must deal with such warm-heart-

ed, trusting, and unreliable clients."

He watched her move about the room, clearing away the dishes from his meager breakfast. "What are you humming, Carol?"

"Was I humming?"

"I thought I recognized it—*All of Me, Why Not Take All of Me?* That's it! Your subconscious gives you away. You really want to marry me!"

"A mistake," she said coolly. "My subconscious doesn't know what it's talking about. All I want of you is the usual ten per cent."

"Can't you forget for a moment that you're an agent, and remember that you're a woman, too?"

"No. Not unless you forget that you're a drunk, and remember that you're a man. Not unless you make me forget that you drank your way through Africa—"

"Because you weren't there with me!"

"—with hardly enough energy to let them dress you in that hunter's outfit and photograph you as if you were shooting lions."

"You're so unforgiving, Carol. You don't have much use for me, do you—consciously, that is?"

"Frankly, Curt, no. I don't

have much use for useless people."

"I'm not entirely useless. I earn you that ten per cent—"

"I'd gladly forego that to see you sober."

"But it's your contempt for me that drives me to drink. And when I think of having to face those dear little kiddies with nothing inside me—"

"There should be happiness inside you at the thought of your doing a good deed. Not a drop, George, not a drop."

The two little girls drew apart from the others and began to whisper into each other's ears. The whispers were punctuated by giggles which made the entire childish conversation seem quite normal. But Palit was in no laughing mood. He said, in his own language, "You're getting careless, Manto. You had no business imitating her expression."

"I'm sorry, Palit, but it was so suggestive. And I'm a very suggestible person."

"So am I. But I control myself."

"Still, if the temptation were great enough, I don't think you'd be able to resist either."

"The issues are important enough to make me resist."

"Still, I thought I saw your

own face taking on a bit of her expression too."

"You are imagining things, Manto. Another thing, that mistake in starting to say you were two hundred years old—"

"They would have thought it a joke. And I think I got out of that rather neatly."

"You like to skate on thin ice, don't you, Manto? Just as you did when you changed your height. You had no business shrinking right out in public like that."

"I did it skillfully. Not a single person noticed."

"I noticed."

"Don't quibble."

"I don't intend to. Some of these children have very sharp eyes. You'd be surprised at what they see."

Manto said tolerantly, "You're getting jittery, Palit. We've been away from home too long."

"I am not jittery in the least. But I believe in taking due care."

"What could possibly happen to us? If we were to announce to the children and the teacher, and to every one in this zoo, for that matter, exactly who and what we were, they wouldn't believe us. And even if they did, they wouldn't be able to act rapidly enough to harm us."

"You never can tell about such things. Wise—people—simply

don't take unnecessary chances."

"I'll grant that you're my superior in such wisdom."

"You needn't be sarcastic, Manto, I *know* I'm superior. I realize what a godsend this planet is—you don't. It has the right gravity, a suitable atmosphere, the proper chemical composition—everything."

"Including a population that will be helpless before us."

"And you would take chances of losing all this."

"Don't be silly, Palit. What chances am I taking?"

"The chance of being discovered. Here we stumble on this place quite by accident. No one at home knows about it, no one so much as suspects that it exists. We must get back and report—and you do all sorts of silly things which may reveal what we are, and lead these people to suspect their danger."

This time, Manto's giggle was no longer mere camouflage, but expressed to a certain degree how he felt. "They cannot possibly suspect. We have been all over the world, we have taken many forms and adapted ourselves to many customs, and no one has suspected. And even if danger really threatened, it would be easy to escape. I could take the form of the school

teacher herself, of a policeman, of any one in authority. However, at present there is not the slightest shadow of danger. So, Palit, you had better stop being fearful."

Palit said firmly, "Be careful, and I won't be fearful. That's all there is to it."

"I'll be careful. After all, I shouldn't want us to lose these children. They're so exactly the kind we need. Look how inquiring they are, how unafraid, how quick to adapt to any circumstances—"

Miss Burton's voice said, "Good gracious, children, what language *are* you using? Greek?"

They had been speaking too loud, they had been overheard. Palit and Manto stared at each other, and giggled coyly. Then, after a second to think, Palit said, "Onay, Issmay Urtonbay!"

"What?"

Frances shrilled triumphantly, "It isn't Greek, Miss Burton, it's Latin—Pig-Latin. She said, 'No, Miss Burton.'"

"Good heavens, what is Pig-Latin?"

"It's a kind of way of talking where you talk kind of backwards. Like, you don't say, *Me*, you say, *Emay*."

"You don't say, *Yes*, you say *Esyay*," added another little girl.

"You don't say, *You*, you say,

Ouyay. You don't say—"All right, all right, I get the idea."

"You don't say—"

"That'll do," said Miss Burton firmly. "Now, let's get along to the lion house. And please, children, do not make faces at the lions. How would you like to be in a cage and have people make faces at you? Always remember to be considerate to others."

"Even lions, Miss Burton?"

"Even lions."

"But Mr. George shot lots of lions. Was he considerate of them too?"

"There is no time for silly questions," said Miss Burton, with the same firmness. "Come along."

They all trouped after her, Palit and Manto bringing up the rear. Manto giggled, and whispered with amusement, "That Pig-Latin business was quick thinking, Palit. But in fact, quite unnecessary. The things that you do to avoid being suspected!"

"It never hurts to take precautions. And I think that now it is time to leave."

"No, not yet. You are always anxious to learn details before reporting. Why not learn a few more details now?"

"Because they are not necessary. We already have a good

understanding of human customs and psychology."

"But not of the psychology of children. And they, if you remember, are the ones who will have to adapt. We shall be asked about them. It would be nice if we could report that they are fit for all-purpose service, on a wide range of planets. Let us stay awhile longer."

"All right," conceded Palit, grudgingly.

So they stayed, and out of some twigs and leaves they shaped the necessary coins with which to buy peanuts, and popcorn, and ice cream, and other delicacies favored by the young. Manto wanted to win easy popularity by treating a few of the other children, but Palit put his girlish foot down. No use arousing suspicion. Even as it was—

"Gee, your father gives you an awful lot of spending money," said Frances enviously. "Is he rich?"

"We get as much as we want," replied Manto carelessly.

"Gosh, I wish I did."

Miss Burton collected her brood. "Come together, children, I have something to say to you. Soon it will be time to go in and hear Mr. George. Now, if Mr. George is so kind as to entertain us, don't you think that it's only

proper for us to entertain him?"

"We could put on our class play!" yelled Barbara.

"Barbara's a fine one to talk," said Frances. "She doesn't even remember her lines."

"No, children, we mustn't do anything we can't do well. That wouldn't make a good impression. And besides, there is no time for a play. Perhaps Barbara will sing—"

"I can sing a 'Thank You' song," interrupted Frances.

"That would be nice."

"I can recite," added another little girl.

"Fine. How about you, Carolyn? You and your little friend, Doris. Can she act too?"

Carolyn giggled. "Oh, yes, she can act very well. I can act like people. She can act like animals." The laughing, girlish eyes evaded a dirty look from the little friend. "She can act like *any* kind of animal."

"She's certainly a talented child. But she seems so shy!"

"Oh, no," said Carolyn. "She likes to be coaxed."

"She shouldn't be like that. Perhaps, Carolyn, you and Doris can do something together. And perhaps, too, Mr. George will be pleased to see that your teacher also has talent."

"You, Miss Burton?"

Miss Burton coughed modestly.

"Yes, children, I never told you, but I was once ambitious to be an actress too. I studied dramatics, and really, I was quite good at it. I was told that if I persevered I might actually be famous. Just think, your teacher might actually have been a famous actress! However, in my day, there were many coarse people on the stage, and the life of the theater was not attractive—but perhaps we'd better not speak of that. At any rate, I know the principles of the dramatic art very well."

"God knows what I'll have to go through," said Curt. "And I don't see how I can take it sober."

"I don't see how they can take you drunk," replied Carol.

"Why go through with it at all? Why not call the whole thing quits?"

"Because people are depending on you. You always want to call quits whenever you run into something you don't like. You may as well call quits to your contract if that's the way you feel."

"And to your ten per cent, darling."

"You think I'd mind that. I work for my ten per cent, Curt, sweetheart. I work too damn hard for that ten per cent."

"You can marry me and take it easy. Honest, Carol, if you treated me better, if you showed me I meant something to you, I'd give up drinking."

She made a face. "Don't talk nonsense. Take your outfit, and let's get ready to go. Unless you want to change here, and walk around dressed as a lion hunter."

"Why not? I've walked around dressed as worse. A drunk."

"Drunks don't attract attention. They're too ordinary."

"But a drunken lion hunter—that's something special." He went into the next room and began to change. "Carol," he called. "Do you like me?"

"At times."

"Would you say that you liked me very much?"

"When you're sober. Rarely."

"Love me?"

"Once in a blue moon."

"What would I have to do for you to want to marry me?"

"Amount to something."

"I like that. Don't you think I amount to something now? Women swoon at the sight of my face on the screen, and come to life again at the sound of my voice."

"The women who swoon at you will swoon at anybody. Besides, I don't consider that making nit-wits swoon is a useful occupation for a real man."

"How can I be useful, Carol? No one ever taught me how."

"Some people manage without being taught."

"I suppose I could think how if I had a drink inside me."

"Then you'll have to do without thinking."

He came into the room again, powerful, manly, determined-looking. There was an expression in his eye which indicated courage without end, a courage that would enable him to brave the wrath of man, beast, or devil.

"How do I look?"

"Your noble self, of course. A poor woman's edition of Rudolph Valentino."

"I feel terrified. I don't know how I'm going to face those kids. If they were boys it wouldn't be so bad, but a bunch of little girls!"

"They'll grow up to be your fans, if you're still alive five years from now. Meanwhile, into each life some rain must fall."

"You would talk of water, when you know how I feel."

"Sorry. Come on, let's go."

The lecture hall resounded with giggles. And beneath the giggles was a steady undercurrent of whispers, of girlish confidences exchanged, of girlish hopes that would now be fulfilled. Miss Burton's class was

not the only one which had come to hear the famous actor-hunter describe his brave exploits. There were at least five others like it, and by some mistake, a class of boys, who also whispered to each other, in manly superiority, and pretended to find amusement in the presence of so many of the fairer sex.

In this atmosphere of giggles and whispers, Manto and Palit could exchange confidences without being noticed. Palit said savagely, "Why did you tell her that I could act too?"

"Why, because it's the truth. You're a very good animal performer. You make a wonderful dragon, for instance. Go on, Palit, show her what a fine dragon you can—"

"Stop it, you fool, before you cause trouble!"

"Very well, Palit. Did I tempt you?"

"Did you tempt me! You and your sense of humor!"

"You and your lack of it! But let's not argue now, Palit. Here, I think, comes the lion-hunter. Let's scream, and be as properly excited as every one else is."

My God, he thought, how can they keep their voices so high so long? My eardrums hurt already. How do they stand a lifetime of it? Even an hour?

"Go ahead," whispered Carol. "You've seen the script—go into your act. Tell them what a hero you are. You have the odds in your favor to start with."

"My lovely looks," he said, with some bitterness.

"Lovely is the word for you. But forget that. If you're good—you'll get a drink afterwards."

"Will it be one of those occasions when you love me?"

"If the moon turns blue."

He strode to the front of the platform, an elephant gun swinging easily at his side, an easy grin radiating from his confident, rugged face. The cheers rose to a shrill fortissimo, but the grin did not vanish. What a great actor he really was, he told himself, to be able to pretend he liked this.

An assistant curator of some collection in the zoo, a flustered old woman, was introducing him. There were a few laudatory references to his great talents as an actor, and he managed to look properly modest as he listened. The remarks about his knowledge of wild and ferocious beasts were a little harder to take, but he took them. Then the old woman stepped back, and he was facing his fate alone.

"Children," he began. A pause, a bashful grin. "Perhaps I should rather say, my friends.

I'm not one to think of you as children. Some people think of me as a child myself, because I like to hunt, and have adventures. They think that such things are childish. But if they are, I'm glad to be a child. I'm glad to be one of you. Yes, I think I *will* call you my friends.

"Perhaps you regard me, my friends, as a very lucky person. But when I recall some of the narrow escapes I have had, I don't agree with you. I remember once, when we were on the trail of a rogue elephant—"

He told the story of the rogue elephant, modestly granting a co-hero's role to his guide. Then another story illustrating the strange ways of lions. The elephant gun figured in still another tale, this time of a vicious rhinoceros. His audience was quiet now, breathless with interest, and he welcomed the respite from shrillness he had won for his ears.

"And now, my friends, it is time to say farewell." He actually looked sad and regretful. "But it is my hope that I shall be able to see you again—"

Screams of exultation, shrill as ever, small hands beating enthusiastically to indicate joy. Thank God that's over with, he thought. Now for those drinks—and he didn't mean drink,

singular. Talk of being useful, he'd certainly been useful now. He'd made those kids happy. What more can any reasonable person want?

But it wasn't over with. Another old lady had stepped up on the platform.

"Mr. George," she said, in a strangely affected voice, like that of the first dramatic teacher he had ever had, the one who had almost ruined his acting career. "Mr. George, I can't tell you how happy you have made us all, young and old. Hasn't Mr. George made us happy, children?"

"Yes, Miss Burton!" came the shrill scream.

"And we feel that it would be no more than fair to repay you in some small measure for the pleasure you have given us. First, a 'Thank You' song by Frances Heller—"

He hadn't expected this, and he repressed a groan. Mercifully, the first song was short. He grinned the thanks he didn't feel. To think that he could take this, while sober as a judge! What strength of character, what will-power!

Next, Miss Burton introduced another kid, who recited. And then, Miss Burton stood upright and recited herself.

That was the worst of all. He winced once, then bore up. You can get used even to torture, he told himself. An adult making a fool of herself is always more painful than a kid. And that affected elocutionist's voice gave him the horrors. But he thanked her too. His good deed for the day. Maybe Carol would have him now, he thought.

A voice shrilled, "Miss Burton?"

"Yes, dear?"

"Aren't you going to call on Carolyn to act?"

"Oh, yes, I was forgetting. Come up here, Carolyn, come up, Doris. Carolyn and Doris, Mr. George, are studying how to act. They act people *and* animals. Who knows? Some day they, too, may be in the movies, just as you are, Mr. George. Wouldn't that be nice, children?"

What the devil do you do in a case like that? You grin, of course—but what do you say, without handing over your soul to the devil? Agree how nice it would be to have those sly little brats with faces magnified on every screen all over the country? Like hell you do.

"Now, what are we going to act, children?"

"Please, Miss Burton," said Doris. "I don't know how to act. I can't even imitate a puppy.

Really I can't, Miss Burton—"

"Come, come, mustn't be shy. Your friend says that you act very nicely indeed. Can't want to go on the stage and still be shy. Now, do you know any movie scenes? Shirley Temple used to be a good little actress, I remember. Can you do any scenes that she does?"

The silence was getting to be embarrassing. And Carol said he didn't amount to anything, he never did anything useful. Why, if thanks to his being here this afternoon, those kids lost the ambition to go on the stage, the whole human race would have cause to be grateful to him. To him, and to Miss Burton. She'd kill ambition in anybody.

Miss Burton had an idea. "I know what to do, children. If you can act animals—Mr. George has shown you what the hunter does; you show him what the lions do. Yes, Carolyn and Doris, you're going to be lions. You are waiting in your lairs, ready to pounce on the unwary hunter. Crouch now, behind that chair. Closer and closer he comes—you act it out, Mr. George, please, that's the way—ever closer, and now your muscles tighten for the spring, and you open your great, wide, red mouths in a great, great big roar—"

A deep and tremendous roar, as of thunder, crashed through the auditorium. A roar—and then, from the audience, an outburst of terrified screaming such as he had never heard. The bristles rose at the back of his neck, and his heart froze.

Facing him across the platform were two lions, tensed as if to leap. Where they had come from he didn't know, but there they were, eyes glaring, manes ruffled, more terrifying than any he had seen in Africa. There they were, with the threat of death and destruction in their fierce eyes, and here he was, terror and helplessness on his handsome, manly, and bloodless face, heart unfrozen now and pounding fiercely, knees melting, hands—

Hands clutching an elephant gun. The thought was like a director's command. With calm effi-

ciency, with all the precision of an actor playing a scene rehearsed a thousand times, the gun leaped to his shoulder, and now its own roar thundered out a challenge to the roaring of the wild beasts, shouted at them in its own accents of barking thunder.

The shrill screaming continued long after the echoes of the gun's speech had died away. Across the platform from him were two great bodies, the bodies of lions, and yet curiously unlike the beasts in some ways, now that they were dead and dissolving as if corroded by some invisible acid.

Carol's hand was on his arm, Carol's thin and breathless voice shook as she said, "A drink—all the drinks you want."

"One will do. And you."

"And me. I guess you're kind of—kind of useful after all."

COMING EVENTS

Next issue H. Beam Piper brings ULLR UPRISING to a smashing conclusion, mixed up with a female novelist whose research was as good in some ways as her books were bad, geeks from Keegark turning Terran nuclear bombs against the Terrans, and the like. It's only honest to admit that he's only begun to warm up to his subject so far! And there'll be THE WORSHIPPERS, by Damon Knight—held over by the length of the serial this time—about a man who finally realized that his true destiny was too much for mortal man. Now might be a good time to suggest you shouldn't miss it—and to refer you to page 160, to be sure!

SOLUTION UNKNOWN

BY MILTON A. ROTHMAN

What's more important—getting some kind of an answer, or learning how to ask the right question? Magic always had an answer for everything. Science, apparently, is still worrying about the questions to be asked.

Once upon a time there was a science fiction writer named Joe, and he was lazy. Naturally, he had to be lazy. He couldn't have been what he was otherwise. All writers are too lazy to work honestly for a living, as anyone knows! But the writers who went into science fiction had to be the laziest. If they hadn't been interested in science, they would have chosen some other field; and with that much interest, if they hadn't been lazy, they'd have stuck to their science courses, instead of quitting school to make an easy living writing a mere half million words a year!

Oh, Joe read books still, looking for scientific ideas he could crib. But he only did that because he was too lazy to sit down

at the typewriter and use some of the other ideas he'd already cribbed.

But there came a day when he found the answer to all his problems—the reason why he didn't even have to have ideas. He made the discovery that every science-fiction enthusiast has made lately. He discovered that *fact* has caught up with *fiction*! All the bright ideas had been turned into reality, and there wasn't anything new to be done in the field.

After all, what had science fiction predicted? Why, atomics, television, radar, rockets to the planets, robots—and such things. And those that hadn't been fully realized were just around the corner now. Of course, there was time travel and immortality—

but those were just fantasies, anyhow.

So he might as well go ahead and keep writing about the *psi* factor; that didn't take much scientific thought; and anyhow, since he'd used up all his plots on that, he could take a vacation!

Joe folded up his typewriter and went over to see his old friend, Doc, who'd gone ahead and spent years learning the things about science which fiction had already predicted. Over a couple of cool beers, Joe revealed his discovery. "So—what's the use?" he finished. "With you boys having all the answers—"

"Which we got from you writers, of course," Doc said slyly. "Don't forget, I was at the Convention. Oh, well. Once upon a time there was a caveman who got tired of drawing pictures on the walls. What magic was left to draw? They had fire, they had the bow and arrow, and they had polished flint. Somebody had even invented clothes, so that the women could keep the men amused by sitting around guessing about *what if!* There wasn't anything left to discover since invention had caught up with imagination. Our caveman figured he might as well go out of business. He was lazy, too, Joe!"

Joe shook his head. "But it isn't the same. We're living in a world that's advanced to the point where it can do just about anything. Why look at your place here—electric razors, television, self-defrosting refrigerator . . ."

"And that's just what fools you," Doc told him. "We've turned out to be clever at engineering. We can make almost any kind of a gadget. But when you get right down to it, that isn't saying much for our science. When we build things, we really don't know how they work, still. Oh, we've got fancy explanations of them—high-sounding phrases and involved mathematics. But eventually every one of those explanations works down to a level where we don't know what's going on. Take that television set? How does the cathode ray tube work?"

"Simple enough. Even I know that. You take a heated filament which gives off electrons, and you accelerate them by means of an electric field—"

"Hold on!" Doc cut off the flood of words Joe had picked up from explaining things he didn't understand to readers who knew less. "Let's get down to fundamentals. What's an electron? And how does an electric field accelerate one?"

He watched Joe struggle with

that, knowing that there was no way to say what an electron was made of, because there simply weren't words in the dictionary to describe it. Then he grinned. "Joe, what's the first thing they teach you about writing—style, that is?"

"Why—why, to get rid of the adjectives, I guess, and stick to strong nouns and verbs. But that's elementary stuff!"

"Sure—and so is science, today. And the funny thing is, that's just what *we* are beginning to learn—science has finally come to the conclusion that the only thing we can do is to be satisfied by describing what the electron *does*. They tell us now that there is no meaning in asking what the electron *is*. No adjectives, just what it does! In our case, we mean we're limited to actions and properties that can be measured."

He was wound up now, and went on. They could state the mass of an electron, and what its charge was, as well as its rough size. They could describe what it did in an electric field. For example, they measured the charge on an electron by saying that if you took two electrons and put them a certain distance apart, that they would be repelled by a certain force, and that could be measured—hence,

they knew how much charge was on the electron.

But it didn't say what the charge *was*. That, according to modern science, was something they couldn't ask. Questions could only be asked which could be answered by making measurements. All they could say was that the electric charge was some property of an electron which made it repel another electron. There were no words which allowed them to say that the electric charge is composed of some sort of cosmic soup or nuclear protoplasm.

How one electron repels another was another question. They could say that one electron sets up an electric field in the surrounding space, and the second electron—swimming around in this field—is caused to move away from the first one.

"But what is an electric field?" Joe asked. "You just asked me that? I'll bite, what is it?"

Doc shrugged ruefully. "We are not allowed to ask what an electric field is, Joe—except to bother people like you! We can say that an electric field is a region of space where certain things happen which we can measure. And that's all. Here we are with a disembodied electron

floating around in a region of space which somehow causes the electron to move in a certain direction. We don't try to explain how or why. We simply use math to *describe* the motion when in a certain region of space with certain properties we call an electric field. Period!"

"Sure, fine. And what does that get you?" Joe poured another beer, and thought it over. "It gets you a fine reputation for being cautious—but what is there to grab onto? Practically, I mean."

"It is practical. It eliminates all the metaphysics and intangible structures from the universe. If we only talk about things we can measure and describe events that take place, we don't have to invent things like the 'ether' to make up phoney explanations for the way things operate."

"It looks to me as if you boys must spend all your time just trying to figure out what questions make sense to ask, then," Joe suggested.

Doc nodded. "Right. But once we learn how to ask the right questions, we're a lot closer to finding the answers. Remember how science suddenly started expanding tremendously about fifty years ago? Much of that was because we stopped chasing our tails about *what* was an elec-

tric field and *how* charges acted on each other over a distance and began learning how to measure and describe. Oh, it looks nice to try to find *why* things happen; that seems to be the way to get deeper into the reality of things. But look at the results. Under the new philosophy, we've got down to working with the particles of the atom and up to the stars to find our answers. And we've found out something—the further we go, the less we know. For every question answered, there are a lot more popping up whose solutions lie in the future. And the really big questions still remain."

"How did we get there? How did the universe start? How did the solar system shape up the way it is? How did life begin on this planet?" Joe reeled them off while opening another beer.

"Exactly. Those questions are asked by people who don't know either science or science fiction." Doc held out his glass and frowned when Joe poured too rapidly, bringing up a heavy head. But he let it pass. "We're not sure yet what meaningful questions are to be asked, sometimes. But we ask, and we form tentative answers. We have a theory that the universe began as the explosion of a primeval

mass which eventually formed the present galaxies out of the coalescing and turbulent gases. But we don't ask what happened before the explosion. Maybe that isn't a meaningful question.

"But since the universe does appear to be expanding from a single point, it certainly acts as if it is in the process of exploding. How do we know it really is expanding? Well, the behavior of light from the distant stars makes it look that way. But suppose there was some other explanation for the way in which the light behaves? We really don't know."

He fell back, thinking and letting his words come out lazily around the smoke from his pipe. There was the opposite extreme, as opposed to the macrocosm. How were the particles arranged within an atomic nucleus, and what forces were involved in holding them together. Where did cosmic rays come from, and how were they produced? What forces in the universe could give a proton an energy of a thousand billion electron volts? What were sunspots, and what caused the tremendous flares that were seen to blaze out on the surface of the sun?

And just what *was* the nature of the forces between two bodies of matter? How could the elec-

tron here influence the motion of one over there? How could the sun exert control over the motion of the planets, millions of miles away. Maybe such electrical and gravitational forces were only myths, words which were invented to describe events. Maybe sometime they would speak of the geometry of space being altered by the presence of the sun so that the planets just naturally moved in what were normally considered curves instead of straight lines.

"Then there's life," Joe said, a bit thickly. "Old universe may be tough, but what about life? Got a plot for a story about immortality that turns into insanity... What's life, anyhow?"

Doc shook his head. "You see? A meaningless question, Joe—because you should have asked it in terms of function, and what can be measured. But that's what makes the field so tough. We've been held back in the study of living things because we're still trying to learn how to ask the right questions—the questions which will lead to answers and make sense. And that's the point I'm really making—we just don't know, yet. Fact hasn't caught up with fiction!"

It was like the lecture he'd delivered three weeks before. He

didn't have the answers. What was the difference between a living and a non-living organism? It was fairly easy in terms of the larger animals and plants—but the line began to get pretty fine when trying to decide whether a filterable virus was alive or not.

How did a plant or animal develop from the original seed or egg? The little genes inside the cell recorded it somehow, but nobody had any knowledge of how those genes passed on their instructions. What was consciousness, and how was a man aware of the universe and himself? How did the nervous system work? The electroencephalograph and the study of nervous reflex systems were nice, but nobody knew how the nerve impulses combined to form the pattern of awareness and behavior known as consciousness.

What about the mind below the level of the conscious state? There were words such as "sub-conscious" to describe certain activities, and they were useful words within limits. But they didn't tell how the mechanism worked. What happened in the nervous system when a memory was recorded; why could a thought be remembered one day and forgotten the next, then remembered years later; why can forgotten memories have tre-

mendous effects upon current actions? Psychology had plenty of questions, and many which might have to be reshaped to have any meaning.

Even medicine had its questions, though the new drugs had made them seem less important in the press. What caused the common cold? Why couldn't men regenerate arms and legs like lower animals? What caused cancer—or a dozen other maladies—and how was it cured? What about the mental diseases?

Could behavior be inherited? Was it possible to say that a person inherited a certain type of personality, or that a man was born with criminal instincts? Were there really such things as instincts? Some people tried to claim that behavior was entirely learned, and that nothing in the form of ideas of how to behave came from the genes in the egg cell. Yet spiders spun very complicated webs without being taught; how did a certain type of spider know what kind of web his type of spider was supposed to spin? It was one of the big riddles of nature.

Doc turned toward Joe again. "We don't know anything, yet," he finished. "We're in the kindergarten of science. All over the world, men are working to find

the answers—even to find how to ask the questions. Each worker helps us get a bit closer to the answer. Some questions are nearly solved—others will require a very long time before we can even know where to attack the problem.

“But given enough time, most of the questions *will* be answered. Look at how little time we’ve had up to now, and then consider the thousands of years ahead of us. You can’t say we’ll never find the answers to these problems. All you can say is that for a long, long time, there’ll be more unsolved problems than solved ones. The frontier of the unknown always advances faster than the extent of knowledge.”

He relit his pipe, and studied the pleasant night around him. “It’s going to be a richer world, Joe—because we’ve found that even the most apparently useless piece of knowledge can turn into

a gold mine, as far as human life is concerned. And if you’ll dig into that unknown frontier, you can still build as many utopias as you want. Science won’t catch up with fiction—not unless fiction gets too lazy to use what science does know, and *think!*”

Joe nodded solemnly, and fell forward off his chair. Doc saw that he’d managed to get drunk off the beer.

Well, maybe it was just as well. With a hangover tomorrow, he’d have a perfect excuse for not writing. And by the next day, he’d be mouthing the same old cliché about fact catching up with fiction. That was one piece of fiction no amount of facts would put down, apparently!

“What the deuce makes men like that, anyhow?” Doc asked the air, as he began to try to rouse Joe. He suspected that would be one of the last questions to be solved.

STRAIGHT, PLACE AND SHOW

Nobody agreed on the September line-up, except about MOON-BLIND—with the following odd results as to best-liked stories:

1. MOON-BLIND by van Lhin..... 1.21
2. MATTER OF FAITH by Sherman..... 3.36
3. THE FENCE by Simak..... 3.58
4. REVISITOR by Thomas..... 4.61
5. OFFICIAL RECORD by Pratt..... 5.00

And to help make this more accurate, we’d appreciate it if you’d list stories in order somewhere in your letters. It helps, and we’d like to know just what you liked!

BOOK REVIEWS:

SCIENCE: Fact and Fiction

by

GEORGE O. SMITH

Every now and then I wonder if it is not about time to look up a new name for our favorite type of reading matter. This question strikes me every time I get a couple of brand new novels and a couple of the old standbys in the same batch. There is quite a difference in the mode of attack, and most of the change has been for the good.

Some of us old timers will recall the days when we tried to claim that science fiction was a sugar coating for the education. Some of the magazines even went so far as to claim their stories were all based upon scientific fact, ignoring the common sense angle completely. After all, writers write and inventors invent, and if someone could build a matter transmitter or a time machine from the bafflegab in one of the earlier stories the author would have been too busy making a mint of dough out of his invention to bother with flogging a typewriter for a couple of cents per word and so the tale would not have been written in the first place.

Remember Kieth Winton, in Fredric Brown's *What Mad Universe?* who found a magazine called "Surprising Stories" that was filled with straight adventure tales, because space travel and modern science had brought home the facts of the far planets and forced the writers to write about people, places, and events that actually existed.

Well, we haven't been there yet, but we are less inclined to make our gadget and our bizzare description of the far planets more important than the people. We have a nice, new form of attack. We have discovered people. Our Hero no longer prefers his laboratory to his favorite blonde. He does not kiss his magnetron instead of his girl.

I am glad to see today's science fiction is no longer trying to purvey a lot of balderdash as the latest declassified dope right out of Oak Ridge, White Sands, or N. R. L. Let the big boys go ahead quietly and design us a nice, bright, new pushbutton world which we can populate with human beings who are as pleasantly nasty or loveable as the case may be.

I'm all for it. It makes for better reading material.

SANDS OF MARS, by Arthur C. Clarke. Gnome Press, \$2.75. • This is an example of what I was talking about above. This is a very smooth tale about a writer who goes to Mars to do a news reporting job and

finally stays because he has been bitten with the pioneer bug. There is more of the Sinclair Lewis type of character study in this than we have been used to in science fiction, and a great deal less of the slapdash action.

The author, of course, is the same Clarke of the *Exploration of Space*, and he should know whereof he speaks regarding planetary colonization. The plot and the whole thing has been carefully thought out and well written. If any objection can be voiced, I object to the process whereby Clarke succeeds in solving the problem of supplying enough air for the planet. Just a little too close to the Divine Intervention, known in lit'r'y circles as "Legislating your hero out of trouble."

TAKEOFF, by Cyril M. Kornbluth. Doubleday, \$2.75. • Cyril K. being an old hand at plot complications, takes a different tack. His *Takeoff* is as plot involved as a bowline tied on a bight.

A Dr. Novak is hired as a ceramics specialist for a spacecraft project that looks as though it had no visible means of support. This slightly shady appearance is complicated by Dr. Novak's discovery that some of the boxes of material have U. S. Government stamps on them, and so forth. About this time Dr. Novak gets involved with women, political intrigue, and financial maneuverings and he stays involved until the first spacecraft takes off. The highly complicated plot comes unglued with one of the neatest little twists that I wouldn't give away on a bet. Kornbluth succeeded in tying up all the loose ends, too, which is no small feat with any razzle-dazzle plot.

THE CRYSTAL HORDE, by John Taine. Fantasy Press, \$3.00 • This is one of the old-timers. It once appeared in one of the *Amazing Stories* *Quarterlies* under the title *White Lily*. Unfortunately, what was once a good story about an utterly alien life form of crystalline structure has been bugged up by about 25,000 words of ideological warfare between the Chinese communists and the Nationals. Since this shooting match has nothing to do with our crystalline life form, I can't imagine why it was stuffed in. If you buy it, rip out the middle third. You won't miss it all.

Damn' shame, I say.

ROBOTS HAVE NO TAILS, by Henry Kutt—er, I mean—Lewis Padgett. Gnome Press, \$2.75. • Any resemblance between the title of this collection and the story material within are as remote as Gallagher is from his inventions. This is the Last Of The Mad Scientists, Gallhager himself, who invents things under the alfluence of incohol and then can't remember what they're to be used for. Frankly, I did not finish the book but this is not because I didn't like it. Gallagher's liquor organ done me in and I got drunk by induction. But I'll finish it yet. So help me. And I'll still like it.

THE BEST SCIENCE FICTION STORIES—1952. Edited by Everett F. Bleiler & T. E. Dikty. Frederick Fell, \$2.95. • Aside from the comment that 1952 was not over by the time this anthology appeared, I have no complaints. Messrs Bleiler & Dikty may just be dating their anthologies like the automobile industry dates their models. In these days of Lord knows how many magazines available, the anthology seems to have come into its own. I'll let folks like Bleiler & Dikty edit the editors selections, since I have not time to read every magazine.

For the non-fiction section, which is one of the possible reasons why science fiction is beginning to focus its attention on people rather than the gadgets, we have a compilation of articles by men who know what space travel is all about from the technical aspect. As I said above, we have retreated a bit and it's a good thing. There is hardly any sense in writing about the design of our spacecraft when there are men who have the spacecraft all drawn out and in blueprints.

ACROSS THE SPACE FRONTIER, a Symposium. Viking Press, \$3.95. • On 12 October 1951, at the Hayden Planetarium, the First Annual Symposium On Space Travel was held. A number of learned men who have been working on space travel and its problems delivered a series of lectures. It was evident that the men of this group had already found the answers to a number of questions that the average non-professional did not know existed as problems. A few weeks later, these lectures were printed in a special issue of *Collier's*, each lecture expanded and illustrated. The *Collier's* articles, expanded once more, have been put in book form.

Across The Space Frontier contains considerable material that has not appeared elsewhere. Comprehensive discussions about the orbital space station, a lengthy talk about the medical aspect of space travel, and even a talk on the legal angle of space travel, colonization, and territorial claims make this book a valuable addition to your library.

And speaking of an entirely different class of reading matter, I have a bit of a science-fiction sort of thing to report. This literature is the manufacturer's catalogs that pass my desk while I am holding forth on the other side of my schizophrenia as an engineer. I note with great interest that one of the big mass-production components outfits is making a plug-in magnetic memory cell for use with digital computers. In the early days of science fiction, Our Hero used to build them one by one with his lily white hands. Now he can order them from a catalog. Maybe this is why Our Hero has more time on his hands to seek out the more interesting things in life.

Reminds me of a girl named Helen O'Loy—

EXILE

B Y H . B . F Y F E

ILLUSTRATED BY EMSH

The Dome of Eyes made it almost impossible for Terrans to reach the world of Tepokt. For those who did land there, there was no returning—only the bitterness of respect—and justice!

The Tepoktan student, whose blue robe in George Kinton's opinion clashed with the dull purple of his scales, twiddled a three-clawed hand for attention. Kinton nodded to him from his place on the dais before the group.

"Then you can give us no precise count of the stars in the galaxy, George?"

Kinton smiled wily, and ran a wrinkled hand through his graying hair. In the clicking Tepoktan speech, his name came out more like "Chortch."

Questions like this had been put to him often during the ten

years since his rocket had hurtled through the meteorite belt and down to the surface of Tepokt, leaving him the only survivor. Barred off as they were from venturing into space, the highly civilized Tepoktans constantly displayed the curiosity of dreamers in matters related to the universe. Because of the veil of meteorites and satellite fragments whirling about their planet, their astronomers had acquired torturous skills but only scraps of real knowledge.

"As I believe I mentioned in some of my recorded lectures," Kinton answered in their lan-



guage, "the number is actually as vast as it seems to those of you peering through the Dome of Eyes. The scientists of my race have not yet encountered any beings capable of estimating the total."

He leaned back and scanned the faces of his interviewers, faces that would have been oddly humanoid were it not for the elongated snouts and pointed, sharp-toothed jaws. The average Tepoktan was slightly under Kinton's height of five-feet-ten, with a long, supple trunk. Under the robes their scholars affected, the shortness of their two bowed legs was not obvious; but the sight of the short, thick arms carried high before their chests still left Kinton with a feeling of misproportion.

He should be used to it after ten years, he thought, but even the reds or purples of the scales or the big teeth seemed more natural.

"I sympathize with your curiosity," he added. "It is a marvel that your scientists have managed to measure the distances of so many stars."

He could tell that they were pleased by his admiration, and wondered yet again why any little show of approval by him was so eagerly received. Even though he was the first stellar

visitor in their recorded history, Kinton remained conscious of the fact that in many fields he was unable to offer the Tepoktans any new ideas. In one or two ways, he believed, no Terran could teach their experts anything.

"Then will you tell us, George, more about the problems of your first space explorers?" came another question.

Before Kinton had formed his answer, the golden curtains at the rear of the austere simple chamber parted. Klaft, the Tepoktan serving the current year as Kinton's chief aide, hurried toward the dais. The twenty-odd members of the group fell silent on their polished stone benches, turning their pointed visages to follow Klaft's progress.

The aide reached Kinton and bent to hiss and cluck into the latter's ear in what he presumably considered an undertone. The Terran laboriously spelled out the message inscribed on the limp, satiny paper held before his eyes. Then he rose and took one step toward the waiting group.

"I regret I shall have to conclude this discussion," he announced. "I am informed that another ship from space has reached the surface of Tepokt. My presence is requested in case the crew are of my own planet."

Klaft excitedly skipped down to lead the way up the aisle, but Kinton hesitated. Those in the audience were scholars or officials to whom attendance at one of Kinton's limited number of personal lectures was awarded as an honor.

They would hardly learn anything from him directly that was not available in recordings made over the course of years. The Tepoktan scientists, historians, and philosophers had respectfully but eagerly gathered every crumb of information Kinton knowingly had to offer—and some he thought he had forgotten. Still . . . he sensed the disappointment at his announcement.

"I shall arrange for you to await my return here in town," Kinton said, and there were murmurs of pleasure.

Later, aboard the jet helicopter that was basically like those Kinton remembered using on Terra twenty light years away, he shook his head at Klaft's respectful protest.

"But George! It was enough that they were present when you received the news. They can talk about that the rest of their lives! You must not waste your strength on these people who come out of curiosity."

Kinton smiled at his aide's

earnest concern. Then he turned to look out the window as he recalled the shadow that underlay such remonstrances. He estimated that he was about forty-eight now, as nearly as he could tell from the somewhat longer revolutions of Tepokt. The time would come when he would age and die. Whose wishes would then prevail?

Maybe he was wrong, he thought. Maybe he shouldn't stand in the way of their biologists and surgeons. But he'd rather be buried, even if that left them with only what he could tell them about the human body.

To help himself forget the rather preoccupied manner in which some of the Tepoktan scientists occasionally eyed him, he peered down at the big dam of the hydro-electric project being completed to Kinton's design. Power from this would soon light the town built to house the staff of scientists, students, and workers assigned to the institute organized about the person of Kinton.

Now, there was an example of their willingness to repay him for whatever help he had been, he reflected. They hadn't needed that for themselves.

In some ways, compared to

those of Terra, the industries of Tepokt were underdeveloped. In the first place, the population was smaller and had different standards of luxury. In the second, a certain lack of drive resulted from the inability to break out into interplanetary space. Kinton had been inexplicably lucky to have reached the surface even in a battered hulk. The shell of meteorites was at least a hundred miles thick and constantly shifting.

"We do not know if they have always been meteorites," the Tepoktans had told Kinton, "or whether part of them come from a destroyed satellite; but our observers have proved mathematically that no direct path through them may be predicted more than a very short while in advance."

Kinton turned away from the window as he caught the glint of Tepokt's sun upon the hull of the spaceship they had also built for him. Perhaps . . . would it be fair to encourage the newcomer to attempt the barrier?

For ten years, Kinton had failed to work up any strong desire to try it. The Tepoktans called the ever-shifting lights the Dome of Eyes, after a myth in which each tiny satellite bright enough to be visible was supposed to watch over a single individual on the surface. Like

their brothers on Terra, the native astronomers could trace their science back to a form of astrology; and Kinton often told them jokingly that he felt no urge to risk a physical encounter with his own personal Eye.

The helicopter started to descend, and Kinton remembered that the city named in his message was only about twenty miles from his home. The brief twilight of Tepokt was passing by the time he set foot on the landing field, and he paused to look up.

The brighter stars visible from this part of the planet twinkled back at him, and he knew that each was being scrutinized by some amateur or professional astronomer. Before an hour had elapsed, most of them would be obscured by the tiny moonlets, some of which could already be seen. These could easily be mistaken for stars or the other five planets of the system, but in a short while the tinier ones in groups would cause a celestial haze resembling a miniature Milky Way.

Klaft, who had descended first, leaving the pilot to bring up the rear, noticed Kinton's pause.

"Glory glitters till it is known for a curse," he remarked, quoting a Tepoktan proverb often ap-

plied by the disgruntled scientists to the Dome of Eyes.

Kinton observed, however, that his aide also stared upward for a long moment. The Tepoktans loved speculating about the unsolvable. They had even founded clubs to argue whether two satellites had been destroyed or only one.

Half a dozen officials hastened up to escort the party to the vehicle awaiting Kinton. Kluft succeeded in quieting the lesser members of the delegation so that Kinton was able to learn a few facts about the new arrival. The crash had been several hundred miles away, but someone had thought of the hospital in this city which was known to have a doctor rating as an expert in human physiology. The survivor—only one occupant of the wreck, alive or dead, had been discovered—had accordingly been flown here.

With a clanging of bells, the little convoy of ground cars drew up in front of the hospital. A way was made through the chattering crowd around the entrance. Within a few minutes, Kinton found himself looking down at a pallet upon which lay another Terran.

A man! he thought, then curled a lip wily at the sudden, unexpected pang of disappoint-

ment. Well, he hadn't realized until then what he was really hoping for!

The spaceman had been cleaned up and bandaged by the native medicos. Kinton saw that his left thigh was probably broken. Other dressings suggested cracked ribs and lacerations on the head and shoulders. The man was dark-haired but pale of skin, with a jutting chin and a nose that had been flattened in some earlier mishap. The flaring set of his ears somehow emphasized an overall leanness. Even in sleep, his mouth was thin and hard.

"Thrown across the controls after his belt broke loose?" Kinton guessed.

"I bow to your wisdom, George," said the plump Tepoktan doctor who appeared to be in charge.

Kinton could not remember him, but everyone on the planet addressed the Terran by the sound they fondly thought to be his first name.

"This is Doctor Chuxolkhee," murmured Kluft.

Kinton made the accepted gesture of greeting with one hand and said, "You seem to have treated him very expertly."

Chuxolkhee ruffled the scales around his neck with pleasure.

"I have studied Terran physiology," he admitted complacently. "From your records and drawings, of course, George, for I have not yet had the good fortune to visit you."

"We must arrange a visit soon," said Kinton. "Klaft will—"

He broke off at the sound from the patient.

"A Terran!" mumbled the injured man.

He shook his head dazedly, tried to sit up, and subsided with a groan.

Why, he looked scared when he saw me, thought Kinton.

"You're all right now," he said soothingly. "It's all over and you're in good hands. I gather there were no other survivors of the crash?"

The man stared curiously. Kinton realized that his own language sputtered clumsily from his lips after ten years. He tried again.

"My name is George Kinton. I don't blame you if I'm hard to understand. You see, I've been here ten years without ever having another Terran to speak to."

The spaceman considered that for a few breaths, then seemed to relax.

"Al Birken," he introduced himself laconically. "Ten years?"

"A little over," confirmed Kin-

ton. "It's extremely unusual that anything gets through to the surface, let alone a spaceship. What happened to you?"

Birken's stare was suspicious.

"Then you ain't heard about the new colonies? Naw—you musta come here when all the planets were open."

"We had a small settlement on the second planet," Kinton told him. "You mean there are new Terran colonies?"

"Yeah. Jet-hoppers spreadin' all over the other five. None of the land-hungry poops figured a way to set down here, though, or they'd be creepin' around this planet too."

"How did you happen to do it? Run out of fuel?"

The other eyed him for a few seconds before dropping his gaze. Kinton was struck with sudden doubt. The outposts of civilization were followed by less desirable developments as a general rule—prisons, for instance. He resolved to be wary of the visitor.

"Ya might say I was explorin'," Birken replied at last. "That's why I come alone. Didn't want nobody else hurt if I didn't make it. Say, how bad am I banged up?"

Kinton realized guiltily that the man should be resting. He

had lost track of the moments he had wasted in talk while the others with him stood attentively about.

He questioned the doctor briefly and relayed the information that Birken's leg was broken but that the other injuries were not serious.

"They'll fix you up," he assured the spaceman. "They're quite good at it, even if the sight of one does make you think a little of an iguana. Rest up, now; and I'll come back again when you're feeling better."

For the next three weeks, Kinton flew back and forth from his own town nearly every day. He felt that he should not neglect the few meetings which were the only way he could repay the Tepoktans for all they did for him. On the other hand, the chance to see and talk with one of his own kind drew him like a magnet to the hospital.

The doctors operated upon Birken's leg, inserting a metal rod inside the bone by a method they had known before Kinton described it. The new arrival expected to be able to walk, with care, almost any day; although the pin would have to be removed after the bone had healed. Meanwhile, Birken seemed eager to learn all Kinton could tell him about the planet, Tepokt.

About himself, he was remarkably reticent. Kinton worried about this.

"I think we should not expect too much of this Terran," he warned Kluft uneasily. "You, too, have citizens who do not always obey your laws, who sometimes . . . that is—"

"Who are born to die under the axe, as we say," interrupted Kluft, as if to ease the concern plain on Kinton's face. "In other words, criminals. You suspect this Albirken is such a one, George?"

"It is not impossible," admitted Kinton unhappily. "He will tell me little about himself. It may be that he was caught in Tepokt's gravity while fleeing from justice."

To himself, he wished he had not told Birken about the spaceship. He didn't think the man exactly believed his explanation of why there was no use taking off in it.

Yet he continued to spend as much time as he could visiting the other man. Then, as his helicopter landed at the city airport one gray dawn, the news reached him.

"The other Terran has gone," Kluft reported, turning from the breathless messenger as Kinton followed him from the machine.

"Gone? Where did they take him?"

Klaft looked uneasy, embarrassed. Kinton repeated his question, wondering about the group of armed police on hand.

"In the night," Klaft hissed and clucked, "when none would think to watch him, they tell me . . . and quite rightly, I think—"

"Get on with it, Klaft! Please!"

"In the night, then, Albirken left the chamber in which he lay. He can walk some now, you know, because of Dr. Chuxolkhee's metal pin. He—he stole a ground car and is gone."

"He did?" Kinton had an empty feeling in the pit of his stomach. "Is it known where he went? I mean . . . he has been curious to see some of Tepokt. Perhaps—"

He stopped, his own words braying in his ears. Klaft was clicking two claws together, a sign of emphatic disagreement.

"Albirken," he said, "was soon followed by three police constables in another vehicle. They found him heading in the direction of our town."

"Why did he say he was traveling that way?" asked Kinton, thinking to himself of the spaceship! Was the man crazy?

"He did not say," answered Klaft expressionlessly. "Taking

them by surprise, he killed two of the constables and injured the third before fleeing with one of their spears."

"What?"

Kinton felt his eyes bulging with dismay.

"Yes, for they carried only the short spears of their authority, not expecting to need fire weapons."

Kinton looked from him to the messenger, noticing for the first time that the latter was an under-officer of police. He shook his head distractedly. It appeared that his suspicions concerning Birken had been only too accurate.

Why was it one like him who got through? he asked himself in silent anguish. After ten years. The Tepoktans had been thinking well of Terrans, but now—

He did not worry about his own position. That was well enough established, whether or not he could again hold up his head before the purple-scaled people who had been so generous to him.

Even if they had been aroused to a rage by the killing, Kinton told himself, he would not have been concerned about himself. He had reached a fairly ripe age for a spaceman. In fact, he had al-

ready enjoyed a decade of borrowed time.

But they were more civilized than that wanton murderer, he realized.

He straightened up, forcing back his early-morning weariness.

"We must get into the air immediately," he told Klast. "Perhaps we may see him before he reaches—"

He broke off at the word "spaceship" but he noticed a reserved expression on Klast's pointed face. His aide had probably reached a conclusion similar to his own.

They climbed back into the cabin and Klast gave brisk orders to the lean young pilot. A moment later, Kinton saw the ground outside drop away.

Only upon turning around did he realize that two armed Tepoktans had materialized in time to follow Klast inside.

One was a constable but the other he recognized for an officer of some rank. Both wore slung across their chests weapons resembling long-barreled pistols with large, oddly indented butts to fit Tepoktan claws. The constable, in addition, carried a contraption with a quadruple tube for launching tiny rockets no thicker than Kinton's thumb. These, he knew, were loaded

with an explosive worthy of respect on any planet he had heard of.

To protect him, he wondered. Or to get Birken?

The pilot headed the craft back toward Kinton's town in the brightening sky of early day. Long before the buildings of Kinton's institute came into view, they received a radio message about Birken.

"He has been seen on the road passing the dam," Klast reported soberly after having been called to the pilot's compartment. "He stopped to demand fuel from some maintenance workers, but they had been warned and fled."

"Couldn't they have seized him?" demanded Kinton, his tone sharp with the worry he endeavored to control. "He has that spear, I suppose; but he is only one and injured."

Klast hesitated.

"Well, couldn't they?"

The aide looked away, out one of the windows at some sundyed clouds ranging from pink to orange. He grimaced and clicked his showy teeth uncomfortably.

"Perhaps they thought you might be offended, George," he answered at last.

Kinton settled back in the seat especially padded to fit the contours of his Terran body, and

stared silently at the partition behind the pilot.

In other words, he thought, he was responsible for Birken, who was a Terran, one of his own kind. Maybe they really didn't want to risk hurting his feelings, but that was only part of it. They were leaving it up to him to handle what they considered his private affair.

He wondered what to do. He had no actual faith in the idea that Birken was delirious, or acting under any influence but that of a criminally self-centered nature.

"I *shouldn't* have told him about the ship!" Kinton muttered, gnawing the knuckle of his left thumb. "He's on the run, all right. Probably scared the colonial authorities will trail him right down through the Dome of Eyes. Wonder what he did?"

He caught himself and looked around to see if he had been overheard. Klaft and the police officers peered from their respective windows, in calculated withdrawal. Kinton, disturbed, tried to remember whether he had spoken in Terran or Tepoktan.

Would Birken listen if he tried reasoning, he asked himself. Maybe if he showed the man how they had proved the unpredictability of openings through the shifting Dome of Eyes—

An exclamation from the constable drew his attention. He rose, and room was made for him at the opposite window.

In the distance, beyond the town landing field they were now approaching, Kinton saw a halted ground car. Across the plain which was colored a yellowish tan by a short, grass-like growth, a lone figure plodded toward the upthrust bulk of the spaceship that had never flown.

"Never mind landing at the town!" snapped Kinton. "Go directly out to the ship!"

Klaft relayed the command to the pilot. The helicopter swept in a descending curve across the plain toward the gleaming hull.

As they passed the man below, Birken looked up. He continued to limp along at a brisk pace with the aid of what looked like a short spear.

"Go down!" Kinton ordered.

The pilot landed about a hundred yards from the spaceship. By the time his passengers had alighted, however, Birken had drawn level with them, about fifty feet away.

"Birken!" shouted Kinton. "Where do you think you're going?"

Seeing that no one ran after him, Birken slowed his pace, but kept walking toward the ship.

He watched them over his shoulder.

"Sorry, Kinton," he shouted with no noticeable tone of regret. "I figure I better travel on for my health."

"It's not so damn healthy up there!" called Kinton. "I told you how there's no clear path—"

"Yeah, yeah, you told me. That don't mean I gotta believe it."

"Wait! Don't you think they tried sending unmanned rockets up? Every one was struck and exploded."

Birken showed no more change of expression than if the other had commented on the weather.

Kinton had stepped forward six or eight paces, irritated despite his anxiety at the way Birken persisted in drifting before him.

Kinton couldn't just grab him—bad leg or not, he could probably break the older man in two.

He glanced back at the Tepoktans beside the helicopter, Klaft, the pilot, the officer, the constable with the rocket weapon.

They stood quietly, looking back at him.

The call for help that had risen to his lips died there.

"Not *their* party," he muttered. He turned again to Birken, who still retreated toward the ship. "But he'll only get himself killed *and* destroy the ship! Or

if some miracle gets him through, that's worse! He's nothing to turn loose on a civilized colony again."

A twinge of shame tugged down the corners of his mouth as he realized that keeping Birken here would also expose a highly cultured people to an unscrupulous criminal who had already committed murder the very first time he had been crossed.

"Birken!" he shouted. "For the last time! Do you want me to send them to drag you back here?"

Birken stopped at that. He regarded the motionless Tepoktans with a derisive sneer.

"They don't look too eager to me," he taunted.

Kinton growled a Tepoktan expression the meaning of which he had deduced after hearing it used by the dam workers.

He whirled to run toward the helicopter. Hardly had he taken two steps, however, when he saw startled changes in the carefully blank looks of his escort. The constable half raised his heavy weapon, and Klaft sprang forward with a hissing cry.

By the time Kinton's aging muscles obeyed his impulse to sidestep, the spear had already hurtled past. It had missed him by an error of over six feet.

He felt his face flushing with sudden anger. Birken was running as best he could toward the spaceship, and had covered nearly half the distance.

Kinton ran at the Tepoktans, brushing aside the concerned Klast. He snatched the heavy weapon from the surprised constable.

He turned and raised it to his chest. Because of the shortness of Tepoktan arms, the launcher was constructed so that the butt rested against the chest with the sighting loops before the eyes. The little rocket tubes were above head height, to prevent the handler's catching the blast.

The circles of the sights weaved and danced about the running figure. Kinton realized to his surprise that the effort of seizing the weapon had him panting. Or was it the fright at having a spear thrown at him? He decided that Birken had not come close enough for that, and wondered if he was afraid of his own impending action.

It wasn't fair, he complained to himself. The poor slob only had a spear, and a man couldn't blame him for wanting to get back to his own sort. He was limping . . . hurt . . . how could they expect him to realize—?

Then, abruptly, his lips tightened to a thin line. The sights

steadied on Birken as the latter approached the foot of the ladder leading to the entrance port of the spaceship.

Kinton pressed the firing stud.

Across the hundred-yard space streaked four flaring little projectiles. Kinton, without exactly seeing each, was aware of the general lines of flight diverging gradually to bracket the figure of Birken.

One struck the ground beside the man just as he set one foot on the bottom rung of the ladder, and skittered away past one fin of the ship before exploding. Two others burst against the hull, scattering metal fragments, and another puffed on the upright of the ladder just above Birken's head.

The spaceman was blown back from the ladder. He balanced on his heels for a moment with outstretched fingers reaching toward the grips from which they had been torn. Then he crumpled into a limp huddle on the yellowing turf.

Kinton sighed.

The constable took the weapon from him, reloaded deftly, and proffered it again. When the Terran did not reach for it, the officer held out a clawed hand to receive it. He gestured silently, and the constable trotted across

the intervening ground to bend over Birken.

"He is dead," said Klast when the constable straightened up with a curt wave.

"Will . . . will you have someone see to him, please?" Kinton requested, turning toward the helicopter.

"Yes, George," said Klast. "George . . .?"

"Well?"

"It would be very instructive—that is, I believe Dr. Chuxolkhee would like to—"

"All right!" yielded Kinton, surprised at the harshness of his own voice. "Just tell him not to bring around any sketches of the various organs for a few months!"

He climbed into the helicopter and slumped into his seat. Presently, he was aware of Klast edging into the seat across the aisle. He looked up.

"The police will stay until cars from town arrive. They are coming now," said his aide.

Kinton stared at his hands, wondering at the fact that they were not shaking. He felt dejected, empty, not like a man who had just been at a high pitch of excitement.

"Why did you not let him go, George?"

"What? Why . . . why . . . he

would have destroyed the ship you worked so hard to build. There is no safe path through the Dome of Eyes."

"No predictable path," Klast corrected. "But what then? We would have built you another ship, George, for it was you who showed us how."

Kinton flexed his fingers slowly.

"He was just no good. You know the murder he did here; we can only guess what he did among my own . . . among Terrans. Should he have a chance to go back and commit more crimes?"

"I understand, George, the logic of it," said Klast. "I meant . . . it is not my place to say this . . . but you seem unhappy."

"Possibly," grunted Kinton wryly.

"We, too, have criminals," said the aide, as gently as was possible in his clicking language. "We do not think it necessary to grieve for the pain they bring upon themselves."

"No, I suppose not," sighed Kinton. "I . . . it's just—"

He looked up at the pointed visage, at the strange eyes regarding him sympathetically from beneath the sloping, purple-scaled forehead.

"It's just that now I'm lonely . . . again," he said.

RELATIVITY

BY JOHN CHRISTOPHER

ILLUSTRATED BY EMSH

Time is such an unsatisfactory yard-stick. If higher elements can exist for only fractions of a microsecond, they are still as real as anything else. Only our time is too limited for understanding.

Henry DeMarr and Walter Stevanage, physicists, shook hands on the edge of the airstrip. In this South Pacific heat, tarmac would have run like oil, and the blistered concrete burned DeMarr's feet through the soles of his shoes. He shifted uncomfortably, listening regretfully to the cool anger of the surf, less than half a mile away.

The official photographer scuttled away.

"Well, it's all set, Hank," Stevanage said wearily. "Every atoll for miles is a nest of Geigers, fluoroscopes, automatic cameras and God knows what. I think the Army has even brought a couple of telescopes."

DeMarr grinned. "Funny if it doesn't go off!"

Stevanage shook his head. "Oh, it'll go off all right. But how much? That's what is worrying me. It's so much more powerful than the others we've tested. If it sets off that helium chain



reaction . . . One more nova for the astronomers around Sirius."

DeMarr said, "If I were you I'd slip along to the beach and have a nice, cool swim. I wish I could. This heat kills me. I thought Florida was bad enough."

"You'll be cool at twenty thousand feet," Stevanage said. "I would like a swim, but there isn't really time. I'll be watching for that mushroom." He shifted angrily. "This concrete!"

"I still don't really know why I'm going up," DeMarr said. "The crew can handle the instruments as well as I can and there's not much chance of getting anything useful from direct observation."

"I'd like to get inside that mushroom," Stevanage said wistfully. "In an astral body or something. I'd like to see just what happens in there as she blows."

A brisk voice behind them spoke. "Why, Professor, it's only dust in there, isn't it?"

They turned around.

"Ah, Squadron Leader Pethick," DeMarr said. "Are we ready for the sky yet?"

Pethick nodded. "Almost."

Stevanage said quietly, "It's far from being 'only dust.' This bomb builds up as well as destroys. Our atomic table stops

at 93. In that cloud there may be elements much higher than that; elements whose existence we can only guess at."

Surprisingly, Pethick said, "But unstable, Professor? Aren't they by their nature bound to break down very quickly?"

Stevanage looked at him with vague approval.

"Relatively unstable," he agreed. "The relativity of stability in elements is bound up with time, of course. Lead is more stable than uranium because it takes much longer to break down. But we can't say it never will break down. And time is such an unsatisfactory yardstick. If high elements exist in that cloud you are going to set off, even if only for a fraction of a second, their existence is as real as this frightful concrete we are standing on."

"If I were you," DeMarr said dreamily, "I'd forget it all and have a swim. That surf's a torture. Can't we get up into some cool air, Pethick?"

From the front of the plane a sergeant called, "Ready now, sir."

The two physicists shook hands again, hastily.

"Don't worry, Walter," DeMarr said. "I'll bet you ten pounds to a shilling there's no

helium chain reaction, at all."

Stevanage smiled wearily. "You couldn't lose on that, could you?" he said. "Good luck, Hank."

The hot air swirled into still hotter violence as the great plane moved, ponderously graceful, along the runway. Stevanage watched it dwindle in the stiff, blue sky. Glancing at his watch he walked slowly down to the main observation post and drank a long lemon squash, feeling it drain right through his pores in the inescapable heat. Over the wireless he heard DeMarr's characteristic drawl.

"Circling now twenty-one thousand feet above Nakubi. Squadron Leader Pethick reports all O.K. According to our time there are fifty-five seconds before we detonate. Better check your chronometers all around. Coming up to thirty seconds now."

Stevanage adjusted his protective goggles and walked out to gaze at the smudge on the horizon that was Nakubi island. Behind him he heard DeMarr's voice continuing its monotonous counting.

"Ten seconds. Getting close now. Five, four, three, two, one . . ."

Flame rolled like a wave across the southern sky.

Nobody knew quite how many million years there had been a garrison on Rakeeth. Once there had been records, but records exist only for observers and the Banzei had long lost what interest they had in the remote past. Rakeeth, it was thought, had been one of the original outposts in the Plan, but since the Plan's inception thousands of suns had been born and thousands died, and to the Banzei only its results and its application remained real, and even they were beginning to grow shadowy.

Once they had been proud; with the pride of a race that had swept to the furthest corners of the universe, conquering and learning, learning and conquering. Star after star had submitted to their armadas and secret after secret to their men of science. From the secrets and the conquests had grown the Plan, and the vast generators that, all around the periphery of the possible universe, sucked in and cast back the vital energy that wastes from all astronomical organisms. The pride of the Banzei had been as wide as their dominion. Entropy was conquered; the universe preserved forever against the folly of its own dissipation.

But for the life within the universe there could be no such

maintaining of perfect stasis.

Gondu Eskar looked for the last time from the main control tower on Rakeeth. When the Banzei first came, countless of millions years before, it had been the same—a dead planet circling a dead sun. But, despite the Plan, its contours had changed. Energy still leaked, visible enough in the lambent, flickering phosphorescence darting from pinnacle and plain.

Beyond the flickering mountains there was nothing; the colorless eternity of outer space. In the days of the triumph of the Banzei ships had gone out there, searching beyond the borders of infinity. They had come back—some after thousands of years—without success. There was nothing they could reach. While the Plan lived it had not mattered. Now the Plan was dying.

Gondu Eskar heard the faint swish as the door behind him opened. He turned. It was Ral Takin.

Ral Takin said soberly, "The ship is ready. Everything has been cleared. Are you ready?"

Gondu Eskar turned back and stared at the starless sky.

"Millions of years," he said bitterly. "All wasted. A universe decays at its heart and we, its

guardians, are called back to help in futile, bickering wars, while the mechanism runs down."

"It was wasted at the beginning," Ral Takin said philosophically. "What was the use of putting a barrier around ourselves like this? It was essentially defeatist in its conception. What reality is there in a billion years of stasis? We kept our universe from disintegrating that long—but for what?"

"It gave us time to breathe," Gondu Eskar said softly. "The science that built the Plan had potentialities that could have done anything. The Plan secured permanence. We could have gone on from there. Instead we decayed."

"Gone where?" asked Ral Takin. "There were no directions."

"No directions!" echoed Gondu Eskar. "What about those strange artificial atoms they played with for thousands of years—those with less than a hundred electrons? Wasn't that a clue? Before the Plan our universe was breaking down into such elements. *Then* we might have adapted ourselves to the breakdown. Now . . . Where are the scientists?"

Ral Takin said, "The universe will probably still outlast us. Now the Plan is being aban-

doned there is nothing to hold us together. We will probably relapse into little star cluster empires, petty barbarisms. By the time our generators fail, and the fabric of the cosmos breaks down into those light atoms you spoke of, life and the Banzei with it will have disappeared."

"We could have done it!" Gondu Eskar repeated.

For the last time Gondu Eskar looked out, through the thick, transparent crystal under which Banzei of the Rakeeth outpost had brooded during the slow, inconceivable revolutions of the stars. For the last time he felt the chill of absolute nothingness. Then he left, and the door closed behind him on an empty chamber. His race had abandoned its last chance to save itself.

The plane taxied in and Professor Henry DeMarr alighted gratefully. He grinned at Stevanage as he came to meet him.

"There you are," he said. "A nice controlled blow-up. Just as predicted. Now we can go back home and spend a couple of years getting our teeth into the data."

Stevanage said, "Yes. It should be interesting."

DeMarr looked at him closely. "I believe you are disappointed that we are not now just little

puffs of super-heated gas in that new nova," he remarked.

Stevanage's face widened into his melancholy smile.

"Not quite," he said. "I was just wishing once more I could halt that explosion half-way for just ten minutes. We might get some really interesting stuff on numbers 94 upwards that way." He stared southward, his eyes brooding.

DeMarr shrugged. "There you are," he said. "If they exist they must break down so fast that lightning seems slow in comparison. For our purposes we can wash them out."

Stevanage said, "I thought for a second I was becoming telekinetic on a grand scale. I could have sworn at one point the cloud stopped growing. I was beginning to get excited when it went on shooting up."

DeMarr looked at him curiously.

"I didn't notice anything," he said. "It seemed a normal cloud formation to me. The orthodox mushroom. God, it's hot! Come on—let's grab a drink and a swim."

His mind brightening at the thought of the data still to come in, Stevanage followed him.

In the south the dead cloud spread unhurriedly across the blue.





Security

BY POUL ANDERSON

ILLUSTRATED BY EBEL

In a world where Security is all-important, nothing can ever be secure. A mountain-climbing vacation may wind up in deep Space. Or loyalty may prove to be high treason. But it has its rewards.

It had been a tough day at the lab, one of those days when nothing seems able to go right. And, of course, it had been precisely the day Hammond, the Efficiency inspector, would choose to stick his nose in. Another mark in his little notebook—and enough marks like that meant a derating, and Control had a habit of

sending derated labmen to Venus. That wasn't a criminal punishment, but it amounted to the same thing. Allen Lancaster had no fear of it for himself; the sector chief of a Project was under direct Control jurisdiction rather than Efficiency, and Control was friendly to him. But he'd hate to see young Rogers get it—the boy had been married only a week now.

To top the day off, a report had come to Lancaster's desk from Sector Seven of the Project. Security had finally cleared it for general transmission to sector chiefs—and it was the complete design of an electronic valve on which some of the best men in Lancaster's own division, Sector Thirteen, had been sweating for six months. There went half a year's work down the drain, all for nothing, and Lancaster would have that much less to show at the next Project reckoning.

He had cursed for several minutes straight, drawing the admiring glances of his assistants. It was safe enough for a high-ranking labman to gripe about Security—in fact, it was more or less expected. Scientists had their privileges.

One of these was a private three-room apartment. Another was an extra liquor ration. To-

night, as he came home, Lancaster decided to make a dent in the latter. He'd eaten at the commissary, as usual, but hadn't stayed to talk. All the way home in the tube, he'd been thinking of that whiskey and soda.

Now it sparkled gently in his glass and he sighed, letting a smile crease his lean homely face. He was a tall man, a little stooped, his clothes—uniform and mufti alike—perpetually rumpled. Solitary by nature, he was still unmarried in spite of the bachelorette tax and had only one son. The boy was ten years old now, must be in the Youth Guard; Lancaster wasn't sure, never having seen him.

It was dark outside his windows, but a glow above the walls across the skyway told of the city pulsing and murmuring beyond. He liked the quiet of his evenings alone and had withstood a good deal of personal and official pressure to serve in various patriotic organizations. "Damn it," he had explained, "I'm not doing routine work. I'm on a Project, and I need relaxation of my own choosing."

He selected a tape from his library. *Eine Kleine Nachtmusik* lilted joyously about him as he found a chair and sat down. Control hadn't gotten around to making approved lists of music

yet, though you'd surely never hear Mozart in a public place. Lancaster got a cigar from the humidor and collapsed his long gaunt body across chair and hassock. Smoke, whiskey, good music—they washed his mind clean of worry and frustration; he drifted off in a mist of unformed dreams. Yes, it wasn't such a bad world.

The mail-tube went *ping!* and he opened his eyes, swearing. For a moment he was tempted to let the pneumo-roll lie where it fell, but habit was too strong. He grumbled his way over to the basket and took it out.

The stamp across it jerked his mind to wakefulness. *OfiSal, sEkret, fOr adresE OnlE*—and a Security seal!

After a moment he swallowed his thumping heart. It couldn't be serious, not as far as he personally was concerned anyway. If that had been the case, a squad of monitors would have been at the door. Not this message tube . . . He broke the seal and unfolded the flimsy with elaborate care. Slowly, he scanned it. Underneath the official letterhead, the words were curt. "*Dis iz A matr uv urjensE and iz top sEkret. destrY Dis letr and Du tUb kontAniN it. tUmOrO, 15 jUn, at 2130 ourz, U*

wil gO tU Du obzurvatOrE, AnIt klub at 5730 viktOrE strEt, and ask Du hedwAtr fOr A mistr Berg. U wil asUm Dat hE iz an Old frend uv yOrz and Dat Dis iz A sOSal EveniN. Du UZUal penaltEz ar invOkt fOr fAlUr tU komplI."

There was no signature. Lancaster stood for a moment, trying to imagine what this might be. There was a brief chill of sweat on his skin. Then he suppressed his emotions. He had nothing to fear. His record was clean and he wasn't being arrested.

His mind wandered rebelliously off on something that had occurred to him before. Admittedly the new phonetic orthography was more efficient than the old, if less esthetic; but since little of the earlier literature was being re-issued in modern spelling not too many books had actually been condemned as subversive—only a few works on history, politics, philosophy, and the like, together with some scientific texts restricted for security reasons; but one by one, the great old writings were sent to forgetfulness.

Well, these were critical times. There wasn't material and energy to spare for irrelevant details. No doubt when complete peace was achieved there would

be a renaissance. Meanwhile he, Lancaster, had his Euripedes and Goethe and whatever else he liked, or knew where to borrow it.

As for this message, they must want him for something big, maybe something really interesting.

Nevertheless, his evening was ruined.

The Observatory was like most approved recreation spots—large and raucous, selling unrationed food and drink and amusement at uncontrolled prices of which the government took its usual lion's share. The angle in this place was astronomy. The ceiling was a blue haze a-glitter with slowly wheeling constellations, and the strippers began with make-believe spacesuits. There were some rather good murals on the walls depicting various stages of the conquest of space. Lancaster was amused at one of them. When he'd been here three years ago, the first landing on Ganymede had shown a group of men unfurling a German flag. It had struck in his mind, because he happened to know that the first expedition there had actually been Russian. That was all right then, seeing that Germany was an ally at the time. But now that Europe was

growing increasingly cold to the idea of an American-dominated world, the Ganymedean pioneers were holding a good safe Stars and Stripes.

Oh, well. You had to keep the masses happy. They couldn't see that their sacrifices and the occasional short wars were necessary to prevent another real smashup like the one seventy-five years ago. Lancaster's annoyance was directed at the sullen foreign powers and the traitors within his own land. It was because of them that science had to be strait-jacketed by Security regulations.

The headwaiter bowed before him. "I'm looking for a friend," said Lancaster. "A Mr. Berg."

"Yes, sir. This way, please."

Lancaster slouched after him. He'd worn the dress uniform of a Project officer, but he felt that all eyes were on its deplorable sloppiness. The headwaiter conducted him between tables of half-crocked customers—burly black-uniformed Space Guardsmen, army and air officers, richly clad industrialists and union bosses, civilian leaders, their wives and mistresses. The waiters were all Martian slaves, he noticed, their phosphorescent owl-eyes smoldering in the dim blue light.

He was ushered into a cur-

tained booth. There was an auto-dispenser so that those using it need not be interrupted by servants, and an ultrasonic globe on the table was already vibrating to soundproof the region. Lancaster's gaze went to the man sitting there. In spite of being short, he was broad-shouldered and compact in plain gray evening pajamas. His face was round and freckled, almost cherubic, under a shock of sandy hair, but there were merry little devils in his eyes.

"Good evening, Dr. Lancaster," he said. "Please sit down. What'll you have?"

"Thanks, I'll have Scotch and soda." Might as well make this expensive, if the government was footing the bill. And if this—Berg—thought him un-American for drinking an imported beverage, what of it? The scientist lowered himself into the seat opposite his host.

"I'm having the same, as a matter of fact," said Berg mildly. He twirled the dial and slipped a couple of five-dollar coins into the dispenser slot. When the tray was ejected, he sipped his drink appreciatively and looked across the rim of the glass at the other man.

"You're a high-ranking physicist on the Arizona Project,

aren't you, Dr. Lancaster?" he asked.

That much was safe to admit. Lancaster nodded.

"What is your work, precisely?"

"You know I can't tell you anything like that."

"It's all right. Here are my credentials." Berg extended a wallet. Lancaster scanned the cards and handed them back.

"Okay, so you're in Security," he said. "I still can't tell you anything, not without proper clearance."

Berg chuckled amiably. "Good. I'm glad to see you're discreet. Too many labmen don't understand the necessity of secrecy, even between different branches of the same organization." With a sudden whip-like sharpness: "You didn't tell anyone about this meeting, did you?"

"No, of course not." Despite himself, Lancaster was rattled. "That is, a friend asked if I'd care to go out with her tonight, but I said I was meeting someone else."

"That's right." Berg relaxed, smiling. "All right, we may as well get down to business. You're getting quite an honor, Dr. Lancaster. You've been tapped for one of the most important jobs in the Solar System."

"Eh?" Lancaster's eyes wid-

ened behind the contact lenses. "But no one else has informed me—"

"No one of your acquaintance knows of this. Nor shall they. But tell me, you've done work on dielectrics, haven't you?"

"Yes. It's been a sort of specialty of mine, in fact. I wrote my thesis on the theory of dielectric polarization and since then—no, that's classified."

"M-hm." Berg took another sip of his drink. "And right now you're just a cog in a computer-development Project. You see, I do know a few things about you. However, we've decided—higher up, you know, in fact on the very top level—to take you off it for the time being and put you on this other job, one concerning your specialty. Furthermore, you won't be part of a great organizational machine, but very much on your own. The fewer who know of this, the better."

Lancaster wasn't sure he liked that. Once the job was done—if he were possessed of all information on it—he might be incarcerated or even shot as a Security risk. Things like that had happened. But there wasn't much he could do about it.

"Have no fears." Berg seemed to read his thoughts. "Your reward may be a little delayed for Security reasons, but it will

come in due time." He leaned forward, earnestly. "I repeat, this project is *top secret*. It's a vital link in something much bigger than you can imagine, and few men below the President even know of it. Therefore, the very fact that you've worked on it—that you've done any outside work at all—must remain unknown, even to the chiefs of your Project."

"Good stunt if you can do it," shrugged Lancaster. "But I'm hot. Security keeps tabs on everything I do."

"This is how we'll work it. You have a furlough coming up in two weeks, don't you—a three months' furlough? Where were you going?"

"I thought I'd visit the Southwest. Get in some mountain climbing, see the canyons and Indian ruins and—"

"Yes, yes. Very well. You'll get your ticket as usual and a reservation at the Tycho Hotel in Phoenix. You'll go there and, on your first evening, retire early. Alone, I need hardly add. We'll be waiting for you in your room. There'll be a very carefully prepared duplicate—surgical disguise, plastic fingerprinting tips, fully educated in your habits, tastes, and mannerisms. He'll stay behind and carry out your vacation while we smuggle

you away. A similar exchange will be affected when you return, you'll be told exactly how your double spent the summer, and you'll resume your ordinary life."

"Ummm—well—" It was too sudden. Lancaster had to hedge. "But look—I'll be supposedly coming back from an outdoor vacation, with a suntan and well rested. Somebody's going to get suspicious."

"There'll be sun lamps where you're going, my friend. And I think the chance to work independently on something that really interests you will prove every bit as restful to your nerves as a summer's travel. I know the scientific mentality." Berg chuckled. "Yes, indeed."

The exchange went off so smoothly that it was robbed of all melodrama, though Lancaster had an unexpectedly eerie moment when he confronted his double. It was his own face that looked at him, there in the impersonal hotel room, himself framed against blowing curtains and darkness of night. Then Berg gestured him to follow and they went down a cord ladder hanging from the window sill. A car waited in the alley below and slid into easy motion the instant they had gotten inside.

There was a driver and another man in the front seat, both shadows against the moving blur of street lamps and night. Berg and Lancaster sat in the rear, and the secret agent chatted all the way. But he said nothing of informational content.

When the highway had taken them well into the loneliness of the desert, the car turned off it, bumped along a miserable dirt track until it had crossed a ridge, and slowed before a giant transcontinental dieselectric truck. A man emerged from its cab, waving an unhurried arm, and the car swung around to the rear of the van. There was a tailgate lowered, forming a ramp; above it, the huge double doors opened on a cavern of blackness. The car slid up the ramp, and the man outside pushed it in after them and closed the doors. Presently the truck got into motion.

"This is *really* secret!" whistled Lancaster. He felt awed and helpless.

"Quite so. Security doesn't like the government's right hand to know what its left is doing." Berg smiled, a dim flash of teeth in his shadowy face. Then he was serious. "It's necessary, Lancaster. You don't know how strong and well-organized the subversives are."

"They—" The physicist closed

his mouth. It was true—he hadn't the faintest notion, really. He followed the news, but in a cursory fashion, without troubling to analyze the meaning of it. Damn it all, he had enough else to think about. Just as well that elections had been suspended and bade fair to continue indefinitely in abeyance. If he, a member of the intelligentsia, wasn't sufficiently acquainted with the political and military facts of life to make rational decisions, it certainly behooved the ill-educated masses to obey.

"We might as well stretch ourselves," said the driver. "Long way to go yet." He climbed out and switched on an overhead light.

The interior of the van was roomy, even allowing for the car. There were bunks, a table and chairs, a small refrigerator and cookstove. The driver, a lean saturnine man who seemed to be forever chewing gum, began to prepare coffee. The other sat down, whistling tunelessly. He was young and powerfully built, but his right arm ended in a prosthetic claw. All of them were dressed in inconspicuous civilian garb.

"Take us about ten hours, maybe," said Berg. "The spaceship's 'way over in Colorado."

He caught Lancaster's blank stare, and grinned. "Yes, my friend, your lab is out in space. Surprised?"

"Mmm—yeah. I've never been off Earth."

"Sokay. We run at acceleration, you won't be spacesick." Berg drew up a chair, sat down, and tilted it back against a wall. The steady rumble of engines pulsed under his words:

"It's interesting, really, to consider the relationship between government and military technology. The powerful, authoritarian governments have always arisen in such times as the evolution of warfare made a successful fighting machine something elaborate, expensive, and maintainable by professionals only. Like in the Roman Empire. It took years to train a legionnaire and a lot of money to equip an army and keep it in the field. So Rome became autarchic. However, it was not so expensive a proposition that a rebellious general couldn't put some troops up for a while—or he could pay them with plunder. So you did get civil wars. Later, when the Empire had broken up and warfare relied largely on the individual barbarian who brought his own weapons with him, government loosened. It had to—any ruler who got to throwing his

weight around too much would have insurrection on his hands. Then as war again became an art—well, you see how it goes. There are other factors, of course, like religion—ideology in general. But by and large, it's worked out the way I explained it. Because there are always people willing to fight when government encroaches on what they consider their liberties, and governments are always going to try to encroach. So the balance struck depends on comparative strength. The American colonists back in 1776 relied on citizen levies and weapons were so cheap and simple that almost anyone could obtain them. Therefore government stayed loose for a long time. But nowadays, who except a government can make atomic bombs and space rockets? So we get absolute states."

Lancaster looked around, feeling the loneliness close in on him. The driver was still clattering the coffee pot. The one-armed man was utterly blank and expressionless. And Berg sat there, smiling, pouring out those damnable cynicisms. Was it some kind of test? Were they probing his loyalty? What kind of reply was expected?

"We're a democratic nation and you know it," he said. It

came out more feebly than he had thought.

"Oh, well, sure. This is just a state of emergency which has lasted unusually long, seventy-two years to be exact. If we hadn't lost World War III, and needed a powerful remilitarization to overthrow the Soviet world—but we did." Berg took out a pack of cigarettes. "Smoke? I was just trying to explain to you why the subversives are so dangerous. They have to be, or they wouldn't stand any kind of chance. When you set out to upset something as big as the United States government, it's an all or nothing proposition. They've had a long time now to organize, and there's a huge percentage of malcontents to help them out."

"Malcontents? Well, look, Berg—I mean, you're the expert and of course you know your business, but a natural human grumble at conditions doesn't mean revolutionary sentiments. These aren't such bad times. People have work, and their needs are supplied. They aren't hankering to have the Hemispheric Wars back again."

"The standard revolutionary argument," said Berg patiently, "is that the rebels aren't trying to overthrow the nation at all, but simply to restore constitu-

tional and libertarian government. It's common knowledge that they have help and some subsidies from outside, but it's contended that these are merely countries tired of a world dominated by an American dictatorship and, being small Latin-American and European states, couldn't possibly think of conquering us. Surely you've seen subversive literature."

"Well, yes. Can't help finding their pamphlets. All over the place. And—" Lancaster closed his mouth. No, damned if he was going to admit that he knew three co-workers who listened to rebel propaganda broadcasts. Those were silly, harmless kids—why get them in trouble, maybe get them sent to camp?

"You probably don't appreciate the hold that kind of argument has on all too many intellectuals—and a lot of the common herd, too," said Berg. "Naturally you wouldn't—if your attitude has always been unsympathetic, these people aren't going to confide their thoughts to you. And then there are bought men, and spies smuggled in, and—oh, I needn't elaborate. It's enough to say that we've been thoroughly infiltrated, and that most of their agents have absolutely impeccable dos-

siers. We can't give neoscop to everybody, you know—Security has to rely on spot checks and the testing of key personnel. Only when organizations get as big as they are today, there's apt to be no real key man, and a few spies strategically placed in the lower echelons can pick up a hell of a lot of information. Then there are the colonists out on the planets—our hold on them has always necessarily been loose, because of transportation and communication difficulties if nothing else. And, as I say, foreign powers. A little country like Switzerland or Denmark or Venezuela can't do much by itself, but an undercover international pooling of resources . . . Anyway, we have reason to believe in the existence of a large, well financed, well organized underground, with trained fighting men, big secret weapons dumps, and saboteurs ready for the word 'go'—to say nothing of a restless population and any number of covert sympathizers who'd follow if the initial uprising had good results."

"Or bad, depending on whose viewpoint you take," grinned the one-armed man.

Lancaster put his elbows on his knees and rested his forehead on shaking hands. "What has all this got to do with me?" he

protested. "I'm not the hero of some cloak-and-dagger spy story. I'm no good at undercover stuff—what do you want of me?"

"It's very simple," Berg replied quietly. "The balance of power is still with the government, because it does have more of the really heavy weapons than any other group can possibly muster. Alphabet bombs, artillery, rockets, armor, spaceships and space missiles. You see? Only research has lately suggested that a new era in warfare is developing—a new weapon as decisive as the Macedonian phalanx, gunpowder, and aircraft were in their day." As Lancaster raised his eyes, he met an almost febrile glitter in Berg's gaze. "And *this* weapon may reverse the trend. It may be the cheap and simple arm that anyone can make and use—the equalizer! So we've got to develop it before the rebels do. They have laboratories of their own, and their skill at stealing our secrets makes it impossible for us to trust the research to a Project in the usual manner. The fewer who knew of this weapon, the better—because in the wrong hands it could mean—Armageddon!"

The run from Earth was short, for the space laboratory wasn't

far away at the moment as interplanetary distances go. Lancaster wasn't told anything about its orbit, but guessed that it had a path a million miles or so sunward from Earth and highly tilted with respect to the ecliptic. That made for almost perfect concealment, for what spaceship would normally go much north or south of the region containing the planets?

He was too preoccupied during the journey to estimate orbital figures, anyway. He had seen enough pictures of open space, and some of them had been excellent. But the reality towered unbelievably over all representations. There simply is no way of describing that naked grandeur, and when you have once experienced it you don't want to try. His companions—Berg and the one-armed Jessup, who piloted the spaceboat—respected his need for silence.

The station had been painted non-reflecting black, which complicated temperature control but made accidental observation of its existence almost impossible. It loomed against the cold glory of stars like a pit of ultimate darkness, and Jessup had to guide the boat in with radar. When the last lock had clanged shut behind him and he stood in a narrow metal corridor, shut

away from the sky, Lancaster felt a sense of unendurable loss.

It faded, and he grew aware of others watching him. There were half a dozen people, a motley group dressed in any shabby garment they happened to fancy, with no sign of the semi-military discipline of a Project crew. A Martian hovered in the background, and Lancaster didn't notice him at first. Berg introduced the humans casually. There was a stocky gray-haired man named Friedrichs, a lanky space-tanned young chap called Isaacson, a middle-aged woman and her husband by the name of Dufrere, a quiet Oriental who answered to Hwang, and a red-haired woman presented as Karen Marek. These, Berg explained, were the technicians who would be helping Lancaster. This end of the space station was devoted to the labs and factories; for security reasons, Lancaster couldn't be permitted to go elsewhere, but it was hoped he would be comfortable here.

"Ummm—pardon me, aren't you a rather mixed group?" asked the physicist.

"Yes, very," said Berg cheerfully. "The Dufreres are French, Hwang is Chinese, and Karen here is Norwegian though her husband was Czech. Not to mention . . . There you are, I didn't

see you before! Dr. Lancaster, I'd like you to meet Rakkan of Thyle, Mars, a very accomplished labman."

Lancaster gulped, shifting his feet and looking awkwardly at the small gray-feathered body and the beaked owl-face. Rakkan bowed politely, sparing Lancaster the decision of whether or not to shake the clawlike hand. He assumed Rakkan was somebody's slave—but since when did slaves act as social equals?

"But you said this project was top secret!" he blurted.

"Oh, it is," smiled Karen Marek. She had a husky, pleasant voice, and while she was a little too thin to be really good-looking, she was cast in a fine mold and her eyes were large and gray and lovely. "I assure you, non-Americans are perfectly capable of preserving a secret. More so than most Americans, really—we don't have ties on Earth. No one to blab to."

"It's not well known today, but the original Manhattan Project that constructed the first atomic bombs had quite an international character," said Berg. "It even included German, Italian, and Hungarian elements though the United States was at war with those countries."

"Come along and we'll get you

settled in your quarters," invited Isaacson.

Lancaster followed him down the long hallways, rather dazed with the whole business. He noticed that the space station had a crude, unfinished look, as if it had been hastily thrown together from whatever materials were available. That didn't ring true for a government enterprise, no matter how secret.

Berg seemed to read his thought again. "We've worked under severe handicaps," he said. "Look, just suppose a lot of valuable material and equipment were ferried into space. If it's an ordinary government deal, you know how many light-years of red tape are involved. Requisitions have to be filed out in triplicate, every last rivet has to be accounted for—there'd simply have been too much chance of a rebel spy getting a lead on us. It was safer all around to use whatever chance materials could be obtained from salvage or through individual purchases on other planets. Ever hear of the *Waikiki*?"

"Ummm—seems so—wasn't she the big freighter that disappeared many years ago?"

"That's the one. A meteor swarm struck her on the way to Venus. Furthermore, one of them shorted out her engine con-

trols, so that she swooped out of the ecliptic plane and fell into an eccentric skew orbit. When this project was first started, one of our astronomers thought he'd identified the swarm—it has a regular path of its own about the sun, though the orbit is so cockeyed that spaceships hardly ever even see the things. Anyway, knowing the orbit of the meteors and that of the *Waikiki* at the time, he could calculate where the disaster must have taken place—which gave us a lead in searching for the hulk. We found it after a lot of investigation, moved it here, and built the station up around it. Very handy. And completely secret."

Lancaster had always suspected that Security was a little mad. Now he knew it. Oh, well—

His room was small and austere, but privacy was nice. The lab crew ate in a common refectory. Beyond the edge of their territory, great bulkheads blocked off three-fourths of the space station. Lancaster was sure that many people and several Martians lived there, for in the days that followed he saw any number of strangers appearing and disappearing in the region allowed him. Most of these were workmen of some kind or other, called in to help the lab crew as

needed, but all of them were tight-lipped. They must have been cautioned not to speak to the guest more than was strictly necessary.

Living was Spartan in the station. It rotated fast enough to give weight, but even on the outer skin that was only one-half Earth gravity. A couple of silent Martians prepared undistinguished meals and did housework in the quarters. There were no films or other organized recreation, though Lancaster was told that the forbidden sector included a good-sized room for athletics.

But the crew he worked with didn't seem to mind. They had their own large collections of books and music wires, which they borrowed from each other. They played chess and poker with savage skill. Conversation was, at first, somewhat restrained in Lancaster's presence, and most of the humor had so little reference to things he knew that he couldn't follow it, but he became aware that they talked with more animation and intelligence than his friends on Earth. Manners were utterly informal, and it wasn't long before even Lancaster was being addressed by his first name; but cooperation was smooth and there seemed to be none of the

intrigue and backbiting of a typical Project crew.

And the work filled their lives. Lancaster was caught up in it the "day" after his arrival, realized at once what it meant, and was plunged into the fascination of it. Berg hadn't lied; this was big!

The perfect dielectric.

Such, at least, was the aim of the project. It was explained to Lancaster that one Dr. Sophoulis had first seen the possibilities and organized the research. It had gone ahead slowly, hampered by a lack of needed materials and expert personnel. When Sophoulis died, none of his assistants felt capable of carrying on the work at any decent rate of speed. They were all competent in their various specialties, but it takes more than training to do basic research—a certain inborn, intuitive flair is needed. So they had sent to Earth for a new boss—Lancaster.

The physicist scratched his head in puzzlement. It didn't seem right that something so important should have to take the leavings of technical personnel. Secrecy or not, the most competent men on Earth should have been tapped for this job, and they should have been given everything they needed to carry it through. Then he forgot his

bewilderment in the clean chill ecstasy of the work.

Man had been hunting superior dielectrics for a long time now. It was more than a question of finding the perfect electrical insulator, though that would be handy too. What was really important was the sort of condensers made possible by a genuinely good dielectric material. Given that, you could do fantastic things in electronics. Most significant of all was the matter of energy storage. If you could store large amounts of electricity in an accumulator of small volume, without appreciable leakage loss, you could build generators designed to handle average rather than peak load—with resultant savings in cost; you could build electric motors, containing their own energy supply and hence portable—which meant electric automobiles and possibly aircraft; you could use inconveniently located power sources, such as remote waterfalls, or dilute sources like sunlight, to augment—maybe eventually replace—the waning reserves of fuel and fissionable minerals; you could . . . Lancaster's mind gave up on all the possibilities opening before him and settled down to the immediate task at hand.

"The original mineral was found on Venus, in the Gorbuvastar country," explained Karen Marek. "Here's a sample." She gave him a lump of rough, dense material which glittered in hard rainbow points of light. "It was just a curiosity at first, till somebody thought to test its electrical properties. Those were slightly fantastic. We have all chemical and physical data on this stuff already, of course, as well as an excellent idea of its crystal structure. It's a funny mixture of barium and titanium compounds with some rare earths and—well, read the report for yourself."

Lancaster's eyes skimmed down the sheaf of papers she handed him. "Can't make very good condensers out of this," he objected. "Too brittle—and look how the properties vary with temperature. A practical dielectric has to be stable in every way, at least over the range of conditions you intend to use it in."

She nodded.

"Of course. Anyway, the mineral is very rare on Venus, and you know how tough it is to search for anything in Gorbuvastar. What's important is the lead it gave Sophoulis. You see, the dielectric constant of this material isn't constant at all. It

increases with applied voltage. Look at this curve here."

Lancaster whistled. "What the devil—but that's impossible! That much variability means a crystal structure which is—uh—flexible, damn it! But you've got a brittle substance here—"

According to the accepted theory of dielectricity, this couldn't be. Lancaster realized with a thumping behind his veins that the theory would have to be modified. Rather, this was an altogether different phenomenon from normal insulation.

He supposed some geological freak had formed the mineral. Venus was a strange planet anyway. But that didn't matter. The important thing now was to get to know this process. He went off into a happy mist of quantum mechanics, oscillation theory, and periodic functions of a complex variable.

Karen and Isaacson exchanged a slow smile.

Sophoulis and his people had done heroic work under adverse conditions. A tentative theory of the mechanism involved had already been formulated, and the search had started for a means to duplicate the super-dielectricity in materials otherwise more suitable to man's needs. But as he grew familiar with the place

and the job, Lancaster wondered just how adverse the conditions really were.

True, the equipment was old and cranky, much of it haywired together, much of it invented from scratch. But Rakkan the Martian, for all his lack of formal education, was unbelievably clever where it came to making apparatus and making it behave, and Friedrichs was a top-flight designer. The lab had what it needed—wasn't that enough?

The rest of Lancaster's crew were equally good. The Dufreres were physical chemists *par excellence*, Isaacson a brilliant crystallographer with an unusual brain for mathematics, Hwang an expert on quantum theory and inter-atomic forces, Karen an imaginative experimenter. None of them quite had the synthesizing mentality needed for an overall picture and a fore-vision of the general direction of work—that had been Sophoulis' share, and was now Lancaster's—but they were all cheerful and skilled where it came to detail work and could often make suggestions in a theoretical line.

Then, too, there was no Security snooping about, no petty scramble for recognition and promotion, no red tape. What was more important, Lancaster began to realize, was the per-

sonal nature of the whole affair. In a Project, the overall chief set the pattern, and it was followed by his subordinates with increasingly less latitude as you worked down through the lower ranks. You did what you were told, produced results or else, and kept your mouth shut outside your own sector of the Project. You had only the vaguest idea of what actually was being created, and why, and how it fitted into the broad scheme of society.

Hwang and Rakkan commented on that, one "evening" at dinner when they had grown more relaxed in Lancaster's presence. "It was inevitable, I suppose, that scientific research should become corporate," said the Chinese. "So much equipment was needed, and so many specialties had to be coordinated, that the solitary genius with only a few assistants hadn't a chance. Nevertheless, it's a pity. It's destroyed initiative in many promising young men. The top man is no longer a scientist at all—he's an administrator with some technical background. The lower ranks do have to exercise ingenuity, yes, but only along the lines they are ordered to follow. If some interesting sideline crops up, they can't investigate it. All they can do is submit a

memorandum to the chief, and most likely if anything is done it will be carried out by someone else."

"What would you do about it?" shrugged Lancaster. "You just admitted that the old-time genius in a garret can't compete."

"No—but the small team of creative specialists, each with an excellent understanding of the others' fields, and each working in a loose, free-willed cooperation with the rest, can. Indeed, the results will be much better. It was tried once, you may know. The early cybernetics men, back in the last century, worked that way."

"I wish we could co-opt some biologists and psychologists into this," murmured Rakkan. His English was good, though indescribably accented by his vocal apparatus. "The cellular and neural implications of dielectricity look—promising. Maybe later."

"Well," said Lancaster defensively, "a large Project can be made more secure—less chance of leakage."

Hwang said nothing, but he cocked an eyebrow at an almost treasonable angle.

In going through Sophoulis' equations, Lancaster found what he believed was the flaw that was

blocking progress. The man had used a simplified quantum mechanics without correction for relativistic effects. That made for neater mathematics but overlooked certain space-time aspects of the psi function. The error was excusable, for Sophoulis had not been familiar with the Belloni matrix, a mathematical tool that brought order into what was otherwise incomprehensible chaos. Belloni's work was still classified information, being too useful, in the design of new alloys, for general consumption. Lancaster went happily to work correcting the equations. But when he was finished, he realized that he had no business showing his results without proper clearance.

He wandered glumly into the lab. Karen was there alone, setting up an apparatus for the next attempt at heat treatment. A smock covered her into shapelessness, and her spectacular hair was bound up in a kerchief, but she still looked good. Lancaster, a shy man, was more susceptible to her than he wanted to be.

"Where's Berg?" he asked.

"Back on Earth with Jessup," she told him. "Why?"

"Damn! It holds up the whole business till he returns." Lancaster explained his difficulty.

Karen laughed. "Oh, that's all right," she said in the low voice he liked to hear. "We've all been cleared."

"Not officially. I've got to see the papers."

She glared at him then and stamped her foot. "How stupid can you get without having to be spoon fed?" she snapped. "You've seen how much we think of regulations here. Let's have those equations, Mac."

"But—blast it, Karen, you don't appreciate the need for security. Berg explained it to me once—how dangerous the rebels are, and how easily they can steal our secrets. And they'll stop at nothing. Do you want another Hemispheric War?"

She looked oddly at him, and when she spoke it was softly. "Allen, do you really believe that?"

"Certainly! It's obvious, isn't it? Our country is maintaining the peace of the Solar System—once we drop the reins, all hell will run away from us."

"What's wrong with setting up a world-wide federation of countries? Most other nations are willing."

"But that—it's not *practical*!"

"How do you know? It's never been tried."

"Anyway, we can't decide policy. That's just not for us."

"The United States is a democratic country—remember?"

"But—" Lancaster looked away. For a moment he stood unspeaking, and she watched him with grave eyes and said nothing. Then, not really knowing why he did it, he lifted a defiant head. "All right! We'll go ahead—and if Berg sends us all to camp, don't blame me."

"He won't." She laughed and clapped his shoulder. "You know, Allen, there are times when I think you're human after all."

"Thanks," he grinned wryly. "How about—uh—how about having a—a b-beer with me now? To celebrate."

"Why, sure."

They went down to the shop. A cooler of beer was there, its contents being reckoned as among the essential supplies brought from Earth by Jessup. Lancaster uncapped two bottles, and he and Karen sat down on a bench, swinging their legs and looking over the silent, waiting machines. Most of the station personnel were off duty now, in the arbitrary "night."

He sighed at last. "I like it here."

"I'm glad you do, Allen."

"It's a funny place, but I like it. The station and all its wacky inhabitants. They're heterodox

as the very devil and would have trouble getting a dog catcher's job back home, but they're all refreshing." Lancaster snapped his fingers. "Say, that's it! That's why you're all out here. The government needs your talents, and you aren't quite trusted, so you're put here out of range of spies. Right?"

"Do you have to see a rebel with notebook in hand under every bed?" she asked with a hint of weariness. "The First Amendment hasn't been repealed yet, they say. Theoretically we're all entitled to our own opinions."

"Okay, okay, I won't argue politics. Tell me about some of the people here, will you? They're an odd bunch."

"I can't tell you much, Allen. That's where Security does apply. Isaacson is a Martian colonist, you've probably guessed that already. Jessup lost his hand in a—a fight with some enemies once. The Dufresnes had a son who was killed in the Moroccan incident." Lancaster remembered that that affair had involved American power used to crush a French spy ring centered in North Africa. Sovereignty had been brushed aside. But damn it, you had to preserve the status quo, for your own survival if nothing else. "Hwang had to go into exile when the Chinese gov-

ernment changed hands a few years back. I—”

“Yes?” he asked when her voice faded out.

“Oh, I might as well tell you. My husband and I lived in America after our marriage. He was a good biotechnician and had a job with one of the big pharmaceutical companies. Only he—went to camp. Later he died or was shot, I don’t know which.” Her words were flat.

“That’s a shame,” he said inadequately.

“The funny part of it is, he wasn’t engaged in treason at all. He was quite satisfied with things as they were—oh, he talked a little, but so does everybody. I imagine some rival or enemy put the finger on him.”

“Those things happen,” said Lancaster. “It’s too bad, but they happen.”

“They’re bound to occur in a police state,” she said. “Sorry. We weren’t going to argue politics, were we?”

“I never said the world was perfect, Karen. Far from it. Only what alternative have we got? Any change is likely to be so dangerous that—well, man can’t afford mistakes.”

“No, he can’t. But I wonder if he isn’t making one right now. Oh, well. Give me another beer.”

They talked on indifferent sub-

jects till Karen said it was her bedtime. Lancaster escorted her to her apartment. She looked at him curiously as he said good night, and then went inside and closed the door. Lancaster had trouble getting to sleep.

The corrected equations provided an adequate theory of super-dielectricity—a theory with tantalizing hints about still other phenomena—and gave the research team a precise idea of what they wanted in the way of crystal structure. Actually, the substance to be formed was only semi-crystalline, with plastic features as well, all interwoven with a grid of carbon-linked atoms. Now the trick was to produce that stuff. Calculation revealed what elements would be needed, and what spatial arrangement—only how did you get the atoms to assume the required configuration and hook up in the right way?

Theory would get you only so far, thereafter it was cut and try. Lancaster rolled up his sleeves with the rest and let Karen take over the leadership—she was the best experimenter. He spent some glorious and all but sleepless weeks, greasy, dirty, living in a jungle of hay-wired apparatus with a restless slide rule. There were plenty of

failures, a lot of heartbreak and profanity, an occasional injury—but they kept going, and they got there.

The day came—or was it the night?—when Karen took a slab of darkly shining substance out of the furnace where it had been heat-aging. Rakkan sawed it into several chunks for testing. It was Lancaster who worked on the electric properties.

He applied voltage till his generator groaned, and watched in awe as meters climbed and climbed without any sign of stopping. He discharged the accumulated energy in a single blue flare that filled the lab with thunder and ozone. He tested for time lag of an electric signal and wondered wildly if it didn't feel like sleeping on its weary path.

The reports came in, excited yells from one end of the long, cluttered room to the other, exultant whoops and men pounding each other on the back. This was it! This was the treasure at the rainbow's end.

The substance and its properties were physically and chemically stable over a temperature range of hundreds of degrees. The breakdown voltage was up in the millions. The insulation resistance was better than the best known to Earth's science.

The dielectric constant could be varied at will by a simple electric field normal to the applied voltage gradient—a field which could be generated by a couple of dry cells if need be—and ranged from a hundred thousand to about three billion. For all practical purposes, here was the ultimate dielectric.

"We did it!" Friedrichs slapped Lancaster's back till it felt that the ribs must crack. "We have it!"

"Whooppee!" yelled Karen.

Suddenly they had joined hands and were dancing idiotically around the induction furnace. Lancaster clasped Rakkan's talons without caring that it was a Martian. They sang then, sang till heads appeared at the door and the glassware shivered.

*Here we go 'round the mulberry bush,
The mulberry bush, the mulberry bush—*

It called for a celebration. The end of a Project meant no more than filing a last report and waiting for the next assignment, but they ran things differently out here. Somebody broke out a case of Venusian aguacaliente. Somebody else led the way to a storeroom, tossed its contents into the hall, and festooned it with used computer tape. Rak-

kan forgot his Martian dignity and fiddled for a square dance, with Isaacson doing the calling. The folk from the other end of the station swarmed in till the place overflowed. It was quite a party.

Hours later, Lancaster was hazily aware of lying stretched on the floor. His head was in Karen's lap and she was stroking his hair. The hardy survivors were following the Dufresnes in French drinking songs, which are the best in the known universe. Rakkan's fiddle wove in and out, a lovely accompaniment to voices that were untrained but made rich and alive by triumph.

*"Sur ma tomb' je veux qu'on
inscrive:*

'Ici-git le roi des buveurs.'

*Sur ma tomb' je veux qu'on
inscrive:*

'Ici-git le roi des buveurs.

Ici-git, oui, oui, oui,

Ici-git, non, non, non—' "

Lancaster knew that he had never been really happy before.

Berg showed up a couple of days later, looking worried. Lancaster's vacation time was almost up. When he heard the news, his eyes snapped gleefully and he pumped the physicist's hand. "Good work, boy!"

"There are things to clean up yet," said Lancaster, "but it's all detail. Anybody can do it."

"And the material—what do you call it, anyway?"

Karen grinned. "So far, we've only named it *ffuts*," she said. "That's 'stuff' spelled backward."

"Okay, okay. It's easy to manufacture?"

"Sure. Now that we know how, anybody can make it in his own home—if he's handy at tinkering apparatus together."

"Fine, fine! Just what was needed. This is the ticket." Berg turned back to Lancaster. "Okay, boy, you can pack now. We blast again in a few hours."

The physicist shuffled his feet. "What are my chances of getting re-assigned back here?" he asked. "I've liked it immensely. And now that I know about it anyway—"

"I'll see. I'll see. But remember, this is top secret. You go back to your regular job and don't say a word on this to anyone less than the President—no matter what happens, understand?"

"Of course," snapped Lancaster, irritated. "I know my duty."

"Yeah, so you do." Berg sighed. "So you do."

Leavetaking was tough for all concerned. They had grown fond of the quiet, bashful man

—and as for him, he wondered how he'd get along among normal people. These were his sort. Karen wept openly and kissed him good-bye with a fervor that haunted his dreams afterward. Then she stumbled desolately back to her quarters. Even Berg looked glum.

He regained his cockiness on the trip home, though, and insisted on talking all the way. Lancaster, who wanted to be alone with his thoughts, was annoyed, but you don't insult a Security man.

"You understand the importance of this whole business, and why it has to be secret?" nagged Berg. "I'm not thinking of the scientific and industrial applications, but the military ones."

"Oh, sure. You can make lightning throwers if you want to. And you've overcome the fuel problem. With a few *ffuts* accumulators, charged from any handy power source, you can build fuelless military vehicles, which would simplify your logistics immensely. And some really deadly hand guns could be built—pistols the equivalent of a cannon, almost." Lancaster's voice was dead. "So what?"

"So plenty! Those are only a few of the applications. If you use your imagination, you can think of dozens more. And the

key point is—the *ffuts* and the essential gadgetry using it are cheap to make in quantity, easy to handle—the perfect weapon for the citizen soldier. Or for the rebel! It isn't enough to decide the outcome of a war all by itself, but it may very well be precisely the extra element which will tip the military balance against the government. And I've already discussed what that means."

"Yes, I remember. That's your department, not mine. Just let me forget about it."

"You'd better," said Berg.

In the month after his return, Lancaster lived much as usual. He was scolded a few times for an increasing absent-mindedness and a lack of enthusiasm on the Project, but that wasn't too serious. He became more of an introvert than ever. Having some difficulty with getting to sleep, he resorted to soporifics and then, in a savage reaction, to stimulants. But outwardly there was little to show the turmoil within him.

He didn't know what to think. He had always been a loyal citizen—not a fanatic, but loyal—and it wasn't easy for him to question his own basic assumptions. But he had experienced something utterly alien to what

he considered normal, and he had found the strangeness more congenial—more human in every way—than the norm. He had breathed a different atmosphere, and it couldn't but seem to him that the air of Earth was tainted. He re-read Kipling's *Chant-Pagan* with a new understanding, and began to search into neglected philosophies. He studied the news in detail, and his critical eye soon grew jaundiced—did this editorial or that feature story have any semantic content at all, or was it only a tom-tom beat of loaded connotations? The very statements of fact were subject to doubt—they should be checked against other accounts, or better yet against direct observation; but other accounts were forbidden and there was no chance to see for himself.

He took to reading seditious pamphlets with some care, and listened to a number of underground broadcasts, and tried clumsily to sound out those of his acquaintances whom he suspected of rebellious thoughts. It all had to be done very cautiously, with occasional nightmare moments when he thought he was being spied on; and was it right that a man should be afraid to hear a dissenting opinion?

He wondered what his son

was doing. It occurred to him that modern education existed largely to stultify independent thought.

At the same time, he was unable to discard the beliefs of his whole life. Sedition was sedition and treason was treason—you couldn't evade that fact. There were no more wars—plenty of minor clashes, but no real wars. There was a stable economy, and nobody lacked for the essentials. The universal state might be a poor solution to the problems of a time of troubles, but it was nevertheless a solution. Change would be unthinkably dangerous.

Dangerous to whom? To the entrenched powers and their jackals. But the oppressed peoples of Earth had nothing to lose, really, except their lives, and many of them seemed quite willing to sacrifice those. Did the rights of man stop at a full belly, or was there more?

He tried to take refuge in cynicism. After all, he was well off. He was a successful jackal. But that wouldn't work either. He required a more basic philosophy.

One thing that held him back was the thought that if he became a rebel, he would be pitted against his friends—not only those of Earth, but that strange joyous crew out in space. He

couldn't see fighting against them.

Then there was the very practical consideration that he hadn't the faintest idea of how to contact the underground even if he wanted to. And he'd make a hell of a poor conspirator.

He was still in an unhappy and undecided whirlpool when the monitors came for him.

They knocked on the door at midnight, as was their custom, and he felt such an utter panic that he could barely make it across the apartment to let them in. The four burly men wavered before his eyes, and there was a roaring and a darkness in his head. They arrested him without ceremony on suspicion of treason, which meant that habeas corpus and even the right of trial didn't apply. Two of them escorted him to a car, the other two stayed to search his dwelling.

At headquarters, he was put in a cell and left to stew for some hours. Then a pair of men in the uniform of the federal police led him to a questioning chamber. He was given a chair and a smiling, soft-voiced man—almost fatherly, with his plump cheeks and white hair—offered him a cigarette and began talking to him.

"Just relax, Dr. Lancaster.

This is pretty routine. If you've nothing to hide then you've nothing to fear. Just tell the truth."

"Of course." It was a dry whisper.

"Oh, you're thirsty. So sorry, Alec, get Dr. Lancaster a glass of water, will you, please? And by the way, my name is Harris. Let's call this a friendly conference, eh?"

Lancaster drank avidly. Harris' manner was disarming, and the physicist felt more at ease. This was—well, it was just a mistake. Or maybe a simple spot check. Nothing to fear. He wouldn't be sent to camp—not he. Such things happened to other people, not to Allen Lancaster.

"You've been immunized against neoscop?" asked Harris.

"Yes. It's routine for my rank and over, you know. In case we should ever be kidnapped—but why am I telling *you* this?" Lancaster tried to smile. His face felt stiff.

"Hm. Yes. Too bad."

"Of course, I've no objection at all to your using a lie detector on me."

"Fine, fine." Harris beamed and gestured to one of the expressionless policemen. A table was wheeled forth, bearing the instrument. "I'm glad you're so cooperative, Dr. Lancaster.

You've no idea how much trouble it saves me—and you."

They ran a few harmless calibrating questions. Then Harris said, still smiling, "And now tell me, Dr. Lancaster. Where were you really this summer?"

Lancaster felt his heart leap into his throat, and knew in a sudden terror that the dials were registering his reaction. "Why—I took my vacation," he stammered. "I was in the Southwest—"

"Mmmm—the machine doesn't quite agree with you." Harris remained impishly cheerful.

"But it's *true*! You can check back and—"

"There are such things as doubles, you know. Come, come, now, let's not waste the whole night. We both have many other things to do."

"I—look." Lancaster gulped down his panic and tried to speak calmly. "Suppose I am lying. The machine should tell you that I'm not doing so out of disloyalty. There are things I can't tell anyone without clearance. Like if you asked me about my work on the Project—I can't tell you that. Why don't you check through regular Security channels? There was a man named Berg—at least he called himself that. You'll find that it's all perfectly okay with Security."

"You can tell me anything," said Harris gently.

"I can't tell you this. Not anybody short of the President." Lancaster caught himself. "Of course, that's assuming that I did really spend the summer for something other than my vacation. But—"

Harris sighed. "I was afraid of this. I'm sorry, Lancaster." He nodded to his policemen. "Go ahead, boys."

Lancaster kept sliding into unconsciousness. They jolted him back to life with stimulant injections and vigorous slaps and resumed working on him. Now and then they would let up and Harris' face would swim out of a haze of pain, smiling, friendly, sympathetic, offering him a smoke or a shot of whiskey. Lancaster sobbed and wanted more than anything else in the world to do as that kindly man asked. But he didn't dare. He knew what happened to those who revealed state secrets.

Finally he was thrown back into his cell and left to himself. When he recovered from his faint—that was a very slow process—he had no idea of how many hours or days had gone by. There was a water tap in the room and he drank thirstily, vomited the liquid up again, and

sat with his head in his hands.

So far, he thought dully, they hadn't done too much to him. He was short several teeth, and there were some broken fingers and toes, and maybe a floating kidney. The other bruises, lacerations, and burns would heal all right if they got the chance.

Only they wouldn't.

He wondered vaguely how Security had gotten onto his track. Berg's precautions had been very thorough. So thorough, apparently, that Harris could find no trace of what had really happened that summer, and was going only on suspicion. But what had made him suspicious in the first place? An anonymous tip-off—from whom? Maybe some enemy, some rival on the Project, had chosen this way of getting rid of his sector chief.

In the end, Lancaster thought wearily, he'd tell. Why not do it now? Then—probably—he'd only be shot for betraying Berg's confidence. That would be the easy way out.

No. He'd hang on for awhile yet. There was always a faint chance.

His cell door opened and two guards came in. He was past flinching from them, but he had to be supported on his way to the questioning room.

Harris sat there, still smiling.

"How do you do, Dr. Lancaster," he said politely.

"Not so well, thank you." The grin hurt his face.

"I'm sorry to hear that. But really, it's your own fault. You know that."

"I can't tell you anything," said Lancaster. "I'm under Security oath. I can't speak of this to anyone below the President."

Harris looked annoyed. "Don't you think the President has better things to do than come running to every enemy of the state that yaps after him?"

"There's been some mistake, I tell you," pleaded Lancaster.

"I'll say there has. And you're the one that's made it. Go ahead, boys." Harris picked up a magazine and started reading.

After awhile, Lancaster focused his mind on Karen Marek and kept it there. That helped him bear up. If they knew, out in the station, what was happening to him, they—well, they wouldn't forget him, try to pretend they'd never known him, as the little fearful people of Earth did. They'd speak up, and do their damndest to save their friend.

The blows seemed to come from very far away. They didn't do things like this out in the station. Lancaster realized the

truth at that moment, but it held no surprise. The most natural thing in the world. And now, of course, he'd never talk.

Maybe.

When he woke up, there was a man before him. The face blurred, seemed to grow to monstrous size and then move out to infinite distances. The voice of Harris had a ripple in it, wavering up and down, up and down.

"All right, Lancaster, here's the President. Since you insist, here he is."

"Go ahead, American," said the man. "Tell me. It's your duty."

"No," said Lancaster.

"But I am the President. You wanted to see me."

"Most likely a double. Prove your identity."

The man who looked like the President sighed and turned away.

Lancaster woke up again lying on a cot. He must have been brought awake by a stimulant, for a white-coated figure was beside him, holding a hypodermic syringe. Harris was there too, looking exasperated.

"Can you talk?" he asked.

"I—yes." Lancaster's voice was a dull croak. He moved his head, feeling the ache of it.

"Look here, fellow," said Harris. "We've been pretty easy with you so far. Nothing has happened to you that can't be patched up. But we're getting impatient now. It's obvious that you're a traitor and hiding something."

Well, yes, thought Lancaster, he was a traitor, by one definition. Only it seemed to him that a man had a right to choose his own loyalties. Having experienced what the police state meant, he would have been untrue to himself if he had yielded to it.

"If you don't answer my questions in the next session," said Harris, "we'll have to start getting really rough."

Lancaster remained silent. It was too much effort to try to speak.

"Don't think you're being heroic," said Harris. "There's nothing pretty or even very human about a man under interrogation. You've been screaming as loud as anybody."

Lancaster looked away.

He heard the doctor's voice. "I'd advice giving him a few days' rest before starting again, sir."

"You're new here, aren't you?" asked Harris.

"Yes, sir. I was only assigned to this duty a few weeks ago."

"Well, we don't put on kid gloves for traitors."

"That's not what I mean, sir," said the doctor. "There are limits to pain beyond which further treatment simply doesn't register. Also, I'm a little suspicious about this man's heart. It has a murmur, and questioning puts a terrific strain on it. You wouldn't want him to die on your hands, would you, sir?"

"Mmmm—no. What do you advise?"

"Just a few days in the hospital, with treatment and rest. It'll also have a psychological effect as he thinks of what's waiting for him."

Harris considered for a moment. "All right. I've got enough other things to do anyway."

"Very good, sir. You won't regret this."

Lancaster heard the footsteps retreat into silence. Presently the doctor came around to stand facing him. He was a short, curly-haired man of undistinguished appearance. For a moment they locked eyes, then Lancaster closed his. He wanted to tell the doctor to go away, but it wasn't worth the trouble.

Later he was put on a stretcher and carried down endless halls to another cell. This one had a hospital look about it, somehow, and the air was sharp with the

smell of antiseptics. The doctor came when he was installed in bed and took his arm and slipped a needle into it. "Sleepy time," he said.

Lancaster drifted away again.

When he woke up, he felt darkness and movement. He looked around, wondering if he had gone blind, and the breath moaned out between his bruised lips. A hand was laid on his shoulder and a voice spoke out of the black.

"It's okay, fella. Take it easy. There'll be no more questions."

It was the doctor's voice, and the doctor looked nothing at all like Charon, but still Lancaster wondered if he weren't being ferried over the river of death. There was a thrumming all about him, and he heard a low keening of wind. "Where are we going?" he mumbled.

"Away. You're in a strato-rocket now. Just take it easy."

Lancaster fell asleep after awhile.

Beyond that there was a drugged, confused period where he was only dimly aware of moving and trying to talk. Shadows floated across his vision, shadows telling him something he couldn't quite grasp. He followed obediently enough. Full clarity came eventually, and he was ly-

ing in a bunk looking up at a metal ceiling. The shivering pulse of rockets trembled in his body. A spaceship?

A spaceship!

He sat up, heart thudding, and looked wildly around. "Hey!" he cried.

The remembered figure of Berg came through the door. "Hullo, Allen," he said. "How're you feeling?"

"I—you—" Lancaster sank weakly back to his pillow. He grew aware that he was thoroughly bandaged, splinted, and braced, and that there was no more pain. Not much, anyway.

"I feel fine," he said.

"Good, good. The doc says you'll be okay." Berg sat down on the edge of the bunk. "I can't stay here long, but the hell with it. We'll be at the station soon. You deserve to know some things, such as that you've been rescued."

"Well, that's obvious," said Lancaster.

"By us. The rebels. The underground. Subversive characters."

"That's obvious too. And thanks—" The word was so ridiculously inadequate that Lancaster had to laugh.

"I suppose you've guessed most of it already," said Berg.

"We needed a scientist of your caliber for our project. One thing we're desperately short of is technical personnel, since the only real education in such lines is to be had on Earth and most graduates find comfortable berths in the existing society. Like you, for instance. So we played a trick on you. We used part of our organization—yes, we have a big one, and it's pretty smart and powerful too—to convince you this was a government job of top secrecy. More damn things can be done in the name of Security—" Berg clicked his tongue. "Everybody you saw at the station was more or less play-acting, of course. The whole thing was set up to fool you. We might not have gotten away with it if we'd used some other person, more shrewd about such things, but we'd studied you and knew you for an amiable, unsuspecting guy, too wrapped up in your own work to go witch-smelling."

"I guessed that much," admitted Lancaster. "After I'd been in the cells for awhile. Your way of living and thinking was so different from anything like—"

"Yeah. I'm sorry as hell about that, Allen. We thought you could just return to ordinary life, but somehow—through one of those accidents or malices in-

evitable in a state where every man spies on his neighbor—you were hauled in. We knew of it at once—yes, we've even infiltrated the secret police—and decided to do something about it. Quite apart from the danger of your betraying what you knew—we could have eliminated that by quietly murdering you—there was the fact that we'd gotten you into this and did owe you something. We managed to get Dr. Pappas transferred to the inquisitory where you were being held. He drugged you, producing a remarkably corpse-like figure, and smuggled you out as simply another one who'd died under questioning. I used my Security papers to get the body for special autopsy instead of the usual immediate cremation. Then we simply drove till we reached the stratorocket we'd arranged to have ready, and you were flown to our spaceboat, and now you're on the way back to the station. You were kept under drugs most of the way to help you rest—they'd knocked you around quite a bit in the inquisitory. So—" Berg shrugged. "Pappas can't go back to Earth now, of course, but we can always use a medic in space, and it was well worth the trouble to rescue you."

"I'm honored," said Lancaster.

"I still feel like hell about what happened to you, though."

"It's all right. I can't say I enjoyed it, but now that I've learned some hard facts—oh, well, forget the painful nature of the lesson. I'll be okay. And I'm going home!"

Jessup supported Lancaster as they entered the space station. His old crew was there waiting to greet him. They were all immensely pleased to have him back, though Karen wept bitterly on his shoulder.

"It's all right," he told her. "I'm not in such bad shape as I look. Honest, Karen, I'm all right. And now that I have gotten back, and know where I really belong—damn, but it was worth it!"

She looked at him with eyes as gray as a rainy dawn. "And you are with us?" she whispered. "You're one of us? Of your own will?"

"Of course I am. Give me a week or two to rest, and I'll be back in the lab bossing all of you like a Simon Legree. Hell, we've just begun on that super-dielectricity. And there are a lot of other things I want to try out, too."

"It means exile," she said. "No more blue skies and green valleys and ocean winds. No

more going back to Earth."

"Well, there are other planets, aren't there? And we'll go back to Earth in the next decade, I bet. Back to start a new American Revolution and write the Bill of Rights in the sky for all to see." Lancaster grinned shyly. "I'm not much at making speeches, and I certainly don't like to listen to them. But I've learned the truth and I want to say it out loud. The right of man to be free is the most basic one he's got, and when he gives that up he finishes by surrendering everything else too. You people are fighting to bring back honesty and liberty and the possibility of progress. I hope nobody here is a fanatic, because fanaticism is exactly what we're fighting against. I say we, because from now on I'm one of you. That is, if you're sure you want me."

He stopped, clumsily. "Okay. Speech ended."

Karen drew a shivering breath and smiled at him. "And everything else just begun, Allen," she said. He nodded, feeling too much for words.

"Get to bed with you," ordered Pappas.

Jessup led Lancaster off, and one by one the others drifted back to their jobs. Finally only

Karen and Berg stood by the airlock.

"You keep your beautiful mouth shut, my dear," said the man.

"Oh, sure." Karen sighed unhappily. "I wish I'd never learned your scheme. When you explained it to me I wanted to shoot you."

"You insisted on an explanation," said Berg defensively. "When Allen was due to go back to Earth, you wanted us to tell him who we were and keep him. But it wouldn't have worked.

I've studied his dossier, and he's not the kind of man to switch loyalties that easily. If we were to have him at all, it could only be with his full consent. And now we've got him."

"It was still a lousy trick," she said.

"Of course it was. But we had no choice. We *had* to have a first-rate physicist."

"You know," she said, "you're a rat from way back."

"That I am. And by and large, I enjoy it." Berg grimaced. "Though I must admit this job leaves a bad taste in my mouth. I like Allen. It was the hardest thing I ever did, tipping off the federal police about him."

He turned on his heel and walked away, smiling faintly.

TAKE-OFF

Where the Readers take over and anything goes.

Dear Lester:

The second SPACE was much better, to my taste, than the first—and the first wasn't bad by any means. There seemed to be more to the second issue; no doubt the smaller type and larger number of stories had something to do with it. The older type was rather nice, but I think I'll prefer the smaller when I get used to seeing nothing else.

Cover: distinctly better, but not as good as it could have been. A little more air between the title SPACE SCIENCE FICTION on top and the picture, as well as the date on the side, and the picture, would have made a lot of difference.

Cover picture: both pleasing and annoying, though the pleasure wins out, I think. It's annoying because it's cluttered at top—Saturn would be better out—and because the thing that catches the eye is not the main figures, but the man holding the oxy tank, up toward left top; also, I feel you could have done without the figure floating up in the lefthand corner completely.

Okay, enough quibbles on

matters for the moment; now that I've bought the book, it's the stories that count. I stack 'em thisaway.

Best: MOON-BLIND by Erik van Lhin. A very neat job of suspense, with perfect balance between story, character-interest, and intellectual stuff. I wondered, at first, why this, rather than the "feature novel" led off the book—now I know, and agree that it should have.

Very good: a second-place tie to A MATTER OF FAITH, by Michael Sherman, and THE REVISITOR by Theodore L. Thomas. The Sherman is stronger on idea and color than character and movement, though perhaps at greater length something more could have been done with it. At least, we don't have the cardboard hero and villains you'd have found in this background not too many years back. The Thomas doesn't have much new about it, but the treatment makes it wonderfully fresh, and the writing is quite smooth without being superslick.

Good: third-place to THE FENCE. Despite the author's

skill, which made for good reading, the story was stale in that it was obvious what lay behind the works. And there wasn't very much story to it; it was more of an essay.

Enjoyable: THE GOD IN THE BOWL, by Robert E. Howard, I'd put in 4th place, with OFFICIAL RECORD close behind. With both, nearly all the basic elements were familiar. The Pratt novelet had better writing, I thought, except for a slow start, but Conan had more fire. So Conan's silly. So are a number of perfectly enjoyable stories.

Not So Good: I'd put WITH WINGS, by John Jakes, ahead of THE BARRIER in spite of Leinster's sensitive handling; the latter struck me as just hitting a minimum of competence. It held my interest enough so that I was curious to see what happened, but the writing struck me as being very awkward, the characterization as standard as the multiplication table, and the story itself far from fresh.

Editorial & Book Reviews: Hmm, are you sure you could spare the space? What was there was fine, but why not do something with these departments?

Artworks: Orban very fine throughout. Poulton's double-

spread struck me as being perfect once I read the story—very good eye-catcher before I read the tale. His full page was pretty, but it could fit dozens of stories which had females and scientific equipment in them just as well, and some better. Schecterson I thought good on the Howard story, not so hot on the Pratt, though better than good on Jakes. Gari I can live without, though there are far worse around these days.

Biggest complaint of all: SPACE SCIENCE FICTION manages to make a two-months wait between issues seem more like four months.

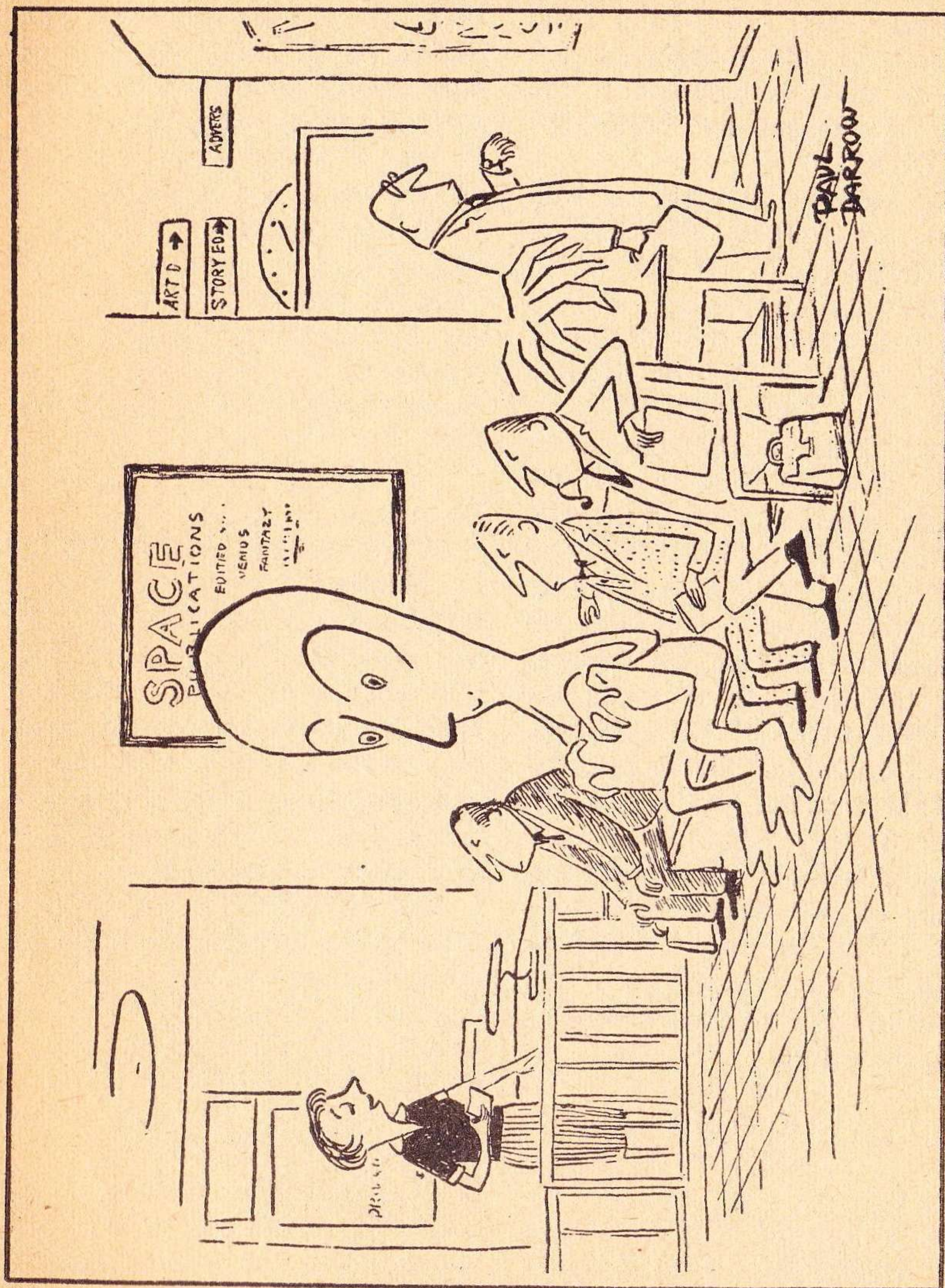
Glen Monroe
Bronx, New York

We've got room for improvement, Glen—and we're trying to take full advantage of it. That smaller type you mention was to give the readers more reading per issue. We've also expanded the book reviews, you'll notice. But like you, our real interest is in the stories, so they have to come first. Incidentally, thanks for rating them. I really appreciate it when a reader takes time to list stories in the order of his preference.

L. R.

Dear Lester:

To be frank, your cover for



"The editor will see the green gentleman now."

the September issue was the best one any editor has wrung from Bergey. As any other fan, I just love to make suggestions! The first, is: covers by TIMMINS and ORBAN!

The second suggestion is *long* novels by POUL ANDERSON and GEORGE O. SMITH!

NOW the stories . . . Rating was tough, but after flipping a few mental dice: MOON-BLIND came first, THE FENCE came second, THE BARRIER came third. The rest went in the following order: A MATTER OF FAITH, THE REVISITOR, and OFFICIAL RECORD. WITH WINGS seemed a pointless rehash of a well-worn, threadbare, and plotless group of words. As for THE GOD IN THE BOWL, I can't find adjectives to describe it. That was the first Robert E. Howard story I have ever read. I hope this is not a fair representation of his works because—well, I had to force myself to finish it. Please! no more like these last two in your excellent little magazine.

Jon Stopa
6109 McClellan
Chicago 30, Ill.

Well, we've got a novelette by Paul Anderson, at least. But just between us, Jon, I positively won't buy according to the name

of the author, even in the case of such fine men as Anderson and Smith. Incidentally, the Howard yarn wasn't typical—it was very early Howard, and frankly I felt it was a story readers would want, even if not Howard's top-grade best. Try THE SCARLET CITADEL or Gnome Press' CONAN THE CONQUEROR to see the more developed Conan treatment. Fortunately, most readers seemed happy to see the story.

L. R.

Dear Lester:

In the September issue, I wish to compliment you on your editorial on telepathy. This editorial has undoubtedly caused some tale teller to discard for the moment his present work (perhaps even in the fourth or fifth draft) and start this spark of stimulation rolling towards a unique and thereafter much-copied story.

A MATTER OF FAITH was a little on the adventure-story side with one man coming out sitting on top of the world—I mean Grekh. Yet I liked the trickiness of the three religions' foundation—Gregg, Pittman, and Speedwrititng shorthand.

MOON-BLIND, although un-plausible, was written in a way which made the reader feel it plausible. The solution seemed rather weak.

OFFICIAL RECORD lacks reader interest due to the absence of purposeful characterization—no main character to exist throughout all the story, resulting in disunity and incoherence. Who cares what happens between the big rats and the humanoid “rats”? Well, I’ll admit I did like the big rats taking control from His Intelligent Humanoid Rodency in the end, thus I contradict myself.

THE FENCE presented a new driving force (a man shoveling coal or making watches because he wants to) for society if only, of course, theoriatical and pending upon the conditioning of minds for such a society. The force is presented only incidentally along with a story which, with a lot more subtility and style, could be Bradbury. Yet this is not criticism as I like the story immensely as it is, and conforming it to Bradbury could not possibly improve it much. Ray just happens to be my favorite author, Poe and Hawthorne not excluded, that’s all.

I should have thought my twelve-year old brother wrote THE GOD IN THE BOWL had not De Camp said differently in his note.

THE BARRIER, an interesting story.

WITH WINGS, an overworked

theme but a suspense-packed three pages (for me anyhow).

THE REVISITOR didn’t strike me until the next morning, but then it really hit me. I liked it.

The cover? No bug-eyed monsters or men with blue, purple or green faces and the woman looks intelligent, though rather chilly if they get to her. Illustrators, you’d be surprised how alluring you can make a girl in just an old-fashioned skirt and sweater from that ancient year of 1952.

Page 93 by Poulton. Another intelligent face.

Page 120 by Schecterson. I’ve seen but one illustration I liked more. That was one by Mentor Huebner appearing on the back of the RAY BRADBURY REVIEW (back to him again) picturing the climax of Ray’s THE EARTH MEN and that’s probably because I’m a fiend for anything with the by-line “Ray Bradbury.”

James D. Cornette
2848 Columbus Avenue
Columbus, Ohio

Your idea of some writer sitting down and doing a more thorough job on telepathy was what I had in mind in writing the editorial, of course. They’re meant to stimulate readers and editors to work

a little harder thinking over the old ideas—because most of those ideas become new, then, somehow! Anyhow, thinking is fun—almost as much fun as getting a chance to show off in print about my own thinking. That, just between us, is the real reason behind the editorial!

L. R.

Dear Lester,

Why not compare telepathy to speech?

When a child is learning to talk he must listen to others in his environment, watch their lips move and try to imitate their sounds and lip movements, and connect the words to his thoughts. There must develop mutual understanding between him and others. On the other hand, if he doesn't want to tell his mother who took the jar of jam out of the pantry, he won't tell her; she may know, but not through his words.

Don't you think the same would apply to telepathy?

For instance, when a criminal is being cross-examined, he is sometimes tricked into saying things he didn't intend to say; but normally people are on guard against giving themselves away.

And like learning to speak, a mind-reader would have to learn by the simple process of watching people, at first analyzing

what they are thinking by studying their unconscious gestures, facial movements, and actions. Once he knows his subjects' motives and desires, he may learn to know what their thoughts are—for that particular moment.

In practice, with telepathy there should be no more misunderstanding, of course; no wars, arguments, or fighting of any kind. People wouldn't even need a leader unless some catastrophe should come. And everyone should learn to be perfect. It's all so simple . . . if we only had telepathy!

I agree. It should make a fine story, if someone could just take the time to think a little harder about telepathy.

Gene Moas

1318 Harrison

Topeka, Kansas

I like your analogy between learning to speak and learning telepathy—a sound, logical idea. It seems reasonable that people who were telepaths would have to learn to interpret the thoughts of others, just as a person born with a sense of hearing has to learn to interpret sounds. Sorry I had to cut your letter, this time, being short of space. Good material for thinking, and I always like that.

L. R.

IN MEMORIAM

As this issue goes to press, we have just learned that heart failure has claimed the life of one of science fiction's best-known cover artists. Earle Bergey died during the first week of October, 1952.

The news comes as a profound shock to us. Mr. Bergey seemed to be in excellent health, when he was in our office recently; a pleasant, hearty man, who looked capable of enjoying life to its fullest for many more decades.

To say that he will be missed is a gross understatement. We saw and admired the work of this artist fifteen years ago, and probably no other artist in this field has equalled the number of covers which he executed. Certainly, few have equalled his high level of technical excellence! His sense of form, color and composition must have attracted countless thousands of readers to science fiction.

When we first got in touch with Mr. Bergey a few months ago, we found that our problems in getting covers to suit us were ended. Mr. Bergey was singularly pleasant and cooperative. He was able to take our rough suggestions and grasp what we wanted almost at once. He was apparently delighted to keep working until we were completely satisfied with the resulting illustration. And the final form was invariably better than we had expected. He was, in short, the type of artist about whom editors and art directors dream in their rosier moments. And the reader response to his art proved that he was also the type of artist fans want to see doing their covers.

Mr. Bergey lived and worked in Pennsylvania. He was just planning to move to New York, which would have made working with him even more pleasant. Unfortunately, this move was sadly interrupted, and the fine covers which he was beginning for us will now never be completed.

- Earle Bergey is survived by his wife and two children. They have our sincerest condolence. We are sure all our readers will share our own grief at this unhappy news, and our gratitude for what Mr. Bergey has given to all of us.

JOHN RAYMOND
LESTER DEL REY
MILTON BERWIN

IT'S A SHAME!

When you write in saying you missed a copy of **SPACE SCIENCE FICTION**, we're as sorry as you are. We've tried to keep up with the growing demand, but it seems the supply is never enough. We *had* a few back issues at first, but even those have been exhausted now. It's a shame, but there is nothing we can do about those copies you have already missed. Something *can* be done about future copies, however. You can be sure of getting every top-notch issue, without hunting from newsstand to newsstand. How? Simple enough—just send us your subscription now, before you forget. You'll be saving yourself time, worry—and money. And that is definitely not shame—it's just common sense!

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