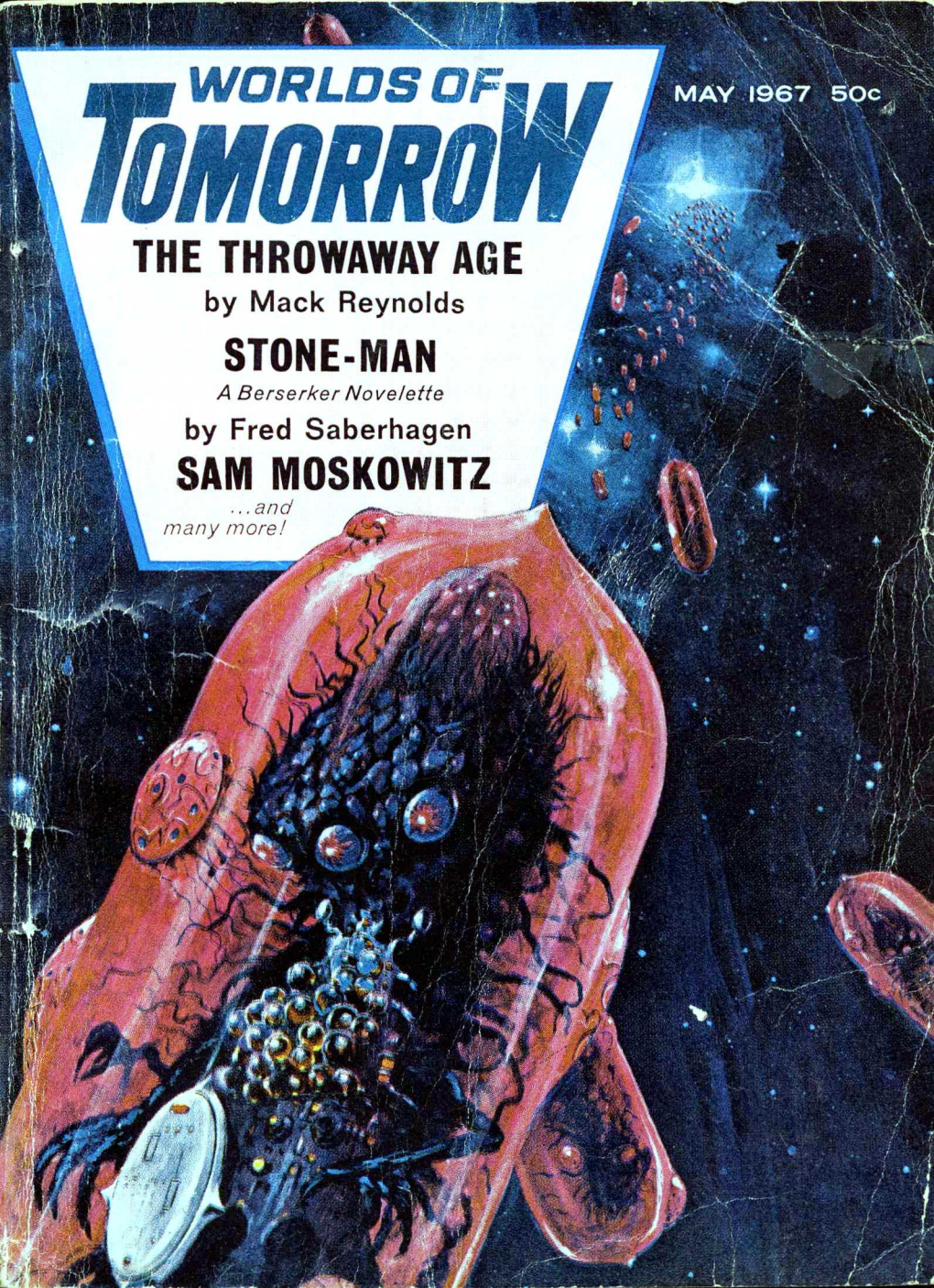
WORLDS OF
TOMORROW
MAY 1967 50c
THE THROWAWAY AGE
by Mack Reynolds
STONE-MAN
A Berserker Novelette
by Fred Saberhagen
SAM MOSKOWITZ
...and
many more!

WORLDS OF TOMORROW®

MAY 1967
Vol. 4 No. 4
ISSUE 23

ALL NEW STORIES

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Cover by CHAFFE

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MAN OF TOMORROW

As this editorial is written there is a party going on, three thousand miles away. The guest of honor is an apple-cheeked youngster named Forrest J Ackerman — otherwise known as Forry, 4e or 4sj — whose youthful smile has illuminated the lobbies of a hundred convention hotels. This is Forry's birthday party — his fiftieth. How strange to think that 4sj is half a century old!

The first time we saw Forry Ackerman was in 1939, on the occasion of what was grandly called the First World Science Fiction Convention. We lunched with him in midtown New York, and how the other patrons of the Automat stared! For Forry was in costume, space helmet, rocket blaster and jodhpurs. It was a science-fiction convention, wasn't it? And 4sj has never believed in doing anything by halves.

Although that was the first time we met him in the flesh, Forry was no stranger to us — or to anyone who has given much more than a passing thought to science fiction, not then, or now, or at any time in the past thirty years and more. Fanzine publisher, collector, indefatigable letter-writer and dauntless traveler, Forry has been deeply involved in everything connected with science fiction for all of his life. There have been twenty-five world conventions so far, and Forry has been the first person most of us saw, sitting at the registration lobby and greeting everyone who approached, at all of them but one. And he missed that one because of a death in the family; as a matter of fact, he was on his way to it when the news reached him and he had to turn back. Smaller gatherings? On the West Coast and the East, in north and south, in England, Canada, Germany and more other countries than most of us will

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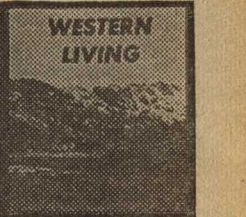

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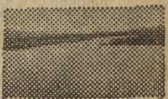

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ever see, Forry has been there. He taught himself Esperanto while still in his teens, and Forry has crossed a hundred borders with a fanzine in his hands and a word of greeting in the international language on his lips. Forry's home in Los Angeles is the closest thing we've ever seen to a science-fiction monument. The whole lower floor is an exhibition gallery, lined with bookshelves, decorated with cover paintings and posters, props from science-fiction movies and oddments of science-fiction toys and models, containing a major fraction of all the science fiction that has ever been published in most of the languages that there are. Rumor is that he also has a two-car garage, stacked to the ceiling with additional sf incunabula for which he has no room in his house. That rumor is false. He has three such garages.

We're sorry we aren't at Forry's party right now. We would be, except that a prior engagement several thousand miles away makes it impossible. We would like to join in the toasts — in Coke, no doubt, since Forry is a notorious non-drinker — and we would even give up cigarettes for the few hours necessary, because Forry doesn't smoke either. (A man as dedicated to science fiction as this has room for only the one vice!) We would like to watch his expression as he opens the pages of the anniversary book specially printed for the occasion, with letters and stories and poems by old friends like Isaac Asimov and Ray Bradbury and Brian W. Aldiss and Edmond Hamilton . . . Ted Carnell from England, Walter Ernsting from Germany, Josef Nesvadba from Czechoslovakia and many others. But as we are here instead, we will merely raise our coffee cup on high and say:

"Happy semi-centennial, 4e! And please stick around for fifty years more!"

The principal reason we are on this side of the continent at this moment instead of the other is that we are doing a series of talks that, in the past few weeks, has carried us to five states, before management groups, church congregations, schools, radio stations and miscellaneous gatherings of one kind or another, talking about the future.

To judge by the question periods that follow most of these talks, the biggest single question in most people's minds is, "What about automation? In tomorrow's world of the computer, will there be anything left for *people* to do?"

The way it looks to most human beings, clinging to their jobs and concerned about the bushel of ferrite cores that is waiting to take the jobs away from them, the World of Tomorrow is lined with traps surrounded by snares. The statisticians tell us that fifty thousand people a week find their jobs abolished by data-processing and control machines. The mind boggles. Reason staggers. At that rate — why, let's see — in a few decades at the outside, *all* the jobs machines can handle will be taken over by machines, and good-by to the flesh-and-blood elevator operators, drill-press machinists, coal miners, department-store salesclerks, bank tellers . . . you name it, if it is a repetitious and trainable job, a machine can be trained to do it. Leaving what?

It seems to us that the jobs the

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machines will leave for people to do are the only jobs worth people's while to do in the first place. (Does anybody really *want* to be a subway motorman?) When we think about the kinds of jobs our children will hold — or we ourselves may hold in another decade or two — perhaps the first thing we need to think about is what we mean by the word "job."

Because all of us still tend to think of "work" as a process of making something to sell — in spite of the fact that the trend has been clear for half a century that more and more of us do things that do not directly involve manufacture or production in any form; in spite of the clear-cut preponderancy of white-collar over blue-collar employment right now. In fact, we think of "work" as something that brings us enough monetary return to give us leisure. And there's at least a good betting chance that that won't be necessary for very long. Technology like the computer, social changes like the negative income tax, alterations in attitude like the increased emphasis on education and sports and hobbies can make that view obsolete long before the end of this high-speed century.

In the mass effect, being replaced by a computer need not be such so much like being thrown out of work as it can be like inheriting a million dollars. It doesn't relieve you of the opportunity for work. It only makes it unnecessary to earn a living from your work.

It could be, in short, the flowering of a new age for poets and musicians, for research mathematicians and slot-car racers, for dedicated home-makers (every woman a Jackie Kennedy!) and for those whose principal role in life is to enjoy, appreciate and communicate that pleasure (how many buried Bernard Berensons lie under the surface of today's street-cleaners and cops?)

And so when we think of Forry Ackerman, hobbyist extraordinary, man who has devoted all of his life to fandom, perhaps we are thinking of this year's model of the Man of Tomorrow. At the age of ten, 4e discovered science fiction. In the forty years since then he has spent almost none of his productive time doing almost anything else.

True, he has received money for some of what he did — he has written a few stories, edited a couple of highly successful magazines, acted as an agent for some science-fiction writers and a consultant for any number of science-fiction ventures. But essentially what he has done is what he wanted to do.

Would you like to do the same? — devote your life to science-fiction or stamp collecting, or playing the cello in a chamber-music trio?

It seems strange to us, true. But perhaps it will seem even stranger to our children that so many of us spend the larger part of our lives pushing papers across a desk or metal parts through a lathe, when we could have been doing what we wanted to do — *whatever* what we wanted happened to be.

— THE EDITOR

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STONE MAN

by FRED SABERHAGEN

Illustrated by CASTELLON

Sirgol was a battleground — for a war fought thousands of years in its past!

I

Derron Odegard took a moment to wipe his sweaty palms on the legs of his easy-fitting duty uniform, and to minutely shift the position of his headset on his skull. Then he leaned forward in his contour chair, hunting the enemy again.

After just half an hour on watch he was bone-tired. The weight of his planet and its forty million surviving inhabitants rested crushingly on the back of his neck. He didn't want to bear the weight of forty million lives, but at the moment there was nowhere to set them down.

The responsibility was very real.

One gross error by Derron, or anyone else in Time Operations, could be enough to tumble the people who still survived on the planet Sirgol into nothingness, to knock them out of real-time and end them for good, end them so completely that they would never have existed at all.

Derron's hunter's hands settled easily to rest on the molded controls of his console. Like those of a trained musician, his fingers followed his thought. The pattern on the curved viewscreen before him, a complex weaving of green cathode-traces, dissolved at his touch on the controls, then steadied, then shifted again — grass put carefully aside by the touch of a cautious stalker. In the screen pattern, Derron's educated eye saw represented the lifelines of animals and plants, a tangle which made up his assigned small segment of his planet's prehistorical ecology.

Surrounding Derron Odegard's chair and console were those of other sentries, all aligned in long, subtly curving rows. This arrangement pleased and rested the momentarily lifted eye — and then led the eye back to the job, where it belonged. The same effect resulted from the gentle modulations that sometimes passed cloudlike across the artificial light flowing from the strongly vaulted ceiling; and from the insistent psych-music, a murmur of melody that now and then shifted into a primitive heavy beat.

A thousand men stood guard with Derron in his buried chamber while the music murmured and the fake cloud-shadows passed, and through the huge room there wafted fresh-smelling air; breezes scented convincingly with green fields, sometimes with the tang of the sea, with all the varieties of living soil and water that no longer existed up above the miles of rock, on the surface of the planet.

Again the cathode traces symbolizing interconnected life rippled past Derron on his screen.

Like a good soldier he avoided predictability in his own moves while patrolling his post. He sent his recon-device a decade further into the past, then five miles north, then two years presentward, and a dozen miles southwest. At every pause he watched and listened, so far in vain. No predator's passage had yet disturbed this green symbolic grass.

"Nothing yet," he said aloud, feeling his supervisor's presence at his elbow. When the presence stayed put, Derron glanced back for a moment at Captain —?

It irritated him that he could not think of the captain's name, though perhaps it was understandable. Time Operations had only been in business for about a month and during all that period had been in a state of organizational flux.

Whoever he was, the captain had his eyes fixed fiercely on Derron's screen. "Your section right here," the captain said, showing his nervousness, "this is the hot spot." The captain's only reassuring aspect was that his dark jowly face seemed set like a bulldog's, to bite and hold on. Derron turned back to work.

His assigned segment of space-time was set about twenty thousand years in the past, near the time of

the First Men's coming to Sirgol. Its duration was about a century, and in space it comprised a square of land roughly a hundred miles on a side, including the lower atmosphere above the square. On the screen every part of it appeared as an enormously complex thicket of events.

Derron had not yet found a human lifeline woven into this thicket of the past, but he was not looking for humans especially. What mattered was that he had not yet discovered the splash of disruptive change that would have signaled the presence of an invading berserker machine.

The infraelectronic recon-device which served as Derron's sense-extension into the past did not stir the branches of forests, or startled animals. Rather it hovered just outside reality, seeing real-time through the fringe of things that almost were, dipping into real-time for an anosecond and then dropping back again to peer at it from just around the local curves of probability.

The first intimation that battle had been joined came to Derron not through his screen or even his earphones, but through the sound of his captain moving away in soft-footed haste, to whisper excitedly with the supervisor of the next rank.

If the fight was really on in Time Operations at last, a man might well feel frightened. Derron did, in a remote and withdrawn sort of way. He was not badly frightened as yet, and did not expect to be. He thought he would stay on his job and do it well.

There were advantages in not caring very much.

A few seconds later the start of an action was confirmed by a calm girl's voice that came into his earphones. She also told him in which dimensions and by how much to shift his pattern of search. All the sentries would be shifting now, as those nearest the enemy penetration closed in and the rest spread their zones to maintain coverage. The first attack might be only a diversion.

Present-time passed slowly. Derron's orders were changed and changed again, by the unshakeable girl-voice that might be only a recording. For a while he could only guess at how things were going. Men had never tried to fight in the past before, but all the men of Sirgol who were still alive were used to war in one form or another. And this game of Time Operations would also be new to the enemy — though of course he had no emotions to get in his way.

"Attention, all sentries," said a new, drawling, male voice in Derron's headset. "This is Time Ops Command, to let you all know what's going on. First, the enemy's sunk a beachhead down about twenty-one thousand years in probability-time. Looks like they're going to take things down there and then launch 'em up into history."

A few seconds later, the voice added: "We got our first penetration already spotted, somewhere around twenty-and-a-half down. Keep your eyes sharp and find us the keyhole."

At some time more than twenty thousand years in the past, at some

spot not yet determined high in Sirgol's atmosphere, six berserker devices the size of aircraft had come bursting into reality. If men's eyes had been able to watch the event directly, they would have seen the six missile-shaped killing machines materialize out of nothing and then explode from their compact formation like precision flyers. Like an aerobatic team they scattered at multisonic speed away from their "keyhole" — the point of spacetime through which they had entered reality, and where one perfect counterblow could still destroy them all.

As the six enemy machines flew at great speed away from one another, they seeded the helpless world below them with poison. Radioactives, antibiotic chemicals — it was hard from a distance of twenty thousand years to say just what they were using. Derron Odegard, patrolling like the other sentries, saw the attack only in its effects. He perceived it as a diminishing in probability of the existence of life in his own sector, a morbid change following certain well defined directions that would in time reduce the probability of any life at all in the sector to zero.

If the planet was dead and poisoned when the First Men arrived, groping and wandering as helpless as babies, why then there could be no human civilization on Sirgol, no one in Modern times to resist the dead today. Derron knew that the berserkers. The planet would still be dark tide of nonexistence was rising in each cell of his own body, in each cell of every living creature.

Derron's findings with those of every other sentry were fed to Time Ope Command. Men and computers worked together, tracing back the vectors along which the deadly changes in probability advanced.

The system worked to Command's satisfaction, this time. The computers announced that the keyholes of the six flying machines had been pinpointed.

In the catacomb of Operations' Stage Two, the missiles waited, blunt simple shapes surrounded by complexities of control and launching mechanism. As Command's drawling voice announced: "Firing one for the keyhole," massive steel arms extended the missile sideways from its rack, while on the dark stone floor beneath it there appeared a silvery circle, shimmering like troubled liquid.

The arms dropped the missile, and in the first instant of its fall it disappeared. Even as it fell into the past it was propelled as a wave of probability through the miles of rock to the surface. The guidance computers made constant corrections, steering their burden of fusible hydrogen through the mazes of the half-real, toward the right point on the edge of normal existence . . . .

Derron saw the malignant changes that had been creeping ominously across his screen begin suddenly to reverse themselves. It looked like a trick, like running the projector backward, like some stunt with no relevance to the real world.

"Right in the keyhole!" yelped Command's voice in his ear, drawling no longer. The six berserker

flyers now shared their point of entry into real-time with an atomic explosion, neatly tailored to fit.

As the waves of death were seen to recede on every screen, jubilation spread in murmurous waves of its own up and down the curved rows of sentry-positions. But experience, not to mention discipline, kept the rejoicing muted.

The rest of the six-hour watch passed like a routine training exercise in the techniques of mopping-up. All the i's were dotted and the t's crossed, the tactical success tied down and made certain by observations and tests. Men were relieved on schedule for their customary breaks, and passed one another smiling and winking. Derron went along and smiled when someone met his eye; it was the easiest thing to do.

When the shift ended and there was still no sign of any further enemy action, there was no doubt left that the berserkers' first attempt to get at the Moderns through their past had been beaten back into non-existence.

But the damned machine would be back, as always. Stiff and sweaty and tired, and not conscious of any particular elation, Derron rose from his chair to make room for the sentry on the next shift.

"I guess you guys did all right today," the replacement said, a touch of envy in his voice.

Derron made himself smile again. "You can have the next chance for glory." He pressed his thumbprint on the console's scanner as the other man did the same. Then, his responsibility officially over, he walked at a dragging pace out of the sentry room. Other members of his shift were moving in the same direction; once outside the area of enforced quiet they formed excited groups and started to whoop it up a little.

Nodding cheerfully to the others, and replying appropriately to their jokes, Derron stood in line to hand in the recording cartridge with its record of his shift activity. Then he waited in another short line, to make a final oral report to a debriefing officer. After that he was free; as free as any citizen of Sirgol could be, these days.

II

When the huge passenger elevator lifted Derron and a crowd of others out of the deeper caves of Time Operations to the housing level, there were still ten miles of rock overhead.

The pampered conditions of the sentry room were not to be found here, or anywhere where a maximum-efficiency environment was not absolutely necessary. Here the air smelled stale and the lighting was just tolerable. The corridor in which Derron had his bachelor-cubicle was one of the main streets of the buried world-city, the fortress in which the surviving population of Sirgol was armed and maintained and housed and fed. Given the practically limitless power of hydrogen fusion to labor for them, and the mineral wealth of the surrounding rock, the besieged planet-garrison at least had no fear of starvation.

The corridor was two stories high

and as wide as a main street in one of the cities of the old surface-world. People who traveled this corridor for any considerable distance rode upon the moving belts laid down in its center. On the moving belt now rushing past Derron a pair of black-uniformed police were checking the identity cards of travelers. Planetary Command must be cracking down again on work-evaders.

As usual, the belts and the broad statwalk strips on either side were moderately crowded. Men and women were going to their jobs or leaving them, at a pace neither hurried nor slow, wearing work uniforms that were mostly monotonously alike. A few other people, wearing lighter and gayer off-duty clothes, were strolling or standing in line before stores or places of amusement.

One of the shorter lines was that in front of the local branch of the Homestead Office. Derron paused on the statwalk there, looking at the curling posters and the shabby models on display. All depicted various plans for the rehabilitation of the surface of the planet after the war. Apply *now* for the land you want . . . they said there would be new land, then, nourished and protected by new oceans of air and water, which were to be somehow squeezed out of the planet's deep rocks.

The people standing in line looked at the models with wistful, half-hopeful eyes, and most of those passing glanced in with something more than indifference. They were all of them able to forget, if they had ever really understood it, the fact that the world was dead. The real world was dead and cremated, along with nine out of ten of the people who had made it live . . . .

To control his thoughts Derron had to turn away from the dusty models and the people waiting in line to believe. He started toward his cubicle but then on impulse turned aside, down a narrow branching passage.

He knew where he was going. Likely there would be only a few people there at this time of day. A hundred paces ahead of him, the end of the passage framed in its arch the living green of real treetops —

The tremor of a heavy explosion raced through the living rock from which this passage had been carved.

Ahead, Derron saw two small red birds streak in alarm across the greenery of the trees. Now the sound came, dull and muffled, but heavy. It had been a small missile penetration, then, one hitting fairly close by. The enemy threw down through the shielding rock probability-waves that turned into missiles, even as men fired them upward at the enemy fleet in space.

Without hesitating or breaking stride Derron paced on to the end of the passage. There he halted, leaning his hands heavily on a protective railing of natural logs, while he looked out over the park from two levels above the grass. From six levels higher yet, an artificial sun shone down almost convincingly on three or four acres of real trees and real grass, on varicolored birds that were held inside the park by

curtain-jets of air. Across the scene there passed a gurgling brook of real water. Today its level had fallen so that the concrete sides of its bed were revealed halfway down.

A year ago — a lifetime ago, that is, in the real world — Derron Odegard had been no nature-lover. Then he had been thinking of finishing his schooling and settling down to the labors of a professional historian. Even on holidays he had gone to historic places . . . he thrust out of his memory now certain thoughts, and a certain face, as he habitually did. Yes, a year ago he had spent most of his days with history texts and films and tapes, and in the usual academic schemes for academic advancement. In those days the first hints of the possibility that historians might be allowed to take a first-hand look at the past had been promises of pure joy. The warnings of Earthmen were decades old, and the defenses of Sirgol had been decades in the building, all part of the background of life. The Berserker War itself was other planets' business.

In the past year, Derron thought, he had learned more about history than in all the years of study that had gone before. Now when the last moment of history came on Sirgol, if he could know it was the last, he would get away if he could come to one of these parks with a little bottle of wine he had been keeping stowed under his cot. He would finish history by drinking whatever number of toasts circumstances allowed, to whatever dead and dying things seemed to him then the most worthy.

The tension was just beginning to drain from his fingers into the hand-worn bark of the railing, and he had actually forgotten the recent explosion, when the first of the wounded came into the park below him.

The first was a man with his uniform jacket gone and the remains of his clothing all torn and blackened. One of his arms was burnt and raw and swelling. He tottered forward half-blindly among the trees, and then like an actor in some wilderness drama he fell full length at the edge of the brook and began to drink from it ravenously.

Next came another man, older, this one probably some kind of clerk or administrator, though he was too far away for Derron to make out his insignia. This man stood in the park as if lost, seemingly unwounded but more dazed than the burned man. Now and then the second man raised his hands to his ears; there was something wrong with his hearing.

A pudgy woman entered, moaning in bewilderment as she held the flap of her torn scalp in place. Two more women came in; a trickle of injured people began to spill steadily from a small park entrance at grass level. They flowed in and defiled the false peace of the park. Their voices, growing in number, built a steadily rising murmur of complaint against the injustice of the universe. Everyone knew it was a rare event for a berserker missile to get past all the defenses and penetrate to the depth of an inhabited level.

Why did it have to happen today, and to them?

There were a couple of dozen people in the park now, walking wounded from what must have been a relatively harmless explosion. Down the nearby passages there echoed authoritarian yells, and the whine and rumble of heavy machines. Damage Control was on the job; the walking wounded were being sent here to get them out from under foot while more urgent matters were being taken care of.

A slender girl of eighteen or twenty, clad in the remnants of a simple paper dress, came into the park and leaned against a tree as if she could walk no further. The way her dress was torn . . . .

Derron turned away, squeezing his eyes shut and shaking his head in a spasm of self-disgust. He stood up here like some ancient tyrant, remotely entertained and critically lustful.

He would have to decide, one of these days, whether he was really still on the side of the human race or not. He hurried down some nearby stairs and came out on the ground level of the park. The badly burned man was bathing his raw arm in the cool running water. No one seemed to have stopped breathing, or to be bleeding to death. The girl looked as if she might fall away from her supporting tree at any moment.

Derron went to her, pulling off his jacket. He wrapped her in the garment and eased her away from the tree.

"Where are you hurt?"

She shook her head and refused to sit down, so they did a little off-balance dance while he held her up. She was tall and slim and ordinarily she would be lovely . . . no, not really lovely, or at least not standard-pretty. But good to look at. Her dark hair was cut in the short simple style most favored by Planetary Com'mand, as most women's was these days. No jewelry or make-up. Plainly she was in some kind of shock.

She came out of it somewhat to look in bewilderment at the jacket that had been wrapped around her; her eyes focused on the collar insignia. She said: "You're an officer." Her voice was low and blurry.

"In a small way. Hadn't you better lie down somewhere?"

"No. First tell me what's going on . . . I've been trying to get home . . . or somewhere. Can't you tell me where I am? What's going on?" Her voice was rising.

"Easy, take it easy. There was a missile strike. Here, now, this insignia of mine is supposed to be a help with the girls. So behave! Won't you sit down?"

"No! First I must find out . . . I don't know who I am, or where, or why."

"I don't know those things about myself." That was the most honest communication he had made to anyone in a long time.

He was afraid that when the girl came out of her dazed condition it would be into panic. More people, passers-by and medics, were running into the park now, aiding the wounded and creating a scene of confusion. The girl looked wildly around her and clung to Derron's arm. He supposed the best thing was to walk her to a hospital. Where? Of course —

there was the one adjoining Time Operations, just a short way from here.

"Come along," he said. The girl walked willingly beside him, clinging to his encircling arm. "What's your name?" he asked, as they boarded the elevator. The other people stared at her in his jacket.

"I . . . don't know." Now she looked more frightened than ever. Her hand went to her throat, but there was no dog-tag chain around her neck. Many people didn't like to wear them. "Where are you taking me?"

"To a hospital. You need some looking-after." He would have liked to give some wilder answer for the onlookers' benefit, but he didn't want to terrify the girl.

She had little to say after that. He led her off the elevator and another short walk brought them to the hospital's emergency door. Other casualties from the explosion, stretcher cases, were arriving now.

Inside the emergency room an old nurse started to peel Derron's jacket off the girl and what was left of her dress came with it. "You just come back for your jacket tomorrow, young man," the woman ordered sharply, rewrapping.

"Gladly." Then he could only wave good-by to the girl as a horde of stretcher-bearers and other busy people swept him with them back out into the corridor. He found himself laughing to himself about the nurse and the jacket. It was a while since he had laughed about anything.

He had a spare jacket in his locker in the sentry officers' ready room in Time Ops, and he went there to pick it up. There was nothing new on the bulletin board. He would like to get off sentry duty and into something where you didn't just sit still under strain for six hours a day.

He went to the nearest officers' gym and talked to acquaintances and played two rounds of handball, winning an ersatz soft-drink that he preferred not to collect. The others were talking about the missile strike; Derron mentioned that he had seen some of the wounded, but he said nothing about the girl.

From the gym he went with a couple of the others to a bar, where he had one drink, his usual limit, and listened without real interest to their talk of some new girls at a local uplevel dive called the Red Garter. Private enterprise still flourished in certain areas.

He ate a meal in the local officers' mess, with a better appetite than usual. Then he took the elevator back up to housing level and at last reached his bachelor's cubicle. He stretched out on his cot and for once went sound asleep before he could even consider taking a pill.

III

He was awake earlier than usual, feeling well rested. The little clock on his cubicle wall had just jumped to oh-six-thirty hours, Planetary Emergency Time.

This morning none of Time's aspects worried him particularly. He had enough time to stop by the hos-

pital and see what had happened to her, before he went on duty.

He was carrying yesterday's jacket over his arm when, following a nurse's directions, he found the girl seated in a patients' lounge. The TV was on, tuned to Channel Gung-Ho, the one devoted to the war effort and associated government propaganda, and she was frowning at it with a look of naivete. Today she was wearing a plain dress that did not exactly fit. Her sandaled feet were curled beside her on her chair. At this time of the morning she had the lounge pretty much to herself.

At the sound of Derron's step she turned her head quickly, then got to her feet, smiling. "Oh, it's you! It's a good feeling to recognize someone."

"It's a good feeling for me, to have someone recognize me."

She thanked him for yesterday's help. He introduced himself.

She wished she could tell him her name, but the amnesia was persisting. "Outside of that, I feel fine."

"That's good, anyway," he said as they sat down in adjacent chairs.

"Actually I do have a name, of sorts. For the sake of their computer records the people here at the hospital have tagged me Lisa Gray, next off some list they keep handy. Evidently a fair number of people go blank in the upper story these days."

"I don't doubt it."

"They tell me that when the missile hit yesterday I was with a number of people from an upper-level refugee camp that's being closed down. A lot of the records were destroyed in the blast. They can't find me, or they haven't yet." She laughed nervously.

Derron tried a remark or two meant to be reassuring, but they didn't sound very helpful in his own ears. He got off the subject. "Have you had your breakfast?"

"Yes. There's a little automat right here if you want something. Maybe I could use some more fruit juice."

In a couple of minutes Derron was back with two glasses of the orange-colored liquid called fruit juice and a couple of standard sweetrolls. Lisa was again studying the war on the TV screen; the commentator's stentorian voice was turned mercifully low.

Derron set the repast on a low table, pulled his own chair closer, and asked: "Do you remember what we're fighting against?"

On screen at the moment was a deep-space scene in which it was hard to make anything out. Lisa hesitated, then shook her head. "Not really."

"Does the word 'berserker' mean anything to you?"

"No."

"Well, they're machines. Some of them are bigger than any spaceships we Earth-descended men have ever built. Others come in many shapes and sizes, but all of them are deadly. The first berserkers were built ages ago, to fight in some war we've never heard of, between races we've never met.

"Sometimes men have beaten the berserkers in battle, but some of them always survived, to hide out somewhere and build more of their

kind, with improvements. They're programmed to destroy life anywhere they can find it, and they've come halfway across the galaxy doing a pretty good job. They go on and on like death itself."

"No," said Lisa, not liking the plot.

"I'm sorry, I didn't mean to start raving. We on Sirgol were alive, and so the berserkers had to get rid of us. They boiled away our oceans, and burned our air and our land and nine tenths of our people. But since they're only machines, it's all an accident, a sort of cosmic joke. An act of the Holy One, as people used to say. We have no one to take revenge on." His voice choked slightly in his tight throat; he sipped at his orange-colored water and then pushed it away.

"Won't men come from other planets to help us?"

"Some of them are fighting berserkers near their own systems, too. And a really big relief fleet will have to be put together to do us any good. And polities must be played between the stars as usual. I suppose some help will come eventually, maybe in another year."

The TV announcer began to drone aggressively about victories on the moon, while an appropriate videotape was shown. The chief satellite of Sirgol was said to much resemble the moon of Earth. Its round face had been pocked by impact craters into an awed expression long before men or berserkers existed. During the last year a rash of new craters had wiped away the face of Sirgol's moon, together with all human bases there.

"I think that help will come to us in time," said Lisa.

In time for what? Derron wondered. "I suppose so," he said and felt it was a lie.

Lisa was looking anxiously at the TV. "It seems to me I can remember . . . . Yes! I can remember seeing the old moon, the funny face in it! It did look like a face, didn't it?"

"Oh, yes."

"I remember it!" she cried in a burst of joy. Like a child she jumped up from her chair and kissed Derron on the cheek.

While she sat down again, looking at him happily, a line of ancient poetry sang through his mind. He swallowed.

Now on the TV they were showing the dayside surface of Sirgol. Cracked dry mudflats stretched away to a horizon near which there danced whirlwinds of yellow dust — there was a little atmosphere left — under a sky of savage blue. Rising gleaming from the dried mud in the middle distance were the bright steel bones of some invading berserker device, smashed and twisted last tenday or last month by some awesome energy of defense. Another victory for the droning voice to try to magnify.

Derron cleared his throat. "Do you remember about our planet here being unique?"

"No . . . I doubt that I ever understood science." But she looked interested. "Go on, tell me about it."

"Well." Derron put on his little-

used teacher's voice. "If you catch a glimpse of our sun on the screen there, you'll see it looks much like any other star that has an Earth-type planet. But looks are deceiving. Oh, our daily lives are the same as they would be elsewhere. And interstellar ships can enter and leave our system — if they take precautions. But our local spacetime is tricky.

"We were colonized through a weird accident. About a hundred years ago an exploring ship from Earth fell into our peculiar spacetime unawares. It dropped back through about twenty thousand years of time, which must have wiped clean the memories of everyone aboard." He smiled at Lisa. "Our planet is unique in that time travel into the past is possible here, under certain conditions. First, anyone who travels back more than about five hundred years suffers enough mental devolution to have their memories wiped out. They go blank in the upper story, as you put it. Our First Men must have crawled around like babies after their ship landed itself."

"The First Men . . . that's familiar."

"There were First Women, too, of course. Somehow the survivors kept on surviving, and multiplied, and over the generations started building up civilizations. When the second exploring ship arrived, about ten years Earth-time after the first, we'd built up a thriving planet-wide civilization and were getting started on space travel ourselves. In fact it was signals from our early interplanetary probes that drew the second Earth-ship here. It approached more carefully than the first one had and landed successfully.

"Pretty soon the men from Earth figured out what had happened to our first ship. They also brought us warning of the berserkers. Took some of our people to other systems and showed them what galactic war was like. The people of other worlds were tickled to have four hundred million new allies, and they deluged us with advice on weapons and fortifications, and we spent the next eighty years getting ready to defend ourselves. Then about a year ago the berserker fleet came . . . ." Derron's voice trailed off.

Lisa drank some of her "juice" as if she liked it. She prompted: "What do you do now, Derron?"

"Oh, various odd jobs in Time Operations. See, if the berserkers can delay our historical progress at some vital point — the invention of the wheel, say — everything following would be slowed down. When galactic civilization contacted us, we might be still in the Middle Ages, or further back, without any technological base on which to build defenses for ourselves. And in the new real-time, the present would see us entirely wiped out."

Derron looked at the version of Time he wore on his wrist. "Looks like I'd better go right now and start my day's heroic fighting."

The officer in charge of that morning's briefing was Colonel Borss. He took his job very seriously in all its details, with the somber expectancy of a prophet.

"As we all know, yesterday's de-

fensive action was tactically successful."

In the semi-darkness of the briefing room the colonel's pointer skipped luminously across the glowing symbols on his big display screen. "*But,* strategically speaking, we must admit that the situation has deteriorated somewhat."

The colonel went on to explain that this gloomy view was due to the existence of the enemy's beachhead, his staging area some twenty-plus-thousand years down, from whence more berserker devices would undoubtedly be propelled up into historical real-time. For technical reasons, these devices moving presentward would be almost impossible to stop until they had finally emerged.

All was not entirely lost, however. "After the enemy has broken three more times into our history, we should be able to get a fix on his beachhead and smash it with a few missiles.

"That'll pretty well put an end to his whole Time Operations program.

"Of course we have first to face the little detail of repelling the next three attacks."

As his dutiful audience of junior officers made faint laughing sounds, the colonel produced on his screen a type of graph of human history on Sirgol, a glowing treelike shape. He tapped with his pointer far down on the slender trunk. "We rather suspect that the first attack will fall somewhere near here, near the First Men, where our history is still a tender shoot."

IV

Matt, sometime also called Lion-Hunter, felt the afternoon sun hot on his bare shoulders as he turned away from the last familiar landmarks of his country, the territory in which he had lived all his twenty-five years.

Matt had climbed up on a rock to get a better view of the unknown land ahead, into which he and the rest of The People were fleeing. Ahead he could see swamps, and barren hills, and nothing very inviting. Everywhere the land wavered with the spirits of heat.

The little band of The People, as many in number as a man's fingers and toes, were shuffling along in a thin file beside the rock which Matt had mounted. No one was hanging back, or even trying to argue the others out of making the journey. For though there might be strange dangers in the new land ahead, everyone agreed that nothing there was likely to be as terrible as what they were fleeing — the new beasts, the lions with flesh of stone who could not be hurt by stones or arrows, who could kill with only a glance from their fiery eyes.

In the past two days, ten of The People had been caught and killed. The others had been able to do nothing but hide, hardly daring to look for a puddle to drink from or to pull up a root to eat.

Matt gripped with one hand the bow slung over his shoulder, the only bow now left to the survivors of The People; the others had been burned, with the men who had tried to use

them against a stone-lion. Tomorrow, Matt thought, he would try hunting for meat in the new country. No one was carrying any food now. Some of the young were wailing in hunger until the women pinched their mouths and noses shut to quiet them.

The file of the surviving People had passed Matt now. He ran his eye along it, then hopped down from his rock, frowning.

A few strides brought him up to those in the rear of the march. "Where is Dart?" he asked, frowning.

Dart was an orphan, and no one was overly concerned. "He kept telling us how hungry he was," a woman said. "And then he ran on toward those swampy woods ahead. I suppose he went to look for something to eat."

Matt grunted. He had no idea of trying to keep any firm control over the actions of any of The People. Someone who wanted to run ahead just did so.

Derron was just buying Lisa some lunch — from the hospital automat, since she was still being kept under observation — when the public address speakers began to broadcast a list of names of Time Operation people who were to report for duty at once. Derron's name was included.

He scooped up a sandwich and ate it as he went. This was something more than another practice alert. When Derron reached the briefing room, Colonel Borss was already on the dais and speaking, pausing to glare at each new arrival.

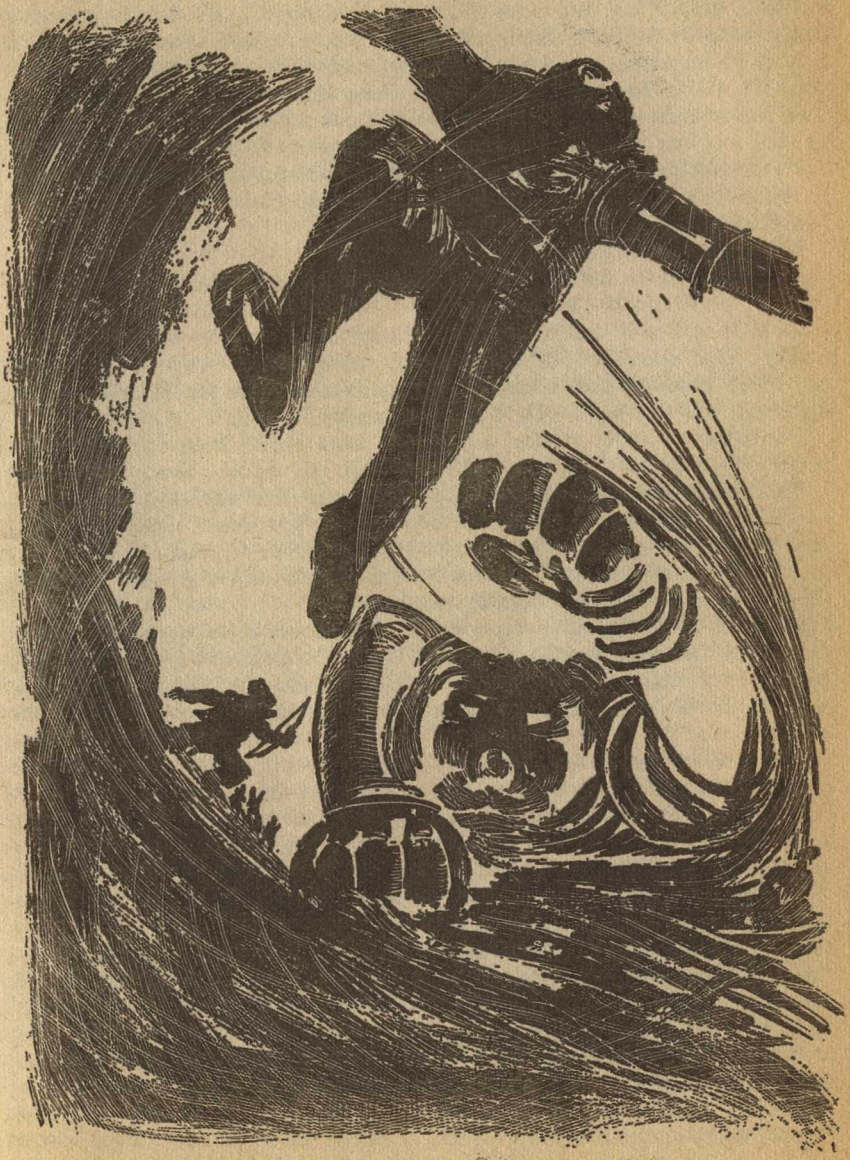
"Gentlemen, the first assault has fallen just about as predicted, within a few hundred years of the First Men." To Derron's slight surprise, the colonel paused momentarily to bow his head at the mention of those beings sacred to Orthodoxy. These days there were few religionists traditional enough to make such gestures.

"Certainly," the colonel went on, "the berserkers would like to catch the First Men and eliminate them. But this, as we know, must prove impossible."

On this one point at least, science and Orthodox religion were still in firm agreement. The first men entering the ecology on any planet constituted the beginning of an evolutionary peduncle, said science, and as such were considered practically impossible of discovery, time travel or not.

Colonel Borss smoothed his mustache and went on: "As in the first attack, we are faced by six enemy machines breaking into real-time. But in this case the machines are not flyers, or at least they seem not to be operating in an airborne mode. Probably they are slightly smaller than the flyers were. We think they are anti-personnel devices that move on legs and rollers and are of course invulnerable to any means of self-defense possessed by the Neolithic population.

"Evidently the berserker's game here is *not* to simply kill as many people as possible. We could trace the disturbance of a mass slaughter back to their new keyhole and blast them again. This time we think they'll



concentrate on destroying some historically important individual, or small group. Just who in the invaded area is so important we don't know yet, but if the berserkers can read their importance in them we certainly can, and we soon will.

Now here is Commander Nolos, to brief you on your part in our planned counter-measures."

Nolos, an earnest young man with a rasping voice, came right to the point. "You twenty-four men all have high scores in training on the master-slave androids. No one has any real combat experience with them yet, but you soon will. You're all relieved of other duties as of now."

Expressing various reactions, the two dozen men were hurried to a near-by ready room, and there left to wait for some minutes. At length they were taken down by elevator to Operations Stage Three, on one of the lowest and most heavily defended levels yet dug.

Stage Three was a great echoing cave, the size of an aircraft hangar. A catwalk spanned the cave close up under its reinforced ceiling, and from this walk were suspended the two dozen master units. They looked like spacesuits on puppet-strings.

Like a squad of armored infantry the slave-units stood on the floor below, each slave directly beneath its master. The slaves were the bigger, standing taller and broader than men, dwarfing the technicians who were now busy giving them final precombat checks.

Derron and his fellow operators were given individual briefings, with maps of the terrain where they were to be dropped, and such information as was available on the Neolithic nomads they were to try to protect. Generally speaking this information did not amount to much. After this the operators were run through a brief medical check, dressed in leotards and marched up onto the high catwalk.

At this point the word was passed to delay things momentarily. A huge screen on one wall of the stage lit up with an image of the bald, massive head of the Planetary Commander himself.

"Men . . . " boomed the familiar amplified voice. Then the image paused, frowning off-camera. "You've got them *waiting* for me? Get on with it, man, get on with the operation! I can make speeches any time!"

The Planetary Commander's voice was still rising as it was turned off. Derron got the impression that it had a good deal more to say, and he was glad that it was not being said to him. A pair of technicians came and helped him into his master, as into a heavy diving suit. But once inside he could wave the master's arms and legs and twist its thick body with perfect freedom and servo-powered ease.

"Power coming on," said a voice in Derron's helmet. And it seemed to him that he was no longer suspended in the free-moving puppet. All his senses were transferred in an instant into the body of his slave-unit on the floor below. He felt the slave starting to tilt as its servos moved

it into conformity with the master's posture, and he moved the slave's foot as naturally as his own to maintain balance. Tilting back his head, he could look up through the slave-unit's eyes to see the master-unit, himself inside it, holding the same attitude on its complex suspension.

"Form ranks for launching!" came the command in his helmet. Around Derron the cavernous chamber came alive with the echoes of the Technicians trotted and jumped to get out of the way. The squad of metal man-shapes formed a single serpentine file, and at the head of the file the floor of the stage suddenly blossomed into a bright mercurial disk.

". . . three, two, one, launch."

All of Derron's senses told him that he inhabited one of a line of tall bodies, all running with immense and easy power in their winding file toward the circle on the dark floor. The figure ahead of Derron reached the circle and disappeared. Then he himself leaped out over the silvery disk.

His metal feet came down on grass. He staggered briefly on uneven ground, through shadowy daylight in the midst of a leafy forest.

He moved at once to the nearest clearing from which he could get a good look at the sun. It was low in the western sky — he checked a compass in the slave's wrist — which indicated that he had missed his planned moment of arrival by some hours, if not by days or months or years.

He reported this at once, subvocalizing inside his helmet to keep the slave's speaker silent. If the slave had after all landed in the right place and time, the enemy was somewhere near it.

"All right then, Odegard, start coursing, and we'll try to get a fix."

"Understand."

He began to walk a spiral path through the woods. He of course kept alert for sign of the enemy, but the primary purpose of this manuever was to splash up some waves in reality — to create minor disturbances in the local life-history, which a skilled sentry some twenty thousand years in the future should be able to see and pinpoint.

After he had spiraled for some ten minutes, alarming perhaps a hundred small animals and perhaps crushing a thousand insects underfoot without knowing it, the impersonal voice spoke again.

"All right, Odegard, we've got you spotted. You're in the right place but between four and five hours late. The sun should be getting low."

"It is."

"All right. Bear about two-hundred-forty degrees from magnetic north. It's hard to tell at this range just where your people are, but if you hold that course for about half an hour you should come somewhere near them."

"Understand."

Derron got his bearings and set off in a straight line. The wooded land ahead sloped gradually downward into a swampy area, beyond which there rose low rocky hills, a mile or two distant.

"Odegard, we're getting indica-

tion of another minor disturbance right there in your area. Probably caused by a berserker. We can't pin it down any more closely than that, sorry."

"Understand." He was not really there in the past, about to risk his own skin in combat; but the weight of forty million lives was on his neck again.

Some minutes passed. Derron was moving slowly ahead, trying to keep a lookout in all directions while planning a good path for the heavy slave-unit through the marshy ground, when he heard trouble in plain and simple form: a child screaming.

"Operations? I'm onto something." The scream was repeated; the slave-unit's ears were keen and directionally accurate; Derron changed course and began to move the unit at a run, leaping it across the softest-looking spots of ground, striving for both speed and silence.

In a few more seconds, he slid as silently as possible to a halt. In a treetop a stone's throw ahead was the source of the screams — a boy of about twelve, who was clinging tightly to the tree's thin upper trunk with bare arms and legs, clinging tightly to keep from being shaken down. Whenever his yelling ceased for lack of breath, another sharp tremor would run up through the tree and start him off again. The tree's lower trunk was thick, but the bush around its base concealed something that could shake it like a sapling. An animal would have to have the strength of an elephant, and there were no such living creatures here. It would be the berserker, using the boy in the tree as bait, hoping that his cries would bring the adults of his group to try a rescue.

Derron's mission was to protect a particular group of people, and at least one of them was in immediate danger. He moved forward without delay. But the berserker spotted the slave-unit before he saw the berserker.

Only an accidental slip of the slave's foot on the soft soil saved it from taking the first hit right then. As Derron slipped, a pinkish laser beam crackled like straightened lightning past his left ear.

In the next instant the brush round the tree heaved. Derron caught just one glimpse of something charging him, something four-legged and low and wide as a groundcar. He snapped open his jaw, which pressed down inside his helmet on the trigger of his own laser-weapon. From the center of the slave's forehead a pale lance cracked out, aimed automatically at the spot where the slave's eyes were focused. The beam smote the charging berserker amid the knobs of metal that served it for a face and glanced off to explode a small tree into a cloud of flame and steam.

The shot might have done damage, for the enemy broke off its rush in midstride and dove for cover behind a hillock, a grass-tufted hump of ground not five feet high.

Derron was somewhat surprised by his own aggressiveness. He found himself moving quickly to the attack, running the slave-unit in a crouch around the tiny hill. Two voices from

Operations were trying at the same time to give him advice, but even if they had gone about it sensibly it was too late now for him to do anything but go his own way.

He charged right round onto the berserker, yelling inside his helmet as he fired his laser. The thing before him looked like a metal lion, but squat and very broad; given a second to hesitate, Derron might have flinched away, for in spite of all his training the illusion was very strong that he was actually hurling his own precious flesh upon this monster.

As it was, circumstances gave him no time to flinch. The slave ran at full speed into the berserker, and the trees in the swamp shook as the machines collided.

It was soon plain that wrestling was not likely to succeed against this enemy, which was not limited in its reactions by the slowness of protoplasmic nerves. For all the slave-unit's fusion-powered strength, Derron could only hang on desperately, gripping the berserker in a sort of half nelson white it bucked and twisted like a wild loadbeast to throw him off.

Since the fight had started everybody wanted to watch. The voices of at least two senior Operations officers screamed orders and abuse into Derron's ears, while the green forest spun round him faster than his eyes and brain could sort it out. In a detached fraction of a second of thought he noticed how his feet were flying uselessly on the end of his steel legs, breaking down small trees as the monster spun him. He tried to turn his head to bring the cyclops' eye of his laser to bear, but somehow could not manage to do so. He tried desperately to get a more solid grip for his steel arms on the berserker's thick neck, but then his grip was broken and he flew.

Before the slave-unit could even bounce the berserker was on top of it, moving faster than any maddened bull. Derron fired wildly with his laser. That the berserker should trample and batter the slave-unit and he should feel no pain gave him a giddy urge to laugh. In a moment now the fight would be lost and he would be able to give up.

But then the berserker was running away from Derron's wildly slashing laser. It leaped among the trees as lightly as a deer and vanished.

Dizzily — for the master-unit had of course spun on its mountings even as the slave was spun — Derron tried to sit up, on the peculiar little hillside where he had been flung. Now he discovered why the berserker had retired so willingly. Some important part had been broken in the slave, so its legs trailed as limp and useless as those of a man with a broken spine.

But the slave-unit's laser still worked. The berserker computer-brain had decided it could gain nothing by staying around to trade zaps with a crippled but still dangerous antagonist, not when it could be busy at its programmed task of killing people.

The voices had their final say: "Odegard, why in the — ?" "Oh, do

what you can!" Then with a click they were gone from his helmet, leaving their disgust behind.

Derron's own disgust with his failure was even sharper. Gone were the thoughts of getting things settled quickly one way or the other. Now all he wanted was another crack at 'em.

With the slave's arms alone, he got it into a sitting position, halfway down the conical side of a soggy sandpit.

He looked about him. The nearby trees were nearly all in bad shape; those not broken during the wrestling-match were black and smoking furiously from his wildly aimed laser.

What about the boy?

Working hard with his arms, Derron churned his way up to a spot near the rim of the funnel-shaped pit, where the sides were steepest. He could recognize, a little distance away, the tall tree in which the youngster had been clinging for his life. He was not in sight now, living or dead.

In a sudden little avalanche the crippled slave slid down once more toward the bottom of the sandy funnel.

A funnel?

Derron at last recognized the place where the slave-unit had been thrown.

It was the trap of a poison-digger, a species of carnivore that had been — or would be — exterminated in early historical times. Even now, there reared up a frightful grayish head from the watery mess that filled the bottom of the pit.

V

Matt stood just behind the boy Dart, while both of them peered very cautiously through the bushes toward the poison-digger's trap. The rest of The People were waiting, resting from their march while they ate some grubs and roots, a few hundred paces away.

Matt caught just a glimpse of a head above the lip of the funnel. Not a poison-digger's head, certainly. This one was curved almost as smoothly as a drop of water, but was still hard-looking.

"I think it is a stone-lion," Matt whispered very softly.

"Ah no," whispered Dart. "It's a man, a big man, the stone-man I told you about. Ah, what a fight he made against the stone-lion! But I didn't wait to see the end, I jumped from the tree and ran."

Matt beckoned Dart with a motion of his head. The two of them bent down and crept forward, then peered from behind another bush. Now they could see down into the pit.

Matt gasped, and almost called aloud in wonder. Poison-Digger down in the pit had reared up from his slime and lunged. And Stone-Man simply slapped Digger's nose with casual force, like someone swatting a child; and with a howl like that of a punished child, the Bad One splashed down under his water again.

In a strange tongue, Stone-Man muttered disconsolate words, like a man invoking spirits, at the same time slapping at his legs which seem-

ed to be dead. Then with his arms he started trying to dig his way up and out of the pit. Stone-Man made the sand fly, and Matt thought maybe he would eventually make it, though it looked like a very hard struggle.

"Now do you believe me?" Dart was whispering fiercely. "He did fight the stone-lion, I saw him."

Matt hushed the young one and led him away. As they retreated it occurred to Matt that the stone-lion might have been mortally hurt in the fight, and he circled through the trees looking hopefully for a huge shiny corpse. He wanted very much before his own death to see a stone-lion somehow defeated and slain. But all he saw were burnt and broken trees.

When they got back to where the others were waiting, Matt talked things over with the more intelligent adults.

"You think we should approach this Stone-Man?" one asked.

"I would like to help him," said Matt. He was eager to join forces if he could with any power that was able to oppose a stone-lion.

The oldest woman of The People opened her lizard-skin pouch, in which she also kept the seed of fire, and took out the finger-bones of her predecessor. Three times she shook the bones and threw them on the ground, and studied the pattern in which they fell.

At last she pointed to Matt. "You will die," she announced, "fighting a strange beast, the likes of which none of us has ever seen."

Like most prophecies Matt had heard, this one was more interesting than helpful. "If you are right," he answered, "this stone-man can't kill me, since we have now seen him."

The others muttered doubtfully.

The more he thought about it, the more determined Matt became. "If he does turn out to be hostile, he can't chase us on his dead legs. I want to help him."

This time the slave's keen ears detected the approach of The People, though they were obviously trying to be quiet. Derron's helmet had been free of Modern voices for some minutes now; the too-many chiefs of Time Operations were evidently busy harassing some other operator.

Derron hated to draw their attention back to himself, but the approach of The People was something that he had to report.

"I'm getting some company," he subvocalized. No immediate reply was granted. Now the heads of the bolder ones among The People came into sight, peering nervously around treetrunks at the slave-unit. Derron made a gentle gesture to them with one open metal hand; he had to use the other to maintain the slave in a sitting position. If he could only get his visitors to remain until more help arrived, he could give them some degree of protection. The berserker had evidently gone away after some false scent, but it might be back at any time.

The People were reassured by the slave's quiescence, its crippled condition and its peaceful gestures. Soon all two dozen of them were out in

the open, whispering among themselves as they looked down into the pit.

"Anybody listening?" Derron subvocalized, calling for help. "I've got a crowd of people here. Get me a linguist!"

Lately the Moderns had made a desperate effort to learn all the languages of Sirgol's past, through the dropping of disguised microphones into the divers parts of real-time where there were people to be studied. This had been a crash program, only undertaken in recent months when it had become apparent to both sides that the war could be moved from present-time into the past. There were one or two Moderns who had managed to learn something about the speech of The People and the other bands of the area — and those Moderns were very busy people today.

"Odegard!" The blast in his helmet made him wince. It sounded like Colonel Borss. "Don't let those people get away, try to protect them!"

Derron sighed, sub-subvocally. Understood. How about getting me a linguist?"

"We're trying to get you one. You're in a vital area there. Try to protect those people until we can get you some help."

"Understood."

"Anyone that size is bound to eat a lot of food," one of the older men was complaining to Matt.

"With dead legs I don't suppose he'll live long enough to eat very much," Matt answered. He was trying to talk someone into giving him a hand in pulling the stone-man up out of the pit. Stone-Man sat watching calmly, as if he felt confident of getting some help.

The man debating against Matt cheerfully switched arguments. "If he won't live long, there's no use trying to help him. Anyway he's not one of The People."

"No, he's not. But still . . . . " Matt searched for words, for ways of thought, to clarify his own feelings. This stone-man who had tried to help Dart was part of some larger order, to which The People also belonged. Part of something opposing all the wild beasts and demons that killed men by day or night.

"There may be others of his band around here," put in another man. "They would be strong friends to have."

"This one wants to be our friend," the boy Dart piped up.

The oldest woman scoffed: "So would anyone who was crippled and needed help."

VI

A girl linguist's voice joined the muted hive buzzing in Derron's helmet and gave him a rather halting translation of part of the debate. But after only a couple of minutes she was ordered away to work with another operator, who had managed to terrify the band he was supposed to be protecting.

"Tell him to pretend he's crippled," Derron advised. "All right, I'll do without a linguist. But how about dropping some of those self-defense weapons for these peo-

ple of mine? If we wait until that berserker comes back it'll be too late. And make it grenades, not arrows. There's only one man in the bunch who has a bow."

. "The weapons are being prepared. It's dangerous to hand them out until they're absolutely needed. Suppose they use 'em on each other, or on the slave?"

"You can at least drop them into the slave now." Inside the slave-unit's big torso was a hollow receptacle into which small items could be dropped from the future as required.

"They're being prepared."

Derron didn't know if he could believe that or not, the way things were going today.

The people seemed to be still discussing the slave-unit, while he kept it sitting in what he hoped was a patient and trustworthy attitude. According to the brief translation Derron had heard, the tall young man with the bow slung over his shoulder was arguing in favor of helping the "stone-man."

At last this man with the bow, who seemed to be the nearest thing to a chief that these people had, talked one of the other men into helping him. Together they approached one of the saplings splintered in the fight, and twisted it loose from its stump, hacking through the tough bark strings with a hand-axe. Then the two bold men came right up to the edge of the poison-digger's trap, holding the sapling by its branches so its splintered end was extended, rather shakily, down to where the slave could grasp it.

The two men pulled, then grunted with surprise at the weight they felt. Two more men were now willing to come and lend a hand.

"Odegard, this is Colonel Borss," said a helmet-voice, in urgent tones. "We can see now what the berserkers' target is. The first written language developed on the planet originates very near your present location. Possibly with the people you're with right now. We can't be sure of that and neither can the enemy, but certainly your band is in the target group."

Derron was hanging on with both hands as the slave-unit was dragged up the side of the pit. "Thanks for the word, Colonel. Now how about those grenades I asked for?"

"We're rushing two more slaves toward you, but we're having technical problems. Grenades?" There was a brief pause. "They tell me some grenades are coming up." The colonel's voice clicked off.

When the slave came sliding up over the rim of the pit, The People all retreated a few steps, falling silent and watching the machine carefully. Derron repeated his peaceful gestures.

As soon as his audience was slightly reassured about the slave, they went back to worrying about something else. The setting sun made them nervous, and they kept looking over their shoulders at it as they talked to one another.

In another minute they had gathered up their few belongings and were on the march, with the air of folk resuming a practiced activity. Stone-Man, it seemed, was to be

allowed to choose his own course of action.

Derron trailed along at the end of the file. He soon found that on level ground he could keep the slave-unit moving pretty well, walking on the knuckles of its hands like a broken-backed ape. The People cast frequent backward glances at this pathetic monstrosity, showing mixed emotions. But even more frequently they looked farther back, fearful about something that might be on their trail.

Quite possibly, Derron thought, these people had already seen the berserker, or found the bodies of their friends who had met it. Sooner or later it would pick up their trail, in any case. The slave-unit's leg-dragging track would make the berserker use a bit more caution, but certainly it would still come on.

Colonel Borss came back to talk. "You're right, Odegard, your berserker's still in your area. It's the only one we haven't bagged yet, but it's in the most vital spot. What I think we'll do is this — the two slaves being sent as reinforcements will be in place in a few minutes now. They'll follow your line of march one on each side and a short distance ahead. Then when your people stop somewhere for the night we'll set up the two new slaves for an ambush."

Falling dusk washed the scene in a kind of dark beauty. The People hiked with the swampy, half-wooded valley on their right and low rocky hills close by on their left. The man with the bow, whose name seemed to be something like Matt, kept scanning these hills as he walked.

"What about those grenades? Operations? Anybody there?"

"We're setting up this ambush now, Odegard. We don't want your people pitching grenades at *our* devices."

There was some sense to that, Derron supposed. But he had no faith.

The leader, Matt, turned and went trotting up a hillside, the other people following briskly. Derron saw that they were headed for a narrow cave entrance, which was set into a steep low cliff like a door in the wall of a house. A little way from the cave everyone halted. Matt unslung his bow and nocked an arrow before pitching a rock into the darkness of the cave. Just inside the entrance was an L-bend that made it practically impossible to see any further.

Derron was reporting these latest developments to Operations, when out of the cave there reverberated a growl that made The People scatter like the survival experts they were.

When the cave-bear came to answer the door, it found Derron's proxy waiting alone on the porch.

The slave in its present condition had no balance to speak of, so the bear's first slap bowled it over. From a supine position Derron slapped back, clobbering the bear's nose and provoking a blood-freezing roar.

Made of tougher stuff than poison-diggers, the bear strained its fangs on the slave-unit's face. Still flat on his back, Derron lifted the bear with his steel arms and pitched it downhill. Go away!

The first roar had been only a tune-up for this second one. Derron didn't want to break even an animal's lifeline here if he could help it, but time was passing. He threw the bear a little further this time; it bounced once, landed on its feet, and without slowing down kept right on going into the swamp. Its howls trailed in the air for half a minute.

The People slowly gathered round again, for once forgetting to look over their shoulders. Derron had the feeling they were all about to fall down and worship him; before anything like this could happen, he dragged his proxy into the cave and made sure that it was now unoccupied. Matt had made a good discovery here; there was plenty of room inside the high narrow cavern to shelter the whole band.

When he came out he found The People gathering dead branches from under the trees at the edge of the swamp, getting ready to build a good-sized fire at the mouth of the cave. Far across the swampy valley a small spark of orange marked the encampment of some other band, in the thickening purplish haze of falling night.

"Operations, how's that ambush coming?"

"The other two units are taking up ambush positions now. They have you in sight at the cave-mouth."

"Good."

Let The People build their fire, then, and draw the berserker. They would be safe in a guarded cave while it walked into a trap.

From a pouch made of what looked like tough lizard-skin one of the old women produced a bundle of bark, which she unwrapped to reveal a smoldering center. With incantations and a judicious use of wood chips, she soon had the watchfire blazing. Its first tongues gave more light than did the fast-dimming sky.

The slave-unit moved last into the cave, right after Matt. Derron sat it leaning against the wall just inside the L-bend and sighed. He could use a rest —

Without warning the night outside erupted with the crackle of lasers and the clang of armored battle. Inside the cave the people jumped to their feet.

In the lasers' reflected glare Derron saw Matt with his bow ready, the other men grabbing up stones — and Dart, high up on a rock in the rear of the cave. There was a small window in the wall of rock back there, and the boy was looking out, the laser-glare bright on his awed face.

The flashing and crashing outside came to a sudden halt. The world sank into a deathlike silence. Long seconds passed.

"Operations? Operations? What's going on? What happened outside?"

"Oh, Holy One . . . " The voice was shaken. "Scratch two slave-units. Looks like the damn' thing's reflexes are just too good. Odegard, do the best you can . . . "

The watchfire came exploding suddenly into the cave, kicked probably by a clawed steel foot, so that a hail of sparks and brands bounced from the curving wall of stone just opposite the narrow entrance. The

berserker would walk right in. Its cold brain had learned contempt for all the Moderns were able to do against it.

But there came a heavy grating sound; evidently the cave mouth was just a bit too narrow for it.

"Odegard, a dozen of the arrows are ready to drop through to you now. Shaped charges in the points, set to fire on sharp contact."

"*Arrows?* I wanted grenades, I told you we've only one bow, and there's no room . . . " But the window in the rear of the cave might serve as an archery port. "Send arrows, then. Send something!"

"Dropping arrows now. Odegard, we have a relief operator standing by in another master-unit, so we can switch . . . . "

"Never mind that. I'm used to

operating this broken-backed thing now, and he isn't."

The berserker was scraping and hammering at the bulge of rock that kept it from its prey, raising a hellish racket. With the slave-unit's hands Derron undid the catches and opened the door in its metal torso. While a bank of faces surrounded him, staring solemnly through the gloom, he took out the arrows and offered them to Matt.

VII

With reverence the hunter accepted the weapons. Since the firelight had vanished the slave's eyes had shifted into the infrared; Derron could see well enough to tell that the arrows looked to be well constructed, their straight wooden shafts fletched with plastic feathers, their heads a good imitation of hand-chipped flint. Now if they only worked . . . .

Matt needed no instructions on what to do with the arrows, not after their magical manner of appearance. Dart getting under his feet, he dashed to the rear of the cave; there he put the youngster behind him and scrambled up the rocks to the natural window. It would have given him a fine safe spot to shoot from, if there had been no such thing as laser beams.

Since lasers did exist, it would be the slave-unit's task to take the first beam itself and keep the berserker's attention on it as much as possible. Derron inched his crippled metal body toward the bend of the L. When he saw Matt nock an arrow to his bow, he lunged out, with his ridiculous hand-walking movement, around the corner.

The berserker had just backed away to take a fresh run at the entrance. It of course was quicker than Derron with its beam. But the slave's armor held for the moment, and Derron scrambled forward, firing back at point-blank range. If the berserker saw Matt, it ignored him, thinking arrows meant nothing.

But now the first one struck. Derron saw the shaft spin softly away, while the head vanished in a momentary fireball that left a fist-sized hole in the berserker's armor at the shoulder of one foreleg.

The machine lurched off balance even as its laser flicked toward Matt. Derron kept scrambling after it on steel hands, keeping his own beam on it like a spotlight. The bushes atop the little cliff had been set afire, but Matt popped up bravely and shot his second arrow, as accurately as the first. The shaped charge hit the berserker in the side, and staggered it on its three legs. And then it could fire its laser no more, for Derron was close enough to swing a heavy metal fist and crack the thick glass of the projector-eye.

And then the wrestling-match was on again. The strength of the slave's two arms matched that of the berserker's one functional foreleg. But the enemy reflexes were still more than human. Derron hung on as best he could, but the world was soon spinning round him again, and again he was thrown.

Derron gripped one of the trampling legs and hung on somehow, try-

ing to immobilize the berserker as a target. Where were the arrows now? Derron's laser was smashed. The berserker was still too big, too heavy, too quick. While Derron gripped one of its functional legs the other two still stomped and tore — there went one of the slave-unit's useless feet, ripped clean off. The metal man was going to be pulled to pieces. For some reason no more arrows were being shot —

Derron caught just a glimpse of a hurtling body as Matt leaped directly into the fight, raising in each hand a cluster of magic-arrows. Yelling, seeming to fly like a god, he stabbed his thunderbolts down against the enemy's back.

The blasts were absorbed in full by the berserker's interior. And then something inside the monster let go in an explosion that bounced both machines. And with that, the fight was over.

Derron crawled from the overheated wreck of the slave-unit, out from under the mass of glowing, twisting, spitting metal that had been the enemy. Then he had to pause for a few seconds in exhaustion. He saw Dart come running from the cave, tears streaking his face, in his hand Matt's bow, with its broken string dangling.

Most of the rest of The People were gathering around something on the ground nearby. Matt lay where the enemy's last convulsion had thrown him. He was dead, his belly torn open, hands charred, face smashed out of shape — then the eyes opened in that ruined face. Matt drew a shaky breath and shuddered and went on breathing.

Derron no longer felt his own exhaustion. The People made way as he crawled his battered metal proxy to Matt's side and gently lifted him. Two of the younger women were wailing. Matt was too far gone to wince at the touch of hot metal.

"Good work, Odegard!" Colonel Borss's voice had regained strength. "That wraps up the operation. We can lift your unit back to present-time now; better put that fellow down."

Derron held onto Matt. "His lifeline is breaking off here no matter what we do. Bring him up with the machine."

"It's not authorized to bring anyone . . . . " The voice faded in hesitation.

"He won the fight for us, and now his guts are hanging out. He's finished in this part of history. Sir."

"All right, we'll bring him up. Stand by while we re-adjust."

The People meanwhile had formed a ring of awe around the slave-unit and its dying burden. Somehow the scene would probably be assimilated into one of the extant myths; myths were tough bottles, Derron thought, stretching to hold many kinds of wine.

Up at the mouth of the cave, the old woman was having trouble with her tinder as she tried to get the watch-fire started again. A young girl with her hesitated, then ran down to the glowing berserker-shell and on its heat kindled a dry branch into flame. Waving the branch to keep it bright, she went back up the hill in a sort of dance.

And then Derron was sitting in a fading circle of light on the dark floor of Operations Stage Three. The circle vanished, and two men with a stretcher ran toward him. He opened his metal arms to let the medics take Matt, then inside his helmet his teeth found the power switch and he turned off the master-unit.

He let the end-of-mission checklist go hang. In a few seconds he had extricated himself from the master, and in his sweat-soaked leotard was skipping down the stairs from the catwalk. The other slaves were being brought back to, and the Stage was busy. He pushed his way through a confusion of technicians and miscellaneous folk and reached Matt's side just as the medics were picking up the stretcher with him on it. Wet cloths had already been draped over the wounded man's bulging intestines, and some kind of an intravenous had been started.

Matt's eyes were open, though of course they were stupid with shock. To him Derron could be no more than another strange shape among many; but Derron's shape walked along beside him, gripping his forearms above his burned hand, until consciousness faded away.

The word was spreading, as if by public announcement, that a man had been brought up alive from the deep past. When they carried Matt into the nearest hospital it was only natural that Lisa, like everyone else who had the chance, should come hurrying to see him.

"He's lost," she murmured, looking down at the swollen face, in which the eyelids now and then flicked open. "Oh, so lost. Alone." She turned anxiously to a doctor. "He'll live, now, won't he?"

The doctor smiled faintly. "If he's lasted this far I think we'll save him."

Lisa sighed in deep relief. Of course her concern was natural and kind. The only difficulty was that she hardly noticed Derron at all.

END

★ ★ ★ ★ ★

THE NEGRO IN SCIENCE FICTION

by SAM MOSKOWITZ

SF's leading historian takes a candid look at science-fiction attitudes toward civil rights.

The Negroes were moving out. By the tens of thousands they clogged the roads of the south, carrying with them their prized possessions. They left behind homes, jobs, white friends and an ancestral history of slavery, which blighted their attempts to be recognized as first-class citizens.

"Did you hear about it?" one Southerner asks another.

"About what?"

"The niggers, the niggers!"

"What about 'em?"

"Them leaving, pulling out, going away; did you hear?"

That was the opening of Ray Bradbury's short story "Way in the Middle of the Air," as it appeared in the July, 1950, issue of Ray Palmer's *Other Worlds Science Stories*. It was the most direct use of the color situation to appear in a science-fiction magazine since David H. Keller, M.D., wrote "The Menace," a connected series of four short stories for *Amazing Stories Quarterly*, Summer, 1928.

The Negroes were going to Mars. They had saved their money, built rockets, and now all from the South, at least, were leaving Earth forever. The entire story line focuses on the attempt of Samuel W. Teece, hardware proprietor, to prevent several Negroes, who either are under a work contract or owe him money, from leaving.

It was surprising to see a new story by Bradbury in *Other Worlds Science Stories* at all. By 1950 Bradbury had already outgrown the pulps and was appearing in *The Saturday Evening Post, Collier's, The New Yorker, Mademoiselle* and other mass-circulation publications. In forecasting the story, editor and publisher Raymond Palmer had bragged: "Ray Bradbury wrote this story for *Harper's*!" This seemed

quite unlikely, and quite as obviously *Harper's* had rejected it, so why hadn't it found a home in some other publication or, at the worst, a leading science-fiction magazine? The answer was that the story was to be included in *The Martian Chronicles,* scheduled to be published by Doubleday, May 4, 1950, and Ray Palmer was the only editor whose deadline permitted him to get the story into print even a few days before book appearance.

"Way in the Middle of the Air" was intended to be an allegory, and allegories are permitted a great deal of poetic license. *Road of Ages* by Robert Nathan (Knopf, 1935), wherein the remaining Jews of the world are driven in a polyglot caravan across Europe and the wastes of Asia to Mongolia, in light of recent events has become *more* believable since the day it was written. That the rural Negroes of the South could assemble the technology and save the money to secretly build enough spaceships to take them all to Mars was unbelievable in 1950; and what we have learned about spaceships in the years between have made it a screeching absurdity.

The conflict between the Southern shopowner and rural Negoes, while it exists, is an unacceptable simplification of the Negro situation today when the great urban areas explode with violent manifestations of their protests.

Science fiction was entering an era of taboo breaking. Religion and sex as well as color were being used with increasing boldness. The subject of racial intolerance had been a common one in science fiction. The previous issue of *Other Worlds Science Stories* May, 1950, had carried a touching novelette by Eric Frank Russell, "Dead Devil," which told how Earthmen overcame their repugnance to a blue, tentacled, bug-eyed Martian who gradually guided a shattered world back to the path of progress. A few issues later, John Beynon, in a 20,000-word novelette, "The Living Lies" (November, 1950), told of the fearful racial tension between the green, red, white and black races on the planet Venus and the fiction of a machine which can turn the colored races white.

Bradbury, though weaknesses in the planning of his story detracted greatly, was not afraid to speak up. Its situation involved Negroes and not blue men from Mars or green men from Venus. He also had the dubious distinction of reintroducing the word "nigger" into the pages of science-fiction magazines and attempted to add realism to his narrative through the use of the vulgarism "son of a bitch," probably a first for this field.

Just how forthright had science fiction been in its stand for or against the Negro? What were the expressions of its writers on the subject of the Negro in general and the American Negro in particular? What can be found in the literature that does not suffer from obliqueness?

One of the least known, yet most learned, fascinating and important interplanetary novels of the 19th

century was *A Voyage to the Moon* written by Crysostum Trueman, a British clergyman residing in The Manse, Kirkfield, and published by Lockwood & Co., 1864. Technically the full title of the story is *The History of a Voyage to the Moon, with an Account of The Adventurers' Subsequent Discoveries. An Exhumed Narrative, Supposed to Have Been Ejected From a Lunar Volcano.* The details of the documentary are the finest day-by-day description of a space journey up to its time, similar in its specificness to *Hans Phaal—A Tale* by Edgar Allan Poe, from which it may have drawn inspiration. The antigravity metal for space propulsion is not unlike that utilized in *A Voyage to the Moon* by Joseph Atterley (Prof. George Tucker), published by Elam Bliss, New York in 1827. The use of shutters to accentuate or cut down the ship's antigravity potential in Trueman's novel appears to have been later picked up by H. G. Wells for *The First Men in the Moon* (1901).

The early part of this story, in which the mountains at the headwaters of the Colorado River are searched for an antigravity mineral, involves one Negro in particular. He is a free slave named Rodolph, who nurses Carl Geister, one of the two lead characters, through a severe case of illness in San Pablo, California. When Geister is joined by Stephen Howard, the "narrator" of the adventure, they listen in on a "nigger conversazione":

> Spose now a nigger takes to drink, and some manage to get 'siduble quantity, an still, habin de berry kindest kind o' mas'r, not get cut up for it; dat nigger's deridedly happy. But spose he get sold and berry likely dat if he allers drunk; for you nose as well as I nose, dat when one o' yer soft hearted sort o' mas'rs can't manage a nigger wi'out floggin him round, and don't feel to do dat hisself nohow, den he sell him to one as ull cut him up rare — dat de way save him conscience and him pocket same time.

Having established Rodolph as a man with homespun common sense, the author then utilizes him in a dual role: first, to lighten the story through an attempt to imitate the Negroes' manner of speech and, secondly, to make the theoretical possibility of the story more easily accepted and digestible by having Rodoph give a simplified interpretation in his own vernacular:

> Lords o' creation and feller-niggers, — de next head ob my discoorse are de stars. Gaze into de ferment on a cl'ar night — what do yer see? Hundreds o' lights, twinkin and blinkin wid radiance, scattered permiscus. 'Stronomers say dese are worlds. Gollies! what a notion! Next dey'll say dey got people in 'em, jis like dis world! Hu! get out! Don't stuff dis child, I tell ye.

Before this discourse proceeds much further, Rodolph is wounded in the ear by an Indian arrow and there is a battle with mounted red men in which three Negroes are killed and scalped. This pattern of setting scientific adventure in the wild west should be kept in mind, for within a very few years it became the basic formula of the "in-

vention" stories of the American dime-novel writers.

Though the speech patterns for Rodolph, quoted above out of context, may give the impression of the author gazing down from lofty white superiority upon the black man, this is not the feeling conveyed by the story. Rodolph is very clearly etched as an extremely intelligent and able man, with high moral and ethical standards, capable of admirable resourcefulness and possessing distinct managerial skills. Simply stated, the Negro in this story was a literary device, utilized with considerable skill.

The Negro, throughout the early history of the United States, was constantly on the public's mind. Slavery was a subject of political debate long before the Civil War. The political battle to prevent new states from becoming slave-holding states was waged unceasingly right up to the Civil War. The Civil War and its aftermath did nothing if not keep the Negro in the forefront of political events. It should therefore not be surprising to see Negroes turn up as characters in American fiction with some frequency.

As early as its second novel, the greatest of all "invention" series, those of Frank Reade and later his son, Frank Reade, Jr., introduced a Negro character, Pomp, who was to remain integral the entire life of the stories. Harry Enton, who eventually quit dime-novel writing to become a doctor, created Pomp in "Frank Reade and His Steam Horse," published in the weekly *Boys of New York* from July 21, 1879, to October 20, 1879.

Frank Reade, genius teen-age inventor and prototype of Tom Swift, had as companions Barney Shea, a dare devil Irishman with a thick brogue, and Charley Gorse, a cousin from Missouri, in the first novel in the series, "Frank Reade and His Steam Man of the Plains or, The Terror of the West" (*Boys of New York*, January 13 to March 31, 1879). Pomp enters the series in the second story as the servant of 16-year-old Charley Gorse.

In appearance, Pomp is a grotesque figure: "He was no higher than four feet, his chest and shoulders were large and swelling, and from his enormously long body descended bandy legs of a little more than one foot in length, while his feet were the finest specimens in the heavy corn-crushed line that could have been met with . . . His head was very large, rounded off as smoothly as a coconut, and covered with hair that curled so tightly that he could not shut his mouth."

When introduced by Charley Gorse, Pomp states with fervor: "Fif dey's your frens, dey's my frens, and dis nigga'll fight for 'em till he's chawed clar to nuffin."

Clearly, Pomp with his absurd proportions, odd appearance and peculiarities of speech seemed to be intended for comic relief. That did not prove to be entirely true. Out west, Pomp is shown to be one of the greatest horsemen who ever lived, outriding a pack of Indians and outlaws, accomplishing a feat of picking them off one by one with

a pistol while riding his mount backwards. During the skirmish he saves a boy who is an instant away from being trampled to death by a herd of buffalo.

Yet, when the rescued boy tells him of his harsh treatment at the hands of white outlaws, Pomp self-deprecatingly vows to him that "this coon" will get pretty rough with his kidnappers.

When Pomp later engages in a fight with a half-breed, he runs into trouble:

"He was wise this half breed, for he knew better than to hit a darkey on the head, even with such a ponderous club as he grasped.

"He dashed upon the little nig, and made a clip at him.

"Pomp saw the blow coming and very naturally supposed it was intended for his head.

"That's where he was mistaken and where the half breed exhibited a great amount of knowledge.

"The heavy club hummed through the air and descended fairly across the darkey's shins.

"Down dropped Pomp, as though he had come slap up against a big locomotive.

"That's a mighty sure thing on almost any colored individual."

Pomp also strums away on an old banjo, keeping discordant time with the Irishman, who plays a fiddle. During the era when the Frank Reade series was written (1879-1898), the Irish were much maligned and discriminated against.

In making the two subsidiary characters broad caricatures to provide humor, the Frank Reade series can be considered to be perpetuating prevalent stereotyped notions of the two ethnic groups. The very real ability and heroism attributed to them must be considered a positive step forward.

Though Frank Reade was clearly the superior of all, through natural genius, his attitudes towards his companions were completely democratic, and they were treated as equals.

When the publisher of *Boys of New York*, Frank Tousey, dropped Harry Enton after the fourth novel in the Frank Reade series and selected fourteen-year-old Luis P. Senarens (who he had never met and imagined to be a scientist) to continue the series under the pen name of "Noname," Pomp was retained as a major figure in the stories. The fifth story in the series, and the first by Luis P. Senarens, titled "Frank Reade Jr. and His Steam Wonder" (*Boys of New York*, February 4 to April 29, 1882), informs that the original Frank Reade has married, has made a fortune farming with steam-powered equipment and that one of his two sons, 17-year-old Frank Reade, Jr., has inherited his genius and carries on the inventive tradition.

Pomp is now twenty years older, but this in no way minimizes his usefulness.

Whatever physical decline he may have suffered (not very apparent) is more than compensated for by the years of accumulated experience.

"The Steam Wonder" is a trackless, oil-fueled locomotive which proves to be particularly effective in stopping Indians in the West. Pomp is just as remarkably powerful and heroic as ever, but still we find disquieting elements.

When greeted by a friend of Frank Reade with the cheery injunction that "You never were blacker," Pomp calmly replies: "youse nebber was whiter."

When asked to give an Indian liquor, Pomp complies with the remark: "Hyer, yer red niggar."

A pattern that was used in the Frank Reade, Jr., series up until its very end was a consistant good-natured squabbling between Pomp and the Irishman Barney Shea. The vocal expressions quoted in the earlier stories, with their implied air of insult, persist in these mock tussles through to the end of the series in 1898 (and in all the reprintings for many years afterward); but so do the remarkable feats of strength and courage of this pair. It can be said that while the epithets, whether expressed for fun or realism, may make all those who desire progressive race relations squirm uncomfortably, they were the common expressions in use in their day. The Negro Pomp as well as the Irishman Barney Shea spoke as their ethnic groups were supposed to speak at the time. They were instantly recognizable by the readers.

The sharp line of demarcation towards a positive view of these minorities occurs when the reader is shown by *action* that those very Negroes and Irishmen, whom he may have regarded with condescension, the same ones he was likely to meet during his daily business, could perform deeds that were marked by considerable fortitude and great physical prowess, and that these deeds could be inspired by the highest concepts of fair play and patriotism. Furthermore, Pomp and Barney are not merely saddled with menial tasks, but operate at the pioneering end of scientific advancement in feats of adventure involving submarines, aircraft, space travel and tanks.

Contrast the handling of Pomp in the Frank Reade, Jr., series with the characterization of Frycollin, Negro valet in *Rebur the Conquerer or, The Clipper of the Clouds* by Jules Verne, published in 1886. Verne had taken the entire concept of helicopter-driven aircraft from the Frank Reade series, as he had taken and would continue to take many more of its author's ideas in the future. It seems almost a certainty that Frycollin was inspired by Pomp, in order to lend "humor" to the story. Frycollin's *only* redeeming feature was that he did not "talk Negro," which, as Verne said, "was a consideration for nothing is more unpleasant than that odious jargon in which the use of the possessive pronoun and the infinitive is pushed beyond all bounds." In this manner Verne dispensed with the necessity of attempting to simulate the Negro vernacular, otherwise Frycollin was summed up as follows:

He was a pure-bred Negro

> from Carolina, with a stupid head on a weakling's body. Being only one-and-twenty, he had never been a slave, not even by birth, but he might as well have been one. Grimacing and greedy and idle, and a poltroon of the first order, he had been in Uncle Prudent's service for about three years. His master had been a hundred times on the point of kicking him out, but had kept him on for fear of getting something worse. With a master ever ready to venture on the most audacious enterprises, Frycollin's cowardice had brought him many arduous trials. But there had been compensations. Very little had been said about his gluttony and still less about his laziness.

When Robur, the Conqueror, kidnaps Frycollin along with his master, Uncle Prudent, and a friend, Phil Evans, and carries them aloft on his gigantic, multivaned helicopter, the Negro's terror and sheer cowardice prove disgusting. Faint with fear, Frycollin crawls around the deck of the great ship on all fours, whimpering. Annoyed at Frycollin's lack of fortitude, Robur has the Negro lowered from the ship, to dangle in a basket, as it soars ahead at 60 miles an hour.

What a fantastic difference in "Frank Reade, Jr. in the Clouds" (*Boys of New York*, September 6 to December 20, 1884), when a flying craft of Frank Reade, Jr.'s, is attacked by eagles, and Pomp, grabbing the legs of one giant bird, is pulled from the vessel to what seems certain death. His weight gradually drops the bird to the ground.

When the horrified Frank Reade, Jr. and Barney Shea lower their ship to the ground and discover Pomp alive, they are greeted by: "Hi Barney, yer Irisher! Yer caint do dat, eh?"

" 'Be the Powers, yer wouldn't be doing it yerself again, I'm thinking,' responded Barney as he wrung the black's hand." When the novel was reprinted in *Frank Reade Library*, April 22, 1893, Pomp was given feature billing on the cover for this feat.

As to Frycollin, he spent most of the rest of *Robur the Conqueror* "shut up in the galley, he saw nothing of what was happening outside and might consider himself out of reach of danger. Wasn't he very like the ostrich, not only physically in his stomach, but morally in his stupidity?"

Fortunately, the Frank Reade and Frank Reade, Jr., stories, the largest circulated of all the "invention" novels, had started a precedent which held. When Edward Stratemeyer, outstanding dime-novel writer and editor and author of the Rover Boys teen-age book series, launched *The Great Marvel Series* with *Through the Air to the North Pole* in 1906, a major character was inventor Prof. Amos Henderson's aide, a powerful, good-natured Negro who called himself Washington Jackson Alexander White. The Negro never used a small word where he thought a big one might do, and a typical communication from him might be: "Heah's de stupendousness conglomeration dat eber trans-

cribed dis terresterial hermisphere! . . . a discontinuation ob de transportation facilities, when some construction on de elongated tempestuousness attached to de railroad made de cars go bump!"

While the Negro cooked meals and took care of the old professor, he also single-handedly overpowered culprits spying on inventions in progress and was the engineer of a semirigid dirigible which sailed to the North Pole and later of the submarine in *Under the Ocean to the South Pole* (1907). The impression the reader got of him, aside from the constant barrage of misused and mispronounced big words, is of high intelligence, great strength, a fine sense of humor, pronounced mechanical skill and pride in achievement.

The most popular series of boys' books ever published was the Tom Swift series; and Edward Stratemeyer was the father of them, the very first, *Tom Swift and his Motor Cycle*, appearing in 1910. Tom Swift, son of an inventor, riding down a country road on his motorcycle accidentally knocks down an elderly Negro, Eradicate Andrew Jackson Abraham Lincoln Sampson. In attempting to make amends, Tom contrives a new brake for the old Negro's mule-drawn wagon and offers him work if he'll stop around.

The same self-debasing references are used in *Tom Swift* as in Frank Reade. When Eradicate, who is stretched out on the ground, is asked to gaze around, he replies: "Ye doan't catch dis yeah nigger lookin' around!" Tom Swift apologizes, and Eradicate, speaking not unlike Washington White of *The Great Marvel Series*, graciously replies:

"It is mah fault fer gittin in de road. But dat mule Boomerang am suttnly de most outrageous quadraped dat ever circumlocuted."

Eradicate is an older man, not capable of the feats of strength and daring which are identified with Pomp and Washington White. He has little education and therefore cannot perform any highly technical tasks. Yet while he provides humor, he is not made a buffoon. On his entry into the story, he is an independent businessman who sells his services and gives a good day's work for a day's pay. In tight spots, he rallies his resources and, with full regard for his limitations, shows courage and common sense. He frequently helps Tom Swift out of difficult situations, and he is a loyal and good friend. In the early stories in the series he merely takes a fancy to Tom Swift, but later he goes to work for him. As an employee he begins using the expression "Marse Tom," which was also a respectful form of address used by Pomp and Washington White. Technically, teenagers were prefixed "Master" in those days, so we will innocently conclude that the Negroes were merely following proper form.

The significant fact is, that in teen-age science fiction from 1879, when the Frank Reade series was begun, through to 1940, when the first Tom Swift series petered out, millions upon millions of white youngsters who read these books

were given a very friendly and positive view of the Negro.

M. P. Shiel, born in Montserrat, the West Indies, in 1865, was thoroughly familiar with the Negroes of that area. When he later gained some reputation as an author, his fiction tended to show considerable contempt for the Negro; yet his short story *The Place of Pain* displays a certain amount of contradiction on this point of prejudice. *The Place of Pain* was probably written, judging by internal evidence, towards end of the 19th century, though it was not collected into book form until *The Invisible Voices* was published by Richards, London, in 1935.

The central character in the story is a deposed Negro pastor, Rev. Thomas Podd of Small Forks, British Columbia, Canada. Almost overnight Rev. Podd drops from a position of respectability when he returns disheveled from a prolonged stay in the wilderness and tells his parish that they are: "frankly a pack of apes, a band of black and babbling babies; said that he could pity them from his heart, they were *so* benighted, *so* lost in darkness; that what they knew in their woolly nuts was just nothing; that no one knew, save him, Podd; that he alone of men knew what he knew, and had seen what he had seen . . ."

Reduced to starvation he begs the white narrator to give him three dollars a week in exchange for a tremendous secret involving life on the moon. "The payments wouldn't be for long, for I've developed consumption, I see — the curse of us coloured folks . . . I'm mostly hungry — my own fault; but I couldn't keep on gassing to those big-lipped niggers, after seeing what I've seen."

Granted a dollar a week, he is rescued from hanging by the white narrator when the townsfolk quite accurately surmise that he has deliberately set three fires to prevent an electrical power plant being built on a nearby waterfall. With only hours of life left, Rev. Podd takes the white man to the base of the falls, where he has accidentally learned how to form a double-convex lens from the action of the water and has seen fantastic sights of life on the moon. The building of a power plant would destroy the natural lens, and he dies unsuccessfully trying to give the white man a glimpse of what he has seen.

Rev. Podd is obviously an educated, well spoken man, capable of gratitude and unquestionably telling the truth on what he has seen. As though these positive points were too much for him to bear, Shiel, in describing Rev. Podd's downfall, says: "Anyway, the thin veneer of respectability came off him like wet paint, and he slipped happily back into savagery." One is tempted to suggest that Shiel needed a Negro character of some stature to make his story effectively believable, yet he was incapable of restricting his own prejudices to the point where he could tolerate the elements of superiority which, of necessity, he had to attribute to that character.

Second only to the Civil War in its impact upon Negro life in Ameri-

ca was World War I. With millions of men recruited for the service and fantastic new production goals set for industry, the nation was faced with an acute labor shortage. Major industrial firms literally imported Negroes by the hundreds of thousands from the rural South and gave them a chance at well paying jobs which had been previously denied them. Hence, the beginning of a Negro middle class came into existence in the cities. After the War, white reaction was sharp, and the severest practices against the Negroes were instituted in the South. And it was in the twenties that lynchings became a matter of world scandal. Negroes of ability found their way blocked by color alone.

This frustration was used as material for a story by Eli Colter, "The Last Horror," in the January, 1927, issue of the pulp fantasy magazine *Weird Tales*. Richard Ballymair, a Negro, is born with white hands. In saving the life of an army captain from a lion in the Congo, he is clawed and has a piece of white skin grafted to his body to replace his own. To his astonishment, he learns that it will remain white. With the aid of money obtained from oil on land given him by the army captain, he sets about replacing his entire body with skin from whites he has kidnapped, so that he can comfortably take his place in the commerce and society of America. The surgery is successful, but the eloquence of one of his captives causes him to commit suicide in a fit of remorse as the reality of the price he has paid for his white condition is summed up for him.

A related theme was taken up by David H. Keller, M.D., in four stories: "The Menace," "The Gold Ship," "The Tainted Flood" and "The Insane Avalanche," all published in the Summer, 1928, *Amazing Stories Quarterly*. In "The Menace," a plot is uncovered by private detective Taine of San Francisco in which Negroes have discovered how to make gold and are systematically buying up Harlem and other areas of New York City. They have also discovered a chemical which can turn their skin white. In the course of the narrative, Dr. Keller is brutal in his treatment of the race question. The other three stories deal with a series of other efforts by Negro scientists and leaders to destroy the United States for its treatment of the Negro; they almost succeed, before being foiled by Taine of San Francisco.

Both "The Last Horror" and "The Menace" reflect a completely different attitude towards the Negro than any that previously prevailed. The genius of Booker T. Washington in education and George Washington Carver in science made it evident that the Negro was capable of intellectual as well as physical achievement. Both Eli Colter and David H. Keller, suggest that the Negro is capable of intellectual attainment, but in doing so they have made the Negro appear far more sinister than anything the race riots have shown.

At the time "The Menace" was published, there was virtually no criticism of its theme. To the con-

trary, the quartet of stories was received with warm approbation. Twenty years later, when Dr. Keller began a comeback in the hardcover science-fiction press, a whispering campaign criticizing the handling of the Negro in those early stories became audible among the science-fiction fans.

Sometime in 1948, Walter Dunkelberger, a fan magazine publisher, issued *Fanews Magazine,* Number 340, devoted entirely to an article titled "In Defense of Dr. David H. Keller." It seems likely that this defense was written by Dr. Keller's wife Celia, under the pen name of Cynthia Carey, though there is no direct verification of this. The text pivoted on remarks that Keller's stories were "un-American."

The defense denied nothing and summed up its case succinctly and pointedly in its closing remarks: "Therefore, it seems to me that Americanism as practiced, with its segregation; differential in pay; positive division socially is far from the vocal Americanism of us all and by that token it would seem that the one un-American thing Doctor Keller did was to make the villains Negro instead of Russian or some other nationality."

In so many words what was being said was that though it was entirely conceivable that the story was anti-Negro, it certainly was *not* anti-American, because being anti-Negro was the true American way of life!

The gains of the Negro in society were not applauded, but were treated as a subject for alarm. An Australian author named Erle Cox was to have published by J. Hamilton, London, in 1927, a book titled *Out of the Silence.* The book was acclaimed as one of the truly outstanding works by an Australian writer. In this novel, a woman, who has survived in suspended animation for possibly hundreds of thousands of years, is found in a metal underground chamber. She is a specially bred superwoman preserved alive by a civilization that has long since perished.

In her own time, most of the colored races (hundreds of millions in number) had been exterminated in order to keep them from "dragging down" the whites. She has the secret of the weapon which will destroy all colored people, leaving the whites alive. So powerful is her mind that no one can resist her will. Describing the colored races of her era, she says:

> Mentally and in everything but physical endurance they were beneath us. They could imitate, but not create. They multiplied far more rapidly than we did, and, led by ambitious men, they threatened to exterminate the white races by sheer force of numbers. In some places, where the two races lived side by side, the position became acute, and everywhere they demanded as a right an equality they were unfitted for.

When an American objects to her plan she replies: "Dick, has your world not yet recognized that there are weeds of humanity as well as of vegetation?" The superwoman is fi-

nally killed by a jealous girl whose man she has taken, and the entire plan aborted; but the reader is left with the uncomfortable feeling that her views were those of the author's.

A Negro scientific genius, Suun Yaar, whose laboratories are at the mouth of the Niger River in Africa, decimates the United States in "Man Created for Death" by Henry J. Kostes (*Amazing Stories,* December, 1934). The black scientist, who had unified Africa under Negro rule, intends to conquer the world and then the planets. Destruction of Americans is so great that artificial humans are created in the laboratory to keep up the working and fighting forces. The accelerated methods of bringing the artificial humans to maturity cuts their life span to a few years. A "test tube" genius who foils the plans of Suun Yaar turns out to be a naturally born child who has been artificially stimulated to maturity. As he waits to receive his honors, the nation is sobered by the knowledge that this young, vibrant hero, who has saved them all, will die of old age in two years. This story was in advance of its time in suggesting that a modern civilization could be constructed by the blacks in Africa. Despite its Negro villain, it is not a racist story, and its ending has a memorable poignancy.

The intent of *Sown in the Darkness* by William Richard Twiford, published by the Orlin Tremaine Company, New York, 1941, was never in doubt. It is quite probable that this novel was financed by the author. The owner of the publishing company was F. Orlin Tremaine, former editor of *Astounding Stories* and then the editor of the short-lived *Comet.* He had attempted to establish a book publishing business and had issued several volumes, including *Scare Me!,* a book of inexplicable phenomena by the literary agent Ed Bodin, and *Who Do Yo Think You Are?* by the sometimes science-fiction writer Arthur J. Burks.

Twiford, then a resident of Tennessee, presents the thesis that the mixing of the races through social equality has, by the year 2,000 A.D., significantly lowered the intelligence of the average American. He quite accurately forecasts the growth of a separatist movement with Negro leadership in the United States. When those favoring separation of the races win at the polls and legislation is to be enacted to enforce it, all the black and yellow peoples of the world declare war against the United States.

The superiority of white intelligence triumphs over great odds. The Negros who want their own nation are given one in Mexico under the protection of the United States. The white deport all other Negroes to Africa and certain American island possessions, as well as to Mexico.

That some whites were fully aware of how uncomfortable it was to be a Negro in American society was evidenced in a short story "Pigments is Pigments" (*Wonder Stories,* March, 1935) by the youthful Mort Weisinger, today editor of the Superman comic magazine complex. A ruthless business executive is turn-

ed black through the injection of a chemical by a scientist he has cheated. When the executive's wife sees his new color, she runs shrieking from the house and doesn't return. Finally, when he asks the scientist's price to restore his white color, he is told: "You look to me like a worried nigger. I think I can help you. Write out a check for two million dollars!"

That is the amount the executive eventually pays for the restoration of his white color, and it just happens to be his total net worth. So self-evident is the disaster of suddenly becoming a black man in American society that the author doesn't feel it necessary to offer supporting evidence to prove its undesirability. It is easy to conclude that a rising tide of anti-Negroism, by indirection if not by direct intent, was being reflected in the science fiction that appeared. But this would be an incomplete truth, for major works were also published during this period in which the Negro fared well.

"Electropolis," translated from the German of Otfrid von Hanstein (*Wonder Stories Quarterly,* Summer, 1930) tells of the purchase by German intersts of an area of desert in Australia the size of Kansas and the creation there of a super-scientific community. The extremely readable novel contains one of the most memorable scenes concerning a Negro ever to appear in science fiction. A white man has crashed his plane in the Australian wilderness. A bone fragment pressing on his brain will soon kill him. The Germans appeal to a cannibal tribe for medical help. An elderly naked savage comes forth, and with primitive instruments performs a brilliant brain operation, saving the white man's life. The description of the methods used by the native and the attitudes and impressions of the watchers must certainly rank among the strongest and most dignified sequences involving a primitive Negro written by a white man.

The same magazine published two novels: "The Moon Conquerors" by R. H. Romans (Winter, 1930) and its sequel, "War of the Planets" (Summer, 1930), presenting the Negro as descendant of a superior race that originated on the lost planet which broke up to form our asteroids. The blacks had built a mighty, scientific civilization, and the whites were their slaves. They had migrated to what is now our moon 35,000 years ago. The Earth was then a member of another solar system, moving on a collision course. Instead of colliding, it captured the moon in its gravitational pull and was in turn captured by the sun.

The blacks migrated to Earth and set up a highly advanced civilization in Africa, with buildings and idols not unlike those of Egypt. They retained whites as slaves, but other whites that had remained behind on the moon developed a state of civilization. There followed a war between the two worlds. A Martian invasion of the Earth is defeated by the blacks, and the Martians mutate into the tiny ants which we see today. Decadence and constant for-

ays by escaped white slaves gradually crumble the Negro civilization.

Would the world perhaps be a better place if there were no white race? French author Yves Gandon doesn't think so. His novel *The Last White Man*, first published in English translation by Cassell and Co., London, 1948, has the white men wipe themselves out by introducing into warfare a disease that kills only those with Caucasian blood. The yellow and black men rule the world between them, and the one surviving white man is kept in a museum and displayed to the public two hours every day.

Ten years after the ascendancy of the dark races, the lone white is permitted to revisit Paris accompanied by a young female Negro reporter who will record his reactions. What he finds makes mockery of his most tender personal memories, but in the midst of his disillusionment the radio carried by the girl broadcasts a report of a severance in relationship between the dark races, a prelude to battle.

She asks him if he thinks there will be war.

He replies: "If wars were avoidable, how is it they have never yet been avoided?"

It was but two years later that Ray Bradbury brought the Negro theme boldly into the pages of the science-fiction magazines with "Way in the Middle of the Air," His sequel to that story, "The Other Foot" appeared in the first. March, 1951, issue of a literary magazine, *New-Story*.

The Negroes have for some time been settled on Mars. The news spreads that a spaceship is about to land with a white man in it. There is a bustle of activity. Guns come out of attics; ropes are prepared for lynchings; the street car is painted with the sign "For whites: rear section"; the last two rows in the theatre are roped off for whites; laws are projected against intermarriage; restaurants reserve the right to serve whom they wish. Then the rocket lands.

They learn that only a half-million people are left alive on the face of the Earth. The Negroes are begged to use their rockets to rescue this remnant from an unlivable hell-world. The survivors will shine shoes, wash clothes, cook meals and clean houses in exchange for refuge.

The literary device of having a superior Negro the final observer and narrator was used in *Childhood's End* by Arthur C. Clarke (Ballantine Books, 1953), wherein the entire aggregate of the races of man evolves to a higher level of intellectual and spiritual existence. Clarke's book was different in another way, inasmuch as his logic for the Negro as a hero figure derived directly from the growth of the United Nations and the increasing publicity accorded statesmen from nonwhite nations. Granting a Negro a superior status in a work of science fiction was now no longer an act of liberalism. Such Negroes visibly existed. It was reasonable to speculate upon their future.

In the future world of Philip Jose Farmer's "Moth and Rust" (*Start-*

ling Stories, June, 1953), there are African Negro nations living by the precept of nonviolence, reverting to a religion of primitivism, including elaborate orgies. These Negroes utilize depigmentation processes for creating "white" agents and dream of overthrowing France and taking control of that country. One of the agents of the Negro group is named Jim Crew, and members of various Negro sects have developed the "witch-doctor magic" into a valid form of extrasensory perception and projection. An impressive sequence, in which Jim Crew's dying thoughts are tapped, has the observers visualize through him a "dark and bearded man, stepping through the light, holding out his hand to Jim." In this manner Philip Jose Farmer planted the thought, popularized by Robert Kennedy, "What if God is black?"

The massive problem of building a modern and viable structure for the newly freed nations of Africa has been the subject of a series of stories by Mack Reynolds, a science-fiction author who has spent a great deal of time on that continent. In "Black Man's Burden" (*Analog,* December, 1961-January, 1962), a team of well educated Negroes from the United States, backed by well financed organizations and advanced technology, commences a long range program to lure the thousands of diverse African groups away from their tribal customs and into the mainstream of modern life. The ingenuity they display in breaking the hold of tradition on the lives of Arab and Negro alike makes for good entertainment, and the description of existing customs has an air of authenticity to it.

At no point in the past was science fiction in advance of the times in depicting the Negro. As whites stiffened their attitudes in the twenties, material appeared in science-fiction magazines and books that reached the extreme of preaching genocide. It was fortunate that early writers of teen-age science fiction exercised personal responsibility, or they could have infected white youths with the virus of color-hate.

With the onset of the United Nations and the "freedom" movements, science fiction reflected a more enlightened mood, but except for the briefest flurry by Ray Bradbury it had little to say about civil rights for Negroes. The accomplishments of super Negroes in uniting Africa, as written by Mack Reynolds, either did not anticipate the passions which exploded in the streets of the United States or assumed they had long since been resolved. Science fiction, which scarcely championed Negro rights in the past, gloriously depicts a future in which the elevated, educated, superior Negroes shoulder their load in building the world of tomorrow. It would not be fair or accurate to accuse authors of a fiction form, whose primary purpose is entertainment, of hypocrisy; but it would be no more than honest to state that attributing social consciousness to them would certainly be a hollow gesture. END

SQUARED OUT WITH POPLARS

by DOUGLAS R. MASON

Illustrated by ADKINS

The place was Africa; the setting was strange; and the events were — deadly!

I

The letter passed briefly from hand to hand. Its contents, read by the chairman Mrs. Thurston-Jones, were known; but the members of the Museum subcommittee desired to handle it, as a sufficient rarity in itself — carrying, as it did, the precise angular signature of Carl J. Lasnier.

It was certainly a name which had celebrity value for any such committee. The only member of this one to pass on the document without a great deal of reverence was the sixth and last to get it — Paul Bamber, the assistant curator. At thirty-two he was not, anyway, in the age group to have had personal contact with Professor Lasnier when he had been their local newsmaking eccentric.

For another thing, he was far more interested in the living presence of the chairwoman, who was fighting her personal battle to get a long 'a' in words like "hat" and whose startling decolletage was a living challenge to the sarcophagi that lined the room they were in.

D. P. Sinjon, the curator, retrieved the curt note, returned it to stock and put the matter squarely to the meeting.

"However surprised we all are to have this offer from Professor Lasnier, there is no doubt at all that we are extremely fortunate to have this chance to acquire his collection. It will give our ethnology section an international importance. It is by far the most complete record of numerology systems which has ever been brought together. It shows the way man's mathematical thinking has developed and points the way to future progress. The long-term effects on the Museum are incalculable. Quite incalculable. As for the price he asks, it is very modest. American foundations would give him treble. I can only suppose his past connections with this town have prompted generosity."

"Or he's short of money and wants a quick sale." Councillor Martindale, balding, ferret faced, put the rennet in the junket.

Mrs. Thurston-Jones, however, saw it as an important landmark in her chairmanship and was anxious to get agreement.

"I am sure we must all agree with Mr. Sinjon on this. I am prepared to back this purchase all the way through Finance and General Purpose. It will make the most important acquisition the Museum has ever had."

Martindale was not to be trapped into enthusiasm. "Lasnier was a millionaire by all accounts. He left Europe to play a recluse game in East Africa. That shouldn't set him back much. Why does he suddenly need money? There could be something wrong with this collection. We should take up the offer he makes there for inspection. I will not vote for acceptance until we have made an adequate investigation."

"What would you regard as adequate?"

"One of our own staff to go, certainly."

Sinjon came in with, "You understand the time limit made by Professor Lasnier? Such inspection would have to be very quickly arranged. We have under a week to decide. I imagine he intended that some independent, on-the-spot observer should verify the physical presence of the pieces."

Bamber found himself coming in on the side of Martindale. It was a maiden speech and not one to make him all-time favorite with the chief official.

"I must say, Chairman, Councillor Martindale is right to be cautious. This particular field is one of my special areas of study, and I do know that the quality of materials can suffer a great deal without a specialist's care. The exhibits could easily have deteriorated so far in that climate as to require extensive renovation,

costing very much more than this figure. It is also very easy indeed to copy original artifacts."

Mrs. Thurston-Jones stretched lithely for the elephant-foot ash tray and said, "Then we must send someone by air at once. Since Mr. Bamber knows about these things, he should go. Can that be arranged, Mr. Sinjon?"

Martindale said, "Not so fast, if you please. This is another issue. The cost of such a journey cannot be met from running expenses. It will need a supplementary estimate."

"I am prepared to justify that."

Sinjon said, "I think I can help the committee on this. There is an amount in the estimates for refurnishing the junior curator's office. That can be postponed. We could manage it out of income."

Bamber recognized this ploy as showing no mean skill. For himself, he would be better out of the country for some days when the news broke on his two colleagues that their slum basement office was to lie in its squalor for another year. Padstow, his senior, and Cynthia Bell, the newest recruit, would want a pint each of his dear heart's blood.

He was debating where best he could spend the rest of the day and had come to the conclusion that the embalming room would be safest, when he found it was all over but the shouting — and the minute was through. That was it then. Definitely the embalming room. By her own account it gave Cynthia the green creeps, and Padstow always maintained that, in some inexplicable way, the atmosphere made him impotent for the next twenty-four hours, so it was not likely that he would risk a visit.

In something of a daze, Bamber held the door open for Mrs. Thurston-Jones and hardly noticed her trim, coppery head pass by at shoulder height. He carried, however, a remnant of her distinctive and agreeable scent all the way with him in the escalator to his dingy basement. There, even Eros could not hold back the impact of its worn, sepia carpet and dung-hued walls.

Padstow and Bell were about their lord's business elsewhere, so he put brief notes on their desks. For Padstow: "Keep your thieving hands off of my biscuit tin." For Cynthia; "Sorry to leave you with Padstow. You will just have to scream that much louder to bring the porter in from his gate."

Then, incredibly, he was in the airport lounge on a lumpy, leather settee with his image staring back at him from a hardboard panel with a polished granite finish. Squarish face, set in optimistic lines when at rest, brown hair, eyes wide apart. Too wide? Solid build. Tall and powerful looking. Well adapted for carrying heavy ceramic objects round a horseshoe gallery.

Speculation cut off abruptly as the next settee in line got an occupant who made the rest of the set look unfinished. Jet black hair, artfully simple, contrasting with a skin so white that its pallor was startling. Minimal, gray linen costume. Legs gracefully long, in black lace. Folio case in white leather with three in-

itials in gold. Full, oval face, brown eyes, given the full treatment like a Balinese dancer's.

For a good half minute, Paul Bamber was lost in passive appreciation, when he decided to move over and ask her which museum she most liked to browse in. He was another minute gathering his impedimenta, and when he looked up she had gone, as though by a variant of the Indian rope trick. He was still searching for her, in a bemused way, when flight details for his journey began to sound round the halls.

II

Cloud below, like a polar landscape. Sun brilliant on a long, silver wing. Settled in on an inside seat, he had time to think about his journey and feel the full force of contrast in his changed circumstances. Yesterday a trog, today an Icarus. Not perhaps a good parallel, Icarus. His mind wandered briefly on a supplementary holiday with the very nubile air-hostess. Diving through cloud into a shark-infested sea with the flying barmaid in her blue cap calling piteously for his protection. But the girl in the airport lounge had finished him for much speculation. Also, he found that his superego cut him sharply back to reality and directed him to spend the first leg of the journey getting a run down on Lasnier.

An eccentric of the old school, Lasnier. Credited with enormous wealth, but a genuine academic and most unusual in having two fields of work where he was reckoned variously as a genius or a lunatic: plant mutation and numerology. Not so dissimilar at that though. When you came right down to it.

After a distinguished career, he had moved out twenty years ago and settled on a remote farm on the slopes of Mount Kenya. Set up his own small kingdom. Some kind of Fascist perhaps? A serf seeker. Known to be quick tempered and misanthropic. Bamber reflected that nothing was all bliss and slipped the documents away. He would enjoy what there was to be enjoyed of the trip.

Travel narrowed his mind to a succession of reception areas, skins browning off by degrees through Rome and Cairo to the polished black of the groundstaff at Nairobi. Folk objects on display changed from Japanese Mechanical in Europe to Japanese Voodoo in resurgent Africa.

At Nairobi, he made two important discoveries. From that point north, he was on his own, travelwise. The dot on his map labeled Carson's Farm, which was his Ithaca, could only be reached, if at all, by hired car. Secondly, and more immediately important, the girl from the airport had been with him all the time.

When he picked out his case from the pile, she was there, saying something in the local Ki Swahili which brought a pleased grin to the ebony face of the porter and got her white leather bags first off the production line. Standing beside her, Bamber saw that she was not very tall. Com-

pact, proportionate, an Esquiline Venus with the refinement of delicate wrists and ankles. Seven heads tall with a head width between the points of well separated breasts. A career set among civilization's bric-a-brac had its compensations in its pleasures of classification.

For a moment he thought she might be married to a local planter. Then he saw the nearer, ungloved hand had no rings of any kind attached.

He said, "If I may say so, you appear and disappear as though by sleight of hand. I definitely saw you at Ringway and then not again until now. You would not be mere ectoplasm?"

Gray eyes gave him a level and considering look. Something mellowing in the equatorial sun saved him from a brush-off.

"Ectoplasm?" A low-pitched voice, completing a catalogue of rare excellence.

"Well it wouldn't do to push the analogy too far; but a good proof that you have corporeal substance and a name would be for you to have lunch with me."

"I'm sorry, I have a long way to go before nightfall and must make a start as soon as I can get a car."

"Is that easily done? I have to get out to a place called Carson's Farm, and I believe it has to be by road."

"Then I shall be glad to accept your invitation. But not here. This is a coincidence indeed. I am also bound for the farm. Carson is my name. Lorette Carson. I used to live there as a child, though I expect everything has changed now."

"Bamber, Paul Bamber. I have to meet a Professor Lasnier on behalf of my museum. He has a collection for sale."

"Carl Lasnier is my grandfather. I shall be glad to arrive with an accredited visitor. He has no idea that I am on the way, and he can be very difficult. But he would hardly turn me away in front of a stranger."

"Clawing piteously at the stockade with a wolf breathing down your neck. It would look brusque."

"Definitely."

Paul Bamber reflected that his first independent mission could hardly have prospered better. In fact when they were leaving Nairobi for the empty north, in a softly-sprung Chevrolet station wagon, he recognized that without Lorette Carson's local expertise, he would have ground to a halt at the terminal.

The road in front stretched away like a red corrugated strip. At the garage, the African who filled the tank and checked round had said, "Watch your speed now, *Bwana*." White hunter Bamber was just coming to an understanding that the warning was not to keep it down, but to keep it up. There was an optimum in the low sixties. Anything below that, the rhythm was wrong and every corrugation made its impact. Much above that critical threshold, the car began to break up. Hit it dead right, and you went from crest to crest smoothly.

Holding the favored speed took most of Paul Bamber's concentration and left the conversational field wide open for his companion. She must have felt all the advantages of the arrangement and was content to sit in silence.

An ancient black Ford, loaded to the roof with sacks, live poultry and African proles, took them by surprise, rounding a bend into the rudimentary township of Fort Hall. Labeled "Joshua's Chariot," it scraped near enough to snap back his wing mirror and swamp them with the full bouquet of a slaver on the middle passage. To Bamber's startled eye, the dim interior of the pounding coach was suddenly a vivid, still picture. Darkness painted on darkness, a seated figure calmly feeding a baby at the still center of the turning world.

At Nanyuki, they bought canned beer from a bar with a line, purporting to be the equator, etched in its shiny brown top. Its proprietor learned of their objective with some surprise.

Unaware of the blood-tie involved, he said frankly, "That one is as queer as they come. Great big, bearded sod — if you'll pardon the French. Never comes in here. Never leaves the place as far as anybody knows. He's got the whole of that valley bottom squared out with poplars. Very fast growing in these parts. Keeps them pollarded. God knows why. Looks like a plantation of drumsticks. Local laborers won't go near. He uses Masai to work the land. And that's an odd thing in itself. How ever he gets those workshy characters to handle a shovel is a blessed miracle. Has dogs roaming about as well. You'd do well to keep the engine running and stay in the car until you see a welcome sign hung out. Not that you will."

Lorette Carson felt a small stirring of self-pity. She was surrounded by men who wanted to talk at infinite length.

She said coldly, "Would you mind very much, Mr. Bamber, if I waited for you in the car?" And she proved that it was meant as pure rhetoric by not staying for his answer.

"What's with the *memsahib?*"

"It's her grandad."

"Who? Lasnier?"

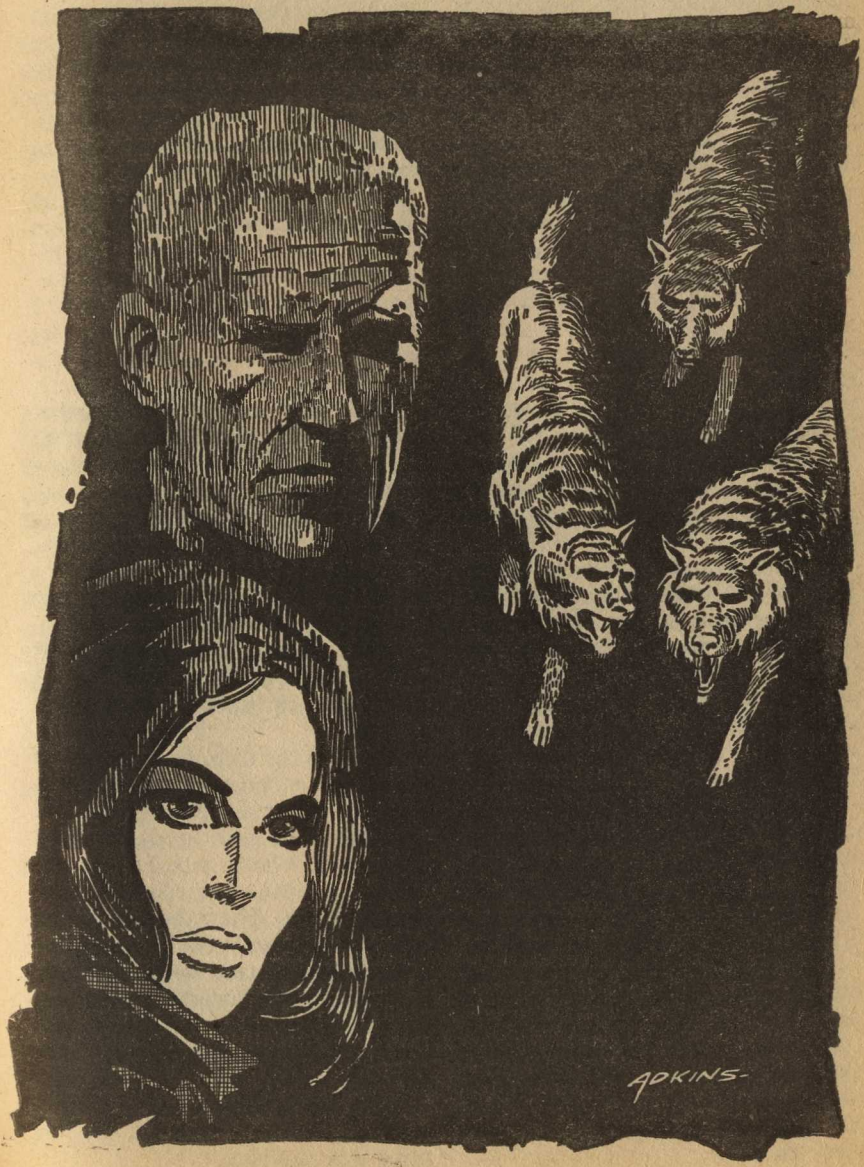
"The same."

"Stone me. Just goes to show how careful you should be. Watch it by the way on the road out. Keep that heap moving or you'll stick fast. There's a cane forest in one valley that nearly closes the road. In fact you'll think you've missed the road; but press on through it. It's not much used. Lasnier goes in and out in a helicopter. Then Carson's Farm is about six miles farther on. You can't miss those bloody great poplars anyway."

"Thank you very much."

"That's all right. If you want any help send a smoke signal."

They stopped where a small dried up water-course went under the road, having passed improbable, towering giraffe, Thomson's delicate gazelles, and startled a herd of zebra into surly flight. There was a thorny copse and some shade. An empty


ADKINS

and desolate countryside. It all made for a powerful in-group feeling, though Bamber dissipated much potential good will by going on like a travel tape.

"Poor agricultural land. A great deal of erosion. Not helped, of course, by primitive economy. Moving about with goats. Something to do with their tiny feet, though I never remember what."

"We must all count our blessings for that."

Whatever Paul Bamber intended to reply was stillborn as a tall, copper-brown, nude figure of a warrior materialized almost at his side. There was a strong smell of rancid fat and dung to bulk out the neolithic image and a rattle of shining wire ornaments.

Bamber thought that it was a little hard on an ethnologist to be followed by stone-age exhibits on his day off. He would also have been happier to have had a jacking lever in his hand, though reason told him it would be only marginally useful against the long slender spear held by the Masai.

Lorette said, "Just go on talking and take no notice. They move about so silently, nobody ever knows where they are. But they do no harm."

"No harm to whom?"

"I don't know. It's just a phrase."

"Well how do you know whether you're in the group they do no harm to?"

The Masai walked past them without looking right or left, giving the impression that he would have done the same if his chosen path had been between them.

Ten minutes later, they passed him on the road and left him in the center of a red dust cloud which he ignored with the same lofty indifference, making it clear that, from his point of view, the motor car was an anachronism.

It was as well that the man in Nanyuki had warned him about the cane belt, or he would not have believed that a way through was possible at all. Lorette said, "I think I remember this bit. Canes whipping back against the windscreen. It was very exciting to a child."

"Not only to a child." Bamber was doing his best, in virtually nil visibility, to keep them moving along the trail.

Fifteen-foot canes edged the narrow track like a bamboo curtain. Wrist-thick roots, twisting across the narrow way, hammered the suspension into a self-destructive rhythm. Bamber slowed down and met a shallow water-splash at the nadir of the valley curve, with barely any way on.

He saw, too late, that the climb out on the other side was a one-in-five pull from a right-angled turn. Dropping into low gear, he trod down hard. Wheels spun. Liquid mud surged over the worn sills. They began to climb. Then the machinery seemed to shake itself loose. To his everlasting surprise, he found that, in spite of the fantastic racket under the hood, the car itself was moving slowly backwards into the dip.

When they came to rest the engine knocked twice and cut out. Silence was absolute.

Lorette Carson said, "Why did you do that?" and came nearer than she had ever been in twenty-three years of privileged living to suffering manual strangulation.

Bamber prodded the starter with morose ferocity. An intuitive sympathy with things mechanical had already told him that it was no good. Confirmation brought no pleasure.

"This is as far as we go."

"It can't be."

"I know. You're going to get out and push me, whilst I ride in triumph to Persepolis."

"Where?"

"Persepolis."

"That's where I thought you said. One thing I do know. Nightfall comes very quickly in these parts. What time is it?"

"Sixteen-hundred."

"Then we have about two hours. Six miles. That's not bad; we'll do it easily. Lock the car, leave the cases. They can send a tractor to bring it in."

"Suppose somebody else wants to come this way?"

"By all accounts it isn't likely. It only goes to the farm."

"Let's get on then."

"Give me a minute, I'm not dressed for the bush."

She climbed over to the rear seat and began to open the larger of two cases. Bamber earned himself a good mark by edging out into the forest and walking ahead up the path.

II

Distance from the city became a real thing for him for the first time. Until now, he had been insulated from the impact of the African scene by the cushion of familiar artifacts. Now he was Lear's Poor Tom, reduced to a blanket. Cane swung overhead, giving him a slit of alien sky. The forest was not silent. Somewhere to the left an indeterminate number of yards distant, a heavy body crashed through the bush.

Lorette, foreshortened by the slope, looked young enough to be in need of care and protection. Trim white shirt, gray pants, red sandals, loose triangular scarf of cadmium yellow, shoulder bag. Without ulterior design, he stretched out a hand to haul her up to his level, and she took the help in the same impersonal spirit. Mere human solidarity in the social vacuum. The cyclorama hadn't been changed since *Kenyaithecus wickeri,* and Bamber would not have bet much on the impossibility of still meeting him.

She said, "Don't think I blame you. You were doing very well. It was just bad luck. Here are the keys; I've locked up."

At the top of the slope, they looked back. A wavering line showed the course of the path. of the car, there was no sign. Ahead, the road was a red mark over rolling bushland. Right of center, Mount Kenya rose dramatically to snow-covered, angular peaks, like a stage backcloth on an empty set. They went along hand in hand, at arm's distance, incongruous figures, silent, in a loneliness which drove them each into their own minds.

At seventeen hundred there was

no material change, and they sat on a handy rock. Lorette Carson said, "I half remember this; I'm sure there's a change over the next rise. The house is in the bottom of a big circular bowl. American colonial style with pillars and verandahs. It belonged to my father's family originally. A kind of late Victorian Folly."

Three quarters of an hour later, they reached the top. It was a big, shallow bowl all right; but there was a development which would have looked odd anywhere, and coming to it from a wilderness had a bizarre impact all its own.

Paul Bamber said wearily, "Lasnier's Folly."

"It must be."

As far as the eye could see, the wide valley was planted out with rows of poplars. Mathematically exact, so that their stumpy, pollarded heads made a tessellation of pattern at every move of the eye. Op art on the grand scale.

Even as they watched, a third of their height was suddenly shrouded in a rainbow mist; and the rhythmic thump of pumps, like the beating of a huge heart, sounded out the end of silence. It was both welcome and uncanny.

Bamber said, "Irrigation pumps. The whole valley will be like a sounding board. Your grandfather has a thing about poplars. I expect the house will be somewhere in the center."

"And that's far enough; but it will be cool walking through it."

They reached the foot of the long incline and the first rows of the plantation as the light began to go. From the top, it had seemed straightforward, but on the valley floor they were in a labyrinth.

After the heat of the sun, the mist of water vapor struck cool and refreshing, then cold. The man-made wood had an atmosphere of arrested growth, unnatural, a monstrous birth. Fifty yards in and Lorette was shivering, not only from the cold. She moved instinctively closer to him, and he put his arm round her damp shoulders.

Even the *draperie mouillee* effect of her thin wet shirt, which did nothing but good aesthetically, could not counteract the growing, impalpable menace of the place. Bamber said, "We only want one of your Grandfather's hound dogs to turn up," and a long full-throated howl, which seemed to come from all sides, made a period.

He said humbly, "I have to open my big mouth."

Now that they were among them, it was clear that the trees were staggered in depth, making diamond patterns, so that no direct progress could be made.

Lorette said, "But there has to be a road. Why doesn't the road we were on connect to an avenue like a driveway to the house?"

"This way, only someone who *knows* the way can find the house."

"But you were expected."

"Well, perhaps I was expected to telephone arrival and wait for a guide. I was actually under severe distraction at the airport and didn't think the thing through."

"I'm glad you were. This is a horrible place."

"Only a horticultural folly."

"I don't know. It feels very peculiar."

"That's just your wet shirt, and I assure you it looks fine."

Light was falling rapidly, dimmed down, anyway, by the artificial mist. Bamber stopped under the nearest poplar and examined its damply gleaming trunk.

"What is it?"

"It's wired for sound."

He went on to the next one. "So is this. Same kind of cable, heavy duty, coaxial, screened."

"They're numbered too. This one is 216."

"Experimental stuff. Must have data-collecting gear up there. Checking growth rate or something of that kind and feeding back to a control panel. You can just see an accretion up there in the crown. Lumpish, like a wasp's nest with a wire cage round it."

"Do let's get on."

"Sorry, you must be cold."

Zigzagging, in the best estimate they could make of the right direction, they were still surrounded by an exactly similar set of tree trunks when the light went, as though a stage-hand had run down the dimmers.

At the same instant of time, the pounding of pumps cut out, and the irrigating sprays sank away like a receding tide.

It was an improvement, but only marginally so. Any hound dog would now hear them move.

Lorette's face at his shoulder was a pale oval, framed by hair thinned down to a black silk skull cap. They stood still, and he turned her towards him.

Bamber said, "This shared nightmare has only one positive good. It cuts corners on the growth of friendship."

He felt an answering pressure against him, soggy, with pneumatic undertones; and then they were walking on, and he knew that he would as soon be there, with whatever complication there was, than anywhere else without her.

It was as well that he had checked off that item of positive good because deterioration set in at a run. Moving slowly forward, they got the trunk of the next tree between their extended arms, and Lorette took the second one in full-face collision and broke away from his hold. Baying from more than one hound was coming closer.

Bamber said anxiously, "Are you all right?"

"Yes. But I wouldn't want to find every tree that way."

"We could wait until the moon comes up."

"And just quietly freeze. It's cold at this height even though we're near the equator."

"True. Walk behind me then."

"It can't be far, Paul. The house was in the center. They can't have moved that."

Bamber did not reply, his hands probing forward into the darkness had come across something which was not a tree and the more welcome for that.

Faint starlight and compensatory eye adjustments had combined to give them a marginal kind of vision. It was a vehicle of some kind and a big one. It towered over them in the night like a drilling rig.

Bamber said, "I know what this is. It's one of those electrician's maintenance tenders. Elevator platform affair. Goes along a main road servicing pylons. They'll use it to work on these damned poplars."

"We must be near the house."

Bamber had worked his way round to the cab. It had been stripped of panelling, but retained a roof to protect its driver from seasonal rain. He was so interested in this contact with a recognizable urban object that he missed the lollopy pad of feet until it was almost too late. Then he was urging her up a narrow vertical ladder and following close with his body shielding hers.

Teeth closed on his left heel, and he kicked down with his right foot and felt the jar of impact along his extended arms. The shoe came away, and he had a confused view of a pale, rangy shape falling back. Then they were standing together in a small oblong *howdah* watching a variant of hunt the slipper, where the lucky winner was pulled apart by congratulating friends.

"Your grandfather economizes on dog food."

She said uncertainly, "They can't reach us here can they, Paul?"

"I wouldn't bet on it. Any minute now they'll start in on the timber."

"Paul."

"Still here."

"There's a lever on the side here."

For a moment he was dumfounded that she should have thought it necessary to mention it. Then he saw its possibilities.

"Push round; let me look. It's the adjusting mechanism. Raises and lowers the platform."

He pumped it experimentally, and they sank a foot towards the eager pack.

"Next time I find anything, I'll keep it to myself."

"No. If it works one way, it will work the other. Hang on. Yes there's a shift gear." He kicked it into place and tried again. This time it was harder work, but they began to rise an inch or two at a time."

"What good will it do to be higher?"

"Clear the trees. We may be able to see the house."

At full extension, the platform had a whippy sway when they moved. A pawl dropped, there was no more play. Lorette was in midvoice, about to ask where he thought the house might be, when it announced itself like a harbor beacon.

IV

It was nearer than they would have believed possible, and from the wrong direction.

Lorette said, "We must have gone past. That's a new extension at the back."

Over the stunted, lumpy tops of the poplars, they could see a long, white-painted building, running like the down-stroke of a T to the back of a dark mass which was the old house. Light had been suddenly

switched on along its full length. It was brilliantly lit, and after their time of darkness it seemed like midday. Shadows moved against the light. People were there inside.

Looking nearer home, Bamber saw that except for a few remnants of one, the dogs had gone. He said, "We'll go on in this. Going down," and he kicked out the pawl.

Even at a crawl, the extra draught through the open front was icy on his wet skin. There was no clear way to the lighted rooms, so he worked round until the dark-columned porch was before them. It looked derelict, as though this part of the house had been abandoned. Shapes moving in the shadows made it clear that no caller could linger on the step with a civil plea for sanctuary.

Bamber backed off and looked up above. "How fond is your grandfather of you?"

"It's a long time since I saw him."

"We'll just have to take a chance then. Up aloft and get through one of those open windows."

"I used to have my bedroom there over the porch."

Bamber tested the masonry of the porch roof and then swung her out to join him. Late on cue, a fantastic moon was rising over the valley rim to give them all the light they needed. Close beside the porch, a massive rope of cables could be seen climbing the house wall and leading in to the end room at their level.

"All the leads from the trees. Somehow I don't think it's as simple as you said, Paul."

Paul Bamber was in the grip of an emotion which he had so seldom felt that he took a minute to identify it. Then he recognized it as anger. He had come on a peaceful mission as an invited person and had been received about as badly as could be. Whatever Lasnier was up to, it must be wrong. He said, "We'll go and take a look. Get through that window Lorette and stop hanging about."

Inside, they were in still, warm air, with the residual heat of the day clinging to the old house. There was a smell of decay and rot. Lorette found a switch, and light from a single, bare bulb flooded an empty room with peeling, rose-bud pattern wallpaper and a small barred grate.

"This was my room."

She led him out to a landing edged by a banister which overlooked a dim, cavernous hall.

"That's the end room."

Light came from under its door; and they hurried forward, anxious to make contact and get a line on creature comfort.

Bamber opened the door and ushered her in as the owner's missing heir, but his civil speech died on his lips as he found that the place was relatively empty. They stood in a restricted clearing, surrounded by a horseshoe of electronic equipment which would not have disgraced the control center of a rocket-research station.

Lights flickering on a long indicator board gave the place a kind of life; but of a human operator there was no sign.

Lorette said, "It's a very special

kind of computer. An incredible number of units. I haven't seen one so big."

"Do you know about computers?"

"It's my job. I'm in a research lab for computer development."

"As clever as she is beautiful, if that can be."

There was no reply. Lorette Carson, though not too proud to accept compliments, was too shocked to take pleasure in this one. She was looking with horror at a long presentation table with explanatory tags on its panels.

Her voice had dropped to an incredulous whisper as she said, "Paul."

"What is it?"

"I can hardly believe this, but if I'm right, this computer bank is built up from hundreds of human brains."

"You are quite right. Three hundred and eighty-one to be exact."

The group had received a fifty per cent increase in membership, in the shape of a short, stocky figure in a white coat. Bald, pale skinned, as though he saw little of the local tropical sun. Voice clipped and precise as it went on with the curt questions: "Who are you, and how do you come to be here?"

Paul Bamber's newly found fund of anger flared again, and he was crossing the small gap that separated them, not very clear about what action he would take.

The newcomer raised his right hand, and a small, blue automatic pistol came up with the ring of its muzzle in unwavering line on Bamber's sternum and less than a foot distant.

In the ordinary way, it would have been an overpowering argument, but Bamber was not himself. He turned as he stopped, as though to speak to Lorette, and his left hand dropped sure and true on the hand holding the gun. It fired twice into the floor between them and once again as Bamber twisted it free. The man lost interest, falling on his knees with both hands clawing at his lower abdomen. Bamber shoved the end of the gun into the nearest ear and surprised himself by the cold nastiness of his own voice as he asked, "What have you been doing here? Be quick, or you'll never see the hospital your stomach seems to need."

The man said, with great effort, "You won't get away with this. We have made an ultimate computer. It is the greatest calculating machine that has ever been created. So far it contains almost four thousand million units. Man's last and greatest step in numerology which makes every previous instrument obsolete."

"Did the constituent units volunteer?"

Co-operation, even under threat, can only go so far; he had fainted off.

Bamber said, "Now we know why your Grandfather didn't want his collection any more. He had gotten himself a bigger and better toy."

It was pure soliloquy. Lorette, looking sick and shaken was giving the console the fascinated attention that a rabbit might offer a snake.

Bamber said, "Can you work this computer?"

"It follows standard procedures."

"Talk to it then. See if the units

are alive in any recognizable way."

She put on a light alloy headset and plugged herself in like a telephonist. Bamber busied himself with the bald man, turning him over to strip off his white coat. He was draping it over her shoulders when she said, "Oh, no!" and turned wide, anguished eyes to him.

"There is residual consciousness there. It *knows*. The brain units are kept alive by the living trees. Wait."

Bamber saw her nod in agreement with something she had heard. Then her hands were moving with uncanny assurance among the complex controls, as though she had been present there for some years. When it was done, she took off the headset and came towards him. There was an expression on her face which he could not fathom. Between fear and satisfaction with a good deed done.

"What is it, Lorette?"

His voice broke the tension, and now it was simple fear which looked out of her eyes.

"What have you done?"

"Justice, I think."

"What does that mean?"

"The operators have controled the growth of this system from here. Ready to damp out any emerging complication which they had not designed. But the minds can exist in their trees now. There is an overall consciousness which is trying to grow. I have cut out all the governing, restrictive circuits and put them in full communication with one another. That way they can work out their own destiny."

"So?"

"At the last, I had no choice. The emergent mind is growing at a tremendous rate. I could feel the power of it. Dark, alien, with no European consciousness in it. I'm afraid now of what it might do."

The click of a self-thrown switch made a period. Lights winked crazily along the display panel.

She said, "Come away, Paul. We must get away from here."

Bamber picked up the gun and went out on the landing. He was about to head downstairs, when she said, "We can't leave him in there."

Whose good she had in mind, it was hard to say, but he went back and helped her drag. Blood made a lubricant and the mass moved relatively easily.

Lorette said, "We must find my Grandfather and get help for this man."

Light from the open door streamed past them, and they were half way down the broad staircase before it cut off abruptly. He raced back two at a time; but as he turned the door handle, he heard the bolt click

Lorette, following more slowly, could not suppress a small scream as his hands found her in the darkness. She was near hysteria. Voice notched up from its cool contralto. "It's started. Quickly Paul. It isn't safe here."

"What can it do? It can't move."

"How can we imagine what it can do? It is on a higher scale of organization altogether than one human mind. It *knows*. Matter is only energy. Why can't it know how to manipulate energy in ways we can't understand?"

Light from a door opening off the hall below showed him her face turned appealingly towards him. A voice inquired sharply, "Have you finished there, Brant?"

Hands on either side of her head, he took care to kiss her precisely in the middle of her forehead. A sighting shot in a new relationship. Then he was moving down again, silent in stocking feet.

He found a lighted passageway and a thin dark type in a lab coat with one hand on the tiled wall and his head raised to listen for Brant's reply. A long narrow face with a camel's pendulous lips which surprise did nothing to improve.

Bamber said, "Where is Professor Lasnier? Take me to him." Then he was following the man's high-shouldered, narrow back to a double swing door at the far end.

Beyond it, a square reception area; blue vinyl tiles; white walls; five openings off, one a grille; staircase upstage right. The dumb guide went for the staircase, and they followed up in Indian file.

At the top there was a similar landing with another grille hiding an elevator cage. Double doors, which the tall man pushed open, letting them in to an intimate scene in a brilliantly lit, oval operating theater.

Four occupants, three active, one passive. A total passivity which permitted a severe-looking blonde with a large trepanning tool to trim the dome off a black skull like the top of a breakfast egg.

As if on cue, one of the watching men, elderly, tall and ferociously bearded was saying, "Number three hundred and eighty-two. Well done, Elsa." At the same time, he heard the arrival of his guests.

Six eyes, impersonal and menacing over white masks tracked Bamber in. Lasnier, without looking at the guide, said, "What is it, Stevens? Why did you bring these people here? This could ruin two weeks' work."

Even with this encouragement, Stevens was condemned to be a non-speaking extra. Elsa was still holding her circular saw, and its wasp buzz broke out again.

Lasnier snapped, "Elsa, what are you doing?" But it was not his night to get answers.

She was looking at the whirling steel disk with amazement, which turned to panic and to fear as her arms began to bend, bringing it slowly towards her face. They could see her fighting to keep it away. Then with sudden acceleration, it leaped across the last ten centimeters and bit squarely into the center of her forehead.

It was still cutting when she fell forward pressing it with her body to the tiled floor.

Lasnier's voice was a scream. "Switch. Switch off, you fool."

The assistant at the instrument console did his best. They saw his right hand scrabble at the panel, before it was pinned to its target by a scalpel, held like a dagger in his left. Even then Lasnier, in spite of a lifetime dedicated to numbers, did not add up the score. In two strides he was across the room, tearing down

the stub handle of a square fuse box set high on the tiled wall.

They saw him take a surge of power which punched a hole through the floor at his feet and set blue corpse lights in a shimmering halo round the still figure on the operating table.

Bamber had swung round and was holding Lorette's head against his chest. Instant flame from the rear wall spurred him to movement. Only a medium could reasonably continue to seek an interview with Lasnier. He pushed the girl ahead of him, and she began to run mindlessly down the stairs.

They crossed the musty hall, and a growing red light showed him that the collection he had come to see was stacked round its walls without semblance of order. The double door had a massive, beam draw-bar; and when he swung it clear, it opened with uneasy creaks.

A slavering muzzle shoved in the gap was pulled free with a yelp of pain as they both flung themselves against the moving leaves and rammed them back home. Side by side, with backs to the door, Bamber said, "Upstairs then. Your old room. The trolley."

At the top, they found Brant had hauled himself to his knees and was swaying about like a snake charmer's star pupil. From below there were sounds that Stevens had gathered a posse and was going to make an issue of it.

Patter of bare feet and two Masai, grotesquely lit by a sudden flare of fire, appeared from the passageway. Without a pause, one drew back his arm and sent a spear humming up the stairs. Brant's sideways rhythm changed to a forward roll which usefully checked the rush.

Bamber felt that his feet were being worn down to skeletal bone, but the view from her bedroom window effectively took his mind off his pain.

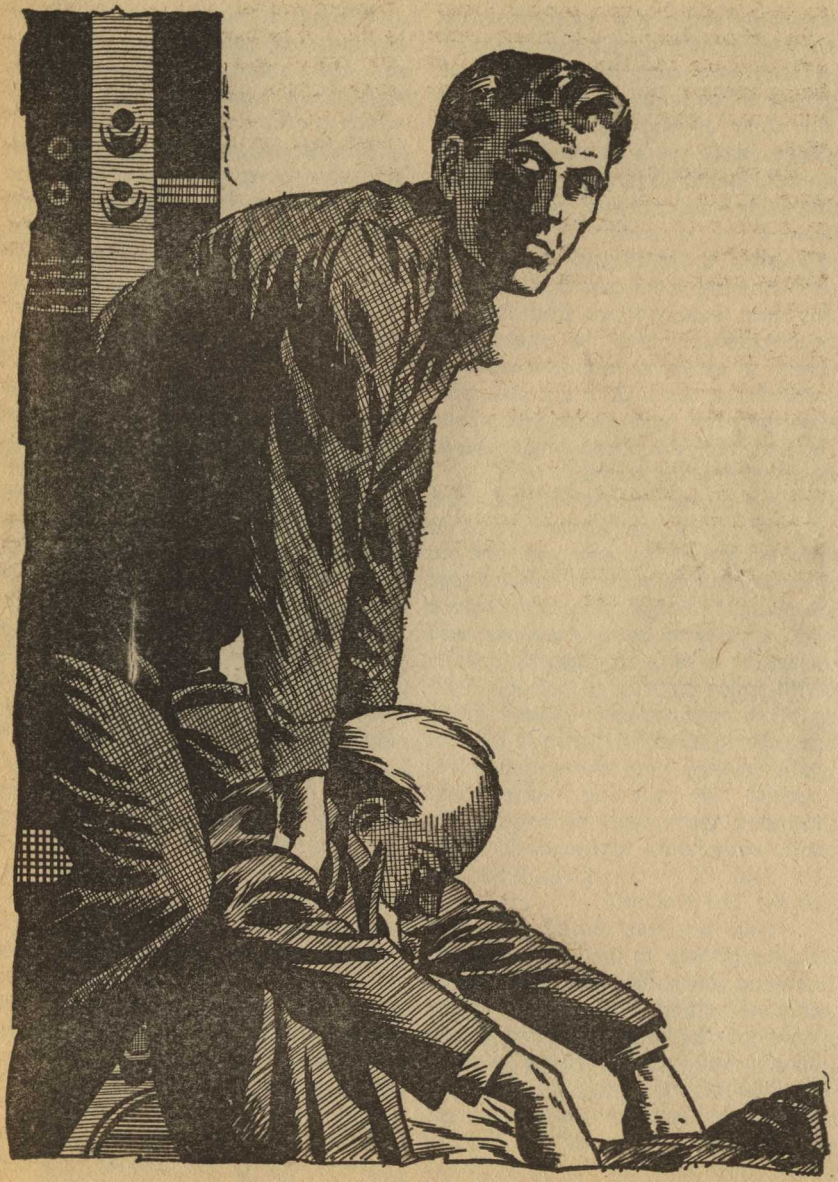
Now they did not only have moonlight; three hundred and eighty-one pale nimbuses glowed in symmetry in the valley. A nightmare light to travel by. He was in the cab, and the trolley was lurching down the nearest macabre avenue, before the first Masai spear sank home in its swaying timbers.

Behind them, the house was going up like a torch. Bamber reflected that his first assignment had put the museum in the red to the extent of his fare. Unless the small case which he had grabbed from the wall on his last trip through the hall would settle the bill. No doubt it would legally belong to Lorette; she could negotiate with Sinjon.

Speculation however had no place now. He was straining every nerve to keep the clumsy machine moving between the glowing trees with a crawling sensation of deeply based fear loose inside his skin.

Lorette was openly crying. Holding on with her legs braced against the scuttle and her arms round his waist. Damp hair smell under his nose, but he knew that whatever state she was in, she was his Cyprian.

There was no pursuit. When he ran out of the valley into full



moonlight on the open bush, he knew why. From behind the house came the coughing backfire of a helicopter being started up. Stevens or some other was getting out the civilized way.

He began to circle, rocking crazily over virgin bush, looking for the approach road. Behind them the valley glowed mauve with a center tongue where the house was a red beacon.

Lorette said, "It won't matter about the control gear in the house. Now the interconnections are fused together, the mind is independent. It can look after itself."

He had found the road and was running at a shallow drainage ditch to take them on to it when she added a further gloss. "The helicopter's taken off. It's coming this way."

"I expect they use this road to guide them in."

It was coming up fast. Low down, with a single searchlight eye probing ahead. When they were picked up in its beam, Bamber waved ironically and only just lived to regret it. Someone with a machine pistol loaded with a tracer began to shoot up the road in a bright line which would bisect the cab. He realized that whoever was left would not want them telling their tale in Nairobi. At the same instant of recognition, he shoved his tender foot hard down on the brake and threw Lorette out of the open-sided cab. He was still airborne himself when the petrol tank went up like a bomb.

The heilcopter banked and turned, coming back for another check. Bamber was holding Lorette in a comprehensive grip in a shallow gulley. Any move across the bush in the moonlight would make them easy targets. He simply hoped that the hatchet man above would believe that he had already done the job.

Something of this communicated itself to his cold, damp ditchmate, and her arms moved quickly round his neck.

"Don't worry, Paul. No one could have done more than you did."

The searchlight beam was slicing down the road towards them. He rolled over her, feeling her tautly pneumatic beneath him, suddenly aware that nothing mattered except that she should be safe. Raging that even his body could not keep out the tracer slugs. Light shone down on them, illuminating in sharp detail stones and dried grass at eye level. But no shots. They had passed too quickly. They were turning to come in again.

He risked a look over the rim, the helicopter was a kilometer away, over the edge of the valley. Behind it a huge, cloudy figure was taking shape. Immense, blotting out the light of the burning house.

Lorette was sitting up with one arm still round his neck. She said, "Masai. It is like the figure of a Masai warrior."

The helicopter pilot was desperately trying to make height. But the figure elongated and appeared to engulf him. There was a sudden and definitive silence as the engine cut out. Then the figure had gone, and the machine was falling in the clear

moonlight, free of the valley, crashing beside the red approach road.

Bamber stood up and took her hand. His feet were giving him hell, but he reckoned it was no place to be. He picked up a small display case which had fallen from the cab, and they set off along the corrugated road.

By the time they reached the cane forest Bamber had gone silent; and it was Lorette, who talked him in like a patient dragoman. He stood beside their abandoned car with his feet anesthetized by the cold water of the stream, still clutching the display case with mulish obstinacy. When she took it away and put it on the front seat, he appeared to break out of a trance state.

"What is it, then?"

"We're here, Paul. We made it. We can get dry clothes and rest here."

In the back of the car, in warm companionable darkness, they might have been anywhere at all where water ran. They slept. Even the approaching noises of a small motorcade and the lights of the leading jeep boring through the rear window did not disturb them. Bamber woke belatedly to grab for the pistol on the seat beside him, when a voice in his ear said, "Well, what do you know? Look at this then. Little lovebirds."

V

In the lounge of the hotel in Nanyuki, the proprietor was saying, not for the first time, "We saw the flame, you see. Thought at first the mountain was having a spasm. Then we knew it had to be at Carson's Farm. I went and pulled out Sergeant Harris. Thought that old sod Lasnier was up to something. But what will they do now? Last night, nobody could get near. Like an invisible barrier, Harris said. But what's going on behind it, I'd like to know? If Lasnier's dead and the house is down, there's nobody there at all. And another thing, there's a big movement of Masai. Gathering up there on the slopes. Like so many bloody bean poles."

A log fire burned in a big open hearth. Paul Bamber heaved himself carefully upright to stand like a weighted, roll-back doll on bulbously, bandaged feet. Behind the man's genial chat, he had heard Lorette coming out of her room on to the gallery overhead. Whatever of cosmic importance might be going on out there in the bush, he was more concerned with the personal issue of how she would greet him after their hours of separation and whether what he remembered was true or an imaginary product of the off-beat night.

She stopped on the balcony and looked down at him, a comic, stumbling figure.

"Paul."

"Here, present."

It was not much in the way of dialogue for a balcony scene; but it was enough. She turned for the stairs, and he struggled to the bar to collect the show case he had salvaged.

"What is it?"

"Numeral cartouche. Egyptian. Worth a bundle."

"What number is it?"

"A million. The stylized figure of an astonished man. Something to be astonished about."

The proprietor was looking out of his window into the quick-gathering dusk. Over the distant valley, there was a reflection of mauve light on the underside of a low cloud. He said, "Now *there's* something to be astonished about. Not another cloud in the sky, but one has to be just there."

Bamber, however, was not listening, he was looking at Lorette, elegant now in lime green, eyes brilliant as when he had first seen her. Whatever had been triggered off at Carson's Farm, he had quite enough, close at hand, to prime his private well-springs of astonishment for some time to come.

He said, as one used to classifying *minutiae,* "I may be fiddling while Rome burns, but your eyes are not uniformly brown. They have small flecks which can only be described as molten gold."

She put a smooth finger across his lips, "One thing I have to do is to stop you talking too much."

Their host was still busy at his window; she consulted her own computer, and it came up with a simple solution which seemed to bring interim satisfaction to all parties.

END

THE UNCOMMUNICATIVE

(1) No extra-terrestrials can play the "Well-Tempered Clavier";

(2) No harpsichordist is unable to play the "Well-Tempered Clavier";

(3) All Martians are extra-terrestrials.

In the extremely unlikely event that you were confronted with this problem adapted from Lewis Carroll's "Symbolic Logic" (1896) — and in the further unlikely circumstance that you might care about an answer — you could feed the problem into the logic circuits of a computer or submit it to a reasonably bright 12-year-old boy. If you chose the latter course, the boy would blink at you in disbelief, focus on the problem for a few seconds, then contemptuously mutter: "No Martians are harpsichordists." He would be right, for this would have been Carroll's own answer.

This type of problem is known as a *sorites*; and the one above (modernized, but structurally intact) comes from a section of Carroll's book headed: "Sets of Concrete Propositions proposed as Premises for Sorites. Conclusions to be found." A sorites is defined as a "chain of syllogisms, the conclusion of each forming a premise of the next." In traditional formal logic, sorites is surrounded with an aura of difficulty and hedged in by a mystique of specialized rules, none of which seem justified in the light of today's more generalized understanding of the logical process. In fact, the sorites yields very nicely to contemporary logical manipulation; and this leads us to a third possibility: keep your computer working on more significant projects; dismiss your 12-year-old boy to the playground; and solve the problem yourself through the exercise of some very simple logical procedures. Here's a brief introduction to enough of the propositional calculus to make you an expert in dealing with this kind of problem.

The Language of Symbolism

First, let's master the few rudiments of symbolism necessary to un-

VENUSIANS

by DAVID H. HARRIS

Illustrated by GAUGHAN

derstand the fundamentals of logical language.

Basic Logical Symbols

(x)	the universal quantifier (given any x in the universe . . .)*
$(\exists x)$	the existential quantifier (there exists at least one x such that . . .)
.	conjunction, and (roses are red, violets are blue or p.q)
v	disjunction, or (tea v coffee or p v q)*
$\backsim$	negation (Not p or $\backsim$ or $\bar{p}$)*
$\supset$	"horseshoe", implication (if-then or p $\supset$ q)*

An Excursion into Symbolic Logic

Only the starred (*) symbols will be used in the following example. However, this reasonably complete basic list is given because the operations symbolized cover most of the elementary problems likely to be encountered by the beginner and are, therefore, handy to know.

Now that we've learned the basic symbolism of logic, we're ready to turn it to good use in solving a sorites problem. Suppose we were confronted with the following series of statements or propositions (actually Carroll's first problem but transcribed into an updated vocabulary) —

(1) Venusians are uncommunicative;

(2) No one is irrational who can launch a space vehicle;

(3) Uncommunicative beings are irrational.

— how would we go about reaching a logical conclusion?

Our first job is to translate these sentences into appropriate logical language. Let's start by assigning letters to every unit of meaning.

SOLVING THE PROBLEM OF

Let us represent Venusians by V, Uncommunicative by U, Launch by L, and Irrational by I. then:

SYMBOLIC MANIPULATION	ENGLISH TRANSLATION
1. $(x)\ [Vx \supset Ux]$	Given anything in the universe, if it is a Venusian, it is uncommunicative.
2. $(x)\ [Lx \supset \sim Ix]$	Given anything in the universe, if it can launch a space vehicle, it is not irrational.
3. $(x)\ [Ux \supset Ix]$	Given anything in the universe, if it is uncommunicative, it is irrational.
4. Vy	There is a Venusian.
5. $Vy \supset Uy$	If there is a Venusian, then it is uncommunicative.
6. Uy	There is an uncommunicative being.
7. $Uy \supset Iy$	If there's an uncommunicative being, it's irrational.
8. Iy	There is an irrational being.
9. $Ly \supset \sim Iy$	If a being can launch a space vehicle, it is not irrational.
10. $\sim Ly \vee \sim Iy$	There is either a being that cannot launch a space vehicle or is not irrational.
11. $\sim Ly$	There is a being that cannot launch a space vehicle.
12. $Vy \supset \sim Ly$	If there is a Venusian, it cannot launch a space vehicle.
13. $(x)\ [Vx \supset \sim Lx]$	Therefore, given anything in the universe, if it is a Venusian, then it cannot launch a space vehicle.

"THE UNCOMMUNICATIVE VENUSIANS"

LOGICAL JUSTIFICATION

Simple statement of premises in logical terminology.

This is an assumption, which is part of the so-called "conditional proof" of validity. The scope of the assumption embraces steps 4 through 11. Step 4 leads to step 11.

Universal instantiation. The rule is that any instance of a specific substitution of a propositional function — which is what we've done here — can validly be inferred from its universal quantification. The substitution is derived from step 1.

Modus ponens. The rule is: x ⊃ q, p ∴ q. Step 6 derives from steps 4 and 5.

Universal instantiation, again. The derivation is the premise of step 3.

Modus ponens, again, derived from steps 6 and 7.

Universal instantiation, once more. The source is the propositional premise of step 2.

Implication, from step 9. In this *disjunction,* L y may be true or I y may be true. They cannot both be true.

Disjunctive syllogism. The form of this principle of reasoning can be stated: p v q, ∽ ∴ q. We arrive at this statement by relating step 10 back to step 8, in which we've established I y.

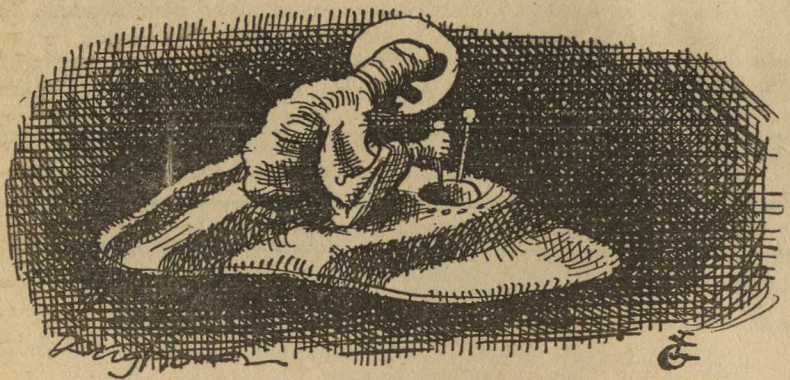
Conditional proof. Steps 4 through 11 have yielded the interim conclusion that, if a Venusian exists, it cannot launch a space vehicle: V y ⊃ ∽ L y.

Universal generalization. The rule states that we may validly infer a universal quantification from a substitutional instance of its propositional function. Step 12, therefore, yields the conclusion of step 13: "Venusians cannot launch space vehicles."

PRONUNCIATION

1. Any V is U.
2. Any L is not I.
3. Any U is I.
4. Assume a V.
5. If there's a V, it's a U.
6. There's a U.
7. If there's a U, it's an I.
8. There's an I.
9. If there's an L, it's a non-I.
10. There's either a non-L or a non-I.
11. There's a non-L.
12. If there's a V, it's a non-L.
13. Any V is a non-L.

These thirteen logical steps may seem a rather roundabout method of establishing a conclusion that, after all, might be arrived at by the bright-eyed and bushy-tailed 12-year-old boy who so rapidly and unceremoniously helped us solve the first problem. But symbolic logic never pretended to be a quick and easy method of solving riddles. Symbolic logic is a rigorous system of analyzing notions and relations that are too often obscured and confused by the inexactitudes of ordinary language. It is only through the appli-



AN UNPRETENTIOUS BIBLIOGRAPHY

This brief list of readily accessible books is offered as an introduction to those who'd like to know more about Lewis Carroll and symbolic logic. The genuine logic buff may smile to himself about these already familiar titles.

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cation of exact logical means, carried out with faithful discipline, that the more complex relationships in nature unearthed by observational and experimental methods can be reduced to meaningful and precise statements and dealt with rationally.

Meanwhile — now that you've learned a method for handling sorites — why not try your hand at Carroll's Problem No. 33 (revised in substance but not formally distorted)? The answer is printed below, upside down, to help you resist the temptation to work backwards.

The Problem of the UFO's

(1) None of the unobserved items encountered in space are iridescent, candy-striped, neon-lighted UFO's;
(2) Items entered in the log, as encountered in space, are sure to be memorable;
(3) I have never met with anything worth remembering on any space flight;
(4) Anything encountered in space and observed is sure to be recorded in the log.

SOLUTION

Answer to problem 33: I have never encountered an iridescent, candy-striped, neon-lighted UFO in space.

About Lewis Carroll

Known to the world chiefly as the author of the delightful "Alice's Adventures in Wonderland" and "Through the Looking-glass", Lewis Carroll (1832-1898) scarcely achieved the recognition his attainments in mathematics, logic and photography merited. His real name was The Reverend Charles L. Dodgson, and, as a bachelor don, he was for many years Mathematical Lecturer of Christ Church, Oxford. While he made no notable contributions to mathematical innovation, he was a competent worker in the field, and his interest in logic was genuine and sustained. Cursed with insomnia, he devised a series of logical exercises, the so-called "Pillow Problems," which appeared in his "Curiosa Mathematics." Carroll-Dodgson was also one of the earliest and most distinguished portrait photographers.

This extremely complex man — part mathematician, part humorist, part logician, part artist — characterized his own personality in one memorable quatrain. Invited to contribute to a philosophical symposium, he replied:

"And what mean all these mysteries to me
Whose life is full of indices and surds?

$$X^2 + 7x + 53 = \frac{11}{3}\text{"}.$$

∞

BASE TEN

by DAVID A. KYLE

Illustrated by BODE

What reasons could keep a man marooned in space? You could count them on your fingers . . .

I

Adventure comes to those who search it out. Persistence, patience, boredom, then finally the reward and you've found your exhilarating danger or exciting mystery. But, as I say, you must search for it — and, out along the spaceways, I'm just such a searcher.

Sometimes your moment comes by chance or by luck. So it seems. Yet it's really you making your luck, improving your chance, watching and waiting for that moment; and when it comes you seize it.

I was alert and ready, I had been for weeks; that's why I saw the flash of light.

The radar was on, just as it should be in that uncharted zone of the asteroid belt I was poking around, but I was eyeballing the rocks, looking for anything unusual. It came with that split-second when an unshielded porthole of a spaceship ten miles away had flung back at me the reflection of the distant sun.

I turned my own small craft toward the spot and only then did I vaguely see the prow of the ship sticking up, a gray needle among the broken brown spires on sunside of the five-mile-wide asteroid. It was something unusual, all right; an ancient ship, an antique, at least sixty years out of the past. I couldn't mistake the shape. My hitch in the Guard and my years as a rover made me an expert at hardware recognition, but I'd never seen one in deep space before.

This spacer was definitely rocket. Retro-engined. Beautiful to see and ugly to fly. Delicate, temperamental, treacherous.

I don't know what I expected, but the closer I got, the more excited I felt. I knew it must be a derelict, yet the thing looked so perfect there, so proud and powerful, that I kept scanning the jagged surface out to the edge of the curved horizon for the waving arm of some bulky figure. The setting had the unreal historical feel of a diorama out of early lunar days.

When I was above the ship, I cut out the pinwheel drive and let the fan-blasters take over on computer. All five hundred tons of *Sally* came down in the little hollow just as gentle as you please alongside the rocket. A storm of dust boiled up over the two of us.

I sat there for a moment while the dust settled lazily, looking in awe at that slender rocketship. The thing was a one- or two-man job, yet it was three times bigger than *Sally,* squatting on its haunches and

staring silently into the speckled blackness. It had a needle-nose and long, swept-back fins — it was lovely. What a shame, I thought, that it was just an impractical flying bomb. The idea that I might have flown such a machine, briefly vivid in my mind, scared me.

Up on the bow, just under the greenhouse shield, was a name: *Whippet*. The gold letters were bright and sharp — except for the E which had been burned off by a neat little meteor slash, as though a giant with a smudgy finger had playfully wiped it out.

The ship was impractical, sure, but it was as sleek as its name.

Then I noticed the light.

Sally had come to rest so that part of the rocket was in nightside and a third of the way up the body, out of the purpled shadow, a dim orange glow seeped from a porthole.

The first thing I did was reach for my hand gun. As a space rover I don't go looking for fights, but as one of the breed, I know that the first letter in the alphabet stands for alert. My best friends are four weapons in my private arsenal: "Betsy," "Mary," "Lois" and "Alice." Space rovers get that habit — naming objects gives you a whole host of friends to keep you company in your solitude.

So with Betsy in hand, I set up my shutters and went down to the lock.

I looked longingly at my flexisuit, but climbed into the iron one. I hate the stiff armor, but I wasn't taking any chances. I clamped another thirty pounds of muttermitter on my back — with the automatic filming unit attached — and let the door unscrew itself.

Before I stepped out, I spent five fruitless minutes trying to raise the other ship with *Sally's* transmitter. I keyed the transmitter in with the smaller muttermitter and then bounced out. As I floated to the ground I tried again with the mutter.

Not a peep, except for the soft hum of *Sally's* directional signal.

I went leaping across the slabbed ground and bumped into the rocket's hull. The clang should have awakened anyone inside. If there was anyone inside. And then I began beating out an interplanetary greeting with my mailed fist, the fist that didn't hold the gun. As far as I know the tattoo was traditional a hundred years ago, so it couldn't be mistaken.

I waited.

Nothing happened.

I pushed away and let myself topple over on my back so that I could stare up at the lighted port.

It was ten minutes I lay there, I guess, tensed for a sudden spring for a crevice behind me, before something happened.

The light went out.

II

A chill crept up my back and condensed on my forehead.

Up to this time, I suppose, I hadn't expected any sign of life. Lights can burn for hundreds of years, but they don't turn themselves off just when someone happens to wander by unless there's a reason. And rovers are more careful to con-

sider the reason behind any phenomenon than the phenomenon itself.

So I went back to the crevice and waited there.

Pretty soon things really began to happen.

The high, narrow entrance port between two tubes at the base flopped down on long hinges and vibrated a cloud of dust into the airless scenery. While I was marveling at the impracticality of the lock, a ladder descended slowly from the black mouth.

I made a rapid calculation and then spoke three numbers. A split-second later the automatic searchlight in *Sally's* side was focused brightly near the entrance. I was expecting it, but the glare still hurt my eyes. Another couple of words and the aim was accurate.

And then a figure appeared. It was climbing down the ladder.

The figure became a rubberoid silver suit, bloated in the old MU style and cumbersome. I decided it was human.

It came out in the center of the light and looked around in a kind of bewildered way.

I crooked an arm over my head, leveled the gun at my hip, and stepped out toward him. I began reciting the standard rover greeting.

I was sure it was human and I was also sure it was a man. Womankind hadn't yet jumped off into the asteroids.

He saw me and raised both arms. Apparently he was weaponless, but I would have felt a lot safer if he had had a gun trained on me, too. Spacemen don't go around welcoming other spacemen on pure speculation. Not when the Guard was a couple of million miles away.

We kept walking closer together. And I kept expecting to hear his voice crackling in my ears, but it didn't. Probably his equipment was battery-run, unlike my more modern ship-fed stuff. And worthless when the batteries go.

Finally we were standing close, staring at each other in the beam of the searchlight, he with his gold-tinted faceplate and I with my polarized globe. He was about forty, I judged. Too old for the spacelanes in a rocketship.

His mouth came open, and he kept moving his arms, which he had lowered, into sort of symbolic embraces. There was a glitter in his eyes which all of a sudden ran down his cheeks, and I felt my heart lurch in that terrible way when you recognize something sad and tragic. Almost without thinking, I moved close to him and let him embrace me. Silently and pitifully.

And then he smiled and started pulling me by the arm toward the entrance to his ship. I didn't hesitate. With him at my side in that flimsy spacesuit I had no big worries. And there was some comfort to know that one sharp word out of me would start *Sally's* transmitter radioing my position over and over again back toward Mars.

We reached the foot of the ladder, with him still pulling at me, and began to climb. I had a tough job in my iron suit.

Pretty soon we were inside. I'd seen pictures of a NASA power plant so I wasn't surprised at the bulky, inefficient engines. But we climbed on past and up to the very top. When we finally crawled out into his control room, I was very tired.

The older man wasn't though. He was strutting around in his suit, twisting knobs and looking at dials, obviously pumping the air back into the room. Those old rockets had to utilize the same air over and over again, so it was never exploded out into space. Instead, it was carefully siphoned off into another part of the aerating unit and stored until needed again. This fellow could have lived here for years, living like a parasite off himself and some supplies, a complete life cycle in a metal tube.

He started stripping, but I fidgeted with my analyzer before unclamping. Though terribly weak, the air was sufficient, so I dismantled, even beating him at it.

He was older than I thought. His crudely trimmed hair was gray-flecked, and his face was lined, though the skin of his hands was firm and his limbs and shoulders straight. He must have been fifty years old.

"Idaboyha," he said. And smiled and shook my hand. His flesh was cool and rather pleasant. He was the first human being I had seen in four months and the first one I had touched in nearly seven.

"Hi ya, boy," I said, trying to mimic his greeting with some sense behind it. I noticed his eyes, with the tears glistening around them; they were softly brown.

"Gusemee," he said. I realized then that he was incoherent from emotion, rather than from having forgotten the language. The sounds were English, and I was glad. My last conversation four months before had been in French and as pleasant as it'd been, it'd also been grueling.

He sat down then in the acceleration chair, making his action look like a complete collapse. His shoulders heaved, and he was sobbing silently, so I let him alone and shuffled about slowly in the four-by-four room, studying the gadgets.

There was a little kitchenette, polished so often that there were little shallow patches rubbed out of the hard metal. But I could see that the grill plate hadn't been used in years.

There was an acceleration couch, covered over with the metal net from the ship's landing equipment. Makeshift, evidently to replace the worn-out plastic fabric which once had been there. The metal was worn so thin that I could have torn it with my bare hands.

And there was a manual filter control for the air. With alarm and wonderment, I thought what a flaw in the equipment that was. Usage year after year could have worn it out and brought certain death. And yet, somehow, crudely repaired as it was, it had lasted.

The control board was most fascinating. It had one of those prehistoric keyboards, the kind that looked like a monster typewriter. I'd heard stories about them from some old-timers; I'd never really seen one except on stereos. Ordinarily a compact computer would do most of the programming; but frequently the pilot would have to take over, and it's said the keys could drive you nuts. One had to play the thing like a concert piano, with the fingers depressing ten keys at once, like super chords. If I'd had to operate one of those things on a rocket I'd never have become a rover; space flight would have been far from fun.

What I was subconsciously looking for I finally found. His radio equipment. I pried open the case front and examined it. It was so complex that I shook my head. Some of the tubes were as big as my thumb and, incredibly, made of glass. The stuff looked like it dated back to Cape Canaveral.

"Burned it out," the man said.

I turned around, and he was sitting up in the chair. He looked lost in the chair because all the upholstering had long since rubbed away, so that its arms come up to his shoulders.

"Burned it out," he repeated, "when I tried to raise the patrol." I hadn't heard the Space Guard referred to as "the patrol" in nearly ten years, since I had been twenty-two in the old Lunar Academy.

His voice was rich. Smooth and calm and thick with a syrupy bass, like nothing I'd ever heard. Perhaps it was the deepness and the loss of high-pitched inflection — the mark of a lonely man speaking softly to himself through the years.

"I called the patrol," he said, "when I first met the things."

"The things?" I said, feeling the flesh creep up to the back of my neck. Space roving cultivates an instinct about what people say, even though they seem to say nothing.

"The things," he repeated, nodding his head while holding his eyes fixed on mine so that they rolled in their sockets like gyroscopes. "I called the patrol when I first met the things."

"Are they dangerous?" I said quickly, eyeing my helmet where it lay a pace away from me. From where I stood, I could get my urgent-trouble message clicking out of *Sally* in a split-second. It keeps you from getting sucked too quickly into the unknown — and helplessness. I'm still nosing around the spaceways when better but bolder guys than me have vanished. I aim to keep it that way.

"No more," he said. "No more." He heaved a sigh so intense it sounded like his soul was whistling out between his teeth.

The remark about his raising "the patrol" bothered me. My official Guard charts listed no unusual information for this sector of space. Experience suggested I was dealing with another case of space-solitude hallucinations, but caution always keeps my mind open.

His sigh had ended, and through the thick silence came the faint ticks and clicks of his obsolete equipment. Then his hands came up and grasped the rounded fronts of the chair arms, elbows sticking out grasshopper-fashion. He didn't rise; he just hung there like a pendulum stuck at the height of its stroke. I noticed for the first time a worn leather glove on his left hand. It was odd, but along with hallucinations I was ready for plenty of such idiosyncrasies from this hermit. I've seen men break down in less than a year of solitude. One old guy I once found on Callisto wore Earth clothing buttoned on over his space gear.

"Oh, no," he said, as though anticipating a question. "They weren't bad. They were very nice. No bad, not really bad." His face worked in a strange, insane way, eyebrows flickering up and down in perfect harmony with his lower jaw. I could hear his teeth clicking with each contact.

I shoved a false tooth to the front of my mouth and gripped it between my own teeth. At the first sign, I'd spray him with a sure-fire sedative. Just put him to sleep for a while, that's all.

"Oh, yes," he said. Now his eyebrows went way up, until his brown eyes were nearly popping from his head. "Very nice and considerate. What's your name?"

I had to push the tooth back into place before I answered him.

"My name's Weslee," he said. "It's wonderful to know you." He smiled, and it was so warm and loving that I had to smile back. It was the first sincere smile I had put on my lips since I ran into a crackpot nearly two years ago. The trouble with humanity is that there aren't enough crackpots who open their hearts to other men. Nowadays the whole solar system seems to be peopled with men — and women — of steel.

"You're the first one I've talked to in eight years," he said. "Eight Earth years." He frowned now, very sadly, and his eyes watered. Eight years was a long time, too long, and though I had suspected as much, it still startled me. Considering the time, he was practically as mentally well balanced as I tried to think myself to be.

"Pardon me," he said. "I mean eighteen years."

I began to revise my estimate of his sanity.

"Yes," he said nodding and making his eyes rock again. "Eighteen, that's right. Eighteen."

He got up for the first time since he had sagged into the chair and walked to the instrument panel. He pointed to a clock. The dial pointed to nineteen.

"See! Nineteen. See! Eighteen plus one year before I came here. See."

I saw, but I found it hard to believe. I could take the eight years; only last year someone had been discovered castaway on one of Saturn's moons dating back seven years. It was a record that Galactic News Service reported with great furore, confident that it would never be topped. Yet, eighteen was distinctly possible.

"What happened?" I said. "Mechanical failure?"

"Oh no," he said. "Oh, no. This is a good ship."

"Fuel trouble?" I persisted.

"Oh no. This is a good ship and I've hardly used the fuel." His arms were slowly sagging as he wilted back into the chair. "I've hardly used the fuel, and it's been keeping me alive for all these years... for all these years." He looked at me brightly, too brightly, as nearly insane people do. "Why the *Whippet* could fly this very instant!"

Hallucination? I wasn't sure.

"Then why have you stayed here?" I asked.

"They didn't know," he said. The brightness faded away and his eyes grew tired. "We will sleep now and talk some more next period." His voice took on a pleading note. "You will stay a while? You will stay a while, please?" When I nodded he staggered over to the couch and lowered himself gently into it. He raised his gloved hand, while looking at the ceiling, and made clutching motions. It was a moment before I figured out what he wanted, but when I did I went right over and touched his palm with my own. His other hand came up and closed over mine and in two seconds he seemed asleep.

III

I released his fingers and made sure he wasn't dead.

Then I walked around the little room again, poking into drawers and cubbyholes. I finally found the two things I was looking for: a gun and the ship's log. The gun was the mechanical type and had no bullets.

I put both in my leg pouch. Then I unscrewed my muttermitter from my iron suit, snapped on a switch, placed the box on the table and harnessed myself back up again. When the helmet was in place, I breathed in the normal, richer air

with delightful gulps. After I had recovered somewhat from the dizziness, I went out and back down the ladder.

In my own lock again, I picked up another muttermitter. A few seconds later, with strong volume, I could hear the old man breathing.

The mutter box under my arm, I went up to my own control room and sat down to read the log. There were three questions I wanted immediate answers to: What were "the things?" Were "the things" a present source of danger? And why was the old man still on this planetoid? Until I found satisfactory answers more practical things, such as making money, had to wait. Although I had already figured salvage claims on the old man's ship as good for a nice piece of change.

The book was a twelve-inch long rectangle, about an inch thick, with unfolding sides which made it more like a box than a book. The case was plastic sprayed metal with a flexible spine clamping the single sheets of thin plastic firmly in place. I sprung the pages free and laid them on the table. One by one I began to scan them, shifting them into another pile on the left.

The first few pages contained the usual typewritten vital statistics. Except for the twenty-three-year-old dates, the log could have been one of my own; even the faint imprint dyed in the plastipaper was the same brand as mine.

The man's name was Wesley Bohn. His home port was Brisbane, Australia, Terra. His business was "Explorer, Trader," which could have put him in the newer and less limiting category of "Space Rover." I moved more quickly over the rest of the personal data and reached the first page of the log itself. The entry was in English longhand, which is still used by many spacers. I rifled through a dozen trips to Luna, Mars and the Asteroids before I reached, according to the log's trip-ticket page, the beginning of his present voyage — the one from which he'd never returned.

The ciphered entries had increased with each succeeding trip, and I was unreasonably irritated. I suppose I'd hoped that writing the log in the clear would have been customary in the old days. But here he had practiced just what we do today: entries in the clear for routine stuff and code for the really interesting material. The code was in English longhand, probably his own invention, so even the basic shorthand codes I had for reference were worthless as deciphering aids.

I heaved a sigh and started reading the last section with closer attention. The date began almost nineteen years ago and the daily notations were brief. They carried along without interest for six months into the heart of the asteroid belt, with only occasional paragraphs of code. Then I struck a date which abruptly started out in code when the previous entry had suggested nothing forthcoming. I figured he had edged into his current adventure slowly, jotting down his notes in the clear, but had gone back and substituted rewritten pages encoded for secrecy.

I heaved another sigh and con-

tinued to study the unintelligible words for some familiar sign.

Then I hit a page with a drawing on it. The lines were completely understandable. They roughly sketched a form of alien life I had never seen before.

These must have been the "things" Wesley had mentioned. Two of them were pictured, one smaller than the other, but I couldn't tell if it represented perspective. An opened, mailed hand, obviously human, was next to the largest, evidently to compare sizes. According to the human hand, the creature was nearly a foot and a half high. The bulk of it was irregularly round, like a potato, with thin stems coming out of what might have been the potato's eyes. At the end of the stalks were small round bulbs. The creature stood on five of them; three others just stuck out haphazardly. At the top of the body with a domed cover, like a mushroom, with a mushroom's gills blending into the body itself. I had no idea of what color they might have been, whether the creature was soft or firm. I accepted a tentative relationship of potato body, mushroom head, for color and consistency. The second one was almost identical, except that it had six legs. There were a few words written on the page, but they were untranslatable.

I was excited now. I pushed back my soft armchair toward the galley and inserted a dinner box into the electronic cooker. In seconds the food was ready. I zipped the container open, spread the different sacks on a plate and began to wolf my dinner down. As I ate I stared at the drawing. "They weren't bad — not really bad," the old man had said. "They were very nice." He could have been talking about the taste of a new vegetable. The thought, for a moment, turned my stomach and stopped my eating.

I turned the sheet over, expecting nothing, and got another thrill. Centered on the back page was a single entry in the clear. The date indicated the notes had been inserted later.

These creatures, which I call "Redheads," are an intelligent form of life. They live on Planetoid Wesley 23. They are fourteen inches high when mature. They live in a metal honeycomb constructed mechanically. They are civilized and friendly. But they are dispassionate. They are more plant than animal. They can manufacture a very thin atmosphere with a machine and they need it so do not remove them from air. Nitrogen 10 to Oxygen 1. Do not handle them, it will harm them and besides they will not let you. If one of their appendages breaks off which they use like tentacles do not worry, they have regenerative powers and grow a new one within three months. They need sunlight to thrive but they can do without it for a fortnight and they have some sort of substitute which they make. You can communicate with them . . . .

"Friend!" said a voice at my elbow. "Friend, where are you?" Hot and cold flashes passed over my body under the psychological shock of the unexpected words.

But I didn't twitch a muscle; I froze at the table, hunched as I was, wondering if I should spring back toward my spacesuit and the gun in the pocket. Then, in an instant, my fears vanished. The voice had come out of the muttermitter. Wesley Bohn was awake.

"It's all right," I said. I stared at the mutter box and visualized the old man half-propped up in bed with his eyes clouded in doubt, wondering if I had been only a wishful dream. "I'm over in my own ship, Wesley. Don't worry, I haven't left you." I stopped to listen. I could hear his breathing, heavy with emotion; for that matter my own heart hadn't yet settled down from the shock of his awakening.

"I'm glad," he said. The metal net of the couch creaked, as though he had collapsed back on it. "I will take you to the beach later, and we will play cat's cradle." Almost immediately he began snoring, more heavily than ever.

The poor fellow. There was no telling how much of a jolt my arrival had been to his Earth-bound psyche. I felt guilty about leaving him alone. I went back to the log, anxious now to finish quickly.

. . . *You can communicate with them only by sound through wireless, high frequencies from about 105 cycles per second up. They hear this, and your receiver will pick up their vibrations. They have a system for building your vocabulary so let them teach you. Locate them with rhythmical wireless signals or visually by a mass of red spots which are their colored heads protruding from their honeycomb community. They claim to be able to destroy any danger to themselves. So do not force them to do anything against their wills. They like gifts, but will always give them back after they study them.* (Here the word *"NOT"* was scratched in by scratches and imperfect crude ink.) *They are* (Again the word "NOT" was scratched in) *very interested in the human race through me but cannot visit the large planets because of gravity. Do not* (this time the word "not" was crossed out) *harm you. Warning*: (this was underlined in regular ink) *They can nullify all wireless communication. This observer was permitted use of only his battery-operated portable equipment. They will not* (again "not" was crossed out) *harm your regular equipment. See entries under Keeockw ldkviapw.*

Please turn this logbook over to the patrol if found and separate gjdk a emdsoc. Wesley Bohn E-84-79. (Then permission is given to reproduce this logbook with proper credit.) An additional line was scratched in: *"Do not contact them until the patrol has your location. WB."*

IV

I reread the page a half dozen times. Then I put my plate away in the cleaning slot and turned up the mutter. The old man's snores had softened and came through in a regular pattern. I felt like rushing over and awakening him and pumping him for the full details. I still didn't know what danger I had to fear —

or why he was still grounded here.

The rest of the log continued in code. But only a few pages farther on there was an abrupt transition from regular writing to the scratched-in technique. The final half of the log was covered with small, legible code — scratched in with no attempt at inking.

I put the pages back together, snapped them in place and shoved the book in the pocket with Betsy. I wanted to microfilm the whole works, but I was too impatient to rejoin the old man. I did take time, though, to check my transmitter readings; only the sounds from the other ship could be picked up over the usual torrent of radio disturbances.

I went back down to the lock carrying the snoring muttermitter and a sack of fancy food. This time I put on my flexisuit.

Wesley was still asleep when I arrived. I kept my suit on and relaxed in the cushionless chair in front of the control board, the log still in my pocket, but Betsy in my right hand. Above my head the windscreen was unshuttered and the speckled sky slid quietly upward — a brilliant topsy-turvey snowstorm against the ebony night.

"Friend!" It was the old man's mellow voice. I must have dozed off. He was flat on his back, but his sleep-puffed eyes watched me across his sharp cheekbones.

I stowed away my gun, flexed my cramped fingers a couple of times and removed my helmet.

After I had made Wesley a present of the fancy food I told him about borrowing the log. He wasn't upset, but obviously the remembrance of his log was not pleasant. He sagged a bit.

"They took my pen," he said, pouting like a child.

"They took your pen?"

"They asked to borrow it. At first they didn't know what a pen was — they have no written records — but I explained. And then they borrowed it. They always were borrowing. But they always returned things. They wanted to feel everything, to study them, I think. And then they borrowed all my writing tools, but they didn't return them." He shook his head stupidly. "But they told me why."

"Tell me about it," I said and sat down on the couch. He sat down also, very close to me, uncomfortably close; I couldn't flinch away, not with my knowing the reason for his pathetic action. I hope I'm never that lonely.

"They didn't want records made. They said it was bad enough me knowing about them."

"But they didn't destroy your log," I pointed out gently. "You must have fooled them."

"Oh, no," he said. He corrected me as a child would, his face open, eyes wide, lips rounded. "They fumigated the ship with some kind of radioactivity. Destroyed everything — all my films and tapes — everything except the log. They didn't know enough about calligraphy. They didn't know enough about lots of things."

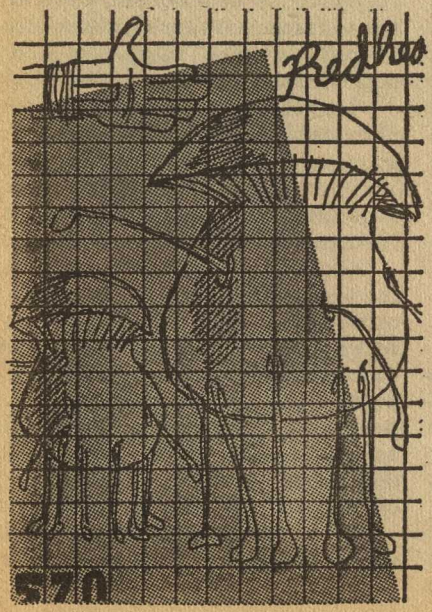
"Why the secrecy? What was it you knew about?"

"Oh, about them. Just about them. They didn't want anybody around. They just wanted to keep off by themselves."

I could understand that. The space manual of the Guard emphasizes that point about alien philosophies; some alien races might be reluctant to give up their seclusion. A threat to their isolation could be a threat to their harmony and security.

"Did you tell them about the great civilization of mankind?" It took an effort to keep a trace of sarcasm out of my voice. I'm not contemptuous of the human race, I'm just not a chauvinist.

"Oh, yes!" the old man said. "I told them how glad we humans would be to make friends and exchange ideas and trade."



"Is that when they burned out your transmitter?" I asked. The situation struck me so funny that I almost broke out in a laugh. I had a picture of a quiet bachelor being offered the companionship of a precocious five-year-old demon.

"No," he said. "No, they burned out my transmitter the day I discovered them. I almost stepped on one of their nests, and they warned me off with some Morse code in my head set. It was a big discovery, you can imagine!" He shook my arm in excitement. "Then we held a little conference and agreed to meet at my ship later. They requested secrecy, but when I got back to the ship I decided to send off a message to the patrol."

"So then they burned out your transmitter?"

"Yes. I sent out my call sign and then — *pfft!* I only meant to let the patrol know where I was. They told me later they were sorry, but that they couldn't take any chances. They said I had found them sooner than expected, and so they weren't ready yet."

This startled me a bit. "They were expecting you?"

He gave a little smile. "Not me, exactly. A human being. Any human being. They knew about humans for a long time, by picking up wireless messages, I guess. But they hadn't expected anyone bumping into them for years and years." Wesley smiled again, wider this time. "You know, my young friend, I was a real pioneer in my day."

I agreed with him. I really did admire him. When I think of that

rocketship and its prehistoric keyboard, it makes me disdainful of my own courage. I got back to the subject with another question: "What do you mean, they weren't ready yet?"

"Oh. Well, they wanted to avoid humanity. But humanity was getting closer to them every year. So they decided to move again — this planetoid wasn't their original home — and they were building a spaceship. It was a huge chunk of rock with some kind of motor inside — like a controllable meteor. Tomorrow I'll show you the hole it left."

This could be the answer I had wanted to my second question, about my present danger. I wanted to be sure: "They're gone? They've left as planned?"

"Yes," Wesley said, almost sadly, "they've been gone for almost eighteen years." He rose slowly and looked up through the windscreen at the steady procession of stars.

"Eighteen years?" I was more puzzled than ever. I also rose to my feet and looked at the stars and then at the back of his head. "They left shortly after you arrived?"

"Yes, two months after." His voice was so low I scarcely heard him. "It was a wonderful two months. They treated me very well. I enjoyed their company. Of course, they did it because they didn't want me to leave."

"But," I said, confronting him with my last big question, "when they finally did leave, why did you stay? You told me this ship's in perfect working order." The old man continued to stare at the stars.

"Well," I finally repeated, impatient for the truth, "why didn't you?"

He turned slowly and looked me in the face. His brown eyes were dark and cold now. He slowly raised his left hand — the one with the glove — and spread the fingers, palm towards me.

"Because of this," he said. There was irony in his tone.

I said nothing.

"This!" he said. "This!" He was almost screaming. He clenched the hand into a fist and shook it. Then he began to laugh, very softly — and hysterically.

I stepped forward and shook him by the shoulders.

He snapped out of it instantly. He brushed by me and went to the table and began examining the plastic

packets of food that I had brought.

"Do you want to tell me about it?" I asked.

"Later," he said. He was reading all the lettering on the labels. "Later on, when I feel more like it." He handed me a package. "I haven't eaten this in twenty years. Will you fix it for us?"

"I'll do better than that," I said, "I'll prepare us a whole dinner." I took it and some other boxes and went to his grill plate. I turned on the switch, but it didn't work. "It's all right," I said, when he started to apologize, "I'll unhook some elements from my suit." I found myself self-consciously avoiding any casual glance at his hands, even consumed as I was with curiosity.

It wasn't long before I had a meal laid out on the special plates he had dug up from somewhere.

He ate as though he had been hungry for the entire twenty years, but his shrunken stomach couldn't pack it all away. During the first part of the meal he kept his left hand in his lap, but later, when the unfamiliar cutlery became too much for him, he brought it up. I could notice nothing very awkward with the way he used it.

Finally, when I served the coffee, he cracked into a great, big smile. He had nice teeth, and he looked like a guy I'd be glad to make a close friend. And I don't have many close friends.

"Wonderful!" he said, after he had sipped the coffee down. "Simply delicious!"

I gave him another cup.

When he had drunk that down, almost as quickly, he staggered to his feet and reeled against the table with a bewildered look. I saw pain swirl like dirty puddles into his brown eyes and spread out over his face. His mouth worked, but said nothing.

I jumped to my feet to help him, but he collapsed on the floor, unconscious, before I could reach him.

He died two hours later.

V

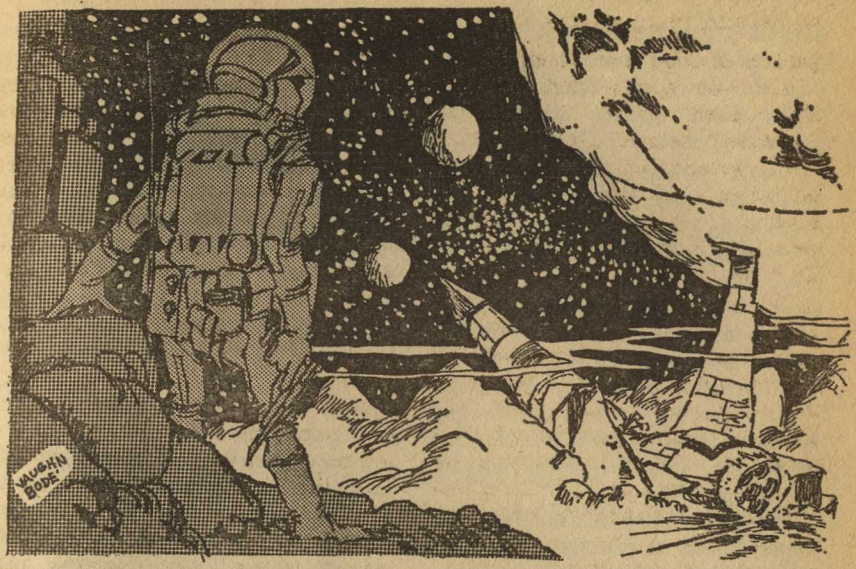
All the medication I tried didn't work. He never recovered consciousness. After all those years of enforced dieting on concentrates, I should have known better than to have fed him that rich meal. It wasn't just the food, of course, but it helped.

I buried him in his spacesuit, piling loose rock over him, directly beneath the central tube of his ship. Then I dropped about 500 gallons of mixture from his tanks on the cairn. At a safe distance off, I ignited the pyre with Betsy. I stood there for a half hour, long after the blaze had died away, reproaching myself and wishing him well on his final trip.

I also found out the answer to his exile.

Before cremating him, I did a thorough job of documentation: films, tapes, samples, the whole bit. Usually this red tape we rovers have to go through to protect our reputations with the Guard is boring, but this time I was overwhelmed with curiosity so the task was fascinating.

It took me awhile to figure it out, it was so weird, but it was



logical. It was the damnedest example of technology enslaving the human race that I ever hope to find.

When I put him in his spacesuit, I stripped the glove off his hand. I don't know what I expected to find, but I was disappointed. The only thing wrong was a missing little finger.

It was missing right down to the root knuckle. And then I noticed little scars on the back of the hand, over the tendon, and a metal hook just under the transparent surface of the flesh that surrounded it. In the glove there was an amateurishly made metal finger with joints and thin control cable. The end of the cable obviously was intended to fit the hook in his hand. But the hook was firm in the flesh and, just as obviously, couldn't work. I could see that at sometime in his life, Wesley had desperately wanted the use of his little finger. Had this happened after he had landed on this planetoid? I turned the arm over and noticed the lancing scars along the underside. He had also had serious infection at some time. Because of the crude surgery? The tampering with his hand was so botched up that I felt for certain he had performed it himself.

"This," Wesley had said, was why he couldn't leave. Couldn't leave because he had nine fingers, instead of ten? And then I thought of the *Whippet's* keyboard — operated by pressing ten keys at once. Ten keys at once — with only nine fingers!

Incredible, I thought. Sure, if the computer was out one had to be a sort of master pianist to operate the

control panel. Hundreds of buttons. But ten fingers weren't needed to take the thing off. Wesley at least could have gotten started and chanced to luck.

That's where the "Redheads" fitted into the picture. They had taken away his little finger. They had deliberately, though pleasantly, delayed him until they had finished their own self-propelled planetoid. And then they had to delay him further at the time of their departure — or at least hamper his movements — in order to get away untracked. So they took away a finger. Yet, Wesley had said, they only "borrowed" things.

Why sure! They had borrowed his finger for three months! *They have regenerative powers,* his log said, *and they can grow a new limb in three months.*

The "Redheads. had taken too many things about human beings for granted.

So the old man who had been young had sat in his rocket, afraid to take off into the emptiness of the universe with only nine fingers. Poor Wesley. I could imagine the mental and physical pains of attempting to construct that tenth finger. Maybe afraid to test it in flight unless he was positive, beyond all doubt, that it would behave delicately enough. And all the time hoping he would be found by someone like me. Each passing year taking away more of his courage to try with nine, setting him more deeply into his self-imposed exile.

I met Wesley many years ago, but since that time, while the monotony of a long voyage turns my thoughts inward, I keep wondering about human technology, wondering what sort of Achilles' heel it has fashioned for me. And when I get to where I'm going, before I go busting into someone else's civilization, I count ten on my fingers. END

SYRACUSE UNIVERSITY'S SCIENCE-FICTION COLLECTIONS

by RICHARD WILSON

Remember the days when sf was something you were ashamed to admit reading? Look at it now!

Syracuse University has begun a major project to collect and preserve for research and scholarship that twentieth-century phenomenon known as science fiction.

There are many notable collection scattered throughout the world: Forrest J Ackerman's legendary garages; Donald A. Wollheim's fantastic library of novels; Sam Moskowitz's storehouse of fan magazines and biographical material on writers; the untidy piles of manuscripts publishers get back from the printers, who unfeelingly refer to them as foul matter; the filing cabinets and cardboard cartons full of the unsorted memorabilia that hundreds of individual fans and professionals have gathered over the years; the correspondence editors and agents and publishers have had with writers and illustrators.

Such valuable material exists in thousands of different places — and is in danger of being lost to the future we all so enthusiastically predicted and helped usher in. Much of it is already gone; waning interest has consigned stacks of material to the flames or the dump. Too often a person approached by the University says he wished someone had asked him a year or a month ago — he's just tossed out bales of old papers.

Others say, "I didn't think anybody would be interested in *that* kind of stuff."

Howard L. Applegate, Administrator of Manuscripts for Syracuse

University, is often asked: "What kind of material are you interested in?"

His reply is simple: "Everything."

No one today can predict with any assurance what will interest a research worker, student or scholar a decade or a century from now. It's not up to us, in this era of what will be the researchable past, to pick and choose among material and preserve only what we, with our cloudy vision, think will be valuable. Our duty should be to preserve everything that's of any possible value and let posterity make the decisions.

When Howard Applegate says "everything" of course he does not mean laundry lists and milkmen's bills . . . though he might correct me even here.

Let me quote him: "The type of material which should be permanently preserved includes correspondence, fan mail, journals and diaries, manuscripts of essays, books or articles, papers relating to your family, activities, associations and interests, and photographs and documents concerned with your work."

Many universities and other institutions of learning collect manuscripts. Harvard has an excellent collection of books and magazines named, in honor of one of its late undergraduates, The Richard West Clarkson Science Fiction Collection. But Harvard does not collect manuscripts in the field. Boston University, UCLA and Texas, among others, have notable collections of manuscripts, including some by science-fiction writers.

But I know of no institution other than Syracuse University which has made a special project of collecting science-fiction books, magazines, manuscripts, correspondence, fan publications, belles lettres, and other resource material directly related to science fiction.

Significantly, Syracuse recently became the archival repository for The Science Fiction Writers of America, thanks to the interest and cooperation of its president, Damon Knight, and Lloyd Biggle, Jr., secretary-treasurer. This means that the Association's noncurrent records, files and correspondence are being preserved and maintained, in the words of the agreement, "in perpetuity" by the Syracuse University Library. The material, subject to certain reasonable restrictions, is available for use by teachers, students and researchers.

Through SFWA, publishers of science-fiction books are sending their latest titles as they appear, augmenting the University's collection. Under consideration is the possibility of collecting all science fiction magazines, dating back to Vol I, No. 1, of the original Gernsback *Amazing Stories* of April, 1926. Space and other problems which afflict all libraries might result in a decision to preserve micro-film copies instead of the brittling originals.

Books from the Syracuse University science-fiction library may be circulated on inter-library loan to SFWA members and other professionals and scholars.

The Syracuse project has the enthusiastic support not only of Howard Applegate and his dedicated

staff, but of the University's Chancellor, William P. Tolley, and its vice president for academic affairs and dean of faculties, Frank P. Piskor, both ardent bookmen. Dr. Tolley collects Rudyard Kipling first editions and manuscripts and can speak knowledgeably of such imaginative Kipling stories as "They," "With the Night Mail" and "Wireless." Dean Piskor (pronounced peace corps), a collector of Robert Frost, has an eye to the future as well. He said recently:

"We have an obligation to future generations to provide them with all the tools for research that we can. It's impossible from this era to say what will be vital to historians of literature in the year 2000 or 2067 or 5000. The special project of the Syracuse University Library devoted to collecting science fiction is in keeping with the traditions of teaching, scholarship and research of which we are so proud."

Although the University's science fiction collections as such are a fairly recent innovation, there has long been a lively interest on the campus in things extraterrestrial, fantastic and futuristic. George P. Elliott, the novelist and critic whose imaginative stories have appeared in *The Magazine of Fantasy & Science Fiction* and elsewhere, is a professor of English and creative writing at Syracuse. Prof. Nathan Ginsburg, chairman of the physics department, is a long-time science-fiction reader. So are Edward B. Montgomery, dean of the School of Library Science, and Richard G. Underwood, director of Syracuse University Press. The University Regent Theater recently sponsored a film festival of 13 classic science-fiction and fantasy movies ranging from "The Cabinet of Dr. Caligari" (1919) and "The Lost World" (1925) to Roger Corman's "The Masque of the Red Death" (1964). A program booklet promised "six vampires, four mad scientists, four monsters, two devil-worshippers, two people-shrinkers, one unidentified demon, one mummy . . ."

The new managing director of the Regent is Rex Henriot, another sf buff. He plans to schedule a full-fledged science-fiction series, with the accent on classic and little-known films such as "Transatlantic Tunnel," "The Day the World Ended" and "Five." Henriot, a former Twin City neighbor of Clifford D. Simak, came to Syracuse from Theatre St. Paul, where he produced and co-starred in Arch Oboler's "The Night of the Auk." This drama of a space voyage had lasted only five performances on Broadway but was one of the most popular plays of the season in its St. Paul revival. Henriot would like to do it, or something as imaginative, at the Regent.

In 1959 an exhibition in the Lena R. Arents Rare Book Room at the University was devoted to "Fictional Accounts of Trips to the Moon," which was also the title of a booklet that summarized the tales. They included the "True History" by Lucian of Samosata (circa A.D. 160), described as "the first genuine science-fiction story," its characters "the ancestors of the rocketeers and

spacemen of today." The booklet, by Lester G. Wells, former rare book room librarian, summarized this and such other accounts as Lodovico Ariosto's "Orlando Furioso" (1516), Bishop Francis Godwin's "The Man in the Moone or, a discourse of a Voyage Thither by Domingo Gonsales, the Speedy Messenger" (1638), Daniel Defoe's "The Consolidator," alleged to have been translated "from the Lunar language," the great moon hoax of the New York Sun of August and September, 1835, and H.G. Wells' "The First Men in the Moon" (1901). The first edition of the booklet and a 1962 reprint were quickly exhausted.

What are the steps involved in having the material of a science-fiction writer, editor, illustrator or critic preserved at Syracuse? First he receives a written invitation from Dr. Applegate. A typical invitation, on the letterhead of the Syracuse University Manuscript Collections, might refer to the University's nearly century-old tradition of instruction combined with research and scholarship (S.U. was founded in 1870) and mention that it is concerned with the preservation of source material. Once such letter said: "Such papers obviously will be historically important for future scholars doing research into this prophetic kind of writing which forecast the nuclear age and space travel, and has produced some of the most thought-provoking fiction ever published. The scholarly world is becoming increasingly aware that science fiction writers and other creative people are often far more perceptive than academicians."

After the writer, editor or other science-fiction notable has responded favorably to the invitation, the University arranges to receive his material. The usual method is to ship it express collect.

The materials are then processed and put in order in acid-free folders (which keep the paper from disintegrating) and fire-resistant archival boxes, inventoried and listed in the National Union Catalog of Manuscripts. Such listing makes the material available to scholars across the country and around the world.

Correspondence is cross-referenced. Incoming letters are filed by date and outgoing ones by the name of the recipient, making it possible to cross-check the letters with others in Syracuse's collections or elsewhere.

Literary rights in such letters remain with the author, who may further impose any restrictions on them that he wishes. An example would be condition that they could not be consulted or published until after his death, or for a stated number of years.

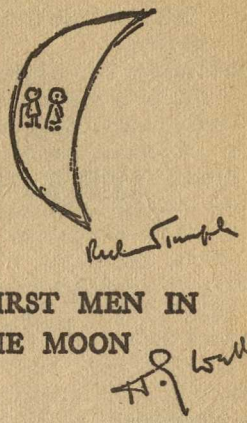
The archival boxes in the Carnegie Library are on shelves which also hold the papers of such diverse and notable twentieth-century figure as poet Phyllis McGinley, pundit Dorothy Thompson (Vincent Sheean did research here for "Dorothy and Red," his biography of Miss Thompson and her Nobel Prize-winning husband, Sinclair Lewis), statesman Averell Harriman (900,000 items), cartoonist Dave Breger (most of his

wartime cartoons featuring Private Breger and G.I. Joe), photographer Margaret Bourke-White, newsmen Arthur Brisbane and Fulton Lewis, Jr., philosopher Mortimer Adler, poet-dramatist Jean Cocteau, Gertrude Berg (her scripts for "The Goldbergs") and Academy Award-winning actor Ed Begley.

A rare item is one of Albert Einstein's research papers in German, donated by his former assistant, S.U. physicist Peter G. Bergmann. In all, there are about seven and a half million items in the University's collections, which puts S.U. among the 10 biggest manuscript repositories among American colleges and universities.

In the science-fiction fringe or "pop" category at Syracuse is a collection of "Batman" television scripts donated by William Dozier, president of Greenway Productions, and producer Howie Horwitz.

It may be time to drop a few of our own names. Among the science-fiction notables collected at Syracuse are Hugo Gernsback, the undisputed father of modern American science fiction. Frederik Pohl, author and editor, is represented by his own manuscripts and correspondence; his publisher, Robert M. Guinn, has provided papers pertaining to the Galaxy Publishing Corp. Forrest J Ackerman has begun to ship parts of his formidable collection across the country from Los Angeles. From overseas, London's E.J. Carnell is represented by papers tracing his thirty years as agent and editor. Carnell has donated the



Sketch by the author on the title page of THE FIRST MEN IN THE MOON, by Herbert George Wells, London, 1901. This is the author's presentation copy to Richard Temple.

morocco-bound volumes of his pioneering magazines, *New Worlds* and *Science Fantasy*.

Other papers being collected are those of Damon Knight, novelist, editor and critic; Donald A. Wollheim, editor of Ace Books and ace collector; novelist Will F. Jenkins (Murray Leinster), Clifford D. Simak, James Blish and Robert Silverberg. Manuscripts and other material from Nelson S. Bond (creator of one of the fantasy classics of radio, "Mr. Mergenthwirker's Lobblies"); veteran fan, writer and convention organizer David A. Kyle; and Robert Arthur ("Theft of the Washington Monument") are on the way.

The old Carnegie Library on the Syracuse quadrangle is fast bursting its seams. Plans are under way for a start in 1967 on a new library — perhaps a 14-story skyscraper —

with a major section devoted to special collections.

Eventually, Dr. Applegate hopes, there will be a separate building for the collections, equipped with the latest automated devices that make a librarian's work easier. These would include machines capable of doing cross-referencing, laminators to restore torn paper, a huge press to iron out creases in manuscripts or letters, a kind of vacuum cleaner that can suck decades or centuries of dust or dirt off a page, the usual equipment to keep the humidity at 50 and the temperature at 70 year-round, day and night, and a monster of an item informally called a bug machine.

This last is a huge contraption on wheels with a track through it. Manuscripts and books, which are prone to attract book worms of the animal world as well as of the human variety, are fed through the fumigating device, which is three times as big as a house furnace and which uses gas to kill worms and other paper-or glue-eating insects without harming the paper.

Dr. Applegate stressed the irreplaceable value of an original manuscript. "If it's lost or destroyed, it's gone," he said. "The Bay Psalm Book could be burned and there would still be five more copies. But an original manuscript is unique." The Bay Psalm Book (Massachusetts, 1640) was the first bound book printed in the English colonies.

"Ideally, the entire chronology of a manuscript is collected," Dr. Applegate said. "We'd like to have the original pen or pencil notes, the first draft, the author-corrected draft and revisions, the final typed copy with the editor's notes, a set of the proofs, the published copy and reprint or translation copies." This gives the student or scholar a case study which indicates the thinking of the author from the time the work evolves in his mind until it reaches final printed form. Dr. Applegate admits, however, that few authors save their scribbles or first drafts and that opportunities to make such studies-in-depth of manuscripts are rare. A Walt Whitman manuscript at the University with the poet's own changes and corrections is a notable exception.

Less notable but utterly complete will be the documentation of *this* manuscript — from its genesis in notebook scribbles, jotted down originally at the office of Galaxy Publishing Corp., through notes made during interviews, and first draft typed on an unfamiliar electric typewriter that put down six letters for every five I really wanted, to the final typed version and a copy of the magazine in which it appears. Like me with the electric typewriter, Howard Applegate may get more than he really wants. END

WHOSE BROTHER IS MY SISTER?

by SIMON TULLY

Illustrated by GAUGHAN

When you start experimenting with time, it's hard to know when you've gone — too far!

I

Carefully extracting the bottom parts of his legs from the leg coddlers of his teaching stool, Brawi took a step forward. Balancing himself on his right leg, he moved the left one forward seven or eight inches, dragging the rear leg around the side of the stool.

His left leg felt numb after half-a-lecture's coddle, and Brawi clutched the equation projector to steady himself. Before more than two or three of the class had time to look up, an unarticulated doubt gently rising in their minds as to whether Brawi was hesitating, he had punched out the formula for Universe Contraction Path while at the same

time kicking his leg against the projector base.

He felt for the tape box in his ticket pocket. As Brawi's leg began to tingle, the reassurance of Council's decision not to prohibit Enclosure spread a quiver of excitement through his brain. He had pressed the end of his arm against the message twenty times already today, each touch the signal for a gentle daydream of a timeless world — a world led into Paradise by Brawi, the Good.

A low scraping from the classroom caught his attention. Driwalu students could punch notes so much quicker than human ones, and Brawi sometimes wished that teachers were allowed to confine Drilawus to using only two arms in classes. Finally, eighty heads were looking his way. Holding his arms dramatically in dead center, making each tension of his bristles deliberate but not overlong, Brawi began to talk in an informal style. The scraping from the class stopped, as the Driwalu students who had been whispering about moonball focussed their full attention on their teacher.

The room was filled by the gentle, rhythmic scraping of Brawi's arms moving against each other as he explained to the class the theoretical status and social significance of tomorrow's planned attempt to Enclose the universe, or rather to Enclose what would become — for an instant — the universe, if it were not Enclosed.

Brawi briefly recapitulated the colonization of Earth by the Driwalus and the impact of the Driwalu discipline of Projection Mechanics on human science. He told the class of the hypothesis of Linguistic Relativity put forward by the American linguist Benjamin Lee Whorf around 1940. Whorf maintained that one's language affects one's essentially subjective view of the world and held that the form human scientific work had taken was directly dependent on the grammatical patterns of Indo-European languages. American Indians or Australian aborigines, whose languages provided them with distinctive world-views, would have developed rather different ways of investigating physical and biological phenomena, had they not been swamped by European-originated culture before they had chance to get started.

The human half of Brawi's audience sat further upright and smiled at one another. The Driwalus waited and knew what was to come next. Whorf's views never became very popular, and no human scientist tried the "corrective" of trying to look at his science through the concepts of a quite different language. Then came the Driwalu arrival. Earth scientists were at first incapable of understanding the theory behind the Driwalu space travel, and the Driwalus used Whorf's hypothesis in explaining to the humans how they must reorient their world-view to grasp the principles of Projection Mechanics.

They explained that some languages use the same terms to refer to both space and time: a single phrase may mean both "a little way downhill" and "next week"; another

phrase "a long way downhill" and "next year," and so on. The context in which a term is used prevents ambiguity. Other languages employ quite different terms for space and time concepts. It appears that some Earth languages (Chinese, for example) use the same terms for space and time ideas, but Indo-European languages keep the two sets of concepts clearly apart. It was because of this that Earth science — growing up within the Indo-European tradition — never speculated in the right manner that there might be some fundamental connection between time and space: that "time" is a kind of arrangement of ordinary three-dimensional space, for instance.

Brawi preened his arms and placed his legs a little further apart. His students — human and Driwalu alike — concentrated on the hypnotic, absorbing scraping as Brawi continued.

Driwalu science had evolved in a culture where space and time concepts were intimately mixed. They had reasoned that there was no upper or lower limit on space, that you could put a given cylinder inside some other cylinder — the second cylinder inside a third cylinder — and so on. You could never get a cylinder that filled space, and so space must be infinitely extendible. Similarly, you could go on dividing matter indefinitely — splitting protons into smaller particles, those particles into still smaller ones, and so on. The Driwalu reasoned that what was the volume of a molecule in our universe could be the volume of an entire galaxy in another universe and that our galaxy could be as big as a speck of dust in yet another universe.

Following a scientific rule rather like the Occam's Razor of human philosophy ("Concepts should not be multiplied beyond a barest minimum"), the Driwalu put forward a hypothesis that explained away "time" as a function of "space." They suggested that there was a succession of universes, each a billion times bigger than the one after it in the succession and each containing its successor as a volume about the size of an average tape-spool. Each universe is, in some well defined sense, a projection of its predecessor. What we think of as advancing through time is actually our continual projection from one universe to another universe, a billion times smaller, and then to a universe a billion times smaller than that universe. In what we think of as a single second we have been projected through more than a thousand universes, and at the end of that second the Earth is countless googols of times smaller — with respect to absolute space — than it was at the beginning of the second.

We are quite static in each universe. We don't move or breathe *in* a universe, only *between* universes. That is, everything can be fractionally different in one universe from the way it was in the one before and will be in the one after.

The end of lesson chime sounded. Brawi opened his arms wide as if to finish the lecture, although he

had clearly not completed what he had intended to say. The class waited in silence, pairs of human eyes and triplets of Driwalu eyes waiting for him to continue.

All experiments that the Driwalu devised to verify their hypothesis were successful, he told them. That is, none of them produced any evidence to disprove the hypothesis that time is a scale of projection in space, rather than a quite separate autonomous dimension. The final verification was space travel. Using the results of a Projection Mechanics that explained time in terms of space, Driwalu scientists devised a theory of space travel. Their practical applications of this theory led to the Driwalu arrival on Earth and their contact with man, the only other known intelligent species in the — here Brawi preened his arms — er . . . instantaneous universe.

Now at every instant the *next* universe — the one that will succeed the present universe many times more quickly than we can think of this happening — will occupy a volume in the *present* universe. But the location of this volume will differ from instant to instant. At one instant it may be in the center of our galaxy, for the succeeding universe perhaps in some distant galaxy, for the next in a galaxy very near our own . . . . Only once in about twenty-three thousand Earth years will it be in the region of space containing Earth and the planet Driwalu.

The class was tense — human students clenched fists or bit their fingernails; Driwalus held their arms rigidly in front of them and settled their leg ends more firmly into the coddlers of their seats.

The best efforts of Projection Mechanics at interpreting physical evidence shows without doubt that this chance will occur the day after tomorrow. Then, for a shadow of an instant, the next universe will be situated in a volume contained actually within this solar system.

And it is planned at that instant to Enclose the next universe in a specially constructed box. It has been proven beyond any reasonable doubt that the material of the box will prevent the projection of the then present universe onto what would have been the next instantial universe, had it not been enclosed in this box.

By doing this we shall, in effect, have stopped time! The sensation of time, that we experience in many different subjective ways, will cease! The consequences of this will be many and cannot be foretold in detail. But it seems certain that we shall be able to move from place to place in effect instantaneously, without having to undergo a tedious period while subjective time elapses. For time is a relation between universes, and each universe is in itself neutral with respect to time. If we are confined to a single universe, time will have ceased to exist!

There were gasps from the humans and shrill scratchings, with highly tensed arm bristles, from the Driwalus.

Brawi raised his three arms high and then let them drop to his body. Feeling with his right leg for a walking hole in the plastic floor, he quick-

ly fitted the other legs into two more holes. Rotating as he pivoted on each leg in turn, while moving the other two legs into the next holes in the walking track, Brawi hurried out of the classroom.

The human students were quickest out of the door, eager to meet their friends from other faculties in the coffee shop and brag about being taught by the man who was seen in every newsreel and was the subject of a four-day discussion by the World Council. As the Driwalus uncoddled they told each other, in proud scratchings, of their racial pleasure that Brawi, a Driwalu scientist, had been the instigator of Enclosure. For it was well known that once human scientists had understood Projection Mechanics they had fairly dominated the field. But humans tended to overspecialize; it took someone like Brawi, who was a leading philosopher besides being a first-rank scientist, to argue so plausibly for an attempt to abolish time by so simple and scientifically sound a ploy.

And for Brawi to give such an informal scratch in a first-year course on Projection Mechanics was unheard of! Many scientists from other universities would have given half their research grant to have been in the privileged position of Brawi's students at the University of Manhattan.

II

It was raining outside, and Brawi decided to leave for home immediately, enjoying a soft walk across Central Park to the monorail before the ground had time to harden. He quickly extracted his legs from the escalator coddlers at the side exit of the University and began to progress in a shallow semicircle towards the Columbus Circle station.

Brawi relished even step as he sank a leg into the soft, wet grass and pivoted himself around before doing the same again. He took now short steps, now long ones. This was so much less tiring than the cold, plastic holes of the sidewalkway, always spaced a montonous standard distance apart.

Brawi turned to look at the single steep tower that was the University of Manhattan, rising from the greenery of Central Park. Out of sympathy with the public feeling that condemned the World Council's decision to ban any other building in the park, Brawi relished his position as chairman of the leading Projection Mechanics faculty on Earth. And the coincidence that this also allowed him the occasional wet delicious pleasure of walks like this on his way home. If only New York were a little wetter!

But Brawi's mind clouded as his thoughts turned to his mate, Dula. Her offhand, almost snide behavior recently had made things very difficult for Fawu and Brawi. He would have to find out what was wrong. But that could wait until after Enclosure. Maybe after Enclosure nothing would be wrong with anyone in the world anymore. Although Brawi believed more than anyone — as he should! — that Enclosure would bring about a new world, a

sort of Paradise-after-Armageddon, it was very difficult not to think of next week as just another week that would bring problems and pleasures very much like those of last week....

Brawi's thoughts were interrupted by his arrival at Columbus Circle. At least the walk across the park had spared him from the inevitable human reporters who had been keeping a twenty-four-hour watch on the main entrance these last few weeks. He waited impatiently for a dozen human standing platforms to pass by before there was a free coddling platfom that would take him up to the monorail station. An IND 'A' Express arrived almost at once, and Brawi settled down to think about Dula and her upsetting behavior during the twenty-minute journey to Bristol.

A warm, deep feeling spread from Brawi's legs through his body, and he let his attention wander onto the advert panels above his seat. Routine flashes about tonight's moonball fixtures. Ah — weather prediction that rain would continue. Announcement of Kodak's new instantaneous camera to mark the firm's three hundredth anniversary. Entreaties from Combined Gift Manufacturers to remember "Sibling's Day" next weekend: "Don't let your gift to a sibling be outshone by the other sibling's gift." Brawi doubted if he would give a present to his sibling Rida; he hadn't seen her for — it must be three years — and they had never been particularly close. Looking at the adverts had been a bad thing; Brawi's thoughts now turned helplessly to thinking yet again of his other sibling Bilu. Time can play tricks with one's memory. What a blessing it would be when all memories were equally clear, once time had been stopped! But Brawi knew that there had been a deeper understanding between him and Bilu than either of them had had with Rida.

In some ways he envied humans — they seldom had siblings in the Driwalu sense of the term, that is, there is usually only one in a litter. There were always three in a Driwalu litter, one of each sex; and a Driwalu only recognized the sibling relationship between members of a litter. After all, since three Driwalu — one of each sex — took part in each mating act, as against two for a human act, it was proportionately less likely for litters with the same mother to have all three parents the same. Brawi had been the male of his litter, Bilu the female and Rida the middle sex; you could tell which sex a Driwalu belonged to from the final vowel of his name: "i" for a male, "a" for a middle, and "u" for a female.

Brawi's female sibling Bilu had run away from home when they were ten. Attempts to trace her had failed, and for many years Brawi hardly wondered what Bilu might be doing. It must have been his middle mate Dula's moods over the last year and the increasing difficulty surrounding his home life that had led Brawi to think more and more of Bilu just recently. He had even hired private investigators, but the trail was cold by now, and it seemed unlikely that

he would ever learn anything of Bilu's present whereabouts — barring chance coincidences, of course! Driwalu litters were generally close friends all through life, and Brawi felt oddly hollow when he admitted to himself that his relations with his siblings were almost human like.

Except that a human was, Brawi understood, psychologically incapable of feelings on the Driwalu magnitude for his siblings and didn't usually care overmuch if he lost contact with them. Even if this were an advantage for humans though, the distinct unsubtlety of their mating act — Brawi gave the Driwalu equivalent of a wince when he thought about it — had ensured that no Driwalu had ever seriously wished himself born human. Only two components were needed to start a human fetus growing: a male supplied one component to a female; the female added the other, and the fetus began to grow in the female.

A Driwalu egg, however, needed three components before it could start growing. The male transferred his egg to the middle member — in a manner very similar to the human way — the middle member then transferred both the male egg and her own egg to the female, who added a final component and grew the egg inside her for six months, before laying it into a stream of running water. Such a double transference involved great experience and expert timing. In fact a great part of a young Driwalu's education was oriented towards making him a satisfactory mate.

A harsh sound from the communication grill over Brawi's head interrupted his daydream. It was so distorted that for a moment he failed to make out whether it was a human voice or the scraping of Driwalu arms. He made out the repeat: the monorail would arrive at Bristol, Connecticut in thirty seconds. It was just as well, for a transistor from the seat behind was blaring the current hit tune, *Whose brother is my sister?*, scraped and sung by a group of three Driwalu and two humans, one of each sex for each race.

What's a table turned upside down?
When do you walk round and around?
Why does a black cat have snow-white fur?
Whose brother is my sis-ter?

A typically inane, meaningless jingle. Except that in his case it wasn't. A male Driwalu called both his siblings sister; a female called them both brother; a middle called the male brother and the female sister. So that the last line of the verse exactly summed up Brawi's search for his lost female sibling. It had undoubtedly been the impossibility of *not* hearing that song over the past weeks that had made Brawi think of Bilu more often than was good for him.

His arm bristles tense with control, Brawi thankfully alighted at Bristol. A taxicab took him home inside of ten seconds.

III

As he came through the front hatch of the house he shared

with his two mates, Dula and Fawu, Brawi saw Fawu turn into the preparation room at the end of the passage. He hailed her.

As Fawu came along the passage towards him, Brawi marvelled at the perfect example of Driwalu female he had mated with. Fawu's body was squat and quite round, her upper wrinkles a moist rust red and the lower ones shiny green. Her legs came symmetrically from the three buds at the base of her body cylinder, each ending in a sensously straight point. She must have just polished her leg cobbles for they were mat blue this evening, with large, orange decorative circles on two of the legs and a wavy yellow star on the third.

Brawi looked into Fawu's eyes. Her three round lidless orifices swam with love. The tears, which continually dropped from a Diwalu's eyes to be caught in his neck-pouch, were milky white — a sure sign of affection. Brawi's tears were pale yellow. Seeing this and realizing that her male was tired and in need of comfort, Fawu advanced to him and touched arm-tips. Raising her long, oval head, covered in — thought Brawi — such delicately black scales that were broken only by the eye orifices and the single hearing-breathing gill on the top of her head, Fawu turned her gill towards Brawi. He gently touched it with his, performing the most informal caress permitted a Driwalu male and female in the absence of a middle.

Fawu's middle arm grew a little lower from her body than was usual. Not enough to make it any sort of deformity — in fact Brawi considered it a large part of Fawu's beauty — but enough to make it a little tiring for Fawu to talk for a very long time at one go. Now she raised the middle arm and rubbed its gray bristles against the bristles of the upper two arms, producing the speech-sounds that corresponded in function to the noises humans make with their lungs, vocal cords, tongue and lips.

"Are your legs tired, traveller? Rest them on the moist carpet that has been laid especially for you."

They moved into the living area as Brawi added the standard reply to this conventional sibling greeting: "My legs were hard and dry, but one step on your carpet has softened them."

Before Fawu could reply Brawi added roughly, "But the carpet has not been changed today. This is yesterday's grass, and my legs feel no better than they would in lecture-stool coddlers." He quickly turned the skirting sprinklers to maximum and stood at a corner, each leg under play from a sprinkler. "And where is Dula?"

A scrape from the door made them turn. "Reporters have been ringing all day to ask questions about you, Brawi. These human voices make my gill ache. Anyway I've unplugged the telephone now."

"Good, Dula. I've been lecturing all day, and I don't really fancy talking to anyone tonight."

"Your Enclosure makes things very difficult for us, Male. We hardly . . ."

Fawu interposed: "We're all agreed that Enclosure is worthwhile. If it works and time is really stopped, everything will be so much easier for everyone. And people will be grateful for Brawi's lead then, Dula."

This wasn't a very good time to mention the carpet, Brawi supposed. But before long Fawu would start changing it, so that Brawi could rest his feet when he arrived home. Brawi wouldn't allow that. Carrying grass was a middle's job, not a female's.

"My legs ache, Dula. The carpet looks rather old and doesn't seem to be helping them at all."

Before Dula could answer, Fawu turned to Brawi: "Our middle has been out all day. She only arrived home a few minutes before you came in."

Brawi noticed that one of Dula's leg buds was discolored. A thought that he had kept out of his mind until now began to assert itself. Was Dula having an illicit affair with two other Driwalu? He was pretty certain that there wasn't a two-mate affair going on. That is, he was sure that both Fawu and Dula weren't having an affair with some other male behind his back. Fawu's tear hue, which she had never been able to control, reassured him about that. But he would have to face up to the possibility that Dula might be misbehaving in one way. Maybe he ought to set the investigators he had had tracing Bilu, his lost sibling, onto following Dula when she went out during the day. The search for Bilu was hopeless anyway.

Brawi was still mulling over this when Dula and Fawu brought the meal in from the preparation room. "Fawu, you are the nicest, moistest mate I could have. You've made my favorite meal!"

Fawu's tears turned transparent with pleasure as Brawi began to eat the crottled greebs and underdone artichokes. "Tell us again about the place of Enclosure, Brawi, and about the timing of it."

"Yes, I'd like to hear that again too, Brawi," added Dula.

So Brawi told them of the equations which both explained all Projection shifts observed by astronomers and yielded predictions of the position of the proxime universe at any moment.

It was possible to work out the overall probability that the proxime universe would be contained in a certain area of space. It was also possible to set a computer to work out exactly where the proxime universe would be every instant. There was a probability that it would be in our part of space about once in twenty-three thousand years, on an overall average. In fact Projection Mechanists had plotted positions for fifty thousand years in the past and ten thousand in the future, and only once more in that time — thirty thousand years and some more ago — had the proxime universe been near here.

This meant that the positioning the day after tomorrow was nearly unique, the only instance for at least ten thousand more years of the proxime universe being within reach of Earth and Driwalu's spaceships.

Brawi talked for an hour, stopping between sentences to dip his arms in the greebs and draw up the food through the receivers in the end of each arm.

He talked about the material the Enclosing box was made of and how they were so sure that it would stop the projection of the then present universe onto what would otherwise have been the succeeding universe. Brawi told them about the precautions for placing the box in position at exactly the appropriate time. Then, as his arms got tired from so much eating and talking. Fawu and Dula daydreamed about what it would be like to live in a universe without time.

Brawi said little, for little was known with any certainty of what a world without time would be like. It was impossible for scientists to find a model of an analog of a timeless universe in any way, and the greatest contribution to ideas on living without time had come from philosophers. It was agreed that travel would be instantaneous, or at least that travel on Earth would be. It would take no longer to go from Tokyo to New York than it would from one room to the next in the University of Manhattan. It seemed a natural corollary that travel to any place whatsoever in the universe would also be instantaneous, if only a traveller knew where he was heading and had some scientifically valid vehicle. Or perhaps vehicles wouldn't be needed?

Then there was the question of immortality. It seemed logical that the process of aging would cease and that, barring accidents, people could live on indefinitely. But this aspect hadn't been overpublized for fear of inciting the religious sects to a whipping up of mass hysteria against Enclosure. Brawi would have argued that, far from Enclosure spoiling anyone's chances of being promoted to Paradise, it would immediately provide a Paradisiacal world for everyone, in excess of any Paradise-after-death promised by religious leaders. But he wasn't too keen on entering into a full-scale argument on this point. Since no one really knew what life after Enclosure would be like — although almost everyone was sure it would be a better life — there was no point in harping on controversial issues.

Finally, Fawu pushed the utensils into the disposer, and Brawi and Dula prepared themselves for rest. Brawi and Fawu scraped noises of sexual invitation to themselves and to Dula. But Dula, who had, Brawi considered, been acting quite normally over the meal, seemed to evade the suggestions. It was evident that their total rapport was not enough for there to be any mating tonight. How often had this happened in the last year, Brawi wondered? Certainly more often than left him happy and content.

Very soon they were all asleep.

IV

Brawi was at the University very early the next morning. This was the last full day before the Enclosure attempt, and he had lots of last minute details to attend to. Re-

porters were waiting for him at Columbus Circle station, and, although the park was still wet and inviting, Brawi felt shy about walking across it today and, no doubt, having the fact written up in all the midday editions.

As a result his legs were tired when at last he was able to sink into the damp coddlers of his professor's desk chair.

Brawi's human secretary was already at work. "The papers seem apathetic today, Professor. There doesn't seem to be any pressure on Council to reconsider its decision not to deliver an injunction. The *Times* even has a list of what to do immediately after Enclosure.' "

"What does it say?"

"Keep the television turned on. Don't try to move at all. Have several meals already prepared in the icebox. Things like that."

"It's a good sign. What's on today, Rosemary?"

"Talk to the space crews this afternoon, stressing importance of accuracy. Tell them they are specially picked for reliableness, unique opportunity of Enclosure, in last resort everything depends on them. Check with observatory. Go over final report on Enclosure box. Lunch with Vice-Chairman of Council."

"What about this morning?"

"There's a reporter you said you'd see in ten minutes."

"A reporter. Today?"

"The man from the *Post*. Who gave you such a good write-up when Council was sitting on it so long — and a couple of times before that, too."

Brawi let his arms fall to his side, the equivalent of a human sigh. "Yes, I remember now."

It was a human reporter. Most reporters were still human. After the first Driwalu arrival on Earth there had been a steady stream of Driwalu coming to Earth and just as many humans intent on emigrating to Driwalu. The situation was similar to that on Earth in the late twentieth century, when there were more people of African, Indian and West Indian origin in England than there were Englishmen and at least as many white as colored people in Central Africa. The population of Earth was now sixty percent Driwalu, and that of Driwalu, almost half human. But whereas the separate races on Earth had intermarried to produce one yellowy-brown human race, Driwalu and human could not interbreed.

Despite being outnumbered, human beings still held most of the key jobs in newspaper and advertising work. This was just a fact; psychologists had yet to produce any worthwhile explanation of it.

The reporter's name was Martin Smith. He knew his time would be limited and wasted none on preliminaries.

"Is it certain, Professor, that Council will not now head down an injunction against your attempt at Enclosing the universe?"

Before Brawi replied, he nervously touched one arm against his ticket pocket. Somehow, feeling the tapespool from Council reassured him.

"So they have lead me to believe."

Seven years ago Brawi had been one of Smith's boyhood heroes. Now, as he watched Brawi's arms move together to scrape out the answers to his questions, he felt a little wonderment for the Driwalu race. Just as a human can produce different sounds by varying the position of his vocal cords, the mouth or nasal cavities into which air is directed, the shape of his tongue and its position in the mouth, the shape and position of his lips — so a Driwalu varied at least five factors simultaneously: whether he was rubbing two arms together or all three, whether they were being rubbed along the arms or laterally, whether the bristles were dry or moist, the speed of rubbing (there were four significant speeds) and the tenseness or laxness of the bristles. Arm bristles could only be kept tense for a second or so at most, and so they were rhythmically tensed and laxed, tensed and laxed, producing a pattern similar to the succession of syllables (produced by successive chest pulses) that underlie human speech. Tense bristles could conveniently be thought of as producing vowels, and lax bristles, consonants.

"And there's no question of your abandoning the attempt, I take it?"

"There isn't."

Smith looked up from his notebook. "Sorry?"

"No question at all."

The position of a Driwalu's arms gave much the same sort of information as a human's intonation. So that you had to both watch and listen to a Driwalu if you didn't want to mistake a question for an affirmation. Of course this made a reporter's job that much more difficult; he had virtually to write without looking at his notebook.

"Professor, are all scientists convinced that the proxime universe will be in your predicted position tomorrow morning?"

"All but an insignificant minority."

Smith persisted, "But is it generally accepted nowadays that each universe is projected onto a smaller universe? I mean, that our subjective universe does contract in absolute space, rather than expanding?"

Brawi's tears darkened. If he had been human he would have smiled. "I see what you mean. You're right that there are no a priori physical and philosophical grounds for choosing between saying that each universe is succeeded by one a billion times smaller than it and saying it is succeeded by a universe a billion times bigger. These, as I'm sure you know, are called the Universe Contraction Theory and the Universe Expansion Theory.

"If we are to explain time in terms of space, as the principle of simplicity demands that we should if we can, then we must choose either the Contraction Theory or the Expansion Theory. But for a long time there seemed no reason at all why anyone should support one of these theories in preference to the other."

"Didn't the success of space travel prove anything, Professor?"

Brawi was enjoying himself. "Not really. The predictions that were

verified by the success of space travel could equally well be derived in terms of either theory. But in the last hundred years as significant number of new astronomical facts that bear on subjective time have come to light. All these can be explained quite easily by the Contraction Theory, whereas some of them just cannot be accounted for in terms of the Expansion Theory. You see, it's just the principle of simplicity again. We can assume the universe is continually contracting — the contraction providing the sensation of time — and write three equations that link together everything Projection Mechanics thinks it ought to account for. But if we assume the universe is expanding, we'd have to write several pages of equations for the same result, and even then we'd have loose ends unintegrated."

"And this is sufficient reason for saying the universe is contracting?", Smith asked.

"Science always chooses the *simplest* of two alternative hypotheses, if everything else is equal as it is here. And it then makes predictions on the basis of that hypothesis."

"But what if there just hasn't been enough data available? Isn't it going to be catastrophic if the universe is actually expanding and you're trying to box it in using a wrong theory?"

"Not at all," Brawi scraped. "This hasn't been publicized too much since the contraction theory *is* so generally accepted nowadays. But if you think about it, nothing at all would happen if it chanced that our theory was wrong. On an expansion hypothesis the proxime universe wouldn't even be in this galaxy at the moment we plan to Enclose. We'd just be Enclosing a useless bit of empty space, and everything would go on exactly as it had before."

"So you've everything to gain and nothing to lose?"

"Certainly."

But Smith wasn't to be satisfied with this. "Professor, what makes you so sure that time will stop when we're confined to a single universe of constant size in absolute space and that we'll still be able to move and breathe and live reasonable lives. I've always believed that we can't move in a universe, only between universes. I mean, that motion is only possible as a relation between universes."

"Better not to say 'can't move,'" Brawi replied, "but 'don't move.' Projection Mechanics can't shed much light on questions like this, of course. But physiophilosophy can. Philosophers are unanimous that we would have unlimited freedom of movement if we could only remain in one universe. Physical things are mostly determined by the succession of universes; but the actions — both conscious and unconscious — of people and animals are a result of our free will. A person's consciousness is projected intact from one universe to the next, and we have almost complete control over what we do, subject of course to the changing physical nature of the world in a successive universe system."

"You mean that there'll never be another volcano or earthquake after Enclosure, but that we'll be able to

swim underwater for as long as we want, in the absence of time restrictions?"

"Yes. I've checked the philosophers' reasoning, and it seems unimpeachable. Ergo, everyone's in favor of Enclosure."

"Not quite everyone, Professor, but enough for . . ."

Smith's remark was interrupted by a double buzzing from the outer office intercom. "There's a very persistent woman on the telephone, Professor. Blank vision line. She says its urgent, and I thought I ought to tell you."

"I'll take it, Rosemary. I think Mr. Smith's asked me all he wanted to."

V

Brawi's quietly exultant mood was changed abruptly by the telephone call.

The anonymous woman caller — she had disconnected the vision socket — told him that she had certain pictures. And that unless he paid her a sum of money that afternoon she would hand the pictures to a newspaper. It seemed likely, Brawi was forced to agree, that the pictures would cause such a public outcry — such was the moral climate of the time — that Council might after all decide to enjoin tomorrow's Enclosure.

The pictures were secret photographs of an illicit mating act in which Dula had taken part. His informant revealed that the affair had been going on for just over a year. Dula was clearly recognizable, and the papers would be told she was Brawi's middle mate.

At first Brawi was merely taken aback. He had never been blackmailed before, and it was a quite new sensation. Brawi was a being of strong principles, and his first thought normally would no doubt have been to report the whole episode to the police, no matter how much he was hurt by it. But in the present circumstances . . .? The culmination of his life's work. Was this to be sacrificed because of Dula's infidelity — or worse, her indiscretion?

Brawi punched the cut button and told Rosemary to leave him alone for awhile. Despite their coddlers, his legs began to ache. Brawi hated to think what color his tears were now.

It would take most of the money he had. He would have to sell some shares very fast. But that could be done. The caller had told him where to leave the money that afternoon. Early. He would receive the pictures by tomorrow's post. Why should he trust her and believe that he would receive them at all? But what option did he have *but* to trust her?

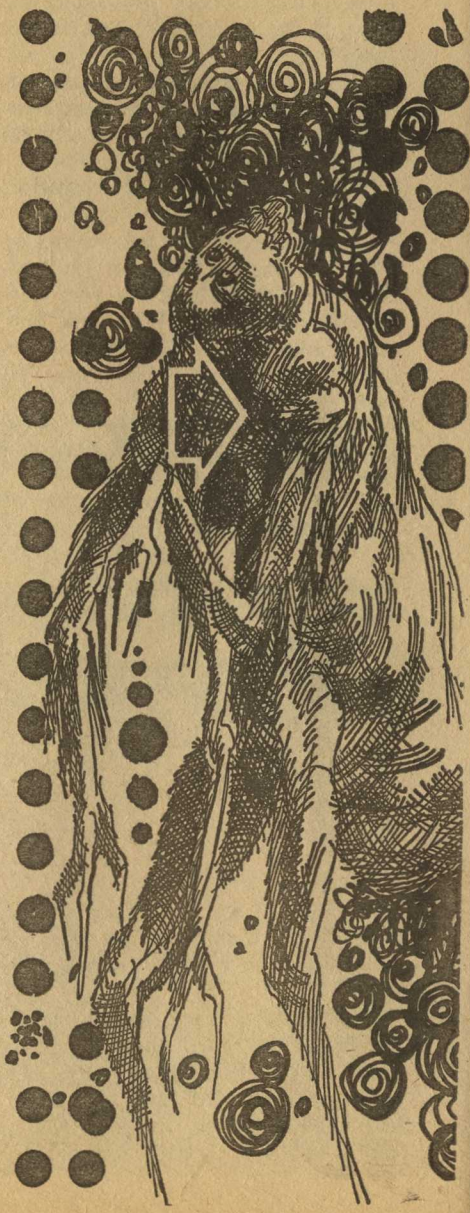
Brawi punched on the desk television to distract his thoughts. He could often decide things more clearly when his mind was not totally obsessed with a problem. A newscast made him more hopeful. Everyone seems to be looking forward with excitement to Enclosure.

Some of the religious cults were already beginning to make a big thing of it; taking Enclosure as in-

evitable, they might as well turn it to their own advantage if they could. There were some malcontents, but then there always were. The authorities were pleased, though, that almost everyone was at work as usual today. There was fear of absenteeism tomorrow, and people were told that the wisest course was to go to work, carrying on as usual. Okay, so we have Paradise coming. But let's take it gently, ease into it bit by bit. Let the experts assess the situation before we rush in doing new things, or God knows what mess we might land up in.

A variety show came up. Comedian quipping about tomorrow's great event. Don't let your mother-in-law come visiting tomorrow morning, you might *never* get rid of her. Brawi decided not to take any action until after lunch. He had until 2:30; the money could be raised and deposited within an hour. The comedian was replaced by a Driwalu middle singer. After tomorrow blackmailing would surely be impossible. If there's no time, you can't demand money *by* a certain time. Was there an error in his reasoning here though? *Why does a black cat have snow-white fur? Whose brother is my sis-ter?* Brawi hurriedly cut the set off.

That recurrent song! Maybe if he knew where his sibling Bilu was. Maybe he could discuss everything with her, and she would help him to decide on the wisest course. No, of course she wouldn't. Chances were that Bilu wouldn't be at all interested in talking to him about anything. Still, for his own peace of



mind Brawi desperately wished he knew what had become of her.

It was after lunch that he decided to send the money. The Vice-Chairman of World Council had revealed that Council would discuss the possibility of voting an injunction against Enclosure again that afternoon.

It wasn't really in order for him to tell Brawi, of course, but as one Driwalu to another . . . . And naturally it wouldn't go any further. True, they had already decided finally against interfering in any way. Most of the Council were — like the Vice-Chairman — heavily in favor of Enclosure, of course. But there had been some pressure from South America, you understand. Basically religious. Concerned about immortality putting the priests out of a job or something. Not anything Brawi needed to worry about really, but he thought he might appreciate being told that it was coming up again.

As Brawi had foreseen, he had no difficulty in raising the money. By 2:20 it was deposited in the place named by the blackmailer.

The rest of the afternoon passed uneventfully. Brawi gave a final pep talk over short wave to the crews who were to place the Enclosure box at the right spot on the right instant. They were top crews from the American and Asian Space Corps, and there seemed little chance that anything could go wrong in that part of the plan. Brawi checked with the astronomers that they would be able to give him an immediate check on whether time had

been halted tomorrow morning. The relative motions of the sun and all other heavenly bodies should cease. The observatory promised he would know inside of thirty seconds after Enclosure.

While Brawi was having a final check with physicists over the composition of the Enclosure box, his secretary relayed a message from the Vice-Chairman: "The grass is wet." So Council had decided once more not to meddle with Enclosure. Surely everything would be all right now? The money had been paid, and the afternoon papers gave no sign that they had been told anything amiss about Brawi's private life. Honesty must be one of the blackmailer's few virtues. Brawi began to relax; it seemed that Enclosure could take place without hitch. And Brawi had never doubted that Enclosure would be a success.

There were many details to clear up. Enclosure was due at 9.30 a.m., and all loose ends had to be tidied up tonight. As a result Brawi was home very late. He wasted no time in telling Dula exactly what had happened and of the large sum of money he had parted with to keep her indiscretion out of the papers. Somewhat to his surprise, Dula seemed genuinely sorry and repentant. Brawi had been spending so much time at the University recently that she had felt neglected. Then the affair got out of hand, and she hadn't known how to get out of it. It was all over now though; they had said good-by today.

Brawi pondered the moral climate that could perhaps ruin a scientific experiment through a lapse from accepted moral behavior by someone not even directly concerned with the experiment. He had read that things had been very different on Driwalu. But, like so many migrating races, the Driwalu had absorbed the social mores of Earth pretty thoroughly.

Dula did seem genuinely sorry though. She had laid an exceptionally thick carpet that did wonders for Brawi's leg ends after twelve hours in his office coddlers. Things would be all right now, he was sure. It was probably a good thing that it had all come out before Enclosure. It was always as well to enter Paradise with the past left well behind.

Fawu, Dula and Brawi mated that night. Dula's expert coordination made Brawi experience pleasure from the tips of his legs right through to his gill. His tears turned crimson with joy, and they were all very soon asleep.

VI

Things were strangely usual the next morning. Most people appeared to be going to work as usual. Brawi felt refreshed, and even a human choir squawking *Whose brother is my sister?* from a nearby advert panel failed to disturb his equanimity.

There were only three reporters waiting at Columbus Circle, and Brawi was happy to scratch replies until his arms were tired. Would he stand for Council if Enclosure were successful? No, he was a scientist and amateur philosopher, not a politician. What would Brawi do

once Enclosure was known to be a success? Talk to philosophers and medics, mainly, on the exact nature of the universe they found themselves in and decide on what people could be advised to do to gradually accustom themselves to living without time. What would he do if it were not a success? Go over the equations and check them thoroughly. Would he turn his attention to an Expanding Universe hypothesis if Enclosure didn't come off? He might.

Brawi eventually sank his legs into his desk-chair coddlers at ten after nine. There was a carton on his desk marked "Personal." Opening it quickly, Brawi checked to see that it contained photographs. He was interested to see what Dula's choice of partners looked like, but that could wait until later.

Brawi punched on his desk television. Fifteen minutes until the end of our relentless projection from universe to smaller universe to still smaller universe. World leaders were being interviewed. The Chairman of Council expressed a desire that people would do nothing rash or hasty after 9:30. New York Traffic Authorities announced that trains were running normally and that the staff would continue to run the system as usual. A filmed interview of Brawi at the monorail station half-an-hour earlier was shown. The planet Driwalu welcomed Enclosure and formally thanked Earth for its initiative.

The sponsor announced the last commercial in this universe for next year's model of Hovercraft! Then, a camera picked up a blurred image of the actual Enclosure box, a little way off the place of Enclosure. A crowd in Times Square mostly tourists, singing a song Brawi didn't recognize. Three minutes to go. The King of England, standing in Trafalgar Square. Crowds in Tokyo. The box, slowly being moved to its required position. Thirty seconds. Brawi nervously took his leg from its coddler and, in putting it back, knocked the carton of photographs to the floor. Fifteen seconds. He picked them up clumsily, keeping his eyes on the Enclosure box. The box had ceased moving. Enclosure!

Brawi punched off the television and waited for a call from the Observatory. Nothing seemed different. But it wouldn't. Everyone should be physiologically the same. And they would stay physiologically the same, forever. *If* . . .

The phone buzzed.

"Yes?"

"Things aren't the same as they were before Professor . . ."

"You mean all motion of physical bodies has ceased?"

"Not quite . . ."

"Well what?"

"Time seems to have turned round. It's reversed on itself. We're going the wrong way round the sun. The whole universe is moving backwards. It's moving in reverse. In an hour all the heavenly bodies will be in exactly the positions relative to one another that they were an hour ago."

Brawi's legs ached. He felt lifeless and empty. "You're sure?"

"Yes of course."

He cut off the phone. Why hadn't he thought of this. Theoretically, contraction or expansion were equally likely. There was no a priori reason why an instantaneous universe should be projected onto one smaller than itself, rather than onto one bigger than itself. But the physical facts astronomers had observed pointed to the contraction hypothesis being most likely. What happened when further contraction was stopped? When a box enclosed the next universe in sequence so that the present universe could not project onto it? What more natural than that the Enclosing box should act as a sort of mirror. Prevented from projecting onto the next smaller universe, the present universe would project back onto the next larger universe, the universe before it in the contraction sequence and now the universe next after it in the new expansion sequence. The physical movements of the universe would reverse. In a hundred years time the sky would be as it had been a hundred years ago. And so, but for the slight meddling of people, would the Earth.

Now what would happen? How much did the so-called "free will" of intelligent beings amount to? Would life continue to advance, as it always had done? Or would the patterns of living in the next year roughly repeat patterns of last year, as celestial movements were bound to?

Brawi thought for half an hour or more. Then, as he was punching on his television to see what was happening outside, his eye lighted on a picture that had dropped out of the carton. It showed three Driwalu in the advanced stages of a mating act. The middle was clearly Dula. The female had a prominent birthmark on her rear leg bud. Brawi was sure he had seen that somewhere before.

Then Brawi knew. The memory was from years and years back when he, Bilu and Rida had still been in the litter. Before Bilu had gone away. The birthmark could not be mistaken. It could not be anyone else. Dula had been mating with his lost sibling Bilu for the past year.

The announcer was gathering reports from all over the world. "It's the same everywhere. People won't listen to reason. They're going through the actions they did before Enclosure, *whatever* they were doing, now doing them backwards."

So the philosophers had been wrong there too. There wasn't much free will. There would be some, but it was obvious that it couldn't be on the scale that had been envisioned. Another chalk-up for the hypocrisy of the Driwalu race. And the human one. It was plain that people's actions were largely determined by the natural physical happenings of the stars and planets. As these were now reversed, so next year's actions would most often be mirror-images of last years's.

That was what Enclosure had achieved. Dula would start up her affair with Bilu and whoever the male was tomorrow. And it would go on for a year. Only this time Brawi would be aware of it. And he would know that it was all his doing.

END

THE THROWAWAY AGE

by MACK REYNOLDS

Illustrated by MORROW

The world was perfect. Every thinking person knew that. But strangely—there were rebels!

I

Paul Kosloff said, "I don't believe I got that."

His department chief covered his discomfort in the manner in which he scratched his kitchen match below the desk and lighted the curved-shell briar which hung in his mouth. He waved the match out and dropped it into his wastechute.

"You heard me, Paul," he said. "We're pulling you off Soviet Complex assignments."

Paul Koslof looked at him for a long, empty moment.

The Chief said uncomfortably, "Paul, with the present *detente* between the United States of the America's and the Soviet Complex, you're a fly in the ointment. We don't need any U-2 embarrassments at this stage."

"U-2?"

"Never mind. Before your time, I suppose. The fact is this. Your method of operating doesn't exactly lend itself to the lessening of tensions. I'll make it brief and blunt, Paul. I've had orders direct from upstairs. This department is to avoid any actions which might lead to friction with the Soviet Complex."

"You mean we're going to discontinue all activities behind the Iron Curtain?"

The other sighed. "Of course we won't end all activities. No matter how tranquil the relations between nations, espionage and counter espionage continues. It's just that we don't want any hotheads roiling the waters."

Paul Kosloff's eyes were continuingly cold and flat. "I'm your best Soviet Complex operative."

The Chief let smoke from his nostrils. "Did I say otherwise? You're also the operative who took it on himself to blow the Komsomolsk development. The man . . ."

"I was cited by the President, off the record, for . . ."

". . . who captured Raul Lopez, down in Nicaragua, as per orders. But then didn't get him back to Managua for questioning — as per orders."

Paul Kosloff shifted slightly on his chair. "He made a break for it, tried to escape."

"I've wondered about that," the other said softly.

Paul Kosloff said, "I questioned him. I got all the information they could have got in Managua."

The Chief looked at him thoughtfully, puffing on the briar.

Paul Kosloff said, "He was a commie agent, wasn't he?"

The Chief sighed. "We're pulling you, Paul. You're up for reassignment. Take a two-week break. It must be coming to you. At the end of that period, if you wish to remain with this department, report in."

Paul Kosloff stood and stared down at the smaller man who was avoiding his eyes by diverting attention to reports on his desk.

"So it's like that, eh?"

The other didn't answer, reached instead for another match, without looking up. Paul Kosloff turned and headed for the door.

Through all this, a secretary, on the other side of the room, had remained quiet, supposedly working on whatever it was she was working.

The Chief growled at her when his fieldman was gone, "His damned publicity has gone to his head," He snorted. "The Cold War's Lawrence of Arabia."

He spent the two weeks in northern Manitoba, flying into Port Nelson, making his way up the river to Split Lake and then, with a solitary Indian, packing over to Waskaiowaka. He spent the two weeks fighting himself physically, pushing himself, wearing himself. When he paid off the native, he gained the impression the other was glad to see him go.

The moment he stepped back into the forest of desks which was the outer offices of his cloak-and-dagger department, it was as though the fortnight had never been. The weari-

ness of the vacation's physical excesses was still upon him, but the memories of fishing and canoeing, hiking and camping were fading fast. This was the reality.

Inwardly, he began devising arguments to be used with his ultimate superior. Reasons why he should be based on the periphery of the Soviet Complex, perhaps in Berlin, to meet this emergency or that, in the decades-continuing war for men's minds.

His spirits rose as he approached the sanctum sanctorum. He was too experienced a man to be kept in mothballs. Two weeks of reflection and surely the Chief had realized that.

He stopped at the reception secretary's desk. The young man looked up.

Paul Kosloff said, "Hello, Dickens. I'm here to see the Chief."

The other touched the flow of his cravat. He said, "You have an appointment, Mr. Kosloff?"

Paul looked at him. He knew the nonentity only vaguely. As a matter of fact, he usually simply walked on past the other's desk, gave the Chief's door a perfunctory double knock and pushed on through.

"He's expecting me," he said shortly.

The thin lips of the faultless young man pursed. "I am afraid not, Mr. Kosloff." He picked up a paper. "You are requested to contact Superintendent William Farben."

"Farben!"

The other pretended to look at the paper again, as though checking. "That is correct."

Paul looked at him emptily. "I want to see the old man."

Dickens had never approved of the cavalier manner in which the notorious Paul Kosloff had been wont to conduct himself. Office protocol had seemingly meant nothing to this swashbuckler. He took satisfaction in saying now, "The commissioner is occupied."

Paul took a long moment to say, "I see."

"Of course," Dickens said.

Paul Kosloff turned and retraced his path through the endless rows of desks, clattering IBM machines, scurrying girls.

Bill Farben's office was on the far side of the building. It took Paul Kosloff a full ten minutes to make his way there. A sufficient time to have gathered himself.

Farben was one of the Chief's immediate assistants and as such rated a receptionist of his own.

Kosloff said, "I believe Bill's expecting me."

The girl looked at him brightly. "Your name, please?"

He cleared his throat. "Kosloff," he said.

Her eyes widened. "Oh, good heavens," she said. "Excuse me, Mr. Kosloff. You *are* Paul Kosloff?"

"That's right."

"I . . . I didn't recognize you, Mr. Kosloff. I *knew* you worked in this department."

"All right," he said wearily. "Fine. Could I see Mr. Farben?"

"Just a moment." Her eyes still on him, she fluttered hands nervously over her desk gadgets.

There was a mild gratification within him which he recognized as childish. How far did you have to sink before you had to get your jollies impressing a twenty-year-old secretary with your blood-and-guts reputation?

She said, "Oh, go right in, Mr. Kosloff."

Bill Farben got up and rounded the desk to shake hands. In his earlier days, Paul understood, the other had seen some service behind the cold war lines, two or three assignments in East Germany, or wherever. Now, with a decade or so of holding down a desk, he had gone to paunch and jowls.

He said heartily, "Paul! Long time!"

Paul Kosloff shook and said, "Hi, Bill. What the hell's wrong with the Chief?"

Farben said, "Paul, I doubt if you've meet Jerry Rutherson."

The other man in the office stood up to acknowledge the introduction.

Bill said, "He's over from the Department of Justice."

Rutherson shook and said, "I've heard a good deal about you, Mr. Kosloff." He chuckled lightly. "Which is an inane thing to say upon meeting the famous Paul Kosloff."

Farben rerounded his desk and took his chair. "Sit down, Paul," he said. "The Chief's yea deep in work. He's asked me to brief you on this new domestic assignment.

Paul Kosloff sank back into a chair. "Domestic!" he growled. "Me?"

Farben sucked in air. "Paul, I thought the Chief told you. The department's work has been, ah, reassessed. We're holding together, of course, but a great deal of our efforts have been shifted to . . . "

"Cut the gobbledygook, Bill. What's the assignment?"

Bill Farben looked at Rutherson unhappily. "Jerry, possibly you could sum it up."

The Department of Justice man recrossed his legs and stubbed out the cigarette he had been thoughtfully fiddling with.

He said, "Mr. Kosloff, have you ever heard of the New Left?"

Paul muttered, "At the time of the beginning of the Asian War. Mostly kids, pacifists, do-gooders, Civil Rights campaigners."

Rutherson nodded. "Not only off-the-top-of-the-head youngsters, but mostly so. Not actually revolutionists, but fundamentally reformers."

Farben protested mildly. "I don't get the difference."

"The difference between reform and revolution, Bill? One group wants to patch free enterprise up, so it will work better. Even Roosevelt, Kennedy and, I suppose, Johnson came under that head. The other wants to end it and set up a new socio-economic system. *That* group's the enemy. So long as our do-gooders are interested in reform, they're of no basic danger. When they start talking revolution, that's when our departments go into action."

"So what about the New Left?" Paul said.

Rutherson looked at him. "Nothing," he said. "So far as we're con-

cerned, an escape valve. A way of blowing off steam on the part of youthful hotheads and would-be rebels. They tear around for awhile, circulating petitions, growing beards, holding demonstrations, sit-ins and such; then they get married, get tied down to jobs and payments on cars and houses, shave the beards and drift into the rut."

The Department of Justice man twisted his mouth wryly. "Even as you and I."

"They're potential commies," Paul growled.

Rutherson shrugged. "They don't worry us. This new radical group does. Not badly, but it worries us a bit. We suspect it's the first really revolutionary movement since the SLP and the early IWW."

Paul stared at him. "*What* new radical group?"

Bill Farben chuckled mirthlessly. "That's what we've been leading up to, Paul."

Paul Kosloof was looking, almost as though accusingly, at the man from the Department of Justice. "I haven't heard anything about a new commie movement in the States."

Rutherson remained quiet, glancing over to Superintendent Farben, as though tossing him the conversational ball.

Bill Farben said easily, "Not commie, Paul. That's the point Jerry has been trying to make. Radical and communist aren't synonymous. A commie is a radical, but a radical isn't necessarily a communist."

Paul snorted.

Farben said, "At any rate, a new American radical group seems to be developing. Your assignment is to infiltrate it."

Paul said, "Look. Every local branch of the F.B.I. has its subversion detail. Every police force in every city in the country has its red squad. My training is in foreign assignments."

His superior allowed some of the camaraderie to drop from his manner. "The Chief has reassigned you to this, Kosloff."

The ace field man took a deep breath, held it for a long moment. Finally, grudgingly, he said, "All right. Tell me about it. Where are these new-style commies?"

Farben opened his mouth to protest the terminology, then closed it again. He shook his head and said, "Evidently, just about everywhere. Not large in numbers, as yet, at least, but just about everywhere."

"*Who* are they? The usual jerk element that flows from one supposedly leftish movement to the next; technocrats one day, commies the next, Trotskyites or something else, the week following?"

Farben was shaking his head and scowling. "Evidently not. They seem to avoid the crackpots. At least, so far they have. Possibly that's the reason there doesn't seem to be a large number. I doubt if there's a thousand in the whole country."

"A thousand!" Paul snorted. "Then why waste a trained operative such as myself on them?"

Rutherson said, "You never know. Two years before the American Revolution, if you'd suggested to the average gathering of colonists that

the thing to do was kick the king out and establish a republic, they probably would have lynched you. But overnight the group led by such hot heads as Sam Adams and John Hancock prevailed." He shrugged.

"All right," Paul Kosloff said in resignation. "Give me the details."

They spent the next hour working over details of his new identity, his approach to the new domestic radical movent. During it all, the Department of Justice representative sat quietly in the background, smoking and periodically recrossing his legs. The characteristic was beginning to irritate Paul Kosloff.

Finally Paul came to his feet. "All right. Whom do I report to?"

"To me, direct."

"How long's this damned wild-goose chase supposed to last?"

Bill Farben looked at him coolly. "Indefinitely, Paul. Until you're pulled off. We want you to work yourself up into the new party's — if it *is* a political party — hierarchy." He tried to lighten the atmosphere. "Get yourself to be National Secretary, or whatever they call the head man."

Paul snorted disgust and took up the papers upon which he had been making notes.

After he had gone, the two older men sat for a moment in silence.

Finally Farben said in mild complaint, "What do you do with old war horses when the war is over? Kosloff simply can't see that his own personal enemies, the Russkies, aren't forever to be the bogey men."

Rutherson began to get to his feet, preparatory to leaving. "I understood he was a Russian himself."

"Born there. Escaped as a child before the purges wiped out his family."

The Department of Justice man said thoughtfully, "I'd keep him on tap. This current chummy atmosphere with Number One might not be everlasting."

Farben's voice was even. "Oh, he's still on tap. We've just given him one of those meaningless assignments that will keep him there, nice and quiet, until and if we have to put beards back on the Soviets and bombskis in either hand."

Rutherson looked down at him, frowning slightly. "Then you don't think very much of this Lance Lincoln and the rest?"

Farben shrugged it off. "At any given time, you've got a half dozen or so splinter, psuedo-revolutionary cliques. Your department knows that at least as well as we do. Usually, they fold up, merge with some other group, or splinter off into still smaller cliques, before we can get around to investigating them." He stood as well, to see the other to the door.

II

Paul Kosloff pulled up before the entrance of the building he was seeking. In the lobby he stood before the bulletin board, took off his slightly tinted glasses and cleaned them with the handkerchief from the breast pocket of his conservatively styled jerkin.

There was evidently a full dozen lecture halls of varying size in the building. The third listing down was

Lance Lincoln: A New Society? He was to speak in the Convention Hall at 8 p.m.

Paul Kosloff was early. He strolled up and down corridors until he found the Convention Hall. The door was open, and he entered. There were seats for approximately fifty persons, only half a dozen of which were occupied. He looked at his watch. It was almost eight o'clock. Down at the front of the hall were another half a dozen persons, standing and talking in whispers. The committee, Paul Kosloff decided sourly. The inevitable committee.

There was a table at the rear of the hall with several piles of books. He made his way over. Most were by Lance Lincoln. He picked one up at random: *Do You Want What You Buy?* He turned the book over and looked for the publisher's name. It was one of the smaller houses. He remembered vaguely, now, reading some reviews of the volume. It had been a mild best seller. As he recalled, it was Lincoln's first muckraker. An attack on the advertising methods of present day business. How did the theme go? Selling people things they don't want for money they don't have. Something similar.

He put his copy of that to one side and took up another: *The Nouveau Rich.* He thumbed through it, reading a paragraph here and there.

The next was titled *The Opulent Society.* He put this also atop his growing pile and picked up *The Throw-Away Society.*

A voice said, "Could I help you?"

She was probably in the vicinity of twenty-five: old enough to have graduated from the school of immaturity, young enough to retain the prettiness of girlhood, as opposed to the beauty of full woman. Her theme in presenting herself was simplicity; from hairdo to shoes, she evidently foreswore the current extremes. Her make-up, so far as Paul Kosloff could see, was restricted to a touch of lipstick. Her clothing consisted of a businesslike suit. She was tallish, coming well above his shoulder, direct and green of eye, which went with the distant touch of red in her hair. Her forehead was both high and wide and her chin, possibly too small to balance.

She was, Paul Kosloff decided, as pretty a girl as he could remember seeing since his latest return from abroad.

He had taken too long to respond. He said now, hurriedly, "Oh. Yes. Well, I wanted to buy one of each of these."

Her quick smile flashed. "We seldom get such a good customer." She picked up the books he had selected and thumbed through them, obviously mentally toting up the price.

Paul reached for his credit card, brought it forth and then hesistated, scowling.

She said, "You don't have any currency?"

"Well, no. I suppose I should carry some, but I'm just out of the habit. You use it so seldom."

She said, "There's a public register out in the lobby. I'll show you."

She led the way, Paul immediately behind. If anything, he decided, her less than towering heels lent to

the grace of her stride. However, she was a bit too thin. He grunted self-depreciation. In spite of his politics, Central Europe still dominated his tastes, including criteria of pulchritude.

She said, "I beg your pardon?" letting him catch up.

"Nothing," he said. "What's your name?"

She looked at him.

He chuckled wryly. "I wondered to whom to deposit this."

She flushed infinitesimally. "Oh." They had come up to the public register. "Just put it in Daddy's name. It comes to thirty-two dollars."

He flicked the levers and buttons on the register to activate an exchange of that amount from his account to another, turned to her and said, "I assume you know his credit serial number?"

She told him, and he punched it in and then pressed his credit card to the screen.

Paul growled, just to keep the conversation going, "I suppose this national computer bit is great, but items like this can get on the bothersome side. And what do a couple of kids do who want to match pennies?"

She laughed. She had a light laugh which somehow went with the small, perfect mouth. She said, "Don't tell me you're criticizing your socio-economic system."

"The first step down the wayward path. I'll probably wind up all the way at the bottom, a full-fledged commie."

They started back to the lecture hall.

She looked at him from the side of her eyes and said, "If the, ah, wayward path upon which you say you've taken the first step, starts at one of Daddy's meetings, you won't wind up amongst the communists."

"Daddy?" he said. "Who's Daddy?"

She laughed at him. "I'm Randy Lincoln," she said.

"Oh, Lance Lincoln's your father, eh?"

"As ever was."

Something came to him. He stopped and turned to face her.

"Look, I'm brand new to your outfit. By the way, what do you call yourselves?"

She said, "We haven't got any special name." She hurried on, when he was about to say something to that. "We don't call ourselves the Future Party, or the Liberal Party, or anything like that."

"Well, why not? You ought to have some sort of identification."

Randy Lincoln made a moue. "Nobody has come up with one yet. We're terribly new and unorganized, you know."

Paul said, "See here, I'm interested, understand, but I might have to leave early. Since things aren't going to start anyway for half an hour, what say we go have a quick one while you give me a rundown on the — well, your organization."

She looked at him sceptically.

"Oh, now listen," he said with a mild disgust. "I'm interested in the social movement, not in attending public lectures for the purpose of picking up whatever goodlooking curves might be on the committee.

She laughed her light laugh. "I wouldn't mind a drink," she said.

They wound up at the Biltmore, and in the commercial bar, Paul took the girl to a booth. A waiter came to answer to their needs; and when he had taken the order and departed, Randy said, rounding her eyes, "My, live waiters. How swanky can you get?"

Paul said, "I think it's the only place in Los Angeles. Real bartenders, real waiters. And automation can go get lost."

"You seem to have a bit against automation. First the computer credit exchange system, now autobars and restaurants."

Paul chuckled sourly. "I've spent a lot of time in Common Europe. Things aren't as modern. I guess I'm used to waiters in eateries, not to speak of real chefs in kitchens. But we came here to talk . . . " he hesitated and raised his eyebrows. "Revolution?"

Before she could answer, the waiter brought their drinks, and she waited until he was gone.

Finally, after she had sipped the Far Out Cooler she had ordered, she said, "That's one of the reasons we haven't hit upon a name as yet. We're avoiding words like that."

He looked at her, wishing he hadn't dreamed up the idea of using glasses as part of the personality he was trying to portray.

She said, "That term, 'revolution,' it freezes people up, understandably. The picture that comes to mind is barricades in the streets,

mobs, overturned cars, throwing cobblestones at police, demonstrations, people being lined up against walls and being shot."

Paul said wryly, "Well . . . "

She pushed her glass aside, her voice going earnest. "I suppose it's a living language, and if that's what the word comes to mean to the majority of people, then that's what it means. And that's why we must avoid it."

He was scowling.

She said, giving her head a small shake for emphasis, "The same thing applies to a good many other terms. Take the word propaganda. What does it bring to mind today?"

Before Paul could answer, she said, "To the man in the street, it means lies for the purpose of putting over political ideas."

Paul took off his glasses and wiped them, even as he said, "Frankly, that's what it meant to me."

"Look it up in a good dictionary some time." She hesitated. "I already told you I was Randy Lincoln."

"My name's Paul," he said hurriedly. "Paul Ransome."

"Hello, Paul." She twisted her mouth in the half grin, half grimace he had already come to know and want to see again, and again. "But take another word, communism. What does that word mean?"

"The kind of government they have in the Soviet Complex, obviously. He kept his voice level, neutral.

But Randy Lincoln was shaking her head. "See? That's what I mean. By no definition of which I know — unless it's that of a Soviet himself — is the government of the Soviet Complex a communist one. They *call* themselves communist, and we have accepted their usage. But look in any dictionary, any encyclopedia. For that matter, look into the works of Marx and Engels. The Indians, at the time of the discovery of America, were communists, but the Soviet Complex most certainly isn't."

Paul blinked at her. "All right, I'll bite, what is communism?"

"A social system under which the means of production are democratically owned and operated by and for the people. In the Soviet Complex the means of production are owned by the State and operated by, *and for* largely, the Communist Party which controls the State."

Paul Kosloff leaned back in his chair and went into his act.

"You know, long since I've been trying to find an organization to identify with. Now I'm beginning to believe I may have."

She picked up her glass and frowned at him over the brim, even as she took a healthy swig.

"Hold up, Paul!" she said. "Aren't you on the enthusiastic side?"

"Well, you're looking for converts, aren't you?"

"In a way. But we don't exactly want people joining up before they've heard what we're in favor of."

He drew himself in. Stupid yoke. What was he trying to do, get this girl to suspect him? He had spent his adult life working against subversives, this wasn't the approach.

He said wryly, "It's just that most so-called radicals . . . "

"We don't like that term either," she said, shaking her head.

" . . . are such obvious woolly-headed cloddies that you reject them on meeting. You don't have to hear their program to be against it. At least, you make sense. I'm optimistic."

"That word radical," she said. "It's a synonym for crackpot now. Originally, it meant going to the root, or origin. An excellent term to describe someone who wished to make a fundamental change. Jefferson, Madison, Washington were radicals. But, for that matter, so is my father a radical — but we daren't use the term any more. To the man in the street, it means communist, Soviet style."

She looked at her watch. "We should be getting back."

III

It was a week before Paul Kosloff even tried to contact the group with which the Lincolns were affiliated. He didn't want to push it. From what Superintendent Farben had given him, the assignment was a long-term matter, and it behooved him to go easily, no matter how opposite this was to his nature.

He spent the week reading Lance Lincoln's books and familiarizing himself with metropolitan Los Angeles and the way of life of contemporary America. He found a wry humor in the last. He had spent so many years abroad, defending the American way, that he was actually lacking in knowledge of development in this, his adopted land.

He found himself a small apartment in San Pedro. In the hills near Averill Park, it overlooked Wilmington, Terminal Island and part of Long Beach. It had been a long time since Paul Kosloff had had even a semipermanent residence, and it had its appeals, even though the personal furnishings flew a stranger's flag. The department had gone to considerable detail to give him a new personality, a new appearance; and his supposed possessions, up to and including a family photo album, were those of a bachelor hailing from Hasting, Nebraska.

On the fourth day, since he had met Randy Lincoln, something came to him, and he thumbed through the many-volumed Los Angeles telephone directory until he found the name he sought.

He hesitated, decided not to call and instead went down and got his Volkshover from the garage. He took the Harbor Freeway up to the Carson Street exit and cut over in the direction of Torrance.

He checked his city map, turned right on Crenshaw and had little trouble finding his address. He came to a halt before a small bungalow of the type prevalent in the Los Angeles of fifty years earlier, dropped the Volkshover's lift lever and made his way to the door.

There was no identification screen, and even the bell looked out of order. Paul Kosloff knocked.

The old man who eventually answered stood there, blinking.

Paul said, "Hi, Uncle Milovan."

The other tilted his head and scowled. "*Uncle* Milovan?"

Paul laughed and rubbed the side of his face ruefully. "That's the trouble with being subjected to plastic surgery as often as I have. I can't even remember what I originally looked like."

"Paul!" the old man blurted.

Paul grinned at him. Hi, Uncle Milovan."

"Zut! Enter Paul. I thought . . . I thought you were in . . . Zut! Where did I hear of you last?" He held the door wide and chortled.

Paul Kosloff, his arm around the stooped shoulders of the old-timer, entered. The interior was what the exterior had proclaimed it would be. No, there was a difference. There was a painting here, a photograph there, an other than Southern California bit of furniture. The faintest suggestion of the Balkans. There was even a faint smell in the air of . . .

Paul ejaculated, *"Cigansko pecenje!* I'd forgotten you were the best cook this side of Varna!"

The oldster grumbled but was obviously gratified. "In this forsaken city, one cooks oneself or eats garbage," He patted a chair. "But here, Paul, sit down. We will have a glass of *slivova,* eh?"

"At this time of the day, you old guzzler?" Paul laughed in a Central European heartiness he failed to realize he had taken on automatically in the other's presence. "But at that, I'm surprised you don't have a tub of *boze* working out back, somewhere."

The old man grunted amusement. "Don't think I would not, Paul, if sesame were a bit cheaper and more easily available in this God forsaken land."

Paul had sunk into the large, well worn easy chair the other had indicated.

"God forsaken! A fine term for an old atheist such as yourself. And running down the United States of America, eh? For shame, Milovan Nagy. Is this the language of the most notable defector from the Reds this country ever managed to lure away?"

The other handed him a glass, containing a generous quantity of liquid. He held up his own.

"Life, Paul! Long life!"

Paul touched glasses with the oldster, then knocked back half of the potent plum brandy.

Paul said soberly, "It's been a long time, Uncle Milovan."

The old man looked back over the years. "Since you went off to wage personal war with the Bolsheviki? Yes, a long time."

"Bolsheviki," Paul said. "It's been a long time since I've heard that term." There was en element of contempt in his voice.

Milovan Nagy wiggled a finger at him. "You make a mistake in scorning your enemy, Paul. But then, I suppose, perhaps you are right. Your father, shortly before Stalin's NKVD arrested him, once told me that the better one knew one's enemy's beliefs, the less easy it was to fight him."

Paul said stiffly, "I don't remember my father, but from what comes down to me, had he been less wishy-washy he could have gotten out."

The old man said mildly, "He chose to remain and take his stand."

"He chose to die," Paul said bluntly. "Along with tens of thousands of other idealists. What was accomplished? If he had fled, he would have lived to fight on." He looked into his host's eyes. "As you and I have."

The other looked down into the remaining liquid in his glass. "To what end, after all these years? Perhaps I, too, should have remained and carried on the fight within my own country. Perhaps had more remained, we could have forestalled the mad Georgian." He grumbled under his breath. "Even Leon Trotsky fled."

"And saved his life," Paul said. "Not that it was worth saving."

The old man put down his glass. "In those days, we had a different dream, Paul. Your father and myself included."

"That's pronounced nightmare," Paul said roughly. "And as a result of it, my father — my whole family — is dead, and here you are a refugee in a country you've obviously only partly been able to adjust to."

The old man thought about it for a long time. He said, finally, "It's too long past for me to care, any longer. My life has been spent." He shrugged thin shoulders. "I suppose you know I receive a small pension. From time to time they come to consult me. Why, I do not know. The only information I have goes back a quarter of a century and more. They ask me about the Old Bolsheviks: Bukharin, Rykov, Kamenev, Radek, Zinoviev. Why? What difference does any of it make now? Alexei Rykov was a great drinker; Karl Radek had a hearty laugh? Zinoviev was a Jew, and his real name was Apfelbaum. And what difference?"

Paul said, keeping the testiness from his voice, "The anticommunist fight goes on, Uncle Milovan. The, uh, sword has just been tossed to other hands."

The old man was looking into his distances again. "Sometimes I wonder if original purposes haven't changed on one side as well as the other. What do we fight? Have the ideals been forgotten, and we fight on for the sake of the fight itself? Is that what we do, Paul? I understand you are high in the ranks of the, what is the term, 'Hatchetmen.' "

Paul looked at him. "You helped set me on my course, twenty years ago. Are you sorry now?"

The former revolutionist's eyes were rheumy, unsure. "I do not know, Paul. I have wondered how much is gained through violence. Perhaps its greatest exponents in our century were Stalin and Hitler. Through their methods, millions who opposed them perished. But what did either accomplish?"

"I'll take that," Paul nodded. "But sometimes the only manner in which to combat the madmen of violence is by counter violence."

The old man's lips went in and out and trembled slightly before he said, "But must we not watch to be sure that in the stress of the combat, we too do not become mad?"

IV

After his week of waiting, he phoned Randy Lincoln, told her he had read her father's books and in addition had been thinking over the things she said to him the night of the meeting.

In the phone screen, she was at least as attractive a girl as he had remembered. He felt a twinge of impatience that he should be coming in contact with her under these circumstances. She was meant for dates, dancing, laughing and quiet love-making afterwards. There had been all too little of that in Paul Kosloff's life — and, evidently, in hers.

She hesitated. ,

" . . . Daddy's having a little get together tomorrow night. Actually, the group is composed of, well, leaders of our organization, if you could call them leaders. We don't exactly have any leaders. But I'm sure Daddy won't mind if you came."

"Fine. What time?"

She told him and gave him some simple directions for finding the Lincoln home.

The following evening there were only a few present. Randy introduced him around.

Her father, a moderately heavyset man in his midforties with a perpetually worried face set in an unusually large head. He looked more a college instructor than the founding father of an organization desirous of overthrowing the government.

Jim Salton, a conservatively dressed, insurance-salesman type, very sincere, who had a habit of speaking irritatingly slowly.

Wanda Ballentine, the bright-eyed, middle-aged, aggressive campaigner. In another day she might have been a ban-the-bomb marcher, or, earlier, a temperance crusader, or suffragette.

Mark Terwilliger, who was even younger than Randy Lincoln and who must have had a near perfect memory, at least for statistics pertaining to the imminent collapse of the present social order.

Mike Edmunds didn't catalogue easily. His handshake had been abrupt and firm, but then he had settled back onto the couch he occupied and replaced the long-stemmed briar in his mouth. He listened, rather than spoke.

The introductions were quick; they were in a hurry to get back to their discussion. Paul took a chair to one side and effaced himself. When Randy brought him a cup of coffee, he thanked her in a whisper.

Salton said, bending forward toward Lance Lincoln, his elbows on his knees, "What I'm saying is, though terminology changes and outer forms, the goal is actually the same. The Democratic Commonwealth."

Wanda Ballentine said brightly, "That could be a possible name for a political party."

Mike Edmunds said around his pipe stem, "Are we sure we want to start a political party?"

Lance Lincoln was shaking his heavy head. "You're wrong, Jim. The goal isn't the same, and it can't

be. The things that radicals of the past fought for . . . "

"I thought we were going to avoid the term 'radical,'" Randy said, looking over at Paul Kosloff as though apologetic.

" . . . and even died for, can be meaningless today. What did the most wild-eyed American radicals of pre-World War One want? The anarchists who threw the Haymarket bombs, and such? They wanted the eight-hour day and the six-day week and the right to organize into unions. They didn't even dream of such unbelieveables as paid vacations, pensions, not to speak of guaranteed annual wages."

"I see your point," Salton said.

Paul Kosloff said cautiously, "Well, what would you say the program of a present day communist should be?"

"Not communist," Wanda Ballentine chirped. "We mustn't allow ourselves to be painted with that brush. The kiss of death."

Paul looked at her. "We here are all interested in overthrowing the present government, aren't we?"

Mike Edmunds took his pipe from his mouth, looked into the bowl as though checking to see if there was tobacco left and said mildly, "Because it confuses people. We're forced into calling it an implement of husbandry."

"We can't even safely use the term socialist," young Terwilliger said. "It's become meaningless. A recent poll showed that two-thirds of the population thought socialism meant government ownership of industry."

Paul Kosloff said, "Well, isn't that what it does mean?"

Lance Lincoln came back onto the scene. He said, "Frederick Engels, in his *Socialism From Utopia to Science,* points out that if state ownership of such things as the tobacco industry and the railroads were socialistic, then Napoleon, Metternich and Bismarck could be counted among the founders of Socialism. Even such institutions as the regimental tailor could be called socialistic."

There was more of the same, everlastingly more of the same. Four or five hours of the same.

Paul Kosloff was hard put to remain an intelligent participant to the conversation. So far as he was concerned, the whole raft of them sounded like communists. Strip them down to essentials, and they were all commies, all the enemy.

He was appalled by the fact that the rest present: Lance and Randy Lincoln, Wanda Ballentine, Salton, Terwilliger and Edmunds, all seemed to know what was being discussed, this tiny ramification and that of the radical movement, this once celebrity and that.

The thing was Paul Kosloff's orders were to infiltrate this group, work his way up into the hierarchy, become a prominent official.

Hell, he didn't know what they were talking about most of the time. About all he did know was that basically they were commies. Revolutionists, trying to overthrow the government. The fact that they didn't use such terms as communist, social-

ist, radicals and revolution was beside the point.

Actually, however, as he drove back to San Pedro, he wondered at the need for his assignment. For his money, they were parlor pinks. Sitting around endlessly debating, endlessly getting nowhere. Revolutions weren't made of this material. He had about decided to report to Bill Farben that Lance Lincoln's group wasn't worth bothering with.

He changed his mind, on entering his apartment.

Something was wrong.

He stood in the middle of his small living room and let his eyes go around. His lips thinned back in a wolf smile. The place had been searched. A good job, a job meant to be undetected.

He slowly went through the apartment. Through all his things. Nothing was missing. The searcher had done all possible not to change the position of a single item.

Finally he pulled his belt from his trousers, holding it by the buckle. He activated a small stud and then resumed his prowling of the room, holding the electronic mop up near the picture frames, near the telephone, above all around the Tri-Di television set.

It was a field in which he was knowledgeable. In his time, Paul Kosloff had planted many a bug, tapped many a wire, taped many a conversation.

He directed his hideout electronic mop toward the desk, particularly at the back of the desk drawers, in the upholstery of the chairs, underneath his bed, toward the electric clock, around the light fixtures.

His mop began to squeal near the chair in which he usually read. He found the tiny, button-size bug in the reading lamp. It could easily have passed as part of the lampshade decoration. A nice job, he decided. He had never seen the exact duplicate.

It was a transmitter, rather than a mike. No wire ran from it. He peered at it closely, wondering where the tape recorder or the human monitor might be.

He sat down and thought about it.

It was mighty quick work. It had been only eight days since he had first picked up Randy Lincoln; and aside from the public lecture, open to all, that had been his only contact, until this evening. Somebody was being awfully efficient.

Was there considerably more to Lincoln and his comrades than met even an eye as trained as that of Paul Kosloff?

Who would give enough of a damn to bug his apartment, shake down his belongings? He was glad now that Derek Stevens had done him up such a thorough identity. The labels of his clothes read Hastings, Nebraska, the photos in his album were from that town and its surroundings, his address book was full of Hastings numbers — oh, Derek had done it up brown. Paul Kosloff doubted that even the most thorough pro would suspect that he was other than Paul Ransome, newly arrived bachelor from the Middle West, a small income, a few thousand in the bank.

He left the apartment and walked over to the park, checking quietly for tails. He could detect none.

In the park, he found himself a deserted bench, in a remote section, and held his watch — a Tracy, Derek Stevens called it, in memory of some comic strip detective of past years — to his face. He activated the tiny radio and said into it, "Paul Kosloff. Reporting to Superintendent Farben."

A tiny voice said, "Yes, sir. Just a moment, Mr. Kosloff. Mr. Farben is not in the office."

It was a full fifteen minutes before Bill Farben's voice came in.

He said, "Kosloff? What in Zen is it? I'm at a party."

Well, la-de-da.

Paul said, "A kind of strange development. I thought I'd better check with you."

"What are you talking about?" Superintendent Farben was impatient.

Paul said gently, "Let me give you the backround." He sketched out his meeting with Randy and his easing into the inner circles through her. He gave Farben the names of the group, which had met at Lincoln's house.

"I've got photos of all of them. Taken with that tie-clasp sub-sub-miniature camera deal . . ."

"All right, all right," Farben said. "Send them on. We'll check them all out and send you dossiers if they're in the files. But what's this big emergency?"

"I didn't say it was an emergency. The fact is, when I returned from this meeting, I found my apartment

had been thoroughly searched and a bug planted."

"By whom!"

"I haven't the vaguest idea."

"They must have more of an organization than we thought."

Paul scowled.

Farben said, "Well, carry on. You needn't keep in this close contact with me, Kosloff. A report in the mails, weekly, or even semiweekly, will do it. Well, I'll have to get back and report to my hostess."

"Have a good time," Paul said sourly. The other was gone.

He returned to the apartment and stared at the lampshade in disgust. It wasn't going to do him any good, pulling the thing away and destroying it. That would only tip off the eavesdropper that Paul knew he was being spied upon. And intensify the other's suspicion, which, in turn might lead to some sort of surveillance that even Paul would have his work cut out detecting.

No, he'd leave his bug where it was. He wasn't planning to do much in the way of entertaining anyone in his apartment, anyway. He twisted his mouth wryly. Though, come to think of it, he wouldn't mind luring Randy Lincoln up here, on whatever pretext.

As a matter of fact, he had a date with her. Sort of an up-in-the-air date. Just before he had departed from the Lincoln house, he'd complained wryly that with so many present, all of them knowing more about the subject than he, Paul hadn't been inclined to bring up some of the points he'd wanted to ask about.

Randy had said, earnestly, "Well, Paul, you know where we live now. Come around any time."

"I hate to bother your father with this preliminary stuff. Look, why don't we two get together? Take a picnic lunch or something, and spend an afternoon on the beach?"

It had been as simple as that.

V

He let four days go before calling her, to hold her to her promise. It was four days he spent quietly, finishing reading the published works of Lance Lincoln and also reading up a bit on some of the material they'd been discussing at the Lincoln home the other evening. The trouble was, as he soon found out at the library, it wasn't somethink you could bone up on over the weekend. He began to suspect, indeed, that it took about as long to become a full-fledged, knowledgeable revolutionist, as it did to become a professional doctor, lawyer or architect. You couldn't even catch onto the terminology without spending endless time talking, reading, assimilating.

For instance, little bits such as the name of Karl Marx's life time work. Paul Kosloff had always called it *Das Kapital.* Evidently, among the knowledgeable that was a standing joke. Anybody who called the book *Das Kapital* rather than *Capital* was branded one who had never read the heavy tome. In fact, one who claimed to have "read" the work was also suspect. Among the *cognoscenti,* one didn't "read" *Capital.* One stud-

ied it. Daniel DeLeon, the American Marxist, was said to have spent two years on the footnotes alone.

He'd grunted in disgust when he'd come upon that last information. He could just see himself spending two years cramming the materialist conception of history and the theory of surplus value, so that he'd be able to pull the wool over the eyes of Lincoln and his confederates.

Paul met Randy Lincoln downtown, and they had driven out to Laguna Beach for their picnic.

They stretched out in the sands, and she was all that he had expected her to be in a rather conservative bikini, if any bikinis can be considered conservative.

This was the enemy. The government of the United States of the Americas was paying him to exercise his every ability in the surveillance of this girl, her parent and her friends, whose ultimate goal was to overthrow that government.

He got on with it, but his thought had given him an approach.

He said idly, "You know, Randy, out here, now, you don't quite look the revolutionary type."

She tilted her head, questioningly, "How do you mean?"

He made a gesture at the beach, semicrowded even during the weekday morning. Laughing young people, beautifully proportioned, attired in the most expensive of beach wear; prosperous middle-aged types; spanking new watercraft, pulling surfboards; beyond, bevies of yachts. His sweep of hand took in the town above, swank beach houses, ultra-swank hotels.

"You look as though you're part of this."

She followed his gesture and caught his meaning.

Her face thoughtful, she took up a handful of sand and let it dribble away. "On the surface, it doesn't look so bad, does it? This opulent society of ours."

Paul said, "Well, no matter how much we're against it, we've got to admit that so far as the greatest good for the greatest number, this is as far as the race has got. We've achieved the highest standard of living the world's ever seen."

She said, "Paul, in the early centuries of the Christian era, the Romans, too, had probably achieved the highest living standards the world had yet seen. But it didn't mean that the empire wasn't standing in the way of progress and that its overthrow wasn't necessary."

She didn't wait for him to comment, but went on. "It used to be that the overwhelming majority of the population was involved in useful production, distribution, transportation, communication, or the professions. Now the majority of the population is actually parasitical."

Paul said, trying to stick to proletarian terminology, "You mean there are more capitalists than workers?"

"Hardly. I mean that even the so-called working class is now largely parasitical on actually productive workers, who are increasingly becoming scientists, highly trained technicians, engineers, rather than the blue-shirted, grimy-handed lab-

orers of times past. But the majority of the labor force now is kept busy at gobbledygook jobs, make-work jobs, nonproductive jobs."

"Well, how do you mean, nonproductive jobs?"

"Insurance, banking, advertising, sales, bureaucracy. Inventors, designers and manufacturers and distributors of useless objects. Not to speak of those who work at useless services."

Paul said, "What is a useless service?"

She said, "Let's say a repairman who works on appliances with built-in planned obsolescence. He services such items as Whirley-Bird Food Blenders, which the Whirley-Bird company has had some of the best engineers in the nation working upon so that they would fall apart within a week after the warranty elapses. That repairman, no matter how competent and honest he personally might be, is a frustrated man, and his labor is wasted. The national situation that keeps him at it is a disgrace."

Paul Kosloff kicked one heel repeatedly into the sand, scowling at the hole he made. "What's some other example?"

"Of the uselessness of the present socio-economic system?" She cast her eyes around, looking for an example.

"Well, take our automobiles: the country's largest single industry, unless it's war and the preparation for war. For almost half a century there's been no really basic change in our cars. Save for the new air-cushioned cars that are now beginning to come in, there has been little change. In the early 1930's the Cord people came out with a car that is still on the roads today, even looks quite modern. It was capable of approximately the same speeds we use today, in spite of the fact that our highways have improved. It gave approximately the same mileage and was approximately as safe. However, for those years to these, Detroit has been spending about a billion dollars annually in retooling. To what end? To change the height of the car, or its color scheme, the number of stop lights on the back, or the amount of chrome on its grill — all such changes being reversible the following year."

"A billion dollars a year, Paul! That much of the world's wealth is flushed down the sewer. Natural resources aren't that expendable."

"Why not?" he said argumentatively. "If the country's kept prosperous through such methods."

She twisted her mouth in her grimace-grin. "Because you eventually end with the whole planet a desert. We used to be the largest exporters of copper in the world; now we're the largest importers. Our bauxite for aluminum has become of such poor quality that we import half of what we use. Even iron ore, which was seemingly inexhaustible at the turn of the century, is now largely imported."

She shook her head. "But here's another angle. A great to-do is made about the necessity of bringing the have-not countries up to our own industrial level. Of helping them along, so all can enjoy the Opulent

Society. But it's a farce. So wasteful have the advanced nations been, especially our own country, that there is no longer enough tin, lead and copper left in the world to permit such a duplication on the basis of present technology."

Paul said, finally, grudgingly, "We seem to have gotten away from the original point. Why people like yourself should want a revolution in this country."

She raised a mocking eyebrow. "Oh? I thought we were sticking to that point. But didn't I tell you before, we don't like that term? It scares people off and gives them a wrong idea."

From a drop located in Long Beach, he picked up the dossiers the department had on the members of this new radical group with which he had so far come in contact. He had, as he mentioned to Farben, taken photos of each he had met at Lance Lincoln's home. The film had been forwarded, undeveloped, to Bill Farben's office for processing.

None of the group seemed to be operating under a pseudonym, which mildly surprised him. Commies invariably used false names from the days when Vladimir Ilich Ulyanov called himself N. Lenin, and Lev Davidovitch Bronstein became Leon Trotsky.

He was also mildly surprised at the paucity of their past records in the left-wing movements. Lance and Randy Lincoln had gone no further than signing a petition or two opposed to the Asian War, and even these petitions had been circulated by groups having no connection with any commie front organization.

Neither Mark Terwilleger, the statistics fanatic, nor the pipe-puffing Mike Edmunds seemed ever to have been interested in politics before.

Both held routine jobs as technicians, Edmunds was married and had two children. Evidently, his wife took no interest in his political adventures.

Wanda Ballentine was the exception. He might have known she would be. In her time, she had belonged to just about every Civil Rights, every New Left, every do-gooder organization that had come along the boardwalk.

It was Jim Salton, whom he had typed as a typical insurance salesman, that set him back on his heels.

He took his papers to a quiet stretch and found a vacant bench on Ocean Boulevard. He held his Tracy up to his mouth and said softly, "Paul Kosloff, reporting to Superintendent Farben."

A far-away voice squeeked, "Just a moment, Mr. Kosloff. I'll give you Supervisor MacKennen."

"Wait a minute," Paul said. "I want Bill Farben."

There was an uncomfortable hesitation in the girl's voice. She said in her tiny voice, "I have been instructed to switch your calls to Mr. MacKennen. Perhaps he will be able to help you."

Paul Kosloff inhaled deeply. Finally, he said, "Okay. Let me talk to MacKennen." He had never heard of Supervisor MacKennen.

The next voice had an unctuous quality. "Something special, Kosloff?"

Paul said, "I assume you're familiar with this assignment of mine."

"Of course. I've been given the job of your immediate liaison."

"All right, then you know about these dossiers I've just received. How about this on Jim Salton?"

"Yes?"

"It says here he's an ex-CIA man."

"That is my understanding, Kosloff."

"*Ex*-CIA man. You're sure? He's not still with them?"

"He resigned. About a year ago. We checked with CIA, of course. They've had no record of his activities since his resignation."

Paul thought about it.

"Who's he working for now?"

"We don't know."

"A lot of these FBI and CIA men take positions with private business. Become private or company detectives, that sort of thing. Use their government training to get better jobs."

"Of course. But we have no records."

"All right," Paul said. "I guess that's all."

Supervisor MacKennen said, "What progress have you made thus far, Kosloff? Just how dangerous does this group shape up to be?"

Paul growled, "Dangerous? They're even afraid to call themselves parlor pinks." He clicked off the Tracy.

He stared at the device, eyes narrowed. "Next, I'll be reporting to the god-damn janitor," he growled.

VI

He wasn't going to be able to concentrate on Randy Lincoln alone, no matter how much more pleasant his assignment might have been had that been possible. The orders were to work his way up in the organization, to get a responsible position at the top.

What organization? Thus far, they didn't even have a name, not to speak of a definite party program, a platform. How could he get to the top of an organization that didn't exist?

He made a point of looking up Mark Terwilliger and spent a whole afternoon being subjected to that young man's endless statistics.

A quiet talk with Mark Terwilliger turned out to be quiet indeed, on Paul Kosloff's part. He was hard put to slip a word in between deluges of figures and facts.

Even as he was lowering himself into a chair, after removing a dozen governmental statistical releases and half a dozen liberal publications, Terwilliger was saying, "The Romans used to have a maxim that when you feared danger at home, stir up a war abroad. But we've adapted that. When our government fears *economic* trouble at home, it stirs up trouble abroad."

Paul looked at him, not quite getting that.

Terwilliger said, his voice on the high-pitched side, "Do you realize that there hasn't been a real peace since the Second War? That there's been the threat of war, the preparation for war, or actual small wars

being conducted ever since? Our economy is based on war and its threat. And when things slow down a bit, the war-monger gang gives it a new shot in the arm.

"It's bad enough, Ransome, to apply such a system to our country, but we've exported it. Do you realize that by the middle of the 1960's, the United States had already given Pakistan billions in war materials? Who could she have possibly used this against besides her peacefully inclined neighbor, India? Nobody! Pakistan is bordered otherwise by Afghanistan, Iran and Burma, as unlikely a collection of aggressors imaginable. Of course, we gave the Indians a few billions worth of arms as well, just to keep things stirred up."

Paul said mildly, "India had the threat of China," but the other had dashed on.

"A still better example is South America. There hasn't been a major war down there for a century or more, and there isn't about to be one. But does that prevent us from plowing hundreds of millions of dollars into their military machines? They need more guns like they need another collective hole in the head."

Paul said, "What's your point, Mark? What do you think the powers that be have in mind?"

"Wasting money! Keeping the economy going. Keeping the wheels turning."

He came to his feet and began pacing, flourishing one hand in an overdone gesture of youth. "Look at the space program. Big deal. We had to beat Russia to the moon. Why? Accepting the argument that man has reached the point where he is slated to begin reaching out into the stars, why this hysterical approach? Why the need to expend four times the amount necessary on crash programs? Why, had the two nations cooperated on the whole program, it probably would have been accomplished for a tenth of what was expended."

Paul said cautiously, "You think the commies handled it more sensibly?"

Terwilliger glared at him. "Of course not! That bureaucracy of theirs is just as stupid as our own. While their agricultural program is handled so sloppily that they still aren't feeding their people adequately, they put billions of rubles into moon shots for the purpose of prestige.

"Prestige! For God's sake, they'd achieve considerably more prestige if they could present a people with a higher standard of living."

Paul egged him on. "Well, aside from the waste of the military machine, what else do you think's wrong with the country?"

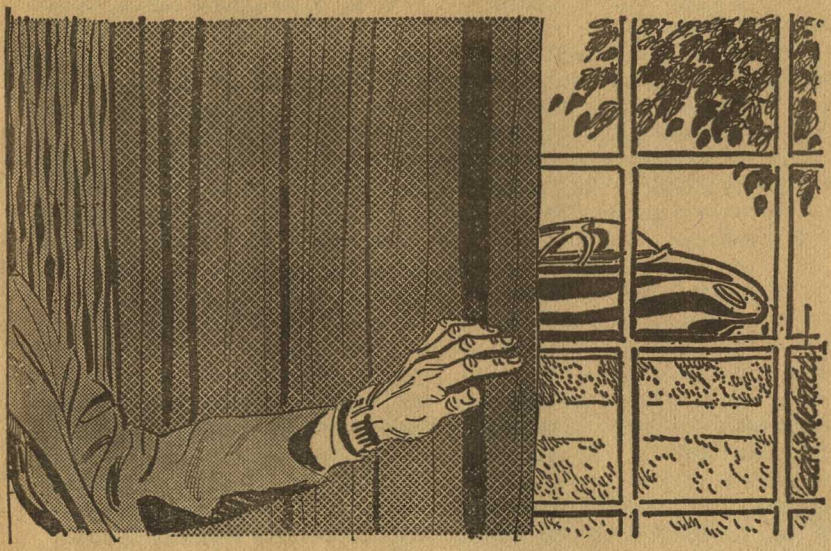
Mark Terwilliger hardly needed the prod. "Look at *our* agriculture! Every year several billions are spent to encourage farmers to grow crops the country doesn't need. They joyfully pour fertilizer by the carload onto soil that should be resting. The billions of bushels of crops that result are poured into government-built storage bins costing billions of dollars and made from millions of tons of metal that is growing in scarce supply in the country."

He snatched a clipping from a pile on his desk. "Did you read this, by Fairfield Osborn? *We Americans have used more of the world's resources in the past forty years than all the people of the world had used in the 4,000 years of recorded history up to 1914.* How about that?"

He tossed the clipping onto his desk and resumed spouting his figures from memory. "The President's Materials Policy Commission way back in the fifties found that every man, woman and child in the country was using up an average of eighteen tons of material a year. As a result, we're rapidly becoming a have-not nation, so far as natural resources are concerned. Why, Ransome, do you realize the average American family throws away 750 tin cans each year, each of them consisting of high quality sheet iron coated with precious tin? Government estimates are that the American consumes ten times as much raw materials, not counting food, as the average citizen of the West. Not of just the world, mind you, but of the advanced West."

Paul Kosloff wondered if there was any way of turning him off.

Terwilliger, pacing again, hammered on. "Take oil. We've got one seventh of the world's proved reserves, but we consume more than half of the world's production and are upping that each year. Look at us! We drive cars that average less than half the mileage of European models. When winter comes, do we put on heavier clothing, as others do? No sir, we turn on the oil fires, heat up our homes by the use of



millions of barrels of precious petroleum and conduct our living as though it were summer. Look at the land. We've already lost a third of the topsoil, an average of nine inches, that the country had when Columbus landed. Look at our timber. Every man, woman and child uses up about a ton a year of wood products, in the form of advertisement-laden newspapers as thick as encyclopedias, comic books, packaging and what not. The nation's stand of raw timber is one-half what it was in Theodore Roosevelt's day. The throwaway society, Ransome! Did you know that the average American family spends five hundred dollars a year on packaging? We're rushing to destruction!"

"Destruction?" Paul muttered in mild protest.

"What do you think?" the other demanded, his shrill voice verging on belligerency. "Look at our population growth. At the rate we're going, in a century we'll have the population China has today. Something over 600 million. Even today if you run down the list of the twenty-five important materials ranging from antimony to zinc, you find our dependence on foreign sources range from twenty-five to one hundred percent. What will it be like fifty or a hundred years from now?"

Paul Kosloff had had it. He held up a hand. "All right, Mark. You've got me convinced. The present system's a throw-away society. The question becomes what're we going to do about it?"

The younger man stopped in his

agitated pacing and turned and frowned at his visitor.

"That's what we're working on. Building an organization to point the way to a saner social system."

"Ummm," Paul said. "And count me in. But what kind of an organization? Every time I ask anybody what the name is going to be, I can't get an answer."

Terwilliger made a face. "You're right, of course." He ran a nervous hand back through his thin blondish hair. "I was sort of in favor of calling it the Progressive Party, but Lance points out that even as innocuous a term as that is objectionable to most people."

When Paul Kosloff left the apartment of Mark Terwilliger, he had an intuitive twinge that he knew from of old.

To double check it, he strode down the street for a couple of blocks, leaving his Volkshover before the apartment house where he had parked it. He went into a liquor store, punched out his requirement, put his credit card to the register screen, picked up his package when it was ejected and started back toward his car.

And, yes, he was being tailed.

The other was good. He was more than good. But Paul Kosloff had been followed on a thousand occasions down over the years and was familiar with every technique. His lips thinned back over his teeth wolfishly.

He drove on back to San Pedro, showing no surface signs that he realized the other was on him. Once or twice, in the heavy traffic of the Harbor Freeway, he so maneuvered that his tail's car was immediately behind and Paul was able to size him up, somewhat, in the rear vision mirror. A sturdy-looking specimen in his thirties, conservatively dressed. By the looks of him, he could be a Pole or perhaps an East German.

He parked the Volkshover before his apartment house and headed for the front door, not looking back.

Up in the small apartment, he put the package down and looked quickly about the living room. Unless he was mistaken, the place had been searched again. As carefully and neatly as before but searched. He wondered what they were looking for. And wondered whether his assumed identity was holding up.

Paul edged up to the side of the window and looked down. Eventually, he saw the man staked out there. In a car a block away and a bit down a side street. It was someone other than he who had followed Paul from Terwilliger's place.

His right hand flicked in the direction of his jerkin lapel at the same time his left shoulder made a shrugging motion. He caught the spring-propelled .38 Noiseless.

His eyes, empty, went down to the weapon. He ejected the clip, inspected it, rammed it back into the butt. He returned the lethal gun to its hide-away holster and checked to guarantee against any sticking, given the need for a quick draw. The harness he wore was of his own invention, but a gun stuck just once in the lifetime of an operative in Paul Kosloff's field, just once.

He took up a paperback he had bought a couple of days ago and left the apartment again. When he reached the street, he tucked his hands into his trouser pockets and began strolling unhurriedly toward the park, occasionally looking up and around at the now fading day.

He took a seat in the park, pulled the book out, yawned peacefully, crossed his legs and began to read. He didn't attempt to locate his tail.

Shortly, he activated the Tracy on his wrist and said, without moving his lips, "Paul Kosloff reporting to Superintendent Farben."

He recognized the girl's voice this time, small and far away though it was. She said, "Mr. Kosloff, I'll give you Supervisor MacKennen."

He said nothing until MacKennen was on. Then, "Listen, I have two men on me. Let me have Bill Farben."

He could hear the other's indrawn breath, over the wire.

"You mean you're in danger?"

"I don't think immediately."

"Just a moment, Kosloff."

Farben's voice faded in, an element of impatience there. "What's this, Paul?"

Paul said evenly, his lips still not moving. "I'm being tailed. Two men, at least. They're pros, not amateurs. One, at least, is packing a shooter."

"How do you know?" Farben said, unhappily.

Paul said, his voice even, "I know when a man's carrying a shooter. His jacket hangs just so." He added, "My apartment's been searched again."

Farben said, "See here, Paul, you're not just imagining all this? Lance Lincoln and his associates aren't exactly cloak-and-dagger types that . . . "

Paul Kosloff's mouth had gone white. He interrupted softly, "Never mind, Bill. I'll take care of the situation."

"Now see here, Paul. We don't want any trigger-happy . . . "

Paul Kosloff deactivated the Tracy.

VII

When he checked in the morning, the tail was still there, sitting in the car parked a block off. Paul Kosloff got a small glass from his things and trained it on the other. No, it wasn't the same one. It was the same car, but a new operative was sitting in it.

He snorted deprecation. They evidently had a twenty-four hour a day watch on him. Great! But who were *they?*

He killed the morning trying to figure it out and got exactly nowhere. Just to double check, he made one expedition, on foot, to the nearest ultramarket and made some routine purchases.

Yes, as the day before, there were two of them. They weren't taking the chance that he'd shake one by some cute maneuver. He grunted contempt. They'd see about that, when and if he decided to shake them.

In the evening, still irritated by the unknowns, he decided to go up against Jim Salton. The ex-CIA man was one of the group's innermost

circle. Sooner or later, if Paul was scheduled to become prominent in the outfit, he was going to have to get next to the other.

He ignored his tails. Obviously, they knew enough about him to realize a trip to see Salton wasn't out of the ordinary.

He had gotten the address from the phone book. As a matter of fact, the former CIA man didn't live so very far from the aged bungalow of Milovan Nagy. Perhaps he might drop in on the oldster, following his visit with Salton.

But he shook his head. Until he found out just who it was that had taken it upon themselves to keep an eye on Paul Kosloff, alias Paul Ransome, he had better not lead anyone to the old man. The *Chrezvychainaya Komissiya* had a long memory, indeed. They were known to have gotten a defector decades after he had fled the Soviet Complex. And Milovan Nagy was possibly the most famed defector from the commies still alive.

He pulled up before the shabby duplex which housed Jim Salton, dropped the lift lever of the Volkshover, locked the car up and strode toward the door.

Salton had evidently seen his approach through a window, since he had opened the door even as Paul Kosloff came up the walk.

Salton, looking a fraction less the insurance salesman, without his jerkin on, said deliberately, "Hello, Ransome. What do you want?" He stood in the doorway, his face expressionless.

Paul looked at the former CIA man and said, "I thought we might have a talk. I've been reading and arguing with Randy and Mark and don't seem to be getting very far."

Salton didn't stir for a moment, but then he shrugged and stepped backward into the dimness of a short hall.

Paul followed him.

Jim Salton whirled suddenly, snagged one of his visitor's arm, spun, twisting the arm behind.

Paul Kosloff made no counter-attack, refrained even from standard defense. It was the other's ball, he wanted to see how the guy bounced it.

He felt a hand run quickly over jerkin, at his left shoulder.

Salton suddenly released him.

"That's what I thought," he said. He turned and walked back into the living room.

Paul followed him, took a chair without invitation when the other had sunk onto the couch.

Jim Salton said, "You're carrying a gun. Why?"

Paul shrugged, as though embarrassed. "I've always kind of practiced around with small arms. Belonged to a club back home. And now that I'm here in a strange town, Well . . . "

"That's a professional rig you're wearing," Salton said coldly.

Paul shrugged again. "We used to practice quick draw. It was quite a fad ten years or so ago."

Jim Salton said, "I'll reserve whether or not to believe you, Ransome. But I'll say this. If you want to play at — I'll say 'revolution,'

although I dislike to use the word — revolution, you'd best put that shooter away. If you were picked up, for whatever reason, they'd hang a concealed weapons romp on you."

Paul said, "You seem to know quite a bit about guns yourself, Salton."

"I used to be a CIA man," his less than hospitable host said.

Paul didn't have to pretend surprise. He *was* surprised. He hadn't expected it to come out so easily.

He said, "Does Lance Lincoln know that?"

The other scowled. "Why not? It's no secret."

Paul Kosloff was admittedly taken aback. He said finally, "I guess it's just that you don't expect CIA people to join with commie outfits."

The other snapped, obviously irritated. "What do you mean, 'commie?' "

Paul covered, "Well, I used the word broadly, to denote any, well, radical organization."

"Well, don't," Salton snapped. "You'll just get yourself even more confused than you are."

His voice went back to its more normal slow pace. "I'll tell you how it was." He hesitated for a time, then started again. "When I was a kid, fresh out of college, I had the American dream. Very gung ho. Free enterprise versus the communists. The good guys versus the bad guys. I wanted to be out in the front of the battle. I joined up. The CIA."

Paul Kosloff held his peace. Actually, the other's story, so far, could have been his own; except that he had his emotional twists concerning the communists to go along with the dream Salton professed. Jim Salton had never heard the thump of secret-police knuckles on the door of a shabby Leningrad apartment, at two o'clock in the morning. The knock that meant the hauling away of a parent, never to be seen again.

Jim Salton got up and went into the kitchen to return in a few minutes with two glasses. He handed one to Paul Kosloff. It was bourbon and gingerale. Paul Kosloff had never particularly liked highballs, however, he accepted this and sipped at it as the other talked.

"The trouble was," Salton grumbled, "that I soon found out that the battle wasn't exactly between free enterprise and communism."

"How do you mean?" Paul scowled.

"They haven't got communism in the Soviet Complex and never have had. They have a sort of State Capitalism, with banks, money, interest, a proletariat working for wages, an upper class profiting. But that wasn't what bugged me. That problem belongs to the people over there. Let them solve it. My problem was here."

Paul looked at him encouragingly.

Salton took another pull at his drink. "I discovered that we didn't have free enterprise. Not in the old sense of the word. I don't think we've really had it since the big depression in Roosevelt's time."

"Well, what have we got?" Paul said.

"State Capitalism."

Oh, come on now, you mean we've got the same government as the commies?"

Salton was shaking his head unhappily. "Obviously not. It's a different form of State Capitalism, although in quite a few ways they're getting more and more similar. Maybe there should be some other term, but I can't think of one."

He put his glass down, came to his feet and pulled an Almanac from a bookshelf. He thumbed through it, found what he was looking for.

"Back in 1820 the total population of the United States was nine and a half million." He thumbed some more. "By the middle of the 1960's that was the number employed in government. And, of course, it's been going up. Well over ten million now. Ten million bureaucrats." He closed the book and looked at Paul. "Of course, that's not the whole story. That's just the number working directly for government. It doesn't count the large percentage of our labor force that works directly or indirectly in industries employed by government: war materials, the space program, agricultural programs, so forth and so on. Ransome, we've got to the point that half the population is working either directly or indirectly for the government. That's not exactly what we thought of as free enterprise."

Paul said, "What's this got to do with your quitting the CIA?"

"Well, it piled up. But the straw that broke the camel's back . . . Look, have you ever heard of Karambi?"

"President of Mozambambi? Kind of soft on communism type."

Salton looked at him. "That's the brand we gave him. Actually, he wasn't soft on anything except Mozambambi, his own country. He was one of those types that was educated partly at Oxford, partly at Harvard. When his country got its independence, he was one of the few with enough education to take public office. He woke up one day to find himself president, while still less than forty.

"Okay, he was ambitious. He wanted his people to have some of the good things of life. At least such things as sufficient food, medicine and education for those who could assimilate it. The trouble was, there was just one commodity in his country that could bring in the hard exchange they needed to begin developing Mozambambi. That was copper. Along with Chile and the Congo, Moambambi had some of the richest copper deposits on Earth. The rub was, these copper mines belonged to an international syndicate dominated by United States and Belgian interests. They had bought them up for peanuts fifty years ago and had a treaty which provided for the syndicate's buying all of the copper produced at a rate far below world commodity prices. Interests in Japan, Italy and Germany were willing to pay Karambi double the price the copper was selling for, and he was beginning to make noises about nationalizing the country's mines."

Salton took another pull at his drink, finishing it. He looked at Paul strangely. "Do you realize how important copper is to an industrialized society?"

Paul said, "Somebody was talking about it just the other day."

Jim Salton nodded. "The United States is just about through its own reserves. We've just *got* to have the copper of Chile, Katanga, and Mozambambi or our economy is in a tizzy. But, of course, the same thing applies to the other industrialized countries, and they keep bidding the price up. At any rate, Karambi started considering nationalization. And it was then our press began calling him a commie. And it was then that I was sent to Mozambambi with some of the rest of the boys."

Paul said evenly, "Whatever happened to Karambi, anyway?"

"You remember. The army took over one day. They marched Karambi out onto the lawn of the Mozambambi white house and shot him.

Paul nodded.

Jim Salton ran the heel of his right hand over his mouth. "Sure, maybe a modern nation has to have copper. But what do we do with it? A few hundred million lipstick container, made of brass, are thrown away each year." He picked up a newspaper and indicated an advertisement. "Here's a big new fad. Copper ornaments. You're a nobody unless the light outside your front door is encased in a big, heavy copper gismo. Copper candlesticks, copper kitchenware. All those things."

Paul Kosloff couldn't think of anything to say.

Salton made an irritated gesture with his hand. "So I quit. So here I am, beating my brains out trying to figure just how I feel, what I stand for, what I can do about it."

Paul Kosloff's mind was a blank as he drove back to his own place in San Pedro.

Irritation was growing within him, fueled by a dozen stimuli. The gas fumes. When he'd first been in Los Angeles, as a youngster, it had been a smallish, attractive, slow moving town. A city where oldsters retired in small bungalows surrounded by gardens. Now look at it. The affluent society, the opulent society. The city was aglare with signs, buy this, buy that, buy, buy, buy. Up in the sky was a blimp, slowly patroling, trailing a monstrous neon sign: drink something or other.

His eyes went to his rear vision mirror. He growled inarticulately. His tail was with him.

It was dark by the time he reached his apartment house.

He left the Volkshover at the curb and mounted the steps.

Then, without thought, before reaching the front door, he turned and strode up the street. As he went, he took off his glasses, folded them and put them in his breast pocket.

He banged open the door of the car which had been parked a block away from the entrance to his house for the past few days. He moved in and slammed the door behind.

He stared at the man who had been shadowing him.

Paul Kosloff said wolfishly, "Reach for that gun, and you'd better bring it out shooting."

The other was obviously taken aback. He said, "What's the big idea, Mister?"

Paul Kosloff took him in. In his early thirties. Neat as a pin. White

shirt, Brooks Brothers suit. His voice, in spite of the attempt at toughness, carried education.

Paul snapped, "You've been following me. Why?"

"I don't know what you're talking about."

Paul Kosloff said, "In about one minute flat, I'm going to start working you over. Then I'm going to haul you down to the local police station, and, just in case I can't find anything else to charge you with, I'll hang a concealed weapons romp on you."

The other stared at him. "Police station!"

"You heard me."

The other reached to his hip pocket and brought forth a wallet. He flicked it open.

"Department of Justice," he clipped.

Paul Kosloff stared at the gold badge. "Oh, great," he growled. "The FBI." He laughed bitterly. "What in the hell are you following *me* for?" He reached for his own wallet, showed his identification.

The other's mouth was all but hanging open by now.

"Paul Kosloff!" he blurted. "You're Paul *Kosloff*?"

"On special assignment," Paul growled. "Now, what's all this about?"

The other was disgusted. "I've heard about you, Mr. Kosloff . . . "

"All right, all right."

The FBI man cleared his throat. "We picked you up on a routine check when you called on Milovan Nagy. Ah, is your department particularly interested in Nagy?"

"No," Paul growled. "For God's sake, do you mean to tell me you check out everybody that visits old Milovan?"

The other said stiffly, "Not exactly. However, you've got to remember he was once in the upper echelon."

"All right, all right. You spotted me when I visited Milovan Nagy. And?"

"We noted the fact that you were associating with Lance Lincoln and his group of malcontents. We checked back on your identity."

"After bugging my apartment, eh?" Paul said.

"Well, yes. Then we had an agent from the Omaha office go over to Hastings. We could find no signs of a Paul Ransome ever having lived there."

Paul growled under his breath. "CIA, FBI, everybody gets into the act. Next I'll find an Army Intelligence lieutenant under my bed."

"I beg your pardon, Mr. Kosloff."

Paul put a hand on the door handle, preparatory to leaving. He said, "If you want to go to the bother, have your bureau check with my department chief back in Washington. But get off my back and get that damn bug out of my apartment."

The FBI agent cleared his throat. "You wouldn't want to tell me what you're working . . . "

"No," Paul said. He opened the car door and started back to his flat.

"I'm beginning to feel like a clown," he muttered.

In the following three weeks, he

attended two more lectures, one by Lance Lincoln, one by young Terwilliger. And he sought out the companionship of all those he had thus far met, spending evenings in discussion and argument. He met a few more of the poorly knit group's membership, including a high school teacher, a chemist who worked for one of the oil companies and a retired dentist. None of them seemed much clearer on just what it was they wanted and how they expected to go about achieving it, than those with whom he had already come in contact.

He reported back to MacKennen, had the new names checked out and came up with as complete a blank as he had on the Lincolns, Wanda Ballentine, Terwilliger and Edmunds.

The second time he reported, Supervisor MacKennen had him shunted off to some secretary, who taped his reports and comments.

He finished reading Lance Lincoln's half dozen books and branched out to Veblen's *Theory of the Leisure Class,* Galbraith's, *The Affluent Society* and Vance Packard's *The Status Seekers* and *The Waste Makers.* All these on the suggestion of Randy Lincoln and her father.

He was beginning to make a habit of dropping in on the Lincolns two or three times a week. Usually, there were a few of the others present. He was beginning to be accepted as one of them.

Randy met him at the door and gave his hand a brief squeeze. They had been out on a dancing date, the night before.

He grinned at her and said, "What goes on tonight?"

"Come on in. Daddy and Mike Edmunds are having it hot and heavy on whether or not we ought to concentrate on propagandizing the boys on top. Working on the theory, of course, that you'd get more results converting one Rockefeller than you would ten thousand employees of Standard Oil."

Paul grunted and followed her into the front room.

The group this evening consisted only of Lance Lincoln, Mike Edmunds, complete with long-stemmed pine, and Wanda Ballentine, who seemed content for once with following the discussion rather than participating.

Lance was shaking his leonine head at Mike Edmunds.

"The point is self-interest," he said. "Practically none of us can rise above it. Remember the story about Abraham Lincoln? A group of his opponents were arguing with him about this very subject. Finally, he took a Bible and pointed out a passage, the Golden Rule, perhaps. He said, 'Can you read this?' They said, indignantly, 'Of course.' Old Abe took out a gold Double Eagle and placed it over the passage. 'Now can you read it?' The answer was, 'Of course not!' Old Abe looked at them. 'I didn't think you could,' he said."

"Okay, okay, I get the point," Mike growled around his pipe stem. "You don't think we're going to make any converts from the ranks of those who profit by things as they are now."

Randy and Paul Kosloff took seats on a couch. He was, it came to him, beginning to be paired off with her in these get togethers.

Her father looked at him. "Well, Paul, found anything else in Gailbraith to be indignant about?"

The others all looked at him.

Paul, on an impulse, leaned forward. "Look," he demanded. "How many of this outfit are there, all together, throughout the whole country?"

Lincoln raised his eyebrows. "Well, we have no membership rolls. We're not an organization — at least, not yet. It's more a matter of corresponding, exchanging ideas, mulling this thing over."

"All right, suppose you started a definite organization tomorrow. Got yourself a name, did up a platform. How many do you think would join, plank down their dues and participate?"

Mike Edmunds clicked his pipe stem against his teeth, thoughtfully. "Probably about a thousand to begin. As we started spreading the program, probably another five thousand within the year. From then, it's guesswork."

Paul turned back to Lance Lincoln. "All right, thus far you're nothing but a debating society. No party officials, no spokesmen, no definitely stated program . . . "

Wanda Ballentine said briskly, "But, Paul, we're not even sure we want to start a political party. We're not sure . . . "

He shot a look at her. "That's what I'm getting at. When're you going to be sure?" He turned back to Lincoln. "I'm not even certain I have a picture of your ultimate goals, Lance. You don't seem to be the usual bleeding heart type, the do-gooder even to those who don't particularly want to be done good to."

Lance Lincoln chuckled sourly. "Ultimate goal," he said. "People seldom ask that one. Most are interested in more immediate ones, usually selfish. I guess the ultimate goal, Paul, man's ultimate goal, is total understanding of the cosmos."

"Come again?" Paul scowled.

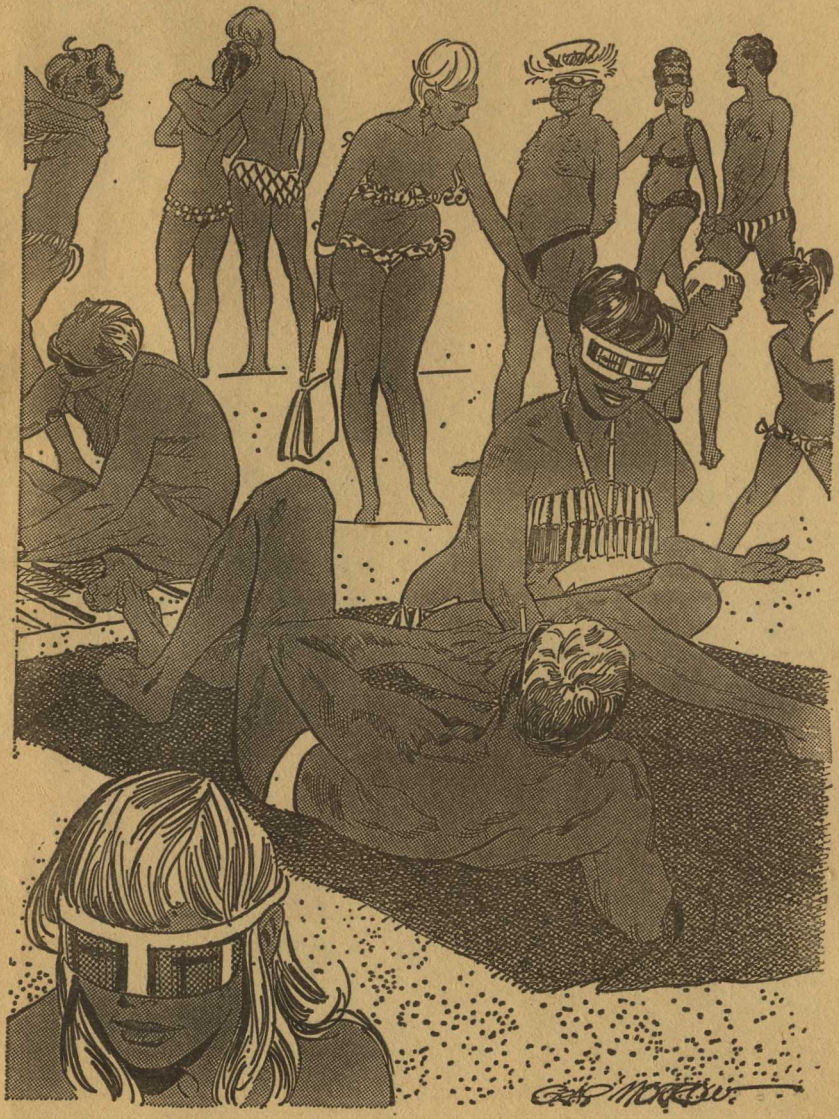
The other's sour laugh had an element of deprecation. "The human race has a drive toward learning everything. It's a drive that had a hard time getting under way back when we were helping to propel ourselves along with our knuckles on the ground and figuring out how to use a stick to knock fruit out of a tree; but it's been a geometric progression, Paul. And, by and large, we'll let nothing stand in the way."

"What in the name of Zen's that got to do with politics?"

The other's shaggy eyebrows went up again. "Some politics can stand in the way of progress, Paul. Remember Stalin's backing Lysenko in the field of genetics? That's an obvious case."

Paul said, "That hardly applies to this country. Between the government and big business, nine-tenths of our scientists are subsidized."

The older man's face went wry. "Yes, working on military problems and make-money problems, most of which are nonsense. A billion dollars can be spent on such items as how


MORROW

to get a nuclear torpedo spaceplatform up a few months sooner, it being realized all the time that the platform will be antiquated before it is launched. Or, just as fantastic, a few tens of millions and the efforts of some of our best research chemists can be utilized attempting to find a face cream which will make frivolous women look ten years younger. In the name of common sense, why should a woman want to look ten years younger?"

Randy twisted her mouth in half grimace, half grin. "Now you're treading on dangerous ground, Daddy," she murmured.

Wanda Ballentine said primly, "No, I agree entirely. It is an unnatural society in which a woman must strive desperately to look another age than what she is."

"We're getting away from the point," Paul said.

"No, we're not," Lincoln insisted. "The ultimate goal is man's total understanding of the cosmos. Every present government and socio-economic system I know of stands in the way."

Paul had to laugh at that.

Lance Lincoln shook his head in his worried fashion. "We've got to the point where socio-economic systems could aid, rather than be a drag. Obviously, the first thing man had to do was conquer nature's pressures. Food, clothing, shelter, medical care, education had to become available to all to the full extent they were required. Above all, before man's explosion into his destiny can take place, the ground had to be laid so that each individual can realize his full abilities. A bleeding heart? No. But my whole spirit rebels when I contemplate a latent mathematician becoming a dropout in school, whether on the grade, high or college level, because he finds it necessary — for whatever reasons — to get into selling, advertising, insurance, or the military."

Paul's head had slumped forward, and he was looking at the older man steadily, through eyes that had narrowed in heavy thought.

Lincoln said, "I've read that some ninety-five percent of all scientists who had ever lived are now alive and at work. Well, it's not enough. We've licked the first problems that have kept us from our destiny: the food, clothing and shelter problems. It's time that we became cognizant of the fact that only antiquated institutions, laws, customs and the equivalent of primitive man's rituals and taboos prevent us from making the comparative minor changes in the world social systems now prevailing to unfetter us. To change all this from a throwaway society, to a progress society."

VII

Paul Kosloff made his way through the forest of desks and clicking, muttering office machines that were the approach to the sanctum sanctorum of his department chief.

He stopped at the reception secretary's desk, and the officious young man looked up, impatiently. Paul Kosloff knew that the other had spotted him approaching.

Kosloff said briskly, "Hello, Dicken, the Chief in?"

The other said, "Do you have an appointment, ah, Kosloff?"

Paul Kosloff snorted and marched on past the desk.

Dickens blurted, "See here!"

Paul gave a quick double knock on the door and pushed his way through. The Chief, who had been bent over some reports, looked up, a bit startled.

He said to his top field man, of the days when his operatives fought the cold war the hard way, "Well . . . Paul. Thought you were still in California. Or wherever it was Bill Farben wanted to send you."

"Just came in on the rocket shuttle," Paul said. He took a chair, unasked.

To his irritation, Paul Kosloff's superior was beginning to feel anew that discomfort he had always known in the presence of this cold-eyed, ultra-experienced agent. He reached for his package of kitchen matches.

"Well, how goes it? I understand your assignment was to infiltrate a certain subversive group . . . "

"They avoid that term," Paul said. "Although if you'll look it up in the dictionary, you'll find there's nothing particularly wrong about being a subversive. Every election, either the Democrats or the Republicans become subversives; according to who's in at the time."

The Chief blinked at him. He started over again. "I understand your assignment was to become an official of the group?"

Paul nodded. "Unfortunately, they weren't an organization when I first contacted them. To become an official, I had to stir them into jelling."

The Chief blinked again. "Well, you're on the scene, of course, and a field man has considerable discretion. However . . . " he covered a certain inner confusion by lighting his pipe, staring at his long-time agent through the puffs of smoke.

Paul said, "Now I'm General Secretary. There's a membership of about four thousand and growing at the rate of about a hundred a day, mostly about the universities and among technical groups. Our appeal is largely to the better educated, thinking element."

"But . . . but what's the program of this new . . . what is it, a political party?"

"With a difference," Paul nodded. "Quite a few differences."

"I haven't even heard of it yet."

"You will," Paul said definitely. "The program? It's a program to end the waste involved in the present socio-economic system. The waste in both materials and manpower. To conserve our resources and utilize them in planned development."

The match the Chief had been holding had burned down to his fingers. He swore and dropped it, then went back to staring at Paul Kosloff.

He blurted, "Well, it's great we have you planted right at the top. They sound like they need watching."

Paul Kosloff came to his feet. "You don't get it, Chief," he said. "I came to offer my resignation. I've got a new job. They needed somebody with a bit of aggression and know-how to get things rolling. I like the picture. I'm going to get married and settle down to putting this thing over. So long, Chief."

The other was bug-eyeing him.

Paul Kosloff started for the door.

His ex-superior blurted. "What's . . . what's the name of this new party?"

Paul looked back over his shoulder and grinned. "That was one of the big problems. In actuality it's a revolutionary movement, advocating very basic changes. However, everybody's bugged by all the old terms applying to revolution. But can't you guess what the party name is? I told you our program was to build a socio-economic system that would conserve our resources and manpower, instead of wasting them.

"Our name is the Conservative Party." END

Coming . . . . Tomorrow!

Fred Saberhagen's *Stone-Man* is the first of a trilogy, which of course means that there will be two more stories in the same setting, developing the background and implications of the planet where a prehistoric time-fault has given Berserkers and Men a new battlefield on which to carry on their eternal struggle. We hope to run all three stories in consecutive issues of *Worlds of Tomorrow;* at any rate, story No. 2, called *The Winged Helmet,* will be with us in the August issue.

With any luck (it's a race between the typist and the printing deadline at the moment!), we should also have another story in a second highly popular series in the same issue. We don't know the title for sure yet, but it will be another of Philip Jose Farmer's fabulous Riverworld yarns. You remember *Riverworld* and *The Suicide Express* — or if you don't, you've missed some startlingly original science fiction. What Farmer is writing about is a planet somewhere else in space, sometime far in the future, where aliens, for purpose of their own, have brought back to life every member of the then-exinct human race at once, including Hitler and Shakespeare and Robert A. Heinlein . . . and you!

Sam Moskowitz will be along next issue; so will a number of other favorites. And so, we hope, will you!

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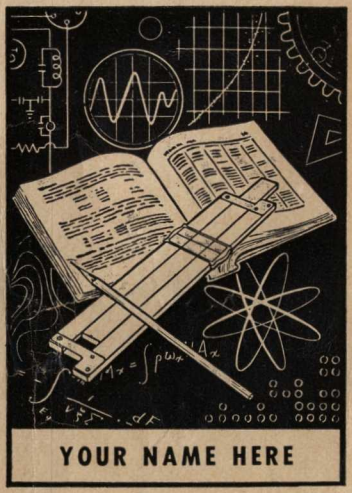

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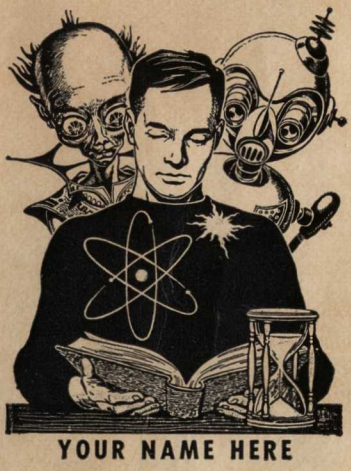

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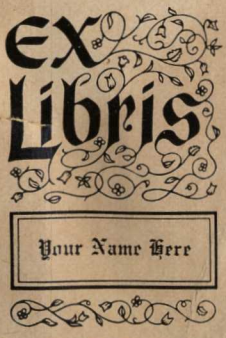

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