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SOS THE ROSE

by Peter Amory

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Collection 60
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Fantasy and Science Fiction

JULY *Including Venture Science Fiction*

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Joseph W. Ferman, PUBLISHER
Paul H. Merril, BOOK EDITOR
Andrew Porter, ASSISTANT EDITOR

Editorial and Business Offices:
Isaac Asimov, SCIENCE FICTION
F&SF Editorial, 600 North Broadway

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BOOK COOK

The following story was the winner of the 1963 Science Fiction Book Award that was announced in our January 1967 issue. The winner was born in England in 1934 but had all his schooling in America. His literary career began inauspiciously "I flunked first grade, was sent to a prep school, Mr. Anthony discovered science fiction at age 16 and wrote at the night table before making his first sale in 1963. Since then he has published previous stories and four novels (including *SOS*, which will be published later this year by Pyramid Books) and is now a full-time freelance writer, living in Florida. Story contests have a special history, but this one has been successful in that it has turned up a winner of unusual quality: a story with a good, strong plot, interesting ideas, characters you care are about, and plenty of rousing action.

SOS THE ROPE

by Piers Anthony

(FIRST OF THREE PARTS)

I

THE TWO ITINERANT WARRIORS approached the hostel from opposite directions. Both were garbed conventionally: dark pantaloons cinched at waist and knee, loose white jacket reaching to hips and elbows and hanging open at the front, elastic sneakers. Both wore their hair medium: cropped above the eyebrows in front, above the ears on the sides, and above the jacket collar behind, uncombed. Both beards were short and scant.

The man from the east wore a

standard straight sword, the plastic scabbard strapped across his broad back. He was young and large, if unhandsome, and his black brows and hair gave him a forbidding air which did not match his nature. He was well muscled and carried his weight with the assurance of a practicing athlete.

The one from the west was shorter and more slender, but also in fine physical trim. His blue eyes and fair hair overlooked a countenance so finely molded that it would have been almost woman-

ish without the beard, but there was nothing effeminate about his manner. He pushed before him a little one-wheeled cart, a barrow-bag, from which several feet of a shining metal pole projected.

The dark-haired man arrived before the round building first and waited politely for the other to come up. They surveyed each other briefly before speaking. A young woman emerged, dressed in the attractive one-piece wraparound of the available. She looked from one visitor to the other, her eyes fixing for a moment upon the handsome golden bracelet clasping the left wrist of each, but kept her silence.

The swordsman glanced at her once as she approached, appreciating the glossy midnight length of her tresses and the studied voluptuousness of her figure, then he spoke to the man with the cart. "Will you share lodging with me tonight, friend? I seek mastery of other things than men."

"I do seek mastery in the circle," the other replied, "but I will share lodging." They smiled and shook hands.

The blond man faced the girl. "I need no woman."

She dropped her eyes, disappointed, but flicked them up immediately to cover the swordsman. He responded after an appropriate pause. "Will you try the night with me then, damsel? I promise no more."

The girl flushed with pleasure.

"I will try the night with you, Sword, expecting no more."

He grinned and clapped his right hand to the bracelet, twisting it off. "I am Sol the Sword, of philosophic bent. Can you cook?" She nodded, and he handed the bracelet to her. "You will cater to my friend also, for the evening meal, and clean his uniform."

The other man interrupted his smile. "Did I mishear your name, sir? I am Sol."

The larger warrior turned slowly, frowning. "I regret you did not. I have held this name since I took up my blade this spring. But perhaps you employ another weapon? There is no need for us to differ."

The girl's eyes went back and forth between them. "Surely your arm is the staff, warrior," she said anxiously, gesturing at the barrow.

"I am Sol," the man said firmly. "of the staff—and the sword. No one else may bear my name."

The swordsman looked down at her. "Do you plead with me, damsel? I would have no other wife."

"I quarrel only with your name. Take another, and then we quarrel between us."

"I have named this name by this blade. I cannot give it up."

"Then I must forsake you if I am to be a man, sir."

Please. We did quarrel. I want your company. I love to visit your circle, and a night with I will fix a house for you."

"I thought you favored the sword."

of a man's hand from the horse's shoulder?" the slender man asked. "It must be some other party doing. You are to go the winner."

She hit her red lip, thrust out, and handed back the answer.

"Then will you permit me to stand witness?"

The men exchanged glances and shrugged. "Stand witness, god, if you have the strength for it," the blond man said. He led the way down a beaten side that wanted no aid.

A hundred yards below the side lay a fifteen-foot ring, one end unworked by a flat stone, part of bright yellow and another's space of gray. The center was flat, thickly barbed turf, a perfect disk of green lawn. This was the battle circle, heart of this world's culture.

The black-haired man removed his harness and jacket to expose the physique of a giant. Great sheaths of muscle overlaid shoulders, rib cage and belly, and his neck and waist were thick. He drew his sword: a gleaming length of tempered steel with a beaten silver hilt. He flexed it in the air a few times and tested it on a nearby sapling. A single swing and the tree fell, cleanly severed at the base.

The other opened his barrow and drew forth a similar weapon from a compartment. Packed beside it were daggers, singlesticks, a club, the metal ball of a morning-

star sword and the long, pointed staff. "You cannot all have weapons!" the man demanded, eyes asked. He only smiled.

"The one who approaches the circle and fights with either weapon or staff, winning the victory and I witness for the cause. The sword declared for sword, staff work, that staff's and staff-belted's advantage, and that is unnecessary."

"I will go whichever first," the black man retorted. "By the sword I claim the name, and if I can have another weapon, it will be mine to possess. That name I do not care best to possess. I will match it with my best."

"For name and witness then," the blond man hesitated to show anger. "The sword will possess them all. But since I wish you no personal harm, I will instead oppose you with the staff."

"Agreed!" It was the other's turn to glower. "The one who is defeated yields the name and these six weapons, nor will he ever lay claim to any of these again!"

The girl listened appalled, hearing the stakes magnify beyond reason, but did not dare protest.

They stepped inside the battle circle and became blurs of motion. The girl had expected a certain incongruity, since small men usually carried the lighter or sharper weapons, while the heavy club and long staff were left to the large men. Both warriors were so skilled, however, that such notions became

meaningless. She tried to follow thrust and counter, but soon became hopelessly confused. The figures whirled and struck, ducked and parried, metal blade rebounding from metal staff and in turn blocking defensively. Gradually she made out the course of the fight.

The sword was actually a fairly massive weapon; though hard to stop, it was also slow to change its course, so there was generally time for the opposing party to counter an aggressive swing. The long staff, on the other hand, was more agile than it looked, since both hands exerted force upon it and made for good leverage—but it could deliver a punishing blow only against a properly exposed target. The sword was primarily offensive, the staff defensive. Again and again the sword whistled savagely at neck or leg or torso, only to be blocked crosswise by some section of the staff.

At first it had seemed as though the men were out to kill each other; then it was evident that each expected his aggressive moves to be countered and was not trying for bloody victory so much as tactical initiative. Finally it appeared to be a deadlock between two extraordinarily talented warriors.

Then the tempo changed. The blond Sol took the offensive, using the swift staff to force his opponent back and off balance by repeated blows at arms, legs and

head. The swordsman jumped out of the way often, rather than trying to parry the multiple blows with his single instrument; evidently the weight of his weapon was growing as the furious pace continued. Swords were not weapons of endurance. The staffer had conserved his strength and now had the advantage. Soon the tiring sword arm would slow too much, and leave the body vulnerable.

But not quite yet. Even she, an inexperienced observer, could guess that the large man was tiring too quickly for the amount of muscle he possessed. It was a ruse—and the staffer suspected it too, for the more the motions slowed the more cautious he became. He refused to be lured into any major commitment.

Then the swordsman tried an astonishing stratagem. As the end of the staff drove at his side in a low, horizontal swing, he suddenly blocked not retreat but the staffer himself in the ground, so that the staff pass over him. Then, sitting on his side, he slashed with a vicious backhanded arc aimed at the ankles. The staffer jumped, surprised by this unconventional use of his general's mastery, but never so he felt rise over the blade and come down across it, now combined in a paralyzing blow.

The staffer was unable to stop again quickly enough, now. He was hit in the knee, and he fell off so easily tripped. He fell flat on

balance and maintained command over his weapon with marvelous coordination. He jammed the end of the staff into the turf between his feet just as the sword struck. Blood spurted as the blade cut into the calf, but the metal of the staff struck the breast and saved him from unconsciousness, or worse. He was wounded and partially crippled, but still able to fight.

The blow had failed, and it was too bad for the swordsman. The staff slipped and struck him neatly across the side of the head as he tried to rise, sending him spinning out of the circle. He fell in the gravel, stone still gripping his weapon but no longer able to bring it into play. After a moment he realized where he was, gave one groan of dismay, and dropped the sword. He had lost.

Sol, now sole owner of the name, hurled the staff into the ground beside his barrow and stepped over the plastic rim. He gripped the loser's arm and helped him to his feet. "Come—we must eat," he said.

The girl was jolted out of her reverie. "Yes—I will tend your wounds," she said. She led the way back to the cabin, prettier now that she was not trying to impress.

The building was a smooth cylinder thirty feet in diameter and ten high, the outer wall a sheet of hard plastic seemingly wrapped around it with no more original effort than one might have applied

to constructing a package. A conveyor enclosed around the perimeter of the open mouth of the cylinder returned to the top. From a distance it was possible to see through the cone of the shaft machinery beneath the transparent plastic that caught and turned the bulk of the sun's rays provided regular power for the operation of the interior devices.

There were no windows, and the single door faced south: a rotating trio of glassy panels that admitted them singly without allowing any great flow of air. It was cool inside, and bright; the large central compartment was illuminated by the diffused incandescence of floor and ceiling.

The girl hauled down couch-bunks from the curving inner side of the wall and saw them seated upon the nylon upholstery. She dipped around the rack of assorted weapons, clothing and bracelets to run water in the sink set into the central column. In a moment she brought back a basin of warm water and set about sponging off Sol's bleeding leg and dressing it. She went on to care for the bruise on the loser's head, while the two men talked. There was no rancor between them, now that the controversy had been resolved.

"How did you come by that motion with the sword?" Sol inquired, not appearing to notice the ministrations of the girl, though she gave him more than

perfunctory attention. "It very nearly vanquished me."

"I am unsatisfied with conventional ways," the nameless one replied, as the girl applied astringent medication. "I ask 'Why must this be?' and 'How can it be improved?' and 'Is there meaning in this act?' I study the writings of the ancients, and sometimes I come upon the answers, if I cannot work them out for myself."

"I am impressed. I have met no warrior before who could read—and you fought well."

"Not well enough." The tone was flat. "Now I must seek the mountain."

"I am sorry this had to pass," Sol said sincerely.

The nameless one nodded curtly. No more was said for a time. They took turns in the shower compartment, also set in the central column, and dried and changed clothing, indifferent to the presence of the girl.

Bandaged on head and leg, they shared the supper the girl prepared. She had quietly folded down the dining table from the north face and set up stools, while she kept her feet and ferried dishes from range and refrigerator—the last of the fixtures of the column. They did not inquire the source of the spiced white meat or the delicate wine; such things were taken for granted—and even looked down upon, as was the hostel itself.

"What is your objective in life?"

the nameless one inquired, as they lingered over the ice cream and the girl washed the dishes.

"I mean to fashion an empire."

"A tribe of your own? I have no doubt you can do it."

"An empire. Many tribes. I am a skilled warrior—better in the circle than any I have seen. Better than the masters of tribes. I will take what my arm brings me—but I have not encountered any I wish to keep, except yourself, and we did not contest for mastery. Had I known how good you were, I would have set different terms."

The other chose to ignore the compliment, but it pleased him. "To build a tribe you need honorable men, proficient in their specialties, who are capable of fighting for you and bringing others into your group. You need young ones, as young as yourself—who will listen to advice and profit from it. To build an empire you need more."

"More? I have not seen many young warriors who are worth while. Only incompetent strikers and feeble oldsters."

"I know. I saw few good fighters in the east, and had not found any in the west. But could you have traveled alone? I could not do so, even if I had a good escort before." He recalled a contact, remembering that he was no longer a warrior. To find out the last time he had to look, he spoke again. "Have you not guessed how old the masters are, and how

circle? They will not fight at all unless they believe they can win, and they are shrewd at such judgments. All the best warriors are tied to them.

"Yes." Sol agreed, perturbed. "The good ones will not contend for mastership, only for sport. It makes me angry."

"Why should they? Why should an established master risk the work of a lifetime, while you risk only your service? You must have power. You must have a tribe to march into, only those will any master meet you in the circle."

"How can I form a desert tribe when no desert men will fight?" Sol demanded, growing heated again. "Do your books answer that?"

"I never sought mastery. But if I were building a tribe, or an empire especially, I would search out promising youths and bind them to myself, even though they were not proficient in the circle yet. Then I would take them to some private place and teach them all I knew about combat, and make them practice against each other and me until they were fully competent. Then I would have a respectable tribe, and I would take it out to meet and conquer established tribes."

"What if the other masters still refused to enter the circle?" Sol was quite interested in this turn of the discussion.

"I would find some way to per-

suade them. Stronger would be required—the world would have to appear more, or mightily so, to one of the other gods. I doubt where these men they wanted and bargain with them until they were ashamed not to meet me."

"I am not good at bargaining," Sol said.

"You could have some bright tribesman bargain for you, just as you would have others to fight for you. The master doesn't have to do everything himself; he delegates the chores to others, while he governs over all."

Sol was thoughtful. "That never occurred to me. Fighters with the weapons and fighters with the mind." He pondered some more. "How long would it take to train such a tribe, once the men were taken?"

"That depends upon how good you are at training and how good the men are that you have to work with. How well they get along. There are many factors."

"If you were doing it—with the men you have met in your travels."

"A year."

"A year!" Sol was dismayed.

"There is no substitute for careful preparation. A mediocre tribe could perhaps be formed in a few months, but not an organization fit to conquer an empire. That would have to be prepared for every contingency, and that takes time. Time and constant effort and patience."

"I do not have patience."

The girl finished her work and returned to listen. There were no compartments within the cabin, but she had gone around the column to the shower stall and changed. She now wore an alluring gown that accentuated a fine cleavage and a narrow waist.

Sol remained thoughtful, not seeming to notice the girl though she drew her stool close to him. "Where would there be a suitable place for such training, where others would not spy and interfere?"

"In the badlands."

"The badlands! No one goes there!"

"Precisely. No one would come across you there, or suspect what you were doing. Can you think of a better situation?"

"But it is death!" the girl said, forgetting her place.

"Not necessarily. I have learned that the kill-spirits of the Blast are retreating. The old books call it 'radiation', and it fades in time. The intensity is measured in roentgen, and it is strongest in the center. It should be possible to tell by the plants and animals whether a given area within the markers has become safe. You would have to be very careful about penetrating too far inside, but near the edge -"

"I would not have you go to the mountain," Sol broke in. "I have need of a man like you."

"Nameless and weaponless?" He laughed bitterly. "Go your way

fashion your empire, Sol of all instruments. I was merely conjecturing."

Sol persisted. "Serve me for a year, and I will give you back a portion of your name. It is your mind I require, for it is better than mine."

"My mind!" But the black-haired one was intrigued. He had spoken of the mountain, but he did not really want to die. There were many curious things remaining to be fathomed, many books to be studied, many thoughts to be thought. He had employed his weapon in the circle because it was the established method of manhood, but despite his erstwhile prowess and physique, he was a scholar and experimenter at heart.

Sol was watching him. "I offer — Sos."

"Sos—the weaponless," he said, mulling it over. He did not like the sound of it, but it was a reasonable alternative, close to his original name. What would you want me to do for the name?

"The training, the camp, the building of empire you desired? —I want you to do a big one. To be my fighter of the world. My advisor."

"Sos the advisor. The name grew on him, and he seemed pleased better. "The name would add ten to me. I would need someone's authority, so to speak, to do nothing if the you said, and I have no weapon."

"Who argues, *girl*?" Sol said with absolute conviction. "My *word*—"

"Here one *year*—and I keep the *mountain*!"

"Yes."

He thought of the challenge of the *chance* to test his theories in action "I accept the offer."

They reached across the table and shook hands gravely "Tomorrow we begin the empire," Sol said.

The girl looked up. "I would come with you," she said.

Sol smiled, not looking at her. "She wants your bracelet again, Sos."

"No." She was troubled, seeing her *hopes* come to nothing. "Not *without*—"

"Girl," Sol reminded her sternly. "I want no woman. This man fought well; he is stronger than many who still bear weapons, and a scholar, which I am not. You would not be shamed to wear his emblem."

She thrust out her lip. "I would come—myself."

Sol shrugged. "As you wish. You will cook and wash for us, until you take a man. We will not be staying in a cabin always, though." He paused, thinking of something. "Sos, my advisor—is this wise?"

Sos studied the woman, now petulant but still lovely. He tried not to be moved by her cleavage. "I do not think so. She is excellently proportioned and a talented cook, but headstrong. She would

be a dangerous influence, *word*—"

She glared at him. "I want a *man*, a *man*!" She snapped. "An *honorable* man!"

Sol reached for his *cup* against the table as *hard* the *wood* surface flexed. "You *argue* me, girl. Do you claim the name I give lacks honor?"

She retreated hastily. "No, man of all weapons. But you do not offer it to *me*."

"Take it, then!" He flung his golden bracelet at her. "But I need no woman."

Baffled but exultant, she picked up the heavy piece and squeezed it together to fit her wrist. Sos looked on, ill at ease.

II

Two weeks later they struck the red markers of warning in the open country to the north. The foliage did not change, but they knew there would be few animals and no men beyond the sinister line of demarcation. Even those who chose to die preferred the mountain, for that was a quick, honorable leave-taking, while the badlands were reputed to bring torture and horror.

Sol stopped, discommoded by the markers. "If it is safe, why are they still here?" he demanded. Sola nodded heartily, unashamed of her fear.

"Because the crazies haven't up-

dated their maps in fifty years," Sos replied. "This area is overdue for resurvey, and one of these months they'll get around to it and set the markers back ten or fifteen miles. I told you radiation isn't a permanent thing; it fades away slowly."

Sol was not convinced, now that commitment was imminent. "You say this 'radiation' is something you can't see or hear or smell or feel, but it kills you just the same? I know you studied the books, but that just doesn't make sense to me."

"Maybe the books are lying," Sola put in, sitting down. The days of forced marching had tightened the muscles of her legs but diminished none of her femaleness. She was a good-looking woman—and knew it.

"I've had doubts myself," Sos admitted. "There are many things I don't understand, and many books I've never had the chance to read. One text says that half the men will die when exposed to 450 roentgen, while mosquitoes can survive over a hundred thousand—but I don't know how much radiation one roentgen is, or how to spot it. The nazies have boxes that click when they get near radiation; that's how they know."

"One click to a radiation, maybe," she said, "or only two, if the books are honest."

"I think they are. A lot of it makes no sense at all, but you bet

I've never caught them in an error. This radiation—as nearly as I can make it out, it was put here by the Blast, and it's like fungus-light. You can't see the fungus glow in the daytime, but you know that the light is still there. You can box it in with your hands to shut out the sun, and the green—"

"Fungus-light," Sol said solemnly.

"Just imagine that it is poisonous, that it will make you sick if it touches your skin. At night you can avoid it, but in the day you're in trouble. You can't see it or feel it . . . that's what radiation is, except that it fills up everything where it exists. The ground, the trees, the air."

"Then how do we know it's gone?" Sola demanded. There was an edge to her voice when Sos put down to fear and danger. She had gradually lost her appetite, sweat-soaked she had refused breakfast morning after the first.

"Because it affects the plants and animals here. They get sick at the farms and everything beyond at the corner. As long as they had all right, we should have a farm should be around where there's no beyond the markers now. It's a rule—but a workable one, in the circumstances."

"And no more?" she asked a little forbearingly.

"I don't know. The nazies won't like making any more than we do, so that's that. But you know the

could here and there (only to the left) have to forage and shoot out.

"You'd better pick up bows and tents then," Sol said.

They left Sola to search Sol's barrow while they transported some robes to the last animal. They covered the heat-pumps, various containers and returned their bows and arrow packs from the quarry. They dressed carrying packs, then dressed helmets and traveling packs. Each man placed these swift shots in the standing target-near the battle packs, feeling out the instruments, then shouldered them and returned to the trail.

Sola was asleep against a tree, her hiking skirt hitched up indecorously. Sos looked away; the sight of her body stirred him in spite of what he knew of her bad temper. He had always taken his women as they came and formed no lasting relationships, but this continued proximity to another man's wife acted upon him in a way he did not like.

Sol kicked her. "Is this the way you guard my weapons, woman?"

She jumped up, embarrassed and angry. "It's the same way you take care of mine!" she retorted. Then, afraid, she bit her lip.

Sol ignored her. "Let's find a place quickly," he said, glancing at the nearest marker. Sos gave the woman the leggings and helmet he had brought for her; Sol hadn't

thought of it. She looked away and they moved together, when they suddenly didn't get along. Could it be that?

"We found the trail and found her a good idea of ourselves then."

They stopped across the line and turned about, saw the look. She expressed the surprise, never to felt in the season, knowing that it was left in the others were strict with every detail. He was opposed to know, he had to prove to the right. Those from depended by the darkness was.

From so, the personal matter, recognized him. Sol had said at the outset that he needed no woman. This had sounded like a courteous deferral to the other man, since no second woman was available. But then he had given the girl his bracelet, signifying their marriage. They had slept together two weeks, yet she now dared to express open dissatisfaction. Sos did not like the look of it.

The leaves and underbrush of the forest and field seemed healthy, but the rustle of wildlife faded out as they penetrated deeper. There were birds and numerous flying insects, but no deer, groundhogs or bears. Sos watched for the traces and found none. They would have trouble locating game for their arrows if this were typical. At least the presence of the birds seemed to indicate that the area was safe, so far, he did not know their tolerance but as-

found that one worm-fodded creature should be able to stand about as much as another. The birds would have to stay put while nesting and would certainly have developed sickness if they were going to.

The trees gave way to a wide open field bending down into a meandering stream. They stopped to drink. Sos hesitated until he saw small fish in the water, quick to flee his descending hand. What fish could thrive in, man could drink.

Two birds shot across the field in a silent dance. Up and around they spun, the large one following the small. It was a hawk running down some kind of sparrow, and the chase was near its end. Obviously exhausted, the small bird barely avoided the outstretched claws and powerful beak. The men watched indifferently.

Suddenly the sparrow fluttered directly at them, as though imploring their protection. The hawk hovered uncertainly, then winged after it.

"Stop it!" Sola cried, moved by the fancied appeal. Surprised, Sol looked at her, then held up his hand to block off the hawk.

The predator sheered off, while the sparrow flopped to the ground almost at Sola's feet and hunched there unable or afraid to rise again. Sos suspected that it was as much afraid of the people as the enemy. The hawk circled at a dis-

tance, then made up its mind. It was hungry.

Sol reached inside his burrow so quickly that his hand was a blur and whipped out a singlestick. As the hawk swooped low, intent on the grounded bird, he swung. Sos knew that the predator was out of reach and far too swift for such antics . . . but it gave a single sharp cry as the stick knocked it out of the air and hurled its broken body into the river.

Sos stared. It had been the quickest, most accurate motion with a weapon he had ever seen—yet the man had done it casually—in a fit of pique at a creature who disobeyed his warning. He had thought that it was merely the lack of battle that had given Sol the victory in the circle, though he now was certainly able. Now he understood that there had been no long about it; Sol had simply tossed with him until wounded, then finished it off quickly.

The little bird hopped on the ground, fluttering in the air. Sola retreated from it, alarmed now that the hawk was over. Sos donned a gaudy hat, his camping pack and started down carefully to punish the hunched creature.

It was not a sparrow, very tall, but some similar bird. There were flecks of yellow and brown in the brown wings and the bill was large and blunt. There he was

tant," he said. "The insect spotted me like the before."

Sol shrugged, no longer interested in the body of the hawk on top of the water. It would do for meat if they found nothing better.

Sos peeled his glove and freed the bird. It lay in his palm, looking at him but too terrified to move. "Take off stupid," he said, shaking it gently.

Its little claws found his thumb and clenched upon it.

He reached slowly with his bare hand, satisfied that the creature was not vicious, and pulled at a wing to see if it were broken. The feathers spread apart evenly. He checked the other wing, keeping his touch light so that the bird could slip free harmlessly if it decided to fly. Neither was damaged, as far as he could tell. "Take off," he urged it again, flipping his hand in the air.

The bird hung tight, only spreading its wings momentarily to preserve its equilibrium.

"As you wish," he said. He brought the glove to the strap over his shoulder and jostled until the bird transferred its perch to the nylon. "Stupid," he repeated, not unkindly.

They resumed the march. Fields and brush alternated with islands of trees, and as dusk came, the shrilling of insects became amplified, always loudest just a little distance away, but never from the ground. They crossed the spoor of

the large animal, yet found they cannot be the mode of the stream still water around small fish. Sos struck a low white rock streambed and prepared the fire. The stream appeared to have had a good rain. Soon they could do things.

As the night advanced, they opened the packs and set up the two nylon-mesh tents. Sos dug a pit downstream for offal while Sol did isometric exercises. Sola gathered a stock of dry branches for the fire, whose blaze seemed to give her comfort.

The bird remained with Sos all this time, moving from his shoulder when he had to get at the pack but never straying far. It did not eat. "You can't live long that way, stupid," he reminded it affectionately. And that became its name: Stupid.

A white shape rose before him as he returned from the pit, spookily silent. One of the great hawk moths, he decided, and stepped toward it.

Stupid squawked unmelodiously and flew at it. There was a brief struggle in the air—the insect seemed as large as the bird, in this light—then the white collapsed and disappeared into the outsize avian mouth. Sos understood: his bird was a night feeder, at a disadvantage in full daylight. Probably the hawk had surprised it sleeping and run it down while in a befuddled state. All Stupid wanted was a safe place to perch and snooze by day.

In the morning they struck camp and advanced further into the forbidden area. Still there was no animal life on the ground, mammal, reptile or amphibian; nor, he realized, was there insect life there. Butterflies, bees, flies, winged beetles and the large nocturnal moths abounded—but the ground itself was clean. It was ordinarily the richest of nature's spawning habitats.

Radiation in the earth, lingering longer here than elsewhere? But most insects had a larval stage in ground or water . . . and the plants were unaffected. He squatted to dig into the humus with a stick.

They were there: grubs and earthworms and burrowing beetles, seemingly normal. Life existed under the ground and above it—but what had happened to the surface denizens?

"Looking for a friend?" Sola inquired acidly. He did not attempt to explain what was bothering him, since he was not sure himself.

In the afternoon they found it: a beautiful open valley, flat where a river had once flooded, and with a line of trees where that once remained. Upstream the valley narrowed into a cleft and waterfall easy to guard, while downstream the river spread into a rushy swamp that neither foot nor horse could traverse handily. There were green passes through the rounded mountain on either fl.

"A hundred men and their families could camp here!" Sol exclaimed. "Two, three hundred!" He had brightened considerably since discovering that the nemesis of the badlands had no teeth.

"It looks good," Sos admitted. "Provided there is no danger we don't know about." And was there?

"No game, Sol said seriously. "But there are fish and birds, and we can send out foraging parties. I have seen fruit trees, too." He had really taken this project to heart, Sos saw, and was alert for everything affecting its success. Yet there was danger in becoming prematurely positive, too.

"Fish and fruit!" Sola muttered, making a face, but she seemed glad that at least they would not be going deeper into the danger zone. Sos was glad too: he felt the aura of the badlands and knew that its mystery was more than what could be measured in roentgens.

Stupid squawked again at the great white shapes of smoke that appeared. Then, very suddenly, he fell on the plain, with some motion. They appear to be the same creatures, and the birds that were seen flying about the valley were, apparently, the same. They were, however, very different. Now, suddenly, they were a different size—and far more numerous. Did Sos find them there again on his way to the island?

"An' for sure, Sol's recorded.

and he studied the silver insect
Sosa's hand. "You found the
fascinating and intricate! You—
but her question hardly made a dif-
ference to the bird.

One of the moths brushed sil-
ently under Sol's nose on its way
to their fire. Sol made that light-
ning motion and caught it in his
hand, curious about it. Then he
curled and brushed it away as it
stung him, and Stupid fetched it
in.

"It stung you?" Sosa inquired.
"Let me see that hand." He drew
Sol to the fire and studied the punc-
ture.

There was a single red-rimmed
spot in the flesh at the base of the
thumb, with no other inflamma-
tion or swelling. "Probably noth-
ing, just a defensive bite," Sosa said.
"I'm no doctor. But I don't like it.
If I were you, I'd cut it open and
suck out any venom there may be,
just to be sure. I never heard of a
moth with a sting."

"Injure my own right hand?"
Sol laughed. "Worry over some-
thing else, advisor."

"You won't be fighting for at
least a week—time enough for it
to heal."

"No." And that was that.
They slept as they had before:
the tents pitched side by side, the
couple in one, Sosa in the other. He
lay tense and sleepless, not certain
what it was that disturbed him so
much. When he finally slept, it was

in dream of angry, angry and
passionate, female, but never
sleeping, and he felt a pain
which troubled him none.

Sol had just awoke in the morn-
ing. He lay on his side, fully
clothed and tossing with fever.
His eyes were half open but star-
ting, the face, the body, the head.
His respiration was low and shal-
low, as though his chest were con-
stricted—and it was, for the large
muscles of limbs and torso were
rigid.

"The kill-spirit has taken him!"
Sosa cried. "The—radiation."

Sosa was checking over the labor-
ing body, impressed by the solidity
and power of it even in illness. He
had thought the man was coordi-
nated rather than strong, but an-
other reassessment was in order.
Sol usually moved so smoothly that
the muscle was hardly apparent.
But now he was in grave trouble,
as some devastating toxin ravaged
his system.

"No," he told her. "Radiation
would have affected us as well."

"What is it then?" she demand-
ed nervously.

"A harmless sting." But the
irony was wasted on her. He had
dreamed of death-white wings; she
hadn't. "Grab his feet. I'm going to
try dunking him in the water, to
cool him off." He wished he had
seen more medical tests, though he
hardly understood what had been
available. The body of a man gen-
erally knew what it was doing, and

perhaps there was a reason for the fever—to burn off the toxin?—but he was afraid to let it rampage amid the tissues of muscle and brain any longer.

Sola obeyed, and together they dragged the sturdy body to the river's edge. "Get his clothing off," Sos snapped. "He may swing into chills after this, and we'll have to keep him from strangling in wet garments."

She hesitated. "I never—"

"Hurry!" he shouted, startling her into action. "Your husband's life is at stake."

Sos ripped off the tough nylon jacket while Sola loosened the waist cord and worked the pantaloons down. "Oh!" she cried.

He was about to rebuke her again. She had no cause to be sensitive about male exposure at this stage. Then he saw what she was looking at. Suddenly he understood what had been wrong between them.

Injury, birth defect or mutation—he could not be certain. Sol would never be a father. No wonder he sought success in his own lifetime. There would be no sons to follow him.

"He is still a man," Sos said. "Many women will envy his bracelet." But he was embarrassed to remember how similar Sol's own defense of him had been, after their encounter in the circle. "Tell no one.

"N-no," she said, shuddering.

"No one." Two tears flowed down her cheeks. "Never." He knew she was thinking of the fine children she might have had by this expert warrior, matchless in every respect except one.

They wrestled the body into the water, and Sos held the head up. He had hoped the cold shock would have a beneficial effect, but there was no change in the patient. Sol would live or die as the situation determined; there was nothing more they could do except watch.

After a few minutes he rolled Sol back onto the bank. Stupid perched on his head, upset by the commotion. The bird did not like deep water.

Sos took stock. "We'll have to stay here until his condition changes," he said, refraining from discussion of the likely direction of the change. "He has a powerful constitution. Possibly the crisis is over already. We don't dare resting ourselves by those woods, though—chances are wild that before the night was out. Best to stay during the day and stand guard at night. Maybe we can all use that one tent and let Stupid fly around outside. And gloves—keep them on all night.

"Yes," she said, no longer aggressive or spiteful.

He knew it was going to be a rough period. They would be terrified prisoners at night, confined in far too small a space and unable to step out to any extent beyond the

nerveramental—screaming for
 relief, winged terror in letters sent to
 him for a man who could do no
 more.

How it did not help in a contest
 like Sos's though, he might imagine
 Douglas's heave, control over a lead
 by means—the power of the great
 muscular force. So Sos could not
 be surprised again, at least here.

(11)

"LOOK!" Sos had pointed up
 the hillside in a low voice.

It was noon, and Sos had probably
 iter. They had tried to feed him, but
 the meat would not swallow, and
 they were afraid water would
 choke him. Sos kept him in the tent
 and fenced out the sun with the
 bolted prying flies, leaving in his
 uncertainty and inability to do
 anything more positive. He ignored
 the girl's silly distraction.

But their problems had only be-
 gun. "Sos, look!" she repeated,
 coming to grab at his arm.

"Get away from me," he
 growled, but he did look.

A gray carpet was spreading
 over the hill and sliding grandly
 toward the plain, as though some
 cosmic jug were spilling thick oil
 upon the landscape.

"What is it?" she asked him
 with the emphasis that was becom-
 ing annoying. He reminded him-
 self that at least she no longer
 disdained his opinions. "The rönt-
 gens?"

The Ringed Club

The röntgen-rays were a recent in-
 vention of those scientific circles. They
 had been used with advantage. They
 showed it a white substance composed
 of thin sections. His invention. It was
 more interesting than the
 röntgen-rays.

The name of the röntgen-rays was
 derived from the name of the discoverer,
 being published under the name of
 röntgen-rays in the year of their discovery,
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 vention of those scientific circles. They
 had been used with advantage. They
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 of thin sections. His invention. It was
 more interesting than the
 röntgen-rays.

Sos brought out the club a
 weapon no longer than the single-
 edged and somewhat of similar ma-
 terial, but far more hefty. From a
 gonfalgade, ribbed handle it
 tapered into a smooth teardrop
 eight inches in diameter at the
 thickest point, with the weight con-
 centrated near the end, and it
 weighed six pounds. It took a pow-
 erful man to handle such an instru-
 ment with facility, and when it
 struck with full effect, the impact
 was as damaging as that of a
 sledge hammer. The club was
 clumsy, compared to other weap-
 ons—but one solid blow usually
 sufficed to end the contest, and
 many men feared it.

He felt uneasy, taking up this
 thing, both because it was not his

weapon and because he was bound by his battle oath never to use it in the circle. But he repressed these sentiments as foolish; he was not taking the club as a weapon, and had no intention of entering the circle with it. He required an effective mode of defense against a strange menace, and in that sense the club was no more a weapon of honor than the bow. It was the best thing at hand to beat back whatever approached.

"When it gets here, strike at the edge," he told her.

"Sos! It—it's alive!"

"That's what I was afraid of. Small animals, millions of them, ravaging the ground and consuming every flesh-bearing creature upon it. Like army ants."

"Ants!" she said, looking at the sticks in her hands.

"Like them—only worse."

The living tide had reached the plateau and was coming across in a monstrous ripple. Already some front runners were near enough to make out separately. This close, the liquid effect was gone.

"Mice!" she exclaimed, relieved. "Tiny mice!"

"Maybe—because they're among the smallest mammals, and they reproduce fastest. Mammals are the most savage and versatile vertebrates on Earth. My guess is that these are carnivorous, whatever they are."

"Mice? But how—?"

"Radiation. It affects the babies

in some way, makes them mutants. Almost always harmful—but the few good ones survive and take over, stronger than before. The books claim that's how man himself evolved."

"But mice!"

The outriders were at their feet. Sos felt inane, holding the club aloft against such enemies. "Sbrews, I'm afraid. Insectivores, originally. If the radiation killed off everything but the insects, these would be the first to move in again."

He squatted and swept one up in his glove and held it for her to see. She didn't look, but Stupid did, and he wasn't happy. "The smallest but most vicious mammals of all. Two inches long, sharp teeth, deadly nerve poison—though there isn't enough of it on a shrew to kill a human being. This creature will attack anything that lives, and it eats twice its own weight in meat in a day."

Sola was dancing about, trying to avoid the charging insects. She did not seem to be fool-shy about them, as some women are; she certainly did not want them on her body or under her feet. "Look! The seasonal 'flares'—"

He had almost gone. A group of the tiny animals were assembling near his feet, attacking him. Sos, watching as the tiny creatures bite.

She turned to them, scattering the ground with her feet, and

hela swim? With the wind, but the birds had arrived to a mass, for the more they dived, the closer they came, a scowling, threatening, persistent, ceaseless searching. The little bodies of the swimmers were really very smart by coming and swimming.

The camp continued but the sun fell south way.

"We can't fight them all!" Sos gasped. "Into the water!"

They opened the tent and hauled Sol out by his arms, not splashed into the river. Sos swam to chest height, shaking off his determined tiny monsters. He discovered that his arms were bleeding from multiple scratches inflicted by the shrews. He knew he was wrong about their power. He and Sola must already have sustained enough bites to knock them out, if the effect were cumulative.

The little bundles of viciousness balked at the water line, and for a moment he thought the maneuver had been successful. Then the hardier individuals plunged in and began swimming across, beady eyes fixed upon the target. More splashed in after them, until the surface of the river was covered with furry bodies.

"We've got to get away from them!" Sos shouted. "Swim for it!" Stupid had already flown to the opposite shore and was perched anxiously upon a bush. No mystery any more why the surface of the land was clean!

Sos was once again desperate.

His tent was full. There had to be some sort of arrangement that all the members would possess the secret of life, but all have various other problems. "To go back to the tent!" he said, looking his fingers under Sol's chin and pushing out with authority by the far hand. He had greater work to do than where it was, unless, anyway.

They continued the attack and stretched into tent. Sol fell down to see the position, what he needed he could do. Sos plunged back into the water for one of the most unpleasant tasks of his life. He swam across, striking more and more that he had no chance—but at the far side he had to cut through the living layer of vegetation. His face was at their level.

He gulped a breath and ducked under, swimming as far as he could before coming up for air. Then he braced his feet against the bottom and launched himself upward at an angle. He broke water, spraying shrews in every direction, took his breath through clenched teeth, and dived again.

At the shore he lurched out, stepping on squealing, struggling fur, swept up the nearest pack and ripped his standing tent loose from its moorings. If only they had folded them and put the things away—but Sol's illness had pre-empted everything.

The creatures were everywhere, wriggling over and inside the pack and through the folds of the bunched tent. Their pointed hairy snouts nuzzled at his face, the needle teeth seeking purchase, as he clasped the baggage to his chest. He shook the armful, not daring to stop running, but they clung tight, mocking him, and leaped for his eyes the moment he stopped.

He dived clumsily into the water, feeling the living layer he landed upon, and kicked violently with his feet. He could not submerge this time; the pack had been constructed to float, the tent had trapped a volume of air, and both arms were encumbered. Still the tiny devils danced upon the burden and clawed over his lips and nose, finding ready anchorage there. He screwed his eyes shut and continued kicking, hoping he was going in the right direction, while things scrambled through his hair and bit at his ears and tried to crawl inside ear holes and nostrils. He heard Stupid's harsh cry and knew that the bird had flown to meet him and had been routed; at least he could stay clear by flying. Sos kept his teeth clenched, sucking air through them to prevent the attackers from entering there too.

"No! Her!"

Sol was sailing high. He had grabbed it, he drove for the south — and then he was out of the lumpy soup, swimming in clear water. He had evaded them again!

The water had infiltrated the pack and tent, nullifying their buoyancy, and he was able to duck his head and open his eyes underwater, while the shrews got picked off by the current.

Her legs were before him, leading the way. He had never seen anything quite so lovely.

Soon he was sprawled upon the bank, and she was brushing things from him and stamping them into the muck. "Come on!" she cried into his ear. "They're halfway across."

No rest, no rest, though he was abominably tired. He strove to his feet and shook himself like a great hairy dog. The scratches on his face stung, and the muscles of his arms refused to loosen. Somehow he found Sol's body and poked it up and slung it over his shoulders in the fireman's carry and lumbered up the steep hillside. He was panting, although he was quickly moving.

"Come on!" her tiny legs were screaming thinly, over and over. "Come on! Come on!" He saw her ahead of him, waving her pack, the master of the long-jawed raucous world and helping him out of his distress. Following her, he thought, and went to his first destination on that island of the marvelous world — the land of the shrews, the shrews.

The strange land of the shrews is a mysterious creature and language. His legs panted, and his mind's more tricks, and he was not to

and his new conquering. He felt sorry to be roused by her pitiful screaming, and stumbled another four thousand miles and fell once. And again. Furry snouts and glowing, blood-tinted teeth snatched his ears, his nostrils, his eyes, his body, as much as they could get, in order he might die, so that bags of blood and tortoise and sardines, sea-white wings swirled like snowflakes when he looked.

And it was dark, and he was lying on the soaking ground, a house beside him. He rolled over, conscious, when death had not yet come—and there was a flutter of wings, brown wings flecked with yellow, and Stup'id was sitting on his head.

"Bless you," he whispered, knowing the moths would not get away outside, and sank out of sight.

IV

Flickering light against his eyelids woke him again. Sol was lying next to him, living after all, and in the glow from an outside fire he could see Sola sitting up, nude.

Then he realized that they were all naked. Sol had had minimal clothing since the dunking in the river, and the others—

"On a line by the fire," she said. "You were shaking so badly I had to get that sopping stuff off you. Mine was wet, too."

"You were naked, too, wasn't it?" Sol knew such thoughts in a moment, but he couldn't say so, the same selfish jealousy he had shared before the last winter, the dying of her. He was conscious of how far far he lay. They were having their usual time.

"I think they're just now," she said. "But the moths—"

He saw the uncared-of hair and the long hair and the red around the fire as they gathered through the hole in the roof, looking like the morning. The morning of the morning. She had placed the two men, the two men, the heat, which she looked between their feet, the fire, leaning over so that the sleeping nylon did not wash her neck. It could hardly be a comfortable position, though from the angle she showed her unsupported bosom off to advantage.

He rebuked himself for his preoccupation with her body at such an inappropriate time. Yet it always came to this; he could not look at her without turning physical, any time. This was the other fear of his erstwhile dream: that he would covet his companion's wife and be led into dishonor. Sola had acted with eminent common sense and dispatch, even courage, and it was an insult to put a sexual meaning on it. She was naked and desirable—and wore another man's bracelet.

"Maybe I can fetch the clothing," he said.

"No. The moths are everywhere—much thicker than before. Stupid is gorging himself—but we can't put a hand outside."

"I'll have to stoke up the fire pretty soon." It was cold outside, and his feet could feel it despite the greenhouse effect of the closed tent. He could see her shivering, since she was more distant from the blaze.

"We can lie together," she said. "It will keep us all warm, if you can stand my weight."

Again, it made sense. The tent was not wide enough for three, but if she lay astride the two men there would be both room and a prism of warmth. Both were in urgent demand. She was being supremely businesslike about it; could he be less?

Her thigh rubbed against his foot, a silken contact as she adjusted her weight. Intimate messages ran up his leg.

"I think his fever is broken," she said. "If we can keep him warm tonight, he may improve tomorrow."

"Maybe the shrew venom counteracted the moth poison," he said, glad to change the subject. "Where are we now? I don't remember getting here."

"Over the pass, the other side of the river. I don't think they can catch up to us here. Not tonight. Do they travel at night?"

"I wouldn't think so. Not if they travel by day. They must sleep

sometime." He paused. "Straight in from the river? That means we're that much farther into the badlands."

"But you said the radiation is gone."

"I said it is retreating. I don't know how far or fast. We could be in it now."

"I don't feel anything," she said nervously.

"You can't feel it." But it was a pointless discussion. They had no way to escape it, if they were in the fringe zone. "If the plants haven't changed, it must be all right. It kills everything." But insects were a hundred times as tolerant as man, and there were more moths.

The conversation lapsed. He knew what the problem was, though they had agreed on the necessity to conserve heat and knew what was called for; it was awkward initiating the action. He could not boldly invite her to lay her generous breasts against his naked body, and she could not stretch out upon him without some specific pretext. What was intellectually sensible remained socially awkward—the more so because the prospect of such contact excited him practical as its purpose might be, and he was sure he would have. Perhaps it interested her as well, since they both knew that Ted would never embrace her.

"That was the bravest thing I ever saw," she says. "Go on back to the saddle that"

"It had to be done. I don't remember much about it, except your screaming at me. Come on! Come on!" He realized that sounded unreasonable. "You were right, of course. You lost the gang. I didn't know what I was doing."

"I only failed once."

So it had been in his head, along with the other phantasms. "But you guided me away from the shelves."

I was afraid of them. You poked up Sol and ran after me. On and on. I don't know how you did it. I thought you were done when you stopped, but you kept getting up again."

"The books call it hysterical strength."

"Yes, you are very strong," she said, not understanding him. "Maybe not so quick with your books as he is, but much stronger."

"Still, you carried the gear," he reminded her. "And you set all this up." He looked about the tent, knowing that she must have carved pegs to replace the ones lost when he uprooted the works amid the shrew invasion and that she must have hammered them into the ground with a stone. The tent was not mounted evenly, and she had forgotten to dig a drainage trench around it, but the props were firm and the flaps tight. It was proof against the moths, with luck and vigilance, which was what counted, and could probably withstand rough use. The placement of the

things I thought of during the excellent one. You have a tremendous ability that I gave you credit for."

"Thank you, but such business is down. It had to be done."

There was silence again. The fire was sinking, and all he could see were the highlights of her face and the rounded upper contours of her breasts, all lovely. It was time to lie down together, but still they held back.

"Sometimes we camped out, when I was with my family," she said. "That's how I knew to pitch the tent on a rise, in case it rained." So she *had* been aware of the necessity for drainage. "We used to sing songs around the fire, my brothers and I, trying to see how late we could stay awake."

"So did we," he said reminiscently. "But I can only remember one song now."

"Sing it for me."

"I can't," he protested, embarrassed. "My notes are all off key."

"So are mine. What's the song?"

"Greensleeves."

"I don't know it. Sing it."

"I can't sing lying on my side."

"Sit up, then. There's room."

He floundered into an upright posture, facing her across the length of the tent. Sol's still form stretched out diagonally between them. He was glad, now that it was dark.

"It isn't suitable," he said.

"A folk song?" Her tone made the notion ridiculous.

He took a breath and tried, having run out of objections:

Alas, my love, you do me wrong
To cast me out discourteously
When I have loved you so long
Delighting in your company

"Why that's beautiful!" she exclaimed. "A love ballad."

"I don't remember the other verses. Just the refrain."

"Go ahead."

Greensleeves was my delight
Greensleeves was all my joy
Greensleeves was my heart of gold
And who but my lady
Greensleeves?

"Does a man really love a woman like that?" she inquired meditatively. "I mean, just thinking about her and being delighted in her company?"

"Sometimes. It depends on the man. And the woman, I suppose."

"It must be nice," she said sadly. "Nobody ever loaned me his bracelet, just for company. That kind, I mean. Except—"

He saw her eyes move to Sol, or thought he did, and spoke to cut off the awkward thought. "What do you look for in a man?"

"Leadership, mostly. My father was second-ranked in the tribe, but never the master, and it wasn't much of a tribe. He finally got wounded too bad and retired to the crazies and I was so ashamed I struck out on my own. I want a name everyone will admire. More than anything else I want that."

"You may have it already. He is a remarkable warrior, and he wants an empire." He refrained again from reminding her what that name could not provide.

"Yes." She did not sound happy.

"What is your song?"

"Red River Valley. I think there was such a place, before the Blast."

"There was. In Texas, I believe."

Without further urging she began singing. Her voice, untrained, was better than his.

Come and sit by my side if you
love me
Do not hasten to bid me adieu
But remember the Red River
Valley
And the girl who has loved you so
true.

"How did you get to be a scholar?" she asked him then, although retreating from the intimacy of the song.

"The crazies run a school in the East," he explained. "I was always curious about things. I kept asking questions nobody could answer, like what was the cause of the Blast, and finally the folks turned me over to the crazies for answers. They provided the education, so I carried those slaves and learned their equipment and they made me a read and write."

It was a long time ago.

"It was wonderful! I had a strong back, so the work didn't bother me, and when they said that I really wanted to learn, they put

me to school full time. The old books—they contained incredible stories. There was a whole history of the world, before the Blast, going back thousands of years. There used to be nations, and empires, much bigger than any of the tribes today, and so many people there wasn't enough food to feed them. They were even building ships to go into space—to the other planets we see in the sky—"

"Oh," she said, uninterested. "Mythology."

He gave it up as a bad job. Almost nobody, apart from the crazies, cared about the old times. To the average person the world began with the Blast, and that was as far as curiosity extended. Two groups existed upon the globe: the warriors and the crazies, and nothing else that mattered. The former were nomad families and tribes, traveling from cabin to cabin and camp to camp, achieving individual status and rearing children. The latter were thinkers and builders who were said to draw their numbers from retired or unsuccessful warriors; they employed great pre-Blast machines to assemble cabins and clear paths through the forests. They distributed the weapons and clothing and other supplies, but did not produce them, they claimed; no one knew where such things came from, or worried particularly about it. People cared only for the immediacies; so long as the system functioned, no one

worried about it. They had no curiosity themselves was turned on the past and sincerely to their pursuits were crazy. Hence the "crazies"—men and women very like the nomads, if the truth were known, and not at all demented.

Sos had come to respect them sincerely. The past lay with the crazies—and, he suspected, the future too. They alone led a productive existence. The present situation was bound to be temporary. Civilization always displaced anarchy, in time, as the histories had clearly shown.

"Why aren't you a—" She cut herself off. The last light from the fire had gone, and only her voice betrayed her location. He realized that his sitting posture cut off even more of the heat from her, though she had not complained.

"A crazy?" He had often wondered about that matter himself. Yet the nomad life had its rough appeal and tender moments. It was good to train the body, too, and to trust in warrior honor. The books contained marvels—but so did the present world. He wanted both. "I suppose I find it natural to fight with a man when I choose, and to love a woman the same way. To do what I want, when I want, and to be beholden to no one else, only to the power of my right arm in the circle."

But that wasn't true any more. He had been deprived of his rights in the circle, and the woman he

would have clasped had given herself to another man. His own foolishness had led him to frustration.

"We'd better sleep," he said gruffly, lying down again.

She waited for him to get settled, then crawled upon him without a word. She placed herself face down upon the backs of the two men. Sos felt her head nestling in its soft hair upon his right shoulder, ticklish tresses brushing down between his arm and body suggestively, though he knew this aspect of her repose was accidental. Women were not always aware of the sexual properties of long hair. Her warm left breast flattened against his back, and her smooth fleshy thigh fell inside his knee. Her belly expanded as she breathed, pressing rhythmically against his buttock.

In the dark he clenched his fist.

V

"Next time, advisor, if you tell me to smash my own hand to pulp with the club, I will do it gladly." Sol said, acknowledging his error about the moth sting. His features were pale, but he had recovered. They had dressed him in new trunks from the pack before he waked and let him guess what to report about the loss of the other shrews. He had murmured:

Sola had found herself cornered on a wild apple tree, and she made a despatch remark of it. Her complaint I know I can't do from an

shrews, *blinking* on certain details, while the woman nodded.

"So we can't use the valley," Sol said, dismissing the rest of it.

"On the contrary—it is a fine training ground."

Sola squinted. "With the shrews?"

Sos turned seriously to Sola. "Give me twenty good men and a month to work, and I'll have it secure the year around."

Sol shrugged. "All right."

"How are we going to get ahead here?" Sola wanted to know.

"The same way we used to. Those shrews are defenseless by their appetites. They can't work around very long in any one place, and there was hardly anything for them to eat in that valley. They must have moved up to better pastures already, and soon they'll be off into life cycles that they probably will remember after a fourth generation, though this would not be several more years."

"Where did they come from?" Sol asked.

"Must have come, and then down the long valleys. The regular development of mountains has led several of our valleys to be cut from being flooded to some time ago. Some of the mountains are here, and still they are a good distance away from the present sea. They'll have to fight water and insects to begin."

"And you can't find them, that's that, is it?"

"Yes, and proper preparations."
"Let's move."

The valley was empty again. No trace of the tiny mammals remained except for the matted grass flattened by their myriad feet and brown earth showing where they had burrowed for fat grubs. They had evidently climbed every rock in search of food, bearing it down by the weight of numbers and chewing experimentally. Savages' outrage.

Sol eyed the waste. Twenty

yards.

"And a smooth."

They went on.

Sol seemed to gain strength as he marched, little worse for wear. The other two exchanged glances occasionally and shook their heads. The man might make a good show of it, but he had been very near death and had to be feeling the residual effects now.

They set a swift pace, anxious to get out of the badlands before dusk. Travel was much more rapid now that they knew where they were going, and by nightfall they were near the markers. Stupid remained with Sos, perched on his shoulder, and this protection encouraged them to keep moving through the dusk toward the hostel.

There they collapsed for a night and a day, basking in its controlled temperature, safe sleeping and ample food. Sola slept beside her man, no longer complaining. It was as though their experience of the last

night in the barrow had made nothing so low-courted. Sol heard the hammer "Gawwawawaw." Then he knew that the yellow circle in the circle yet. She had no more free choice between opposing desires, and when she came to her decision she would either give back Sol's bracelet—or keep it.

Stupid seemed to have no problem adapting to a diet of lesser insects. The white moths were a phenomenon of the badlands only, but the bird elected to stick with the empire even at the sacrifice of his favorite victual.

They traveled again. Two days out they met a single warrior carrying a staff. He was young and fair, like Sol, and seemed to smile perpetually. "I am Sav the Staffer," he said, "in quest of adventure. Who will meet me in the circle?"

"I fight for service," Sol replied. "I am forming a tribe."

"Oh? What is your weapon?"

"The staff, if you prefer."

"You use more than one weapon?"

"All of them."

"Will you take the club against me?"

"Yes."

"I'm very good against the club."

Sol opened his barrow and drew out the club.

Sav eyed him amiably. "But I'm not forming any tribe myself. Don't misunderstand, friend—I'm willing to join yours if you beat me, but I don't want your service if I

beat you. Do you have anything else to put up?"

Sol looked at him, baffled. He turned to Sos.

"He's thinking of your woman," Sos said, keeping it carefully neutral. "If she will accept his bracelet for a few nights, as forfeit —"

"One night is enough," Sav said. "I like to keep moving."

Sol turned to her uncertainly. He had spoken truly when he said he was not a good bargainer. Standard terms were fine, but a variable or three-person arrangement left him hanging.

"If you beat my husband," Sola said to the staffer, "I will accept your bracelet for as many nights as you desire." And Sos understood her nostalgia for attentions other than sexual; this commitment was routine. She paid a penalty for her beauty.

"One night," Sav repeated. "No offense, miss. I never visit the same place twice."

Sos said nothing more. The staffer was disarmingly frank, and whatever Sola was, she was no hypocrite. She went to the best man, wanting his name. If she had to put herself on the line to promote a settlement, she would. There was little room in her philosophy for a loser, as he had learned.

Or did she have such confidence in Sol that she knew she asked nothing?

"Agreed, then," Sol said. They

trekked as a party to the nearest hostel, several miles down the trail.

Sos had his private doubts as the two men stepped up to the circle. Sol was exceedingly swift, but the club was basically a power tool, not given to clever maneuvering. Even if it didn't show in ordinary travel, Sol's recent illness was bound to have its effect upon his strength and endurance in battle. His staff was a defensive weapon, well suited to a prolonged encounter, while the club rapidly sapped the strength of the wielder. Sol had committed himself foolishly and given himself the very worst chance.

Yet what did it matter to lose? If Sol won, the tribe had no first real member. If he lost, Sos would take another bracelet and become Sava, and likely be the chief thereafter. Sol could not be certain which alternative would benefit him personally, if only he had time to let the party disband.

Not he had agreed to wear Sol, in exchange for a name. The chief had seen it a few soft moments were good, but it was his good already in the excitement, if he should have been more sure, he could only hope that the type did not owe Sol this victory.

The two men entered the ring, and the contest began immediately. There came no suspense as the heads swayed and cutters and clubs.

Sav sprang forward, bearing a heavy staff. He hit sav soon. The staff

was about six and a half feet long and the same diameter as a single stick with square-cut ends. It flexed steadily when put under stress but otherwise was nothing more or less than a rigid pole. It was one of the easiest weapons to use, though it seldom led to a quick decision. It readily blocked any other instrument, but was as easily blocked itself.

Sol belted four times with the leaves club, watching the defensive posture of his opponent, then stepped forward and lashed out with a backhanded blow to the chest that nearly bypassed the horizontal staff.

Sav looked surprised, fighting for the waist and steam that had been knocked out of him. Sol placed his club gently against the staff and pushed. The man fell backward out of the circle.

Sos was amazed. It had looked so simple, as though a lucky blow, which he knew it was not. Sol had expertly tested his opponent's reflexes, then struck with such quick precision that no parry had been feasible. It was a remarkable feat with the crude club—and no accident. Sol, nothing special outside the circle, was a tactical genius within it. A man had been added to the group, efficiently and virtually uninjured.

It appeared Sol needed no advice on terms of combat.

Sav took it philosophically. "I looked pretty foolish, didn't I, after

all that talk of wind and water?" Sol finished his cup and he went no further in that circle.

The law of warriors Sos had read about indicated that it would be a couple of weeks before they encountered any really able warrior. That afternoon, notwithstanding, they met two men with swords, Tor and Tyl. The first was swarthy and great-bearded, the second slim and clean-shaven.

Both swordsmen were married, and Tor had a little girl. They were friends but it turned out that Tyl was the master of a group of two. Both agreed to fight, Tor first, with the stipulation that what he won belonged to Tyl. That was the way of a tribe of any size.

Against Tor, Sol took a matching sword. These were straight, flat, slashing instruments twenty inches long, pointed but seldom used for stabbing. Sword contests were usually dramatic and swift. Unfortunately, wounds were frequent too, and deaths not uncommon. That was why Sol had taken the staff against Sos, weeks ago; he had really been sure of his skill and had not wanted to risk injuring his opponent seriously.

"His wife and daughter are watching," Sola murmured. "Why does he match weapons?"

Sos understood her question to mean Tora and Tori as spectators and Sol matching sword to sword. "Because Tyl is also watching," he told her.

Tor was powerful and launched a vigorous attack, while Sol merely fended him off. Then Sol took his turn on the offense, hardly seeming to make an effort yet pressing the other man closely. After that there was a pause in the circle as neither attacked.

"Yield," Tyl said to his man.

Tor stepped out and it was over, bloodlessly after all. The little girl gaped, not understanding, and Sola shared this confusion, but Sos had learned two important things. First, he had seen that Tor was an expert swordsman who might very well have defeated Sos himself in combat. Second, he knew Tyl was even better. This was a rare pair to come upon so casually, after going so long without meeting anyone of caliber—except that that was the way the averages worked.

Sola had thought that sword against sword meant inevitable bloodshed, but in this situation the truth was opposite. Tor had felt out Sol and had been felt out in turn, neither really trying for a crippling blow. Tyl had watched, not his own man whose capabilities he knew, but Sol, and had made his judgment. He had seen what Sos had seen: that Sol possessed a clear advantage in technique and would almost certainly prevail in the end. Tyl had been sensible: he had yielded his man before the end came accepting the odds. Perhaps the little girl was disappointed, thinking her father cowardly, but

but her education in this respect would have been rude indeed.

"I see," Sola said, keeping her voice low. "But suppose they had been just about even?"

Sos didn't bother to answer.

As it was, Sol had won painlessly again and added a good man to his roster. Only by employing a weapon Tyl knew well could he have made his point so clearly.

Sos had maintained a wait and see attitude on Sol's plans for empire, knowing how much more than speed and versatility in the circle was required. His doubts were rapidly evaporating. If Sol could perform like this in the time of his weakness, there seemed to be no practical limit to his capabilities as he regained strength. He had now demonstrated superlative proficiency with staff, club and sword, and he had never been close to defeat. There seemed to be no corner to continued additions to his table.

Tyl stood up and presented a surprise of his own: he set aside his sword and brought out a pair of singlesticks. He was a master of few weapons and had delighted once to tackle Sol with them, just demonstrated.

Sol only smiled and chose out his own sticks.

The fight was swift and decisive, as Sos had expected, the winning the skilled Sol's circle. The two sticks flashed and spun, darts thrusting and whirling, coming both as dull sounds and light whir-

This was a peculiar art, for two individuals had to be controlled and carried simultaneously—an excellent coordination was required. It was hardly possible for those outside the circle to tell which man had the advantage—until one stick became one of the circle and Tyl forced one of his opponents to bleed. There was blood on the wrinkles of his left hand where the skin had been broken by Sol's conviction.

Yet bruises were appearing upon Sol's body, too, and blood dripped from a tear over his eye. The battle had not been one-sided.

Three men now belonged to his group, and two were not beginners.

Two weeks later Sos had his twenty men. He led them back toward the badlands, while Sol went on alone except for Sola.

VI

"Pitch your tents well up on the hillside, two men or one family to a unit, with a spare pack stacked across the river," Sos directed the group when they arrived in the valley. "Two men will walk guard day and night around the perimeter; the rest will work by day and be confined to their tents by night, without exception. The night guards will be entirely covered with mesh at all times and will scrupulously avoid any contact with the flying white moths. There

will be no half-measures. Kill them, just as you would a common enemy, just as you would a man. You can kill any man you wish."

"Why?" one man demanded. "Why is the point of all this foolishness?" It was Tyl, a blustering dagger who did not accept orders readily.

Sos told them why.

"You expect us to believe such fantastic stories by a man without a weapon?" Nar shouted indignantly. "A man who raises birds instead of fighting?"

Sos held his temper. He had known that something like this would come up. There was always some hoor who thought that honor and courtesy did not extend beyond the circle. "You will stand guard tonight. If you don't choose to believe me, open your face and arms to the moths." He made the other assignments, and the men got busy setting up the camp.

Tyl approached him. "If there is trouble with the men . . ." he murmured.

Sos understood him. "Thanks," he said gruffly.

There was time that afternoon to mark off the trench he had in mind. Sos took a crew of men and laid out light cord, tying it to pegs hammered into the ground at suitable intervals. In this fashion they marked off a wide semicircle enclosing the packs stored beside the river, with a radius of about a quarter mile.

They ate from stored rations

well before dusk, and Sos made a personal inspection of all tents, insisting that any defects be corrected immediately. The object was to have each unit tight: no space open large enough for a moth to crawl through. There were grumbles, but it was done. As night filled the valley, all but the two marching guards retired to their tents, there to stay sealed in until daylight.

Sos turned in, satisfied. It was a good beginning. He wondered where the moths hid during the day, where neither sun nor shrew could find them.

Sav, who shared his tent, was not so optimistic. "There's going to be trouble in Red River Valley," he remarked in his forthright manner.

"Red River Valley?"

"From that song you hum all the time. I know 'em all. 'Won't you think of the valley you're leaving, Oh, how lonely and sad it will be; Oh, think of the fond heart you're breaking, and the grief—'"

"All right!" Sos exclaimed, and was embarrassed.

"Well, they aren't going to like digging and carrying," Sav continued, his usually amiable face serious. "And the kids'll be hard to keep in at night. They don't pay much attention to regulations, you know. If any of them get stung and die—

"Their parents will blame me. I know." Discomfort was manifesta-

tory. It would be necessary to make a convincing demonstration before things got out of hand.

The opportunity came sooner than he liked. In the morning, Nar was discovered in his tent. He had not been stung by the moths. He was sound asleep.

Sos called an immediate assembly. He pointed out three men at random. "You are official witnesses. Take note of everything you see this morning and remember it." They nodded, perplexed.

He summoned Nar. "Children might have died through your neglect," he said. "A tent might have been torn unnoticed, or the shrews might have come after all by night. Until we have security from these dangers, I can not allow one man's laziness to endanger the group."

"What danger? How could you of us have seen this terrible horde of itty-bitty critters?" Nar exclaimed, laughing. There were a few smiles around the group. Sos saw that Sav was not smiling, as he had predicted this.

"I'm granting you your last interview," Sos said coolly. "No more, but—"

Nar drew his pants down and laughed. "You mean you can't see 'em, big boy!"

"Take care of the women, too," Sos said, turning away. He thought he would be wiser to make it clear he would not allow his personal grumbling that he would be blamed to

“I’ll support forward,” shouting his sword. “Make a noise,” he said.

“Now just a minute!” Nar protested, alarmed. “It’s *how* I got the fight with Bird-brain, there.

Sos stood perched on Sos’ shoulder and for once he wished the road to the lay elsewhere.

“You owe service to Sol,” Tyl said, “and the forfeit is our life, as it is for all of us. He appointed Sos leader of *his* party, and Sos has appointed me to settle matters of discipline.”

“All right,” Nar shouted, brazen through his fear. “Try one of *these* in your gut!”

Sos continued to face away as the sounds of battle commenced. He was not proud of himself or of what he had to do, but he had seen no alternative. If this action served to prevent recurrences, it was worth it. It had to be.

There was a scream and a gurgle followed by the thud of a body hitting the ground. Tyl came up to stand beside him, wiping the bright life blood from his sword. “He was found guilty,” he said gently.

Why, then, was it Sos who felt guilty?

In a week the trench was complete, and the crews were working on the ramp just inside it. Sos insisted that the bottom of the trench be level and that the water be diverted to flow through it steadily. “Little dribble like that won’t stop the beasties,” Sav remarked du-

ly. “Savonar, didn’t you see the construction?”

Sos said, “She was on to surprise the construction of mounted soldiers, so on the river edge of the trench and spread every hundred yards.”

Meanwhile the horses were hauling beams of timber from all the cabins in range—but on the ground. They were stalled at intervals along the ramp.

Another week passed, and still the shrews did not come. A row of battle circles was set up, and a huge central tent fashioned of sewn family-tent sheets—but the group continued to camp at night in the tight little tents across the river. The hunting parties reported that game was moving into the area: deer and wild goats, followed by wolves and large cats and a few fierce pigs, as well as more numerous rodents. There was fresh meat for all.

Tyl went on enforcing discipline, usually with the sticks; one execution, though of doubtful validity, had been enough. But the seeming pointlessness of the labor made the men surly; they were accustomed to honorable fighting, not menial construction, and they did not like taking orders from a coward who bore no weapon.

“It would be better if you did it yourself,” Sav said, commenting on one of Tyl’s measures. “It needs to be done—we all know that—but when he does it, it makes *him*

the leader. No one respects you—and that bird doesn't help much, either."

Sav was such a harmless, easy-going sort that it was impossible to take offense at what he said. It was true: Sos was accomplishing his purpose at the expense of his reputation, which had not been good to begin with. None of these people knew the circumstance of his deprivation of weapons or his bond to Sol, and he did not care to publicize it.

Tyl was the *de facto* leader of the valley group—and if Sol did not return, Tyl would surely take over. He had had aspirations for a tribe of his own, and he was a highly skilled warrior. Like Sol, he had spurned inept opponents, and so had accumulated only one tribesman in his travels; but also like Sol, he was quick enough to appreciate what could be done with ordinary men once the way was shown. Was he being genuinely helpful—or was he biding his time while he consolidated the group around himself?

Sos could not carry a weapon. He was dependent upon Tyl's good will and his own intellectual abilities. He had a year of service to give, and he meant to complete it honorably. After that—

At night it was Sola's face he saw, and Sola's body—he felt touching his, her hair upon his shoulder. Here, too, he would never prevail without a weapon. The truth was

that he was as dangerous to Sol's ambitions as was Tyl, because he wanted what only complete leadership would bring. Sola would not accept the bracelet of the second warrior of the tribe, or the third or fourth. She had been candid about that.

Yet even if he carried a weapon, he could not defeat Sol in the circle, or even Tyl. It would be fatally unrealistic ever to assume otherwise. To that extent his disarmed state was his protection.

Finally the shrews struck. They boiled over the hillside in mid-afternoon and streamed toward the camp defenses. He was almost glad to see them; at least this would vindicate his elaborate precautions. They had been gone a long time, as the resurgence of game proved; it would have destroyed his program, paradoxically, if they had not come at all.

"Dump the barrels!" he shouted, and the men assigned to this task and drilled for it repetitively knocked open the containers of alcohol and began pouring them carefully into that shallow moat.

"Women and children to tent!" Protesting shrieks rose as the excitement had ended; the families forded the river and ascended the hillside.

"Stand by with weapons!" And all those not otherwise occupied took up the defensive formation, somewhat shamed and as yet the size of their arms. Then

would bleed men and several of the older boys present; the hunting party happened to be out.

The barrel dumpers finished their job, not without regretful glances at the good incense going to waste and stood by the extended wooden handles of the fire-stickers. Sos held off, hoping that the honors would appear, but had no sight of them.

The waves surged up to the boat and rolled about, mistrusting the smell of it. Then, as before, the bolder ones plunged in, and the mass crossing commenced. Sos wondered whether the animals could become intoxicated in the same fashion as men.

"Fire!" he yelled. The assigned drummer beat a slow, regular cadence, and in absolute unison the men struck the igniters and leaped back. This had been one of the really sore spots of the training: grown men dancing to a musical rhythm.

A sheet of flame shot up from the moat, and the stench and smoke of improperly combusted alcohol filled the air. They were fenced in by a rising semicircle of fire. Watching it, the "dancers" shielded their eyes and gaped; now they understood what could have happened to the late man.

Sos had worked this out carefully. He knew from his readings that alcohol in its various forms would float on water and, if ignited, would burn more readily

than that on land, since fire is smothered almost by it. The layer of water in the moat offered a perfect surface for it, and the current would carry it along the entire perimeter. He was glad to have the proof; even he had had his doubts, since common sense encouraged him to believe that water quenched all fires. Why hadn't he thought to spill a few drops of the stuff into a basin of water and experiment?

Some animals had gotten through. The men were busy already beating the ground with sticks and clubs, trying to attend the savage but elusive creatures. Several warriors cursed as they were bitten. There was no longer any reason to disparage the ferocity of the tiny enemies.

The burning vapors sank; the alcohol volatilized too rapidly to last long. At Sos's signal the men rolled up more barrels from the big central tent. Here they stopped—they could not dump more alcohol until the blaze died entirely, or they would be trapped in the midst of the rising fire, and possibly blown apart by ignition of the barrels themselves. This was a problem Sos had not anticipated; the main conflagration had subsided, but individual flames would remain at the canal banks where fuel had seeped into the ground.

Tor the swordeer came up, his black beard singed. "The upper end is clear," he gasped. "If you dump there—"

Sos cursed himself for not thinking of that before. The current had swept the upriver section of the moat clean, and the shrews were already swarming across to consume their roasted vanguard and climb the breastwork. Alcohol could be dumped there a barrel at a time, and the current would feed it through the entire retrenchment at a reduced rate and enable them to maintain a controlled fire. But soon the shrews would swim down and in via the river anyway.

He decided to cut his losses. The shrews had won this battle. "Evacuate!"

The men, once contemptuous of the enemy, had had enough. Shrews decorated arms and legs and wriggled in pantaloons and carpeted the ground, teeth everywhere. Warriors dived into the river and swam for safety, ducking under the surface whenever they could, in full retreat. Sos made a quick check to see that no wounded remained, and followed.

It was now late afternoon. Was there time to move the tents back before nightfall? Or would the shrews stop before reaching the present encampment? He had to decide in a hurry.

He could not take the risk. "Pick up tents and move back as far as you can before dusk," he shouted. "Single men may camp here and stand guard." He had moved the duplicate packs within the enclosure in case the shrews

attacked from the unexpected side of the river, and those reserves were now inaccessible. Another error in judgment—but until he was sure of the routing and timing of the hordes, such losses would occur.

The shrews did not ascend the hill that night. This species, at least, was a daytime marauder. Perhaps the moths saw to that. In the morning the main body, gorged on its casualties and still numberless, crossed the river and marched downstream. Only a few hardy climbers on the outskirts reached the tents.

Sos looked about. He could not assume that this was a safe location, and it was certainly not as convenient as the valley plain. There was no more wildlife here than below. It might merely mean that the shrews route was random; obviously they could overrun the hill if they chose to. Most likely they followed the general contours of the land, ascending where there was smoother going and coming down at this point where there came this way.

At last he had found one thing: the shrews traveled only in the group and their size increased by group junctions. He wanted to remember the composition of a sample unit on the spot, but he had not the space words could have meant for application in the life. Gears were started by hand, and he had the gear train

any hope of those leaders, they'd be the very individuals and you'd know the pack. He would have to think about that, and apply it to his own plan.

It would also be wise to try to see the continuing progress of the herd, and learn for certain what finally happened to it. And to trace its origin—there might be a restricted breeding ground that would be cut to the fire before the great sways became a menace. He had been preoccupied with defense, and he saw now that defense alone wouldn't work.

By noon the enemy was gone, and the men were able to recover their campsite. It was a ruin; even nylon was marked by the bite of myriad teeth and fouled by layers of dung.

A committee plunged eagerly into the problem of shrew tracing and diversion, while women and children moved into the main semicircle to clean up and pitch new tents. It seemed as safe a place as any, since the following horde would starve if it followed the identical route of this one. The next shrew foray was more likely to come down the opposite bank. Besides, there was a great deal of laundry to do in the river.

The bones and gear of the missing hunting party were discovered three miles upriver. Suddenly everyone appreciated the menace properly, and no more grumbles about the work were heard. Sos,

too, was worried only because there were no more shrew hunters. He had put out his plans.

(11)

Sos arrived two weeks later with another band of fifty men. He now had a *tribe* of sixty-five warriors, though the majority of these were inexperienced and untrained youths. The best men were still tied up in established tribes, as Sos had pointed out in their first discussion—but that situation would change in due course.

Sos trotted out the witnesses to the execution of Nar and had them describe to Sol what they had observed. There were only two; the third had been a hunter on the day of warfare. Sos was not certain how the master of the tribe would take it, since his management of the valley group had cost five men. That was a full quarter of the complement put in his charge.

"There were two guards?" Sol inquired.

The witnesses nodded. "Always."

"And the other that night did not report that the first was sleeping?"

Sos clapped his palm to his forehead. For a man who fancied his brain, he had blundered ridiculously. Two had been guilty, not one.

In the end Tyl had another job with the sticks, while Sos and Sol retired for a private consultation. Sos described in detail the events of the past five weeks, and this time Sol's attention never wandered. He had little patience with history or biology, but the practical matters of empire building were of prime interest to him. Sos wondered whether the man had also had some intervening experience with the problems of discipline. It seemed likely.

"And you can form these new men into a group that will conquer other tribes?" Sol inquired, wanting the reassurance.

"I think I can, in six months, now that we have plenty of men and good grounds. Provided they will obey me implicitly."

"They obey Tyl."

Sos looked at him, disturbed. He had expected to have Sol's direct backing for this longer haul. "Aren't you going to stay here?"

"I go out tomorrow to recruit more men. I leave their training to you."

"But sixty-five warriors! There is bound to be trouble."

"With Tyl, you mean? Does he want to be the leader?" Sol was perceptive enough, where his empire was concerned.

"He has never said so, and he has stood by me steadily," Sos admitted, wanting to be fair. "But he would not be human if he did not look toward you."

"What is your advice?"

Now it was in his own lap again. At times Sol's faith in him was awkward. He could not demand that the master stay with his tribe; Sol evidently liked recruiting. He could ask him to take Tyl with him—but that would only require his replacement as disciplinary leader, and the next man would present much the same problem. "I have no evidence that Tyl lacks honor," he said. "I think it would be best to give him good reason to stay with your tribe. That is, show him that he stands to profit more by remaining with you than by striking out on his own, with or without any of the present group."

"He stands to profit by the loss of his head if he moves against me!"

"Still—you could designate him first warrior in your absence and put him in charge of his own subgroup. Give him a title to speak so to speak."

"But I want you to train my men."

"Put him over me and give him the orders. It will demand the same thing."

Sol thought it over. "All right," he said. "And what name I give you?"

"My?" Sos was taking stock. "I agreed to serve you for one year, to earn my name. There is nothing else you need to give me, but he saw Sol's point. "Tyl's honor is

could! Just saying what should be done, Sol was well aware that the morning was in the long run more important than the discipline of the moment and he had been told on S... than on the others. Theoretically Sos could renounce the cause and leave at any time.

"If the young bird, Sol said sur-
prisingly, "you give him to
me."

Sos peered sidewise at the little fellow snoozing on his shoulder. The bird had become so much a part of his life that he hardly thought about the matter any more. No one owns Stupid. Certainly you have as much claim on him as I do—you were the one who cut down the hawk and saved him. The bird just happened to fix on me, for some reason nobody understands, even though I did nothing for him and tried to shoo him away. I can't give him to you."

"I lost my bracelet in similar fashion," Sol said, touching his bare wrist.

Sos looked away uncomfortably.

"Yet if I borrowed your bird, and he mated and fathered an egg, I would return that egg to you," Sol murmured.

Sos stomped away, too angry to speak.

No further words passed between them—but the next morning Sol set out again alone and Sola stayed at the camp.

That morning came wrapped with the occasion. He estimated he had over an hour's practice and set at work. "I want one to fasten my bunch into the dress before force in the area," he said. "Any one who disagrees will answer to me."

Sos nodded and proceeded with his original plan.

First he watched each man practice in the circle and assessed his style and strengths and weaknesses, making notes on a pad of paper in the script of the ancient texts. Then he ranked the warriors in order, by weapon: first sword, second sword, first staff, and so on. There were twenty swords in the collection; it was the most popular instrument, though the injury and death rate was high. There were sixteen clubs, twelve staves, ten sticks (he had never discovered why the misnomer "singlestick" should apply to the pair), five daggers and a solitary star.

The first month consisted entirely of drill within the individual groups, and continual exercise. There was much more of both than the warriors had ever had before, because contestants were readily available and there was no delay or traveling between encounters. Each practiced with his weapon until fatigued, then ran laps around the inner perimeter of the camp and returned for more practice. The best man in

each weapon class was appointed leader and told to instruct the others in the fine points of his trade. The original rankings could be altered by challenge from below, so that those whose skill increased could achieve higher standing. There was vigorous competition as they fell into the spirit of it, with spectators from other weapons applauding, jeering and watching to prevent injurious tactics.

The leaves fell, then snow, and the moths and shrews disappeared, though group vigilance and action had long since reduced these menaces to comparative impotence. As a matter of fact, shrew stew had become a staple in the diet, and it was awkward to replace this bountiful source of meat when winter came.

The rings were swept clean each day, and the interminable drill went on, in shine or snow. Additional warriors appeared steadily, but still Sol did not return.

VIII

With the cold weather, Sav elected to move into the main tent, which was heated by a perpetual fire. It had been subdivided into numerous smaller compartments, for some privacy between families. Increasingly, eligible young women were showing up in search of bracelets. Sav was candid about passing his around.

Sol stayed in the small tent, unwilling to mix freely with those who bore weapons. His impotence in the circle was a matter of increasing distress, though he could not admit it openly. He had not appreciated the extent of his compulsion to assert himself and solve problems by force of arms until denied this privilege. He had to have a weapon again—but was barred from employing any of the six that the crazies distributed to the cabins. These were mass-produced somewhere, standardized and stocked freely in the hostels, and alternates such as the bow and arrows were not useful in the circle.

He had wondered often about this entire state of affairs. Why did the crazies take so much trouble to provide these things, making the nomad existence possible, and then affect complete lack of concern for the use men made of them? Sometime he meant to have the answer. Meanwhile, he was a member of the bark society, and it was necessary for him to assert himself occasionally.

If he were able—

He slipped on coming and clumped naked into the warm sleeping bag. This was medicine; the crazies obviously learned in winter time and were wiser than the normal nomads had been provided at the head table in response to the proposed health and hygiene. Then there were

knew about the camp, but Sab's seem to care. Where the men were, they sent supplies, and sought no other controls.

He had a small gas lamp now which enabled him to read the occasional books the crazies left behind. Even in this regard they were helpful when he started taking books from the hostel, more appeared and on the subject he seemed to favor. He lit the lamp and opened his present volume, a treat on farming, pre-Blast style. He tried to read it, but it was complicated and his mind could not concentrate. Type and quantity of fertilizer for specified acreage; crop rotation; pesticide, applications of and cautions concerning . . . such incomprehensible statistifications, when all he wanted to know was how to grow peanuts and carrots. He put the book aside and turned off the light.

It was lonely, now that Sav was gone, and sleep did not come readily. He kept thinking of Sav, passing his bracelet around, embracing yielding and willing flesh, there in the main tent. Sos could have done likewise; there were women who had eyed his own clasp suggestively even though he carried no weapon. He had told himself that his position required that he remain unattached, even for isolated nights. He knew that he deceived himself. Possession of a woman was the

consequence of survival, and it was rare could Sab's bear his reputation to that degree as a success as to the state. The truth was that he refused to take a woman because he had believed to do so would be dangerous.

Sometimes was approaching his post, possible. The wanting to make a private suggestion. The beard had a good must and had taken such serious interest in group organization and tactics that he outstripped Sos in this regard. They had become good friends, as far as their special circumstances permitted. Sometimes Sos had eaten with Tor's family, though the contact with plump, good-natured Tora and precocious Tori only served to remind him how much he had wanted a family of his own.

Had wanted? It was the other way around. He had never been conscious of the need until recently.

"Sos?"

It was a woman's voice—one he knew too well. "What do you want, Sola?"

Her hooded head showed before the entrance, black against the background snow. "May I come in? It's cold out here."

"It is cold in here, too, Sola. Perhaps you should return to your own tent." She, like him, had maintained her own residence, pitched near Tyl's. She had developed an acquaintance with

Tyla. She still wore Sol's bracelet, and the men stayed scrupulously clear of her.

"Let me in," she said.

He pulled open the mesh with one bare arm. He had forgotten to let down the solid covering after shutting off the lamp. Sola scrambled in on hands and knees, almost knocking over the lamp, and lay down beside his bag. Sos now dropped the nylon panel, cutting off most of the outside light and, he hoped, heat loss from inside.

"I get so tired, sleeping alone," she said.

"You came here to sleep?"

"Yes."

He had intended the question facetiously and was set back by her answer. A sudden, fierce hope set his pulses thudding, seemingly more powerful for its surprise. He had deceived himself doubly: it was neither his position nor his lack of a weapon that inhibited him, but his obsession with one particular woman. This one.

"You want my bracelet?"

"No."

The disappointment was fiercer. "Get out."

"No."

"I will not dishonor another man's bracelet. Or adulterate my own. If you will not leave yourself, I will have you out by force."

And what if I scream and

bring the whole camp running?" Her voice was low.

He remembered encountering a similar situation in his diverse readings, and he knew that a man who succumbed to that ploy the first time could never recover his independence of decision. Time would only make it worse. "Scream if you must. You will not stay."

"You would not lay your hands on me," she said smugly, not moving.

He sat up and gripped her furry parka, furious with her and with his guilty longing. The material fell open immediately, wrapped but not fastened. His hands and the filtered light still reflecting in from the snow told him quickly that she wore nothing underneath. No wonder she had been cold!

"It would not look very nice if a naked man struggled in his tent with a naked woman," she said.

"It happens all the time."

"Not when she objects!"

"In my tent? That would be why she came naked in, and did not scream before someone."

"She came dressed, to require about a fifteen-minute. An extra ten minutes." She fumbled in the pocket and drew out a small waxed paper scrawled upon it—the code and see there but was not to be done her homework to be a sport. Even in the error in quantity of the answer. "He had to

inside—no, tricked her there—then tore off her clothing.”

He had fallen rather neatly on her trap door as she was too weak to resist. His usefulness to the group would be over if his storm gear were gone now. “What do you want?”

“I want to get warm. There is room in your bag for two.”

“That will gain you nothing. Are you trying to drive me out?”

“No.” She found the zipper and opened the bag, letting the cold air in. In a moment she was lying against him, bare and warm, her parka outside and the zipper refastened.

“Sleep, then.” He tried to turn away from her, but the movement only brought them closer together.

She attempted to bring his head over to hers, catching at his hair with one hand, but he was rigid. “Oh, Sos, I did not come to torment you!”

He refused to answer that.

She lay still for a little while, and the burning muliebrity of her laid siege to his resistance. Everything he desired, so close. Available—in the name of dishonor.

Why did she choose this way? She had only to put aside Sol’s emblem for a little while. . . .

Another figure detached itself from the shadow of the main tent and trod through the packed snow. Sos, though his eyes were closed, recognized the tread. Tor.

“You have your coat. The door is closed.”

Then lay still and unperceived, but she took into the bag and fastened it. “Send her away!” he murmured.

She opened the parka and tossed it to the foot of the tent. He drew the lip of the bag over her head, hoping the closure wouldn’t suffocate her. He waited.

Tor’s feet came up to the tent and stopped. No word was spoken. Then Tor wheeled and departed, evidently deciding that the dark, closed tent meant that his friend was already asleep.

Sola’s head emerged when it was safe. “You do want me,” she said. “You could have embarrassed me. . . .”

“Certainly I want you. Remove his bracelet and take mine, if you want the proof.”

“Do you remember when we lay against each other before?” she murmured, this time evading the direct refusal.

“Greensleeves.”

“And Red River Valley. And you asked me what I wanted in a man, and I told you leadership.”

“You made your choice.” He heard the bitterness in his tone.

“But I did not know then what he wanted.” She shifted position, placing her free arm under his and around his back, and Sos was unable to control the heat of his reaction and knew she knew it.

"You are the leader of this camp," she said. "Everybody knows it, even Tyl. Even Sol. He knew it first of all."

"If you believe that, why do you keep his bracelet?"

"Because I am not a selfish woman!" she flared, amazing him. "He gave me his name when he didn't want to, and I must give him something in return, even if I don't want to. I can't leave him until we are even."

"I don't understand."

It was her turn for bitterness. "You understand!"

"You have a strange system of accounting."

"It is *his* system, not mine. It doesn't fit into your numbers."

"Why not pick on some other man for your purpose?"

"Because he trusts you—and I love you."

He could offer no rebuttal to that statement. Sol had made the original offer, not her.

"I will leave now, if you ask me," she whispered. "No screaming, no trouble, and I will not come again."

She could afford the gesture. She had already won. Wordlessly he clasped her and sought her lips and body.

And now she held back. "You know the price."

"I know the price."

Then she was as good as he

IX

In the spring Sol reappeared, lean and scarred and solemn, totting his barrow. More than two hundred men were there to greet him, tough and eager to the last. They knew his return meant action for them all.

He listened to Tyl's report and nodded matter-of-factly. "We march tomorrow," he said.

That night Sav came to share his tent again. It occurred to Sos that the staffer's departure and return had been remarkably convenient, but he did not comment directly. "Your bracelet got tired?"

"I like to keep moving. Boots run out of ground."

"Can't raise much of a family that way."

"Sure can't!" Sav agreed. "Anyway, I need my earnings. I'm second staff now."

Yes, he thought himself. The first had become second, and there was nothing to do with that in it. The winter had been a success from the spring.

The tribe numbered. The animals, fifty heads, moved with him, carrying their provisions in skins and bones and the parts of some castroons. The daughter, baby, and a number of oxen, and three steers, goats, and dogs. The time was passing, but he still was the same. He could not pull him. "My report is for the price," he said, with some emotion.

And so Savoy thought. He could

old Sol's showing unusual respect for his well-are, and let the old army or divine Sos had fashioned) appear with little overt discussion. Did he know what his wife and men did, all winter? He had no idea she was pregnant.

A week out they caught up to another tribe. It contained about forty men, and its leader was typical of the crafty oldsters Sos had anticipated. The man met Tyl and surveyed the situation—and agreed to put up just four warriors for the circle: sword, staff, sticks and club. He refused to risk more.

Disappointed, Tyl retired for a conference with Sos. "It's a small tribe, but he has many good men. I can tell they are experienced and capable by the way they move and the nature of their scars."

"And perhaps also by the report of our advance scout," Sos murmured.

"He won't even send his best against us!" Tyl said indignantly.

"Put up fifty men and challenge him yourself for his entire group. Let him inspect the men and satisfy himself that they are worth his trouble."

Tyl smiled and went to obtain Sol's official approval, a formality only. In due course he had forty-five assorted warriors assembled.

"Won't work," Tor muttered.

The wily tribe-master looked over the offerings, grunting with approval. "Good men," he agreed. Then he contemplated Tyl. "Are-

n't you all over it, Tor? You've got to go out there."

"You used to travel alone—and now you are bound to accompany to a circle of my kindred?"

"That's right."

"I will not fight you."

"You insist upon meeting our master, Sol?"

"Certainly not!"

Tyl controlled his temper with obvious difficulty and turned to Sos. "What now, advisor?" he demanded with irony.

"Now you take Tor's advice." Sos didn't know what the beard had in mind, but suspected it would work.

The first match began at noon. The opposing swordsman strode up to the circle, a tall, serious man somewhat beyond the first flush of youth. From Sol's ranks came Dal, the second dagger: a round-faced, short-bodied man whose frequent laugh sounded more like a giggle. He was not a very good fighter overall, but the intense practice had shown up his good point: he had never been defeated by the sword. No one quite fathomed this oddity, since a stout man was generally most vulnerable to sharp instruments, but it had been verified many times over.

The swordsman stared dourly at his opponent, then stepped into the circle and stood on guard. Dal drew one of his knives and faced him—precosciously imitating with the eight-inch blade the formal

stance of the other. The picked watchers laughed.

More perplexed than angry, the swordsman feinted experimentally. Dal countered with the diminutive knife as though it were a full-sized sword. Again the audience laughed, more boisterously than strictly necessary.

Sos aimed a surreptitious glance at the other tribe's master. The man was not at all amused.

Now the swordsman attacked in earnest, and Dal was obliged to draw his second dagger—daintily—and hold off the heavier weapon with quick feints and maneuvers. A pair of daggers were generally considered to be no match for a sword unless the wielder were extremely agile. Dal looked quite unagile—but his round body always happened to be just a hair out of the sword's path, and he was quick to take advantage of the openings created by the sword's inertia. No one who faced the twin blades in the circle could afford to forget that there were two, and that the bearer had to be held to a safe distance at all times. It was useless to block a single knife if the second were on its way to a vulnerable target.

Had the swordsman been a better man, the tactics would have been foolhardy, but again and again Dal was able to send his opponent lumbering awkwardly past, wide open for a crippling stab. Dal didn't stab. Instead he flicked off a

lock of the swordsman's hair and waved it about like a tassel while the picked audience roared. He slit the back of the swordsman's pantaloons, forcing him to grab at them hastily, while Sol's men rolled on the ground, yanked up their own trunks and slapped each other on shoulders and backs.

Finally the man tripped over Dal's artful foot and fell out of the circle, ignominiously defeated. But Dal didn't leave the circle. He kept on feinting and flipping his knives as though unaware that his opponent was gone.

The opposite master watched with frozen face.

Their next was the staffer. Against him Tor had set the sticks, and the performance was a virtual duplicate of the first. Kin the stickler fenced ludicrously with one hand while carrying the alternate singlesick under his arm in his teeth or between his legs to the lewd glee of the scoffers. He managed to make the staffer look hard and untrained, though the man was neither. Kin beat a drum against the staff as though playing music, and bent down to peck the man's feet painfully. In the time even some of the warriors of the other tribe were shouting and beating their chest.

The third match was the reverse. Sol sent the man who hummed a raggy folk-song to peck the staffer's wings out of his opposite with one end of his

staff, preventing him from getting close. "Swing low, sweet chariot," he sang, as he jabbed. The man had to take both sticks in one hand to make a grab for the staff with the other. "Oh, no! Oh, no! No John, no!" Sav caroled as he wrapped that doubled hand and sent both sticks flying.

It was not his name, but that man was ever after to be known in the tribe as John.

Against their club went Mok the Hornin star. He charged into the circle whirling the terrible spiked ball over his head so that the wind sang through the spikes, and when the club blocked it, the chain wrapped around the handle and the orbiting ball came up right against the lubber's hand and crushed it painfully. Mok yanked, and the club came away, while the man looked at his bleeding fingers. As the star had claimed—his was not a weapon for games.

Mok caught the club, reversed it, and offered the handle to his opponent with a bow. "You have another hand," he said courteously. "Why waste it while good bones remain?" The man stared at him and backed out of the circle, utterly humbled. The last fight was over.

The other master was almost incoherent. "Never have I seen such—such—"

"What did you expect from the buffoons you sent against us?" a slim, baby-faced youngster replied,

leaving a wide movement. He had seen a woman among the warriors, though he hardly looked her around to fill his weapon. "We come to fight, not your silly little clowns—"

"You!" the master cried furiously. "You meet my first sword, then!"

The boy looked frightened. "But you said only four—"

"No! All my men will fight. But first I want you—and that foul beard next to you. And those two loud-mouthed clubbers!"

"Done!" the boy cried, standing up and running to the circle. It was Neq, despite his youth and diminutive stature, the fourth sword of fifty.

The beard, of course, was clever. Tor himself, now third sword. The two clubbers were first and second in their group of thirty-seven.

At the end of the day Sol's tribe was richer by some thirty men.

So it went. The group's months in the badland camp had honed it to a superb fighting force, and the precise multi-weapon ranking system placed the warriors exactly where they could win. There were some losses—but these were overwhelmingly compensated by the gains.

Only once was the tribe seriously balked, and not by another tribe. One day an enormous, spectacularly muscled man came ambling down the trail swinging his club as though it were a singlestick.

Sos was actually one of the largest men in the group, but the stranger was substantially taller and broader through the shoulders than he. This was Bog, whose disposition was pleasant, whose intellect was scant, and whose chief joy was pulverizing men in the circle.

"Fight? Good, good!" he exclaimed, smiling broadly. "One, two, three a'time! Okay!" And he bounded into the circle and awaited all comers. Sos had the impression that the main reason the man had failed to specify more at a time was that he could count no higher.

Tyl, his curiosity provoked, sent in the first club to meet him. Bog launched into battle with no apparent science. He simply swept the club back and forth with such ferocity that his opponent was helpless against it. Hit or miss, Bog continued unabated, fairly bashing the other out of the circle before the man could catch his footing.

Victorious, Bog grinned. "More!" he cried.

Tyl looked at the tribe's erstwhile first clubber, a man who had won several times in the circle. He frowned, not crediting it. He sent in the second club.

The same thing happened. Two men lay stunned on the ground, thoroughly beaten.

Likewise the two ranking swords and a staff, in quick order. "More!" Bog exclaimed happily, but Tyl had had enough. Five top men were shaken and lost, in the course of only ten minutes, and the victor hardly seemed to be tired.

"Tomorrow," he said to the big clubber.

"Okay!" Bog agreed disappointed, and accepted the hospitality of the tribe for the evening. He polished off two full-sized meals and three willing women before he retired for the night. Male and female alike gaped at his insatiable appetites, hardly such as to cause

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never overthrown has done was not subject to refutation. Bog overpowered everything—one, two or three at a time.

Last day he was as good as dead. Sol was on hand this time to warn while Bog fished club, swords and daggers with equal facility and even flattened the terrible star. When struck, he paid no attention, though some blows were cruel; when cut, he licked the blood like a tiger and laughed. Blocking him was no good; he had such power that no really effective inhibition was practical. "More!" he cried after each debacle, and he never tired.

"We must have that man," Sol said.

"We have no one to take him," Tyl objected. "He has already wiped out nine of our best, and hasn't even felt the competition. I might kill him with the sword—but I couldn't defeat him blood-

hilt. We'd have to use his own club."

"He won't be your match, the club," Sol said. "That's the only thing good enough man to slow him. A powerful, agile, durable club."

Tyl stared meaningfully at the three excellent clubbers seated by Bog's side of the circle. All wore large bandages where flesh and bone had succumbed to the giant's attack. "If those were our ranked instruments, we need an unranked warrior," he observed.

"Yes," Sol said. He stood up. "Wait a minute!" both men cried. "Don't chance it yourself," Sos added. "You have too much to risk."

"The day any man conquers me with any weapon," Sol said seriously, "is the day I go to the mountain." He took up his club and walked to the circle.

(To be continued next month)

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BOOKS



Guest reviewers this month are Isaac Asimov, Joanna Russ, and Virginia Carey. Judith Merrill's column will appear next month.

James D. Watson, *THE DOUBLE HELIX*, Atheneum, \$5.95

I READ THE REVIEWS OF THIS book before I read the book, and I must say that I have never been so misled by reviews in my life. I strongly suspect that many of the reviewers read the book without understanding the subject. Failing to know, or learn, anything about nucleic acids, they concentrated on the rest of the book with a nose for scandal.

In this, they were encouraged by the fact that the Corporation of Harvard University, with the usual cowardice of the pompous, had forbidden Harvard University Press to publish the book because some of Watson's ex-colleagues were unhappy with it. At once the rumor spread (reinforced by the reviewers who believed the rumor) that the book was scandalous and that it showed up scientists in a very gamy light. Every non-scientist rubbed his hands in glee, and undoubtedly the book will become a best seller, and many will be disappointed.

The book tells in intimate detail the tale of the discovery of the structure of the nucleic acid molecule. It was a monumental discovery, and if you don't understand the structure or its significance you have already missed the chief delight of the book. Please hold on. (Since we are among friends, I might urge you to read my own book "The Genetic Code" from Morrow a copy; I'm not trying to make sales.)

Almost as important, the book tells how science is "done." Connotation marks are Dr. Watson's *Yikes!* tells it perfectly: the Watson describes how he grew disgusted by nucleic acids from a cold start; how he craved to get involved in the matter and to do his own original experiments; how he kept them postponed among old friends; how he said that personal diary (see, *Portrait of a Scientist*), and how he got around to doing it, wrong solutions with the associated fear that the great work (discovery) was there just.

Padre, after you'll read good

he made such a simple point that Watson was terrified. He knew that as soon as Pauling discovered the error he would, in embarrassment, put the full power of his mind to the problem (and then he had been working at it in his off-hours), of which there were very few; and would have the solution in a matter of weeks. Watson and Crick raced madly, and it suddenly dawned on Watson that everyone was wrong in trying to construct the molecules with the nitrogenous bases on the outside. He turned the structure "inside out" with the bases on the inside, and everything fell into place.

And the 'scandal'? Well, it seems that Francis Crick is terribly conceited, talks loudly, laughs raucously, demands attention, and is extremely interested in girls. Since I share every one of these properties with him, I fail to see the scandal. If these are the only faults Crick has, he is a saint.

It also seems that scientists are human, that they are petty at times, and jealous at others, that they try to steal marches on each other, are delighted when competitors mis-step, and try with grim and almost ruthless ambition for the Nobel Prize.

Scandal? Only if the obvious is scandalous.

It is James Watson himself who comes off worst, in my view. Somehow I got the impression that he is not a very pleasant young man

to know. He still has neither it seem at one point that he was content to get ahead by using his sister's beauty as fuel. Oh, well, I didn't work, anyway.

But this is the point—any science fiction reader ought to read the book to see how scientists work, and any science fiction writer should do so as an indispensable part of his training.

—ISAAC ASIMOV

Judith Merril, editor, *THE BEST OF THE BEST*, Delacorte, \$6.50

René Barjavel (translated by Damon Knight), *ASHES, ASHES*, Doubleday, \$3.95

James Blish and Norman L. Knight, *A TORRENT OF FACES*, Doubleday, \$4.95

THE BEST OF THE BEST is a collection of stories chosen by the editor from her previous anthologies, *THE YEAR'S BEST S-F*, from 1955 to 1960. At about the fifth story, the Merrilian bent of these twenty-nine tales becomes clear—they are human, "poignant," chosen for feeling and not for gimmickry or detachable ideas. The hard sciences are conspicuously absent. So is philosophy, despite the editor's introduction. At best this leads to stories like J. G. Ballard's "Prima Belladonna," the first of his Vermilion Sands stories I ever read. Is it the first ever published? When it appeared in the

second annual Best anthology this story seemed cryptic, but it vindicates Miss Merrill's judgment retrospectively. It's not only full-bodied and perfectly clear; it's probably one of the earliest future-society-taken-for-granted-instead-of-explained stories and it still manages to look futuristic and fresh. Human feeling and literary finish were also good guides in selecting the star of the collection, Gummitch the superkitten (1) who returns in "Space-Time for Springers" by Fritz Leiber. The less I say about this story the less I will slobber over the page and make a nut of myself. There are also two by Carol Emshwiller, Avram Davidson's "Golem," an early (?) Cordwainer Smith ("No, No, Not Rogov!") which is only half mad, and Damon Knight's "Stranger Station." These are all first-rate stories and so are many of the others. But.

The editor's taste for "the human factor"—or a retrospective interest in New Thing writers like Ballard and Emshwiller—or perhaps a reaction against too much hardware in the s-f field (both now and back then)—has made **THE BEST OF THE BEST** a surprisingly monotonous book. The stories are good, but the tone is somehow the same all through. In her introduction the editor notes that science fiction is "a field which degenerates readily into mere adventure story."

In avoiding "mere adventure story," Miss Merrill sometimes chooses stories that degenerate into mere something-else. Walter Miller's "Hooper," for example, need not have been s-f at all. It's a re-doing of a good old American cliché, *The Man Trapped By Marriage*, and it isn't nearly as good as (say) Tennessee Williams' "Moony's Kid Don't Cry." Isaac Asimov's "Dreaming Is a Private Thing" is really about the movies. A story like Clifford Simak's "Death in the House" is moving, but it's sixth in the book; by the time one gets to Theodore Cogswell's "You Know Willie" (next to last) a certain feeling of repetition has begun to creep in. And a story like Fritz Leiber's "Mariana" is too close to untransformed fantasy.

Of course you needn't read all twenty-nine stories at once, as I did. One of the best things about **THE BEST** is that it is far the way anthologies used to be in the fifties. You could use somewhat as one for weeks. It's a good book to give to people who think you don't like "science fiction." If you read it yourself and own a library for inside reference, and if you can buy another set of the anthology, and if you also possess a library, like a *Commonwealth*. If you haven't been following the annual *Mental* years, also, it still means buy the *Best of the Best* and give your set through it solo.

LES ANGES, translated by Simon Knight from the French of René Barjavel, was originally published in France in 1943. Why on earth wasn't it translated seventy years ago? Why on earth (and) Doubleday pick something so recent? There's a certain *frisson* in reading about French cardboard people instead of American cardboard people, and the satire of future French society is pleasant for the first fifty pages. But once the book gets serious the fun vanishes. The novel is anti-technological and reactionary, the characters' adventures are trite by now, and the Utopia at the end is interesting only as pure cliché. Those passionately fond of High Camp may enjoy this, though even they will boggle at some teeny impossibilities in the text. Like the spontaneous generation of cholera microbes, for instance. The translator has apparently enjoyed himself (when he could) and has happily left the style of the novel French instead of trying to Americanize it. For example: "The most beautiful of these statues . . . represented Intelligence. She opened her arms . . . as if wishing to press to her breasts, each a meter in radius, all these men whom she had inspired." If only she had inspired Barjavel to stick to satire or Doubleday to stick to sense!

A TORRENT OF FACES is writ-

ten by James Blith and Norman F. Bernard. This makes for difficulty in constructing a compound name — it comes out either Blitho or Knith which is unfair to the book. Let's settle on B & K. The novel is a picture of Utopia in the 28th century: the earth supports one thousand billion people in reasonable comfort and contentment until natural disaster destroys the world society. The technical details of feeding and housing such vast numbers are the most fascinating things in the book; the many air views of cities, reefs, oceans, and "biological preserves" are superb. The authors' preface mentions "pages of calculations . . . drawings and diagrams [and] about thirty thousand words of notes" going back to 1948. One can believe it. The shapes and sizes of cities, methods of food processing, family conventions, strange hotels, air travel, artificially bred mermen ("Tritons"), sewage disposal, et cetera — these are all beautifully presented. But the people are completely unreal. They aren't simply conventional or inconsistent or carelessly written. They are pretexts (most of the dialogue is expository), and their human reactions are flatly unbelievable. People in the mass are fine (a family convention in a "disaster city" is the best part of the book), but individual people don't even have the reality that comes from a

strongly felt stereotype. It's as if everything human in the book was conceived in a movie long shot and then half-heartedly turned into a close-up. There are no overtones in the people or the social system. Etiquette, travel, leisure, habits, attitudes are presented as isolated facts, one at a time. They have been figured out logically but never felt as a whole. For example, there are two bloodless romances, one interracial (between human and Triton), but neither generates as much tension as a decision about whether to have a cup of coffee or not. There is also a psychotic member of the world government whose scheming isn't even necessary to the plot. There are times when *A TORRENT OF FACES* reads like a particularly antiseptic juvenile.

What happened? Maybe those years of notes and diagrams have something to do with it. This Utopia is so full as a place that there is no room for the people. The individual Tritons are clean in body and mind, like Boy Scouts or Sidney Poitier's recent roles, but all mermen (we are told) are inveterate sbutterbugs. The latter is real. Disasters are real. Statistics are real. Slime culture is real. The most dramatic scene in the book concerns a large capsule of gal-lium and a lightlly-alloyed magnesium baffle. The most memorable character is an asteroid (called Flavia). Why should the human

beings be there at all? I would've been ten times as pleased with a fictional history or fictional text-book. The material is fascinating in itself. Why follow the same silly characters all through? There's a great deal to enjoy in the book but it's mixed with a lot of bland, exasperating lifelessness. Here's a Triton calming his hysterical Dry-land sweetheart: "There are some facts about Tritons that you don't know, and they will almost certainly change your outlook when you do." And here is the panicky end of the Jones convention: ". . . a surf of Joneses was already out on the roof of the city. He could see several amoeboid batches of them, dim and sad in their drooping finery, clumping together like slime molds on the flyport's staging apron; but most of them were invisible, masked by the trees . . . A falling star so immense that it might have been a falling sun, was streaking with preternatural slowness over the city, lighting the whole landscape with a garish blue-white glow."

There's plenty of body. Pick your choice.

—Johanna B. Hill

I. F. Clarke, *VOICES OF SCIENCE: THE WAR, 1763-1984*, Oxford University Press, \$16.00

Robert Scholes, *THE SCIENTIFIC FICTIONISTS*, Oxford University Press, \$5.00

Mark R. Thompson THE FUTURE
AS NIGHTMARE H. G. WELLS
AND THE ANTI-UTOPIANS, Uni-
versity Press, \$5.95

and Science in 1900-
PI: A MIGHTY DESTINY, Uni-
versity Press, \$7.95

Desmond Tarrant, James
Branch Cabell THE DREAM
AND THE REALITY, University
of Oklahoma Press, \$5.95

The signs and portents have
appeared. Before long s-f writers
will all be working in the glare of
criticism and mainstream reviews.
Readers' tastes will be formed for
them by fly-leaf pundits, then
refined and corrected by intellec-
tual establishmentarians. Scholars
seeking monographs and immor-
tality will run down the facts like
so many bloodhounds every time
a writer snatches a mouth-filling
name from Milton or a plot device
from the Ekler Edda. Readers and
writers alike will lose all the privi-
leges of the disinherited, all the
privacies of pulp status. No longer
will we quietly choose an s-f maga-
zine from racks stuffed with pulp
horoscopes and crossword-puzzle
collections. Nor will we find pa-
perback originals among the piles
of drugstore pornography.

The bloom is off the rose—the
university presses have found us
out. They know that writers with
eyes, ears, ideas, and irreverence
lurk deep in the woody pulps. Of

the few recent books mentioned
here, about seven published since
1960, are from Harvard, and
the rest the University of Okla-
homa Press. Each author is a well-
respected scholar. There are
more like these every year. And
there will be more books like these
every year.

Typically, such books take a
smallish slice of s-f territory and
map its history and sources
through several languages and/or
many centuries. Sometimes the
writers are not apparently aware
that they are working on the
fringes of s-f; always they show
the close connection of their topic
to the mainstreams of letters and
demonstrate its importance in the
history of western ideas.

The results of such detailed at-
tention to s-f are, more often than
not, more interesting, more origi-
nal, and more widely thoughtful
than the usual book of literary
criticism. Whatever one's initial
reaction to this invasion of schol-
ars, they bring tools and tech-
niques that can increase the depth
and scope of a genre already broad
and vital. Comparatively few will
read these books, but their light
already falls on many stories in
this magazine; this small group of
books can be seen as a sample of
the future.

I. F. Clarke's VOICES PROPHE-
SYING WAR is a careful examina-
tion of the development of a basic
s-f theme, the problem of the next

war. It has been well received by the academic community, and the first four of the five long chapters come off well by either academic or s-f standards.

Clarke uses the sensational reception of Chesney's *THE BATTLE OF DORKING* in 1871 to demonstrate the relation between the premises of fiction and specific political and social conditions. Chesney's work was the first well-realized story of its kind; it had real people with real stakes in the action, and they moved and fought in a real landscape. But Chesney was not primarily a writer; he was an army colonel writing to warn of the danger of invasion in a badly equipped and poorly organized nation. He scored. In the furor, the British prime minister had to warn the populace against alarmism and questions were asked in Parliament. A spate of imitations, replies, adaptations, and translations soon made this new form familiar to the increasingly literate peoples of the west. Clarke calls it "purposive fiction."

Detailing Chesney's successors until 1914, Clarke shows how fictional premises changed as the nation state and the resources of technology developed. Racism, nationalisms of all types, imperialism, theories of defense, of international justice, of the usefulness and function of warfare (in promoting the Darwinian survival of the fittest, for example) were

bashed over and rebashed, with protagonists changing according to political fad and armament fashion.

Not until H. G. Wells published *THE WAR OF THE WORLDS* in 1898 were nationalistic and local aspirations succeeded by a wider loyalty to human possibility among writers of purposive fiction. Clarke feels that the Wells book has not been surpassed to date.

In his last and least satisfactory chapter, Clarke convincingly identifies works like *ON THE BEACH* and *FAIL SAFE* as successors of *THE BATTLE OF DORKING*; he says they are expressions of the didactic, romantic, and aggressive drives of their writers (p. 202). But then he adds, "And with that there is now nothing remaining to be said about the history of the tale of imaginary warfare" (p. 204). War today is largely seen, he believes, as a big bang without even a whimper after it. War and extinction are equated. Nothing is left for a writer to say.

He finds himself in this position partly because he dismisses martial and science fiction, wars set in the remote epochs of the galaxy's civilizations, and "road wars" that send 100% of a planet's *Zane Grey* fans of *Elmer Fisk Doughroughs* (p. 204) to their death; he relegates it all, poor man, to a category not even worthy of concern, since a good rule of

struction and restoration, he earlier equates it with not *THE BEACH* as a description of the last day of humanity (pp. 190-200). The reader's conclusion can only be that he has not read or has misread a good deal of recent s-f.

It should be stated that s-f writers have been and still are thinking to some purpose about warfare, often from the position that aggression is a vital part of human stir and must be dealt with somehow. The "somehow" is the story. Consider one example: Gordon Dickson's 1964 examination of the place of violence in human civilization, *SOLDIER, ASK NOT*. Numbers of equally "purposeful" novels come out every year.

Clarke's book, then, is valuable until he begins to talk about the recent past. It is distinctly provocative but of limited use to those primarily interested in contemporary writing.

The limitations of Robert Scholes' *THE FABULATORS* are very different. He is trying to identify a new form the novel has taken instead of analyzing its content. He therefore understands very well that Vonnegut has learned from Swift and Barth from Joyce, but never notices that neither man could have written as he has if Wells, Huxley, Orwell, and C. S. Lewis had not preceded him. So far as s-f is concerned, he

has not discovered them, but he has a good

Scholes' exemplars (including one Lawrence Sanders, *Heart Mountain*, Jr., John Hingham, *Sea March*, and John Barth). The word *Fabulator* is commoned from 15th century usage to the scribe writers who have gone and the narrow realism of the 19th century; they have learned from the old and unfashionable techniques of allegory and myth, then invented new forms to hold modern meanings.

Although it was not his intention, Scholes has demonstrated that Iris Murdoch, at least in *THE UNICORN*, falls within the confines of contemporary s-f. His reading of *CAT'S CRADLE* is good, even though he probably accepts Vonnegut's weird assertion that he does not write science fiction. On John Barth's *GILES GOAT-BOY*, he is magnificent. His explication adds tremendously to a work that will need many good readers before it takes its final place in the literary canon.

Judging by the section on Barth, Scholes' reading of Delany's *THE EINSTEIN INTERSECTION* or Zelazny's *THIS IMMORTAL* would be valuable. (Professor Scholes, we need you!) *THE FABULATORS*, by the way, has the best plain prose style of the lot; sentences and meanings fall into your mind as easily as if you had said them yourself.

For the writing style, Mark R. Hillegas runs a very close second to Scholes, but he could hardly be farther away in content or approach and still write literary criticism. In *THE FUTURE AS NIGHTMARE: H. G. WELLS AND THE ANTI-UTOPIANS*, Hillegas is specifically concerned with the reactions of writers to other writers' ideas. He knows s-f intimately and intelligently and is straightforward about the existence of the genre. He knows the roots go deep into the pulp magazines, and he doesn't have that half-a-worm-in-my-apple reaction most professors of English have, sometimes hypocritically.

Along the way, he provides little tidbits—as a link between the matter of Swift's *Gulliver*, Lewis' *Oyarsa of Malsacandra*, and Wells' *Cavor* (p. 135). However, his real concern is to identify the impact Wells had on later writers of future history. The analysis of Wells' cosmic pessimism is cogent, and the impact he had upon writers like Joseph Conrad as well as upon genre writers is fully demonstrated. Although Hillegas doesn't neglect writers like Blish, Wyndham, and Miller, he draws most of his examples from writers more likely to be known by the average reader—Huxley, Orwell, Bradbury, Vonnegut, Heller. The book stands as good criticism and as a strong attempt to show the real place of s-f in literature. However,

fully, *THE FUTURE AS NIGHTMARE* will be followed by *THE FUTURE AS DREAM*.

If you read any one of these books, read Hillegas; if you read nearly all of them, skip Tarrant's book. It is a literary biography and reasonably competent as such, but very few of us want to know this much about its subject.

JAMES BRANCH CABELL: THE DREAM AND THE REALITY by Desmond Tarrant not only has a full discussion of the famous *JURGEN*, but goes into detail on over thirty other works. It is possible that Tarrant finds Cabell a better and more important writer than he is, but critics of the last decade or so have probably been underestimating him a bit. Certainly Cabell's romanticism and his use of myth need attention. Reread *JURGEN* and decide whether his authorial myth is the heavy going of a book of detailed literary analysis.

Nell English's *CRASHING TO UTOPIA: A MIGHTY DREAM TO LEAVE BEHIND* (1964) is a somewhat-worth-the-rouble history with the central idea of pursuing the good life since the Communist held 4000 years ago discovered the increasing complexity of human ambitions as the 19th Century. English's *INVENTION: THE HISTORY* of 1964.

This book is published by Doub-

expansion of the relation of technology to the human dream. The more men can do with tools and through science the more they can imagine doing. It is the documentation of human ambition—the "revolution of rising expectations" examined through all recorded history.

If the old quarrel between materialistic and idealistic ethics still goes on, this analysis undercuts both sides of the question. Over and over again, the highest ideal of one last age becomes crude, cheap, even cruel, because new

material reality has made it possible to realize last year's or yesterday's fantasy and even dream.

Borealis' general theme is supported by massive amounts of data from all over such and almost indigestible masses of fact. One reads three pages at a time while volumes of the encyclopedia collect around the chair. Possibly science fiction writers will find it a mine of material; in any case, it's a mind-stretcher for anyone who can wade through it.

—VIRGINIA CAREW



BOOKS RECEIVED

FICTION

- MAROOINED IN ORBIT, Arthur W. Ballou, Little, Brown 1968, 184 pp., \$4.50
 FLESH, Philip Jose Farmer, Doubleday 1968, 212 pp., \$3.95
 THE MERCY MEN, Alan E. Nourse, McKay 1968, 180 pp., \$3.95

GENERAL

- KAFKA: THE TORMENT OF MAN, R. M. Alberes and Pierre de Boisdeffre, Philosophical Library 1968, 105 pp., \$4.75
 UFOS — IDENTIFIED, Philip J. Klass, Random House 1968, 290 pp., \$6.95

PAPERBACKS

- EARTHBLOOD, Keith Laumer and Rosel George Brown, Berkley, 75¢
 SURVIVAL MARGIN, Charles Eric Maine, Fawcett Gold Medal, 60¢
 THE FINAL PROGRAMME, Michael Moorcock, Avon, 60¢



Graham
Wilson

*"Well, I guess that pretty well takes care
of my procedure."*

In the *Scientific* science column, CO-OPERATION WITH USOMES, Dr. [unclear] mentioned the possibility that LSD users may be [unclear] the equivalent of a private bath of radiation fall-out. The [unclear] for the children of users are woefully [unclear] at this point, which is the point of departure for Dean Koontz's imaginative and far-ranging story.

THE PSYCHEDELIC CHILDREN

by Dean R. Koontz

HE WOKE UP EVEN BEFORE SHE and lay listening to the rasping of her breath: seafoam whispering over jagged rocks. It would get worse before she woke. He reached to the nightstand and took a cigarette from the nearly empty pack, lighted it, and sat up. He tried not to think of the energies raging within her mind, of the deadly and painful powers roaring there. In the darkness, he tried to turn his mind to other things.

The view from the window was pleasant, for snow had been falling since supertime, embracing everything. The clouds parted now and then to let the moon through. It lighted the night, washing onto the white blanket and splashing back. Beyond the hoary willow tree lay the highway, a black slash

in the calcimined wonderland. It was obvious that the heater coils in the roadbed had broken down again, for the drifts were edging back onto the hard surface unchecked. Old-fashioned plows were working on things now.

*"Ashen dreams fluttering flaked
float peacefully downward
while lightning men with sword's
stroke the brain harshly
and draw fingernails
over the ice . . ."*

He was not certain whether that was completely senseless or not. It was a mood piece, no doubt. He repeated it softly again. He would have to remember it, polish it—perhaps—for inclusion in his next volume.

Minutes later, he looked back to

Laurie. Her face was pale, her eyes closed and edged with wrinkles. He ran his hand through the billows of raven hair that cascaded down her pillow. She moaned in answer, the air rushing in and out of her chest. Harder, harder she breathed. Deciding to get a head start this time, he stood and pulled on his trousers, slipped into a ban-lon shirt.

"Frank?" she said.

"I know."

She slipped out of bed, naked, and dressed in a sheath—a red and black one that he liked.

"I'll pull the car out of the garage," he said.

"The snow—"

"They seem to have it under control. Don't worry. I'll pick you up at the front door in five minutes."

"I love you," she said as he went through the doorway into the shadow-filled living room. That always sent shivers through him: that face, that voice, those words.

He took a flashlight and the gas that lay beside it from the kitchen catchall drawer. Stepping into the glittering night, he stroked the gas in a jacket pocket and sniffed the cold air. It hurt all the way down into his lungs and woke him all the way up. The path between house and garage was unshowered; the snow lay a good twelve or fourteen inches deep. He huddled through it. Deciding to take a dry sweep of the wind, he caught

moan of heavy machinery battling Nature. The garage door hummed open when it recognized his thumbprint on the lock disc. He crawled into the car, started it, backed out, pushing snow with the rear bumper. He flipped on the front and rear heating bars. With Laurie's problem, he had to be ready to move at any hour, in any weather. The melting bars had been a costly extra, but a necessary one. When he pulled up to the front door, she was waiting. She climbed in, huddled next to him.

"Where to?"

"The country somewhere," she whispered in her tiny voice. "Hurry, please. It's going to be real bad this time."

Melting snow in advance, he drove across the highway into the lane leading away from the city and suburbs. The red-green lights for him then while he searched his forehead and kissed her cheek, her ears, her neck. . . .

Two minutes later they were crawling down a ramp with the red eye winked at him as he swung the car away from the ramp. Somewhere in the heart of the city a human disaster for his own reason. The entire city was a secondary cause that was not nearly so well defined as the main thing. They were driving in the macadam, looking a so bad as normal with its easy slant. He held the mechanical steering and that that was all.

to his country.

It was packed tight. She was afraid of touching the critical point, the narrow ridge the gyrfalcon hovers around maximal points of tolerance and exploded into fire and death. "Lance was an idiot, but a useful one good for she could not afford the price. She could not afford to let off until it reached its critical point, and since it had reached the critical point, there was no time to get rid of it."

He was glad he had had the melting bars installed. Someday all cars, he thought, would have them. Then the new plows and heating coils would both be obsolete. The bars hoisted away the crystals, evaporating some melting some and leaving the rest behind to freeze into ice as the night wind roared in and around the road in their wake.

"A little further yet," he said.

She whimpered something . . .

He risked a glance away from the road, was shocked—as always—by the white fish-belly color of her beautiful face. It always reminded him of the dead. It always frightened him. "Hold on."

The car skidded sideways without warning. He grabbed desperately at the wheel, then remembered to let the car follow the direction of the slide. They lodged in a drift, and it took the melting bars a few minutes to free them. He went another mile without seeing any houses and—therefore—

almost stopped across what appeared to be a flat field, flat and unimproved. The bars were burning in total vacancy. He took it slow, melting his way toward the edge of the forest wood began where the field sloped upward and continued over the rise and into the distance. When they reached the forest's perimeter, he braked, stopped, shut off the lights. They would not be seen from the highway against the black backdrop of trees.

He sat with her at the side of a tree, sat on the snow with her. She had reached the critical point.

"Okay," he said. "There is no one here."

She whimpered again . . .

Her breath rushed out . . .

The snow began to melt around them . . . In two minutes there was a four-foot circle of bare earth. Then there was mud. Then boiling mud . . .

*"I remember wall papered parlors
With a grandfather clock that
chimed*

*Like a voice saying I'll give you
A dollar for a dime.*

*"I recall sun-bleached kitchens
On a then late afternoon,
A hundred thousand fragrances,
My mother's tasting spoon . . ."*

He flipped off the recording machine, rewound the tape, removed and packaged it. That was Satur-

day's show—aired on one hundred and two FM radio stations. Fifteen minutes of poetry and commentary, recital and rebuttal. He was a little bitter about it. He wondered how many really listened and how many only laughed. He suspected that many of the gentler arts were not designed for the mass media. But then, it brought pennies for bread, pennies for lard.

"Frank—" Laurie came into the den, all sweet-smelling in a dress covered with large red apples on a straw background, a red band dipping in and out of her dark hair. "Have you seen this morning's paper?"

He couldn't have missed the headline: HALLUCINO-CHILD BELIEVED TO BE IN AREA. And below that: POLICE BEGIN SEARCH. It told all about the field near Crockerton where the snow had been vaporized, the earth boiled and glazed, the trees splintered and charred. It told how there was only one thing that could have done all that. And they were searching for the hallucino-child.

"Don't worry," he said.

"But they say the police are searching outward on a ten mile radius."

He pulled her down on his lap and kissed her. "And what can they find? I, a poet who contributes well to the party in power, the party in power is very satisfied. We live normal lives. We

have never once voiced disapproval over the punishment of captured hallucino-children."

"Just the same," she said, "I'll worry."

So would he.

Until noon. That is when the police came.

They stood watching through the porthole in the front door as the police approached the house. "It's just a question party. Only routine investigators following routine procedures," he said.

She was trembling just the same. She retreated to the kitchen.

He waited for two knocks before he opened the door. He did not want to appear too anxious, and he needed those extra few seconds to paint a false smile on his face. "Yes?"

"Police Inspector Jansson and android assistant T," the dark-eyed detective said, according to the parody of a man behind him.

"Oh, this must be about the hallucino-child in the papers. Come in, inspector."

He led them into the den. The inspector and he sat, but T remained standing. The something that had fallen on his good foot were *unshoe* and *shooping* and the paper about hallucino-children across the "sore" of his foot to the pretenses of the mind.

"Now please, not hand down the Carnival."

"To tell you—"

"The children can't be taken—"

"It sounds logical to me," he nodded.

"Would you be yours. I think I would say I don't often like those sort of questions."

"You answered more easily. The man was talking out a beautiful picture, had pictures. It seemed rather more, in fact. Why, Cauvell thought, he can't even meet me—directly."

"Is your wife—Mrs. Cauvell—at home?"

His heart jumped a little, but he did not hesitate. "Yes, she is. Laurie!" he shouted, perhaps a bit too loud. "Laurie!"

She came in from the kitchen and stood next to his chair, eyeing the android suspiciously. Too suspiciously, Cauvell was afraid. Would T notice and become suspicious of her suspicion?

"Please sit down, Mrs. Cauvell," Jameson said. He addressed both of them then. "We are running a survey of the neighborhood and would like to ask you both a few questions."

They both nodded.

"T," Jameson said.

The android's throat seemed to hum for a moment; then a deep, hoarse voice groaned from a plate in the lower portion of his neck. THIS INTERVIEW IS BEING RECORDED. ARE YOU AWARE OF THIS, MR. AND MRS. FRANK CAUVELL?

"Yes," they answered ceremoniously.

"Are you acquainted with someone like the one in a corner of the room for the space of this interview?"

"Yes."

THE HALLUCINO-CHILD WITH DIVISION COOPERATING WITH INSPECTOR HAROLD JAMESON. MR. CAUVELL, A HALLUCINO-CHILD IS A PERSON BORN OF PARENTS WHOSE GENES WERE ALTERED BY THEIR USE OF LSD-25. THESE CHILDREN BECOME EITHER PHYSICAL FREAKS OR MENTAL FREAKS. DO YOU UNDERSTAND THE USE OF THE TERM HALLUCINO-CHILD?

"Yes."

AND YOU MRS. CAUVELL?

"I do."

THE PHYSICAL FREAKS ARE CARED FOR BY THE GOVERNMENT. THE HALLUCINO-CHILDREN WHO ARE BORN WITH THE CONGENITAL DEFECT OF ESP SENSITIVITY ARE A DANGER TO THE STATE AND CANNOT BE AFFORDED FULL CITIZENSHIP. BECAUSE OF THE NATURE OF THEIR POWER—WHICH CAN ONLY BE STUDIED AT THE CRITICAL POINT AND WHICH IS TOO DANGEROUS AT THE CRITICAL POINT TO STUDY—MANY OF THESE MUTANTS MUST BE PUT TO SLEEP, HUMANELY. DO YOU UNDERSTAND THIS, MR. AND MRS. CAUVELL?

They said that they did. The formalities were over.

WE HAVE REASON TO BELIEVE

THERE IS A HALUCINO-CHILD IN THIS VICINITY. HAVE EITHER OF YOU KNOWLEDGE OF SAID PERSON?

They said no.

DID EITHER OF YOU LEAVE THE HOUSE LAST NIGHT?

"No."

The question suddenly became very pointed. THEN HOW DID THE DRIVEWAY AND ENTRANCE TO THE SUPERHIGHWAY BECOME CLEARED?

"We noticed as we came in," Jameson said, "that your driveway seems to have been cleared by melting bars."

"I went out this morning for a few groceries," Cauvell answered a bit too quickly.

"You do your own shopping?" Jameson asked, raising his eyebrows.

"Yes." Cauvell was suddenly glad that he had never gone completely modern. Less than a fifth of the population did their own grocery shopping in person anymore. The banks of robot clerks that took the orders by phone had more-or-less depersonalized food purchasing. Cauvell, however, had always liked to see the steak before he bought it. Perhaps it was his picky appetite.

MRS. CAUVELL'S FATHER WAS A COLLEGE PROFESSOR, I SAID GRATEFULLY. THE COLLEGE INSTRUCTORS OF THE SIXTIES AND SEVENTIES WERE OFTEN QUITE LIBERAL AND AS ANXIOUS AS

THEIR STUDENTS TO EXPERIMENT. MRS. CAUVELL, DID YOUR FATHER TAKE LSD-25?

They had prepared themselves, long ago, for the possibility of questions like these. And they had agreed that a little bit of the truth would be better than a complete lie. "I believe he tried it twice with had experiences both times," Laurie said.

Cauvell was proud of her firm, unshaken answers.

HE WAS NOT A REGULAR USER?

"No."

"How can you be so certain, my dear?" Jameson asked kindly.

Cauvell realized that Jameson was anything but stupid, anything but meek. He was T's stranger man, but some of his own lines hit the mark close to center.

"My mother told me," Laurie said. "My father died when I was seven. My mother saw the end of her life before the accident, every thing he did. I heard all her conversations through a thousand tapes I made of them. He took LSD again and had had trips both times."

WHICH PARTY DO YOU BELONG TO, CAUVELL?

"The party of people for the betterment of the world," Cauvell said. "I am a member of the Communist Party." Cauvell could be honest and still be safe, and he thought he would try that.

AND WHY DO YOU JOIN THE PARTY?

"Because of the Party's fine

mundane activities and returned the
 obedient sounds within the day
 society would use.

"CAN YOU HAVE SEEN NOR
 HEARD NOTHING OF THE BOY
 I TALKED ABOUT?"

"Nothing."

"WAS THE INTERVIEW RECORDED
 WITH YOUR KNOWLEDGE MR.
 AND MRS. FRANK CAUVELL?"

"It would that it was."

The android's voice clicked off,
 its throat humming for a moment
 before going dumb silent. Inspector
 Jameson got to his feet. "Sorry to
 inconvenience you. It has been a
 pleasure. Thank you for cooperat-
 ing."

"Only too happy," Frank said.

"I hope you find the mutant,"
 Laurie said.

Laurie watched through the port-
 hole as the inspector and the an-
 droid stepped into the police car
 and pulled onto the highway, grow-
 ing smaller, smaller, and disappear-
 ing in the distance.

From the looks of the sky, it was
 going to snow again.

*Somewhere a mutated boy hid,
 shivering.*

*Some unbearable moment, his
 nerves split; he ran.*

*He ran right into the arms of the
 android. The eyes of the metal man
 were jewels, even as the tears on
 his own cheeks frosted into dia-
 monds. He backed away, but there
 were others behind him. There was
 no place to go.*

CHAPTER TWO: THE MURDER OF A BOY

He remembered the reporter from
 at home, covered down to his
 flames, searched their faces, made
 mistakes three months earlier.

But now, when they were alone
 and they would see some, he
 opened his chest from the central
 flames, cupped his fist, and
 displayed it.

*All the white the same felt...
 little white balls.*

"They are not your own," Laur-
 rie said, turning from the paper.

He looked at it, grimaced. HAL-
 LUCINO-CHILD FIGHTS IT
 OUT WITH POLICE. Not "fights
 it out with robots," for that was too
 crude. That would make the entire
 thing seem pro-mutant. Cauvell
 wagered a live cop had not come
 within a hundred yards of the boy.

"It's my fault," Laurie said.

"That's absurd! How could it
 possibly be your fault?"

"We were too open. We left a
 trail or clues, at least, that made
 them search."

"And it was an emergency," he
 argued. "You'd have blasted the
 both of us to kingdom come if you
 had tried to hold back that force
 any longer."

"Just the same, they might not
 have flushed the boy out if we—"

"Forget it. What's for supper?"

"Spaghetti."

The next night it was pork
 chops. The next night, meat loaf.
 The night after that, he woke up to
 her heavy breathing.

"Laura!"

The curtains opened. "Yes?"

"Why didn't you wake me?" He got out of bed, began to dress.

"Frank?"

"What? Hurry and get your clothes on."

"Frank, maybe it would be a lot better if I just let it kill me."

He stopped tucking his shirt in and turned around to face her. He could see only the vague outline of her small but womanly body outlined by the sheet, her hair like spun silk . . . He crossed to her and lifted her head up. "What is that supposed to mean?"

She was crying.

"Don't you love me?" he asked.

She tried to answer, but the words were sobs.

"Then get the hell dressed," he said gently.

And he left. In the kitchen, he took the gun from the drawer. Outside, the sky was clear; the wind was stiff, whipping the snow into a frenzy. When he brought the car to the front door, she was waiting.

"Where will we go?" she asked.

"Farther out than before. And we will cover well."

Christmas was coming.

He thought about that as he drove. He thought about parties and carol, church services, candles on altars, candles in windows. He thought about Christ coming down from his bare branches, wind-dusted what Perlinchicki would have wanted, but he. But in the morning

and been married to a hallucino-child.

Far out in the country, he angled the Champion onto a side road, cruised along it for a time, broke off the road into a wide trench that petered out into woods at a clearing in the center of the forest. They were three miles from a road, sheltered on all sides by trees, exposed only directly overhead where the clearing allowed the stars to look down. When they got out, they heard the helicopter whining somewhere above them.

Then the sun came out. The helicopter settled into the clearing, its headlamps like the eyes of some tremendous beast, its rotors like wings.

"Frank!"

He grabbed his pistol, got into the car, surrounded it, held the wheel.

PLEASE DO NOT ATTEMPT TO ESCAPE. It was the voice of T.

He would have been surprised there, who had not been a tremendous undertaking in this rough terrain. Or he would have to quit. He had them, James. T, and he was not going to let go. He was coming, the hell with it. He had the weapons. He had the money. He had the power.

"If you thought you were going to get away, you were wrong. You were wrong from the beginning. You were wrong from the beginning. You were wrong from the beginning."

T was coming, and he was coming, and he was coming.

The glowing dawn made his
 eyes stand the million bars in
 that glow; felt the soft wings
 of angels' wheels, as the sun
 and moon and stars, a shining
 host, fell from the sky. The
 engine was vibrating; he could not
 see a way to escape through the
 ruts for the melting snow could
 not be made to work fast enough. He
 swerved the wheel to the left,
 into the Champlain ground, and
 saw how along the trail he had
 crossed into the clearing in the first
 place. He passed Jameson who
 had fallen off the way. The two an-
 gels were behind.

"The engine!" he shouted excit-
 edly.

The rear beam sliced a neat
 hole through the rear window and
 struck Laurie on the temple. She
 slumped across him, dribbling
 blood from one ear.

He could personify the moon:
*the moon peered down patroniz-
 ingly. He could make a girl into a
 rose: she was a rose, soft and gen-
 tle. He could forge metaphors,
 hammer out similes; he could allo-
 cate so much alliteration to just so
 many lines. But he could not stop
 the bleeding from her ear.*

He could rise up in the morning
 like a dragon from the sea.

With the sun over his shoulder,
 he could warp words to say his
 thoughts.

He could lie down at night, satis-
 fied as a god must be.

— and wondering why Jameson was
 not his partner.

He had swerved across the
 road and into the woods and about
 to enter into the clearing beyond
 through the ruts of snow. How
 well he had done! He saw the house
 and stepped the wheel quickly.
 "Where do I turn here?" he
 asked himself. "Where do I turn
 here?" The house was only a few
 miles behind but the world had
 shrunk to the size of a county in
 recent years and fifteen miles
 hardly the length of an arm. The
 thing, perhaps, was to find a small
 town and—with the doctor—force a
 doctor to care for her. Hide the
 Champion in the doctor's garage.
 He turned the engine over, wheeled
 into the twisting lane, and spun his
 wheels over the snow.

Thin rust trickled from her ear
 —liquid.

Caldwell twenty-six miles . . .

Caldwell nineteen miles . . .

He was ten miles from Caldwell
 when the helicopter fluttered over
 the tree tops that sheltered much
 of the road. The car was bathed in
 sickly yellow light. He swerved left,
 right, darting out of the beam. But
 they broadened the shaft and cov-
 ered both lanes with it. Bullets
 cut up the pavement in front of
 him. One pinged off the hood. A
 few vibra-beams sent little sections
 of the pavement boiling. Then,
 abruptly, there was darkness and
 no helicopter.

Slowing, he rolled down the win-

down behind. Two whupa-whupa of flapping blades. It was gone. It vanished; it did not simply drift away. Perhaps it had crashed. Yet there was no explosion, no crashing sound. He rolled the window up and drove on. They had spotted him near Caldwell, and he must bypass that town now. Forty miles away lay Steepleton.

He looked over the seat, felt his stomach flop at the sight of her, comatose and pale-dark. He pressed down on the accelerator.

Steepleton thirty-two miles . . .

Steepleton twenty-four miles . . .

At the boundaries of Steepleton there was a roadblock. Seven men, seven androids. And they knew damn well whose car was coming; they had their weapons raised . . .

Death is not something that creeps about in black robes, slithering. Death cannot be seen . . .

It can't!

And yet his world was a graveyard. The moon rode high above clouds like pieces of torn shrouds flapping madly to the tunc of the winds in the dead trees. He struggled up the hill to the cell on the wind farm, a place where he would find his way to death.

"Good evening," said George to them.

"If it will," said one of them.

"Thank you, my dear friends. I will leave this people and you in your own company."

"A V S B 284 27," said the woman.

He ignored all of them. He pushed onward, toward the summit of the hill where the sepulcher bit at the sky, a broken tooth. Somewhere a muffled drum. Somewhere a passing bell. . .

He pushed his shoulder against the stone door, felt the rusted hinges move a bit, heard them squeak, heard the rats run inside. Stepping in, the moonlight flooding in behind him, he advanced to the sarcophagus. They had buried her in a lime stone coffin, for that indicated the rotting of the corpse. Somehow, that filled him with rage. He thrust the moon-silver keys and free looked down at her face. Gently—oh! so gently—he opened her out, placed her upon the marble slab where no signs yet were.

Somewhere a whining—no, no, no, reverse, someone's walking on sand in the night.

And he would say the prayer he would make with passing time.

The wind howls over the
 garden, through the
 trees.

Of the windmill's turning I
 And the moon above the hill
 are my friends.

Of the windmill's turning I
 and of all the winds that
 dance in a circle.

Of the garden and the
 garden, my friends.

Of the garden, my friends
 and of all the winds that
 dance in a circle.

Of the garden, my friends

—Laurie, you're coming, aren't you?
—You're going to get that good long
rest, aren't you? You'll feel different
in a few minutes . . .

—Laurie,
—Laurie,
—A warm bed, you're looking
—Laurie!
—Laurie! Bless!

He woke up two miles closer to
Kingsmir. And he knew! He pulled
the Champion onto the berm and
crawled between the bucket seats
where she lay. He ran his fingers
over her face, trailed them under
her chin, felt the blood pulsing in
her neck. Laurie was changing real-
ity! Somehow, comatose as she was,
the psychic powers were siphoning
themselves off instead of exploding
violently. They were under control!
And they were not merely powers
of teleportation and mind reading;
they were powers that could change
the basic fiber of the universe. He
had thought he imagined her an-
swering him a while back; now he
knew she had answered. There had
been no need of lips.

"Laurie, can you hear me?"

There was the distant answer
that he had to strain to hear.

"Laurie, you heard the helicop-
ter, sensed the guards and the road-
block. And you changed reality for
a while until the car—moving in-
dependent of both worlds—had
passed the trouble spot. Isn't that
what you did, Laurie?"

A distant yes.

"Listen, Laurie. The graveyard

He was comatose and spiriting
out. Nothing was happening . . .

He pulled himself out, drove
and not thinking in a time. It was
not about having him. There had
been a roadblock and a roadblock had
been long dead, but Which was
not the voice of the graveyard
said? The voice, certainly. He
knew it. A Poe who stays with the
dead. Besides, his mother
was not dead. He wanted to look at
her. Her face had become wrinkled
and she wore in pain. He called
her name. For a brief second, he
thought she answered. But her lips
had not moved. He turned back
and faced front. It was ten miles
to Kingsmir. What would happen
there. Would the graveyard delu-
sion come back? Would there be
further oddities? He suddenly re-
membered the disappearance of the
helicopter and shuddered. Pulling
back onto the road . . .

. . . He woke and kissed her on
the neck.

Her black-black hair spilled
down her bare shoulders, over her
bare breasts, curled under her pink
ears . . .

She kissed him back . . .

And then she was lying in a
limestone casket . . . Then warm
and alive . . . then cold and rotting
. . . A helicopter fluttered again . . .
A helicopter blinked out of exist-
ence in a world where men had
suddenly never learned to fly . . .
Then it was back again, chasing

is all wrong. Poetic as hell, but wrong. The other one. The one where we are in bed, Laurie." He stroked her chin. He kissed her lips and urged her to concentrate. He heard the sirens on the road and talked faster . . .

He talked of a world where there had never been hallucino-children. He spoke of a world where all were normal . . .

He woke before she did and lay listening to the rasping of her breath: seafoam whispering over jagged rocks. It would get worse before she woke.

The view from the window was pleasant. It had been snowing since suppertime. Beyond the hoary willow tree lay the highway, a black slash in the calcimined wonderland. They were plowing the road, for the heating coils had broken down again. Somehow, he felt that he had seen it all before. Everything was like an echo being re-lived.

*"Glistening dreams fluttering
flaked
float softly downwind
while snow priests prepare
for fair collisions . . ."*

He was not sure whether that was senseless or not. And even the poem seemed nagging familiar. He repeated it softly.

"Frank?" she said.

"I know."

"Soon."

"I'll pull the car out of the garage."

"The snow—"

"They seem to have it under control," he said, feeling as if he had said the same thing once before.

"I love you," she said as he went through the doorway into the shadow-filled living room. That always sent shivers through him—that face that wore those words. The shiver rumbled, howled, ripples over his spine, and an electric forehead spreading to reach every nerve in his body. What was he frightened of? And then was the feeling of familiarity. All things are more than usually clear to the Laurie. After all, she was very dominant. Suddenly, she began to tell it would be a girl. And then the shivers were gone as he reached for the car. He was certain he would see whiplashed, and there was no longer a sense of familiarity. Suddenly, things were not much different and they were gone.



It is like the Great Chain of Being, only the logic and good humor were removed with it. It says in Greek it inscribes a law from a page far above. It... What do you speak of in a court?

KEY ITEM

by Isaac Asimov

JACK WEAVER CAME OUT OF the vitals of Multivac looking utterly worn and disgusted.

From the stool, where he maintained his own stolid watch, Todd Nemerson said, "Nothing?"

"Nothing," said Weaver. "Nothing, nothing, nothing. No one can find anything wrong with it."

"Except that it won't work, you mean."

Weaver frowned. "You're no help. Sitting there!"

"I'm thinking," said Nemerson quietly.

"Thinking!"

Nemerson stirred impatiently on his stool. "Why not? There are six teams of computer technologists roaming around in the corri-

dors of Multivac. They haven't come up with anything in three days. Can't you spare one person to think?"

"It won't help us to think. We've got to look. Somewhere a relay is stuck."

"It's not that simple, Jack!"

"Who says it's simple. You know how many million relays we have there?"

"That doesn't matter. If it were just a relay, Multivac would have alternate circuits, devices for locating the flaw, and facilities to repair or replace the ailing part. The trouble is that Multivac won't just fail to answer the original question; it won't tell us what's wrong with it, either. —And

meanwhile, there's going to be panic in every city if we don't do something. The world's economy depends on Multivac, and everyone knows that."

"I know it, too. But what's there to do?"

"I told you, think. There must be something we're missing completely. Look, Jack, there isn't a computer scientist in a hundred years who hasn't devoted himself to making Multivac more complex. It can do so much now—Hell, it can even talk and listen. It's practically as complex as the human brain. We can't understand the human brain in all its aspects, so why should we expect to understand Multivac?"

"Are you saying Multivac is human?" There was no mistaking the derision in his voice.

Nemerson did not react. He said, mildly, "Why not? Could we tell if Multivac passed the thin dividing line that separates a computer from a human brain? Is there a dividing line, for that matter? If the brain is just more complex than Multivac in degree and not different in kind, and if we keep making Multivac more complex, isn't there a point where—"

Weaver said scornfully, "All right, suppose Multivac was human in tendencies. How would that help us find our way? Multivac's working. It would just be all the worse.

"I would not. We could be able to

look for a human reason. Suppose you were asked the most probable price of wheat next summer and didn't answer. Why wouldn't you answer?"

"Because I wouldn't know. But Multivac would know! We've given it all the factors. It can analyze futures in weather, politics and economics. We know it can do's done it before."

"All right. Suppose I asked a question and you knew the answer but wouldn't tell me. Why not?"

Weaver snarled, "Because I had a brain tumor. Because I had been knocked out. Because I was drunk. Damn it, because my machinery was out of order. That's just what we're trying to find out about Multivac. We're looking for the place where its machinery is out of order, for the key men that are wrong.

"Only you haven't given it. Nemerson got off on such a rant, ask me the question. Multivac stalled on."

"How did I get the wrong through?"

"Come on, talk to me and you talk about what you're doing. You talk to Multivac, give it an?"

"You got to try it."

"You all right? You said I was the critical man. Let's try it. I'm going to give you a list of twelve things to do, and you'll have to do them. You'll have to answer each thing, giving a complete list of what you think is the

of Weaver's. It is a frustrating realization, a certain kind of emptiness, the fallen angel.

"So I wonder if that's right. You know, the tape is for Multivac. I remember a couple of days ago you told me they can be efficient, just perfect for anything our most sophisticated software. As a matter of fact, I compare Multivac most of the time to stem human language to a human. Come on, Jack, ask me the question. I want to see your reaction to it."

Jack Weaver flushed. "This is your answer, will you?"

It was a measure of Weaver's aggression and desperation that he needed Todd sullenly, he pretended to be finding the program into Multivac, speaking as he did so in his usual manner. He commented on the latest information concerning farm unrest, talked about the new equations describing jet stream contortion, lectured on the solar constant.

He began stiffly enough, but warmed to this task out of long habit, and when the last of the program was slammed home, he almost closed contact with a physical snap at Todd Nemerson's waist.

He ended briskly, "All right, now. Work that out and give us the answer pronto."

For a moment, having done, Jack Weaver stood there, nostrils

open, his eyes staring at the ceiling. The room grew too quiet, quiet, and Weaver's gaze was soon pinned to the panel and banks of rods.

Then he remembered and bent over. "All right, Todd."

Nemerson said, "All this time now why I wouldn't answer you lets me something on Multivac. Look, now Multivac itself was the one who has their nose off in them, you do program me, it once came to be for me do the talking, just now."

Weaver found himself turned to Multivac, and all with that with its sember twinkling and lights, slowly, he closed it. Doubtless he ordered the tapes away.

Then, with a deep breath, he began once more and led the program into Multivac. It was the longest time of all, the longest time. Somewhere, a dozen more commentators would spend the word that they were saying now. All over the world a Multivac-dependent people would be holding its collective breath.

Nemerson talked as Weaver fed the data silently. He talked diffidently, trying to remember what it was that Weaver had said, but waiting for the moment when the key item might be added.

Weaver was done, and now a note of tension was in Nemerson's voice. He said, "All right now. Work that out and give us the an-

over 2 1/2 lbs. weight), and with most
 presently unused, added the fan
 from "Planet".

and all over Multivac, the
 valves and relays went joyously to
 work.



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*Larry Brody (deceased April 1989) returns with a story about
John Paul Jones, the founder of a cult century of experimentation
in the creation of life. He was the first (and only) man;
the only person—and he was a murderer?*

ULTIMATE DEFENSE

by Larry Brody

THE PASTACK CALLED, FLASHED me a lily white, and started to talk.

Miss lawyers get cases.

I just get problems.

Noparstack's my associate, which is a fancy name for clerk, and he does all my research. Sometimes, though, I let him out of the office and into the world. Usually when there's no choice, like today.

It was his turn to Mirandy, which, if you don't know, means he had to waste a day cruising around in a police chopper letting them know when they could grab and when they couldn't and advising the bad guys about their rights and privileges and such. It's a good service, a necessary one, I suppose, and it gives everybody a lot of protection.

Only it's all for free.

And I still had to give him a day's pay.

"I've got a problem," Noparstack told me over the vid. He's a big burly kid who looks a lot like something you dream about and try to forget, and he wears big round old-fashioned eyeglasses so he'll seem more scholarly. He was Law Review and all that, and he knows as much law as anyone else just out of school—and probably more than I do.

And nothing about being a lawyer.

"I've got a problem," he said again, scratching his hairy neck. "We picked up a murder suspect, practically caught him in the act. Brought him right to the station."

He likes to play these little

comes, dreams it's dramatic. Maybe no lawyer told him lawyers are supposed to be concise. "Oh?" I said, and dreams of indigent clients danced in my head.

"I'm the only one who's talked with him."

"So?" He was leading up to something, all right.

And with him that meant trouble.

"I think he's innocent."

"Right. Practically caught him in the act but he's innocent. Fine, defend him on your own time and plead insanity. Look, I've got work to do."

Noparstack shook his head. "I can't defend him, Jefferson. I don't know how. You see—" he paused here for effect, but I reached out to break the contact, and he said hurriedly, "—it's Jarvis Raal we picked up." He shook his head some more.

Jarvis Raal. Tall. Narisw. Not quite handsome. Alien. The beautiful voice with the inhuman grace.

Jarvis Raal. Missing for close to a month. Fantastic searches underway.

Jarvis Raal and a murder case. I thought of the institute and all its beautiful brooded secrets. And how the person died he

"What should I do?" Noparstack said.

"He never told the last case."

"Not a word."

"Then you see."

"Sign him up."

"Then sign him up," I said. "I'll be right there."

Precbs, my sec, got me a cab and in just a few minutes I sat in the interrogation room with Noparstack, a policepsych from Uganda named Davis, and Jarvis Raal.

Now I'm not a bigot. History gives me the right but society hasn't let me have the time. Still, Raal made me uneasy.

He just wasn't right.

It was more than his diction. (I'm getting paunchy, I admit) more than his pale, pale skin. His eyes, and hair that was almost white. I'd seen him before and had never, till now, the sound wrong. He moved like a man instead of a mouse. He had that bearing when [they would] been him?

He didn't look unusual either.

He was perfect. You know that look, the one that says you're not a human being, but the product of a different order of organization in the universe of life. It's that look from some very special kind of very controlled brain. It's something that I've seen before but the last case was the last case.

The answer is the answer, suggest. Only the time, the light, the temperature, the sound, and every other thing that

few beans, blended and somehow augmented to produce his perfection. According to the Institute, Raal had the potential to be anything he wanted.

He wanted to sing.

Everybody said, "How tragic," and everybody identified like mad. There's something about waste. It took away the threat. Raal was wasting his life, and that made him just fine.

He didn't compose. He didn't play an instrument. He didn't even have any snappy patter. All he did was take the old songs and sing them just a little better than anybody else. He sang from his guts instead of just his mouth, and audiences admired him just enough.

Because Raal was a test, and if he worked out, there'd be more of his kind. Until today it'd looked like there'd be more.

But if he were a murderer—

The Institute could be very generous.

"He signed," Noparstaek whispered to me as the questioning was about to begin. "I convinced him you'd be more sympathetic."

"Exclusive then?"

He nodded. "Standard contingency. Amount to be filled in later by the Institute."

That was fine. If we got him off, we got paid. If not—well, I'd try not to spend too much on the case.

Raal sat at my other side, look-

ing very calm. He crossed a shawl, and his clothes confirmed "I'm on what I say," I told him, and he nodded.

"The recorder's on," Davis said, "so we might as well begin." He was light-skinned but wore the same kind of dangling jewelry I did, and his robe was almost as bright.

I wondered why he hadn't discarded the slave name. Maybe it was the same kind of reverse pride that'd made me keep mine.

"Where've you been these past weeks?" Davis asked Raal.

Raal looked at me for his cue, and I shook my head. "Number five," I said.

Davis nodded. "What were you doing in the lobby this morning?"

"Number five," I repeated.

Another nod. Davis was experienced. "Were you acquainted with the dead man?"

"That's a five."

"I don't say *anything*," Raal whispered.

"You don't want to," I said.

Davis began, "Did you—"

"I think that's enough," I said. "We've established his refusal to answer anything, and you've showed that you tried. Three's enough to satisfy everything."

"I'd like to get one more," Davis said.

"He declines to answer."

Davis shrugged. "All right," and he gathered up his things.

"You go back to Raal's cell with

him," I told Noparstack. I had to see about bond.

The door opened, and a guard stuck his head into the room. "Guys from the Institute're here," he said, winking. Noparstack had paid him to hold off their call. The kid was learning.

The three Institute lawyers walked in, led by Miles Ludovico, an old friend I owed a lot of favors. "Good morning, Counselor," I said. "You missed all the action."

"Damn you, Jefferson," said Miles.

The bond hearing could wait awhile. We went to talk about money.

I no-commented the newsstat boys, argued with Miles about my fee. When we finished, he was calling me Jeff and promising to give all the help I needed.

He certainly should have. Because Miles stood to get almost as much out of this as I did. For the *referral*, you understand.

And I was dreaming of retirement.

It took a not so small fortune in Institute money (some of it even went to the Court), but finally Raal was released to me. I kept him in my apartment while I worked on some other things, and when Noparstack got through with the rest of his little cruise around the city the three of us met at the office.

My office is carpeted with

and tropical flowers, the African motif and all, and the banging chairs are only slightly more comfortable than they appear. Everyone sits in them and squirms and tries not to look like a monkey.

Some never succeed.

Preebs, who is middle-aged, blonde, lanky, and almost appallingly good-natured, stayed late, serving us "sugar" and smiling at Raal and occasionally taking notes.

Fortunately the robo-sec was on.

"There isn't very much to tell," Raal said when we'd settled down, and Noparstack hunched forward to hear better, licking his cube like an ape tasting ice.

Raal frowned. Cleaned up and wearing an old red robe of mine, he looked almost human, and I was surprised at how young he was. He rolled the narcotic cube under his tongue, then pushed it against his cheek, and when I gestured impatiently, he started to explain.

"I suppose I'm a fraud," he said and told us what many had already suspected. He sang because it was relatively valueless and gained him some attention. "And that's all that was needed for a first stage.

"It's not a formalized system, idea," he went on "but I was very young when the Institute got me on my own, looking for me and warning the world & the courts, and that is what I have up next. Another [I had several] with it."

The trouble? "That's what we have to those who respect the law: he was still a riot—a rioter. (Laughs) Even over while at home when I'd do nothing but a routine, something to be entertained by and to drink over." There'd been no real undercover work.

And his upcoming trial wouldn't help.

He spoke smoothly, as if he'd rehearsed his lines, and in a way he had. He'd been thinking about nothing but this for almost a month.

"It was after a performance here," he said. "I sweated, the audience applauded, and the musicians all sneered." He shook his head. "I had to get out."

He took a cab and rode around for awhile like anybody feeling sorry for himself, and finally he had the driver take him to a cheap chopper hostel. "Went in with my cloak swirled, my arm raised, and my face turned like a video-fugitive and got myself a room where I lived until today."

"Lived doing what?"

"Deciding," he said, but he didn't say what. "Eventually the manager became suspicious and the rates went up. Then he figured out just who I was, and I had to pay a little more." The manager would come into his room and look at him, smile a little, and leave, "still smiling."

"And the killing?"

"The killing." Raal paused,

and he'd been around. Then he looked up. "It's also possible I was involved in the killing. I'd have been out of the station by now, I'd have been up to double the rate to rent a crib. As I got to the top I heard a chopper take off, and when I looked out, the place was almost empty."

"Almost?"

"The manager, Reynolds, lay on his back on the floor in the center of the room, and there was a pellet tube beside him. I bent down to see if he was all right, and then the police came." He indicated Noparstack, who took it from there.

"We found him kneeling by the body," Noparstack said, "exactly fifteen seconds after the 'scam said a crime of violence had been committed. He was the one and only suspect and was taken right in. You know how it works."

I hoped so. I'd been practicing for twenty-five years. "He wasn't touching the tube, was he?"

"No," they both said, almost in concert, and Raal looked indignant.

"Mmm. And what about this other chopper he says he heard?"

"There was a lot of traffic in the area, but at the time nothing was pinpointed as having come from the hostel. Still, I think something could have."

We'd have to check the traffic control tapes. I asked about a few more things, then: "This is exactly what Raal told you in the station?"

"Right." Noparstack nodded.

And in that case I had only one more question. I thought about a mystery copper and fifteen seconds and sighed.

And asked myself how I could ever have taken this case.

Newsstats aren't supposed to get the names of suspects in major cases, but they always do and the next day they had Raal's. Most reacted pretty rationally, although there were still quite a few editorials which were perfect examples of the Frankenstein syndrome.

Would you want your daughter to marry a golem?

More Institute stock was traded that day than ever before, and the price was down. Way down.

People were afraid.

I think I was too.

But Raal stayed relaxed, and I tried to convince myself he was too intelligent to make up as bad a story as the one he'd told, and I thought of all the money.

I gave my client to Miles to hide in case of any trouble and started working. Noparstack went to the traffic bureau to look through the tapes, and I headed for the hostel. The police investigators were still there, and I incurred the case's first big personal expense getting in for a look.

A nice big smile just isn't enough, you see.

It was a small place. The landing strip was very narrow and adjoined a bottle-enough lobby,

and the rooms were down below like in any hostel. I looked at the chalk marks that showed where the body, the tube, and Raal had been found, took the intraglide down to Raal's tenth floor room, timed the trip back up, and left for central police headquarters.

The chief vest on the case was a short fat character named Hull, and we hadn't gotten along ever since I'd queered another case for him, maybe costing him a captaincy. He didn't bother standing or shaking hands when I entered his office but just nodded and pointed to a pile of material on his desk.

"That's for you," he said. "We do the work, and you defense lawyers just walk in and put our brains."

I sat down. "The world's filled with injustice, eh? Everybody's here?"

"We play fair. Jefferson came with you. All the lab reports, some of the interviews with the guests at the hostel. Most of them say they were in their rooms at the time, and of course no one can hear anything."

"The bad."

"Only for you." He rubbed the sraggly beard he seemed to be trying to grow. "We got no consequence, don't we?"

"There's a margin of error there. Besides no guilt."

"Oh? I don't know. We can tell how that got a thousand word work."

"You know someone else told that man on father. He has a kid and they'd thought him up a trial and were having a trial. Has someone a confession to a crime and hadn't been punished. The man of laugh a lot when he said that."

Hull glared at me. "Just take the eff and go," he said curtly.

I wasn't ready yet. I asked him how the guests who hadn't been in the building last night. "Did any people get to them?"

"Someone on it now. Don't worry, you'll get the results as soon as they come in."

Someone of them could have done it, I said. Or someone who never even registered.

My mother could have done it, too. Hull's mouth twisted into a mocking smile. "But it's not her they found at the scene."

"Raal never touched the tube."

"That's not what the lab says." And Hull began to laugh.

Very loudly.

All I could do was stare.

And think of Noparstack and that first vid call. And how I'd let his father pressure me into taking the kid on. I hoped Noparstack's old man hadn't gotten too used to his son paying his own way.

The theory behind contingency contracts is that you'll work harder if you've got something to lose. All that really happens is that you ignore your smaller cases and con-

centrate on the bigger ones. And give up on the best before and no insurance case.

I sat in my office and clenched my fists and looked out into the darkness. I considered the probabilities.

The police lab report showed that no fingerprints had been found at the trigger end of the murder tube. But partial prints matching Raal's were uncovered along the barrel near where the pellets came out.

Raal's explanation was that his hand must have brushed against it when he squatted by the body. "I rested one hand on the ground," he said when I confronted him.

I didn't believe it.

To make things worse, the police had seized the traffic vistsapes and Noparstack had done nothing but talk to Preebs all day.

Not that I expected him to find us any new suspects anyway.

See what I meant before about problems?

But I wrapped my robe around myself and went back to the hotel, paid the "entry fee," and started dusting near the chalk marks. If Raal was playing it straight, there'd be some partial prints on the floor near where the tube had been, prints that could be fitted with those on the barrel.

There weren't any.

I imagined myself telling a jury they'd been there but had been rubbed out, and I shuddered.

I prowled around the place all night, finding nothing I could use, then spent the next morning talking to some of the quarantined guests, the ones whose stories hadn't seemed quite right.

My change purse emptied, and their minds stayed blank.

Then, about noon, Noparstack found me.

"I saw the tapes," he said, "and I may have found something." And we raced over to traffic control.

He worked the projector while I sat in a hard chair and watched. On the left side of the screen ran a thin strip with the time on it, calibrated in hours, minutes, and seconds. The rest of the screen showed the view from the traffic platform nearest the hostel.

The tape started at ten-twenty and no seconds. I located the hostel and sat forward on the unyielding rubber. Choppers floated by in slow motion, and time dragged on. Then it was ten-twenty and thirty seconds.

"Watch carefully," said Noparstack.

A chopper hovered above the hostel, dropped slowly, and Noparstack increased the magnification. At ten-twenty and forty-nine seconds it touched down and a tiny blurred figure emerged, disappearing into the bubble. Four minutes later it reappeared, and at ten-twenty-five and thirty-three seconds the chopper began to rise.

The murder had occurred at ap-

proximately ten-twenty-seven and forty seconds.

We watched until the tape read ten-thirty, but there was nothing.

"Well, well, well."

The mocking voice was Hull's. Turning, I saw him in the doorway with Davis. Hull showed his teeth. "Come all the way down here just to get you a copy of that," he said, pointing at the screen. "Guess you won't need it now." He laughed. "How's it feel to be a loser?"

"Always the model of objectivity, aren't you?"

He nodded. "The 'scam's margin of error is forty-five seconds either way. The tape's is ten. At the very least the chopper left a minute and twelve seconds too early to be involved. And Raal was found beside at ten-twenty-seven and thirty-two."

"The 'scam could've been faulty," Noparstack said. "Or maybe the tape was out of sync."

"Or doctored."

Hull just laughed.

Davis, looking embarrassed, gave me the name of the chopper's owner and the tapes of when the man'd had to six vestibules and Noparstack and I left.

Hull was still laughing.

As for me—

"Too sorry," Noparstack said.

So I decided to sleep it over and a little longer.

We discussed and we discussed and we made some talk about it

the traffic tape, and we watched it until we couldn't see. Then we analyzed the tape itself, but the time and action were correctly shown, and there distinctly were no evidences of tampering or anything.

We paid a visit to the chopper's owner. His name was Crowell, and he looked like everyone's Uncle Max. He was a salesman, with a salesman's garrulity and way of hiding his own intelligence.

But he was straight. He was in town for a day—"I sell D-tec-to—" and he'd gotten lost as he'd arrived. His two-way wasn't working, and he touched down at the first hostel he'd spotted, hoping it was his.

It wasn't, but he'd stayed awhile and given the manager a preliminary pitch on the wonders of D-tec-to as a home safety device, and then he'd left, planning to come back later and tie it all up.

He needed the money, he said. Why would he kill the man?

I didn't know. But if no one inside had seen him and we could cast doubt on the 'scam's accuracy—

Then we found a report we'd overlooked that said the 'scam had been checked out the morning of the murder.

I think I spent the whole next day crying. And wishing I'd gone into corporate law. While Noparstack followed Crowell and learned only that the two-way was indeed

broken. No one even's Noparstack pulled him in down, and worked over, but Crowell didn't even try to lose him.

And I didn't get one threatening vid call. Except from Miles, who was getting impatient. And worried. He felt even worse later.

There was only one thing left to do, and I got everyone together and asked Miles what a guilty plea and minimal sentence were worth.

Absolutely nothing.

He looked dumbfounded and shook his bewigged head. Didn't I know what the Institute had invested in Raal's project? "The money, the man-hours? The trust it's been given? Everything's right on the line." The stockholders and the public wouldn't stand for a massive failure. The government would probably step in. "And things are shaky enough as it is."

"Then I'm off the case," I said. Because there was no workable defense. No jury could look at the facts and find Raal innocent. And any strategic defense, such as insanity, would also fail, because by the time the trial took place, public opinion would have turned into public terror.

The golem was a killer, and I'd wasted enough time and money.

"But you've got to prove he didn't commit the physical act, or the Institute is ruined." Miles was thinking of his job as general counsel as well as of his expected commission, and he looked as worried

as a judge trying to find a way out of fining a campaign contributor who'd been caught in the act.

What he said was true, of course. Any acceptance of the prosecution's version of the facts would show that the Institute had failed and that Raal's kind were far from safe.

"Our contract's with Raal," Noparstack said. "All your client's doing is paying the bill."

"Now wait—" Miles started to protest, but I didn't listen. I was watching as Preebs stood up, straightened her jumper, and walked slowly toward the outer door.

Her ever-present smile was not.

"Just what d'you think you're doing?" I said.

And she told me. She was leaving, she said, before she got mad. She was leaving because it wasn't her place to criticize me. And then she let me have it anyway.

"You ought to listen to your associate once in a while," she said, and she looked from me to Miles to Raal. "And maybe you ought to listen to your client, too. You act as if this man is nothing but a block of wood. You've been talking about around, through, and sometimes at him since you started this case. Well, he is your client, Mr. Jefferson. Why don't you try worrying about him for a change? Why don't you try talking to him? Seeing what he wants to do?"

Then he shook her head at Raal

accusingly. "You're the one who'll go to the Garden if convicted, not them."

Raal snorted, and I don't think I'll ever get over the fact that he was still perfectly controlled. "I've only got one suggestion," he said, "and it's quite impractical. I think Jefferson should argue for the resumption of the death penalty. That way I'll have gotten everything I want."

And then he actually confessed.

The decision he'd come to during his retreat was simply this: as far as he was concerned, the Institute's experiment had failed.

But not because Raal and those who would be like him weren't ready.

Oh no.

Because the rest of mankind wasn't.

I didn't argue. My membership in the Establishment is too new.

He'd wanted to commit suicide and had bought a pellet gun through the black market, but then he'd gotten a better idea.

"Killing myself would do two things," he said. "My stop of talking my ability and fighting for acceptance would be over and public and scientific opinion would have an end of the project. No more money would have to go through what I have."

"But if I killed someone else there was the possibility of a third thing happening. During a trial of the facts regarding one would know-

less would come to 2000 as a conventional form. There'd be instantaneous things would live! It would be a knock-down educational experience, and perhaps people would learn to share—and accept me—us—as humans. It would certainly be more efficient than a suicide note.

"I'd suffer more, but I thought it was worth taking the chance. If it didn't work, nothing was lost and the project would still be abandoned."

"But the Institute—" Miles said.

"It owes me a little pain." He was answering Miles, but Raal said it to me as if I more than anyone else should have understood his argument.

"I don't know. I fought my war, and I've got my place in the power structure—"

And his bid for—was it understanding or plain *revenge*?—was costing me money.

"I've got to get you off," I said.

And then Noparstack jumped up and started to outline a new defense. Inspired by Preebs and her "block of wood."

Miles hollered until his throat needed spraying, Raal's cool shell finally cracked, and Preebs almost started to cry.

But I felt almost happy.

It was a trick, and Noparstack still didn't know what things *really* were like, but it worked. Sort of.

We did the kind of research Noparstack is expert at, reeling

without tape after type of case law—rather direct and abstract attorney. It's—um—um—and after a break the only thing that kept me going was the knowledge that most of the men whose opinions I was scanning were dead.

We went to the indictment and refuted none of Hull's carefully presented facts, letting him gloat. Our defense was more basic than that. Ultimate, you might say.

I stood there and spoke to a judge, who lived a lot higher than his salary could support, and argued two things—only one of them in the courtroom. That as a matter of law, Jarvis Raal could not stand trial for murder.

Because Jarvis Raal wasn't human.

And that as a matter of fact—

For three days we paraded conservative philosophers, theologians, and non-Institute scientists through the bar, and the 'stats and the State's Attorney and even the Institute screamed.

"We've created a man," the Institute had been saying for over twenty years.

We said different.

For three days and—although Noparstack didn't know it—for one exhausting night, when another kind of hearing was held.

A lot of hastily subpoenaed biologists and even more hastily drawn charts were ignored. So, many people claim, was reason.

We won.

Raal disappeared for about a week, and when they found him this time, he was dead. There was no note. None was needed, and Preebs quit.

At least the 'stats stopped calling for my head.

Miles, of course, was fired, but together we were consoled by our fee.

And then the real problems be-

gan. It'll all be on the 'stats soon.

You just shouldn't do the impossible. People get suspicious.

Hull started to dig.

A certain judge and two prominent lawyers—one very dark brown—are being accused of conspiracy, it seems. Something about some kind of bribe.

And Noparstack insists on handling the defense.

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Special Reprint Features

REMOTE PROJECTION
by *Guillaume Apollinaire*

INTRODUCTION BY SAM MOSKOWITZ

Guillaume Apollinaire is best known as a champion of the *avant garde* in art, a man who promoted cubism with considerable influence. Time has increased the stature of this controversial but brilliant art critic. The *avant garde* in literature was also one of his major obsessions, and he wrote poetry, plays and short stories which combined elements of good-natured (but satirical) humor, precious irony and not a little sex play.

Actually, *Guillaume Apollinaire* was a pen name; the author was born and ponderously catalogued as *Guillaume Albert Wladimir Alexandre Apollinaire de Kostrowitzky* in Rome on August 8, 1880, of Polish parents. His obsession with, knowledge of and acquaintance with things and people Jewish suggests that there was kinship or bloodlines in addition to intellectual curiosity.

Though he died young—in Paris on November 9, 1918—he was already highly regarded for his tales of sophisticated cruelty, macabre, surrealism and science fiction. These stories evidence a genius that makes them stylistically far in advance of our contemporary work, though most of them are over a half century old. Style was not all they possessed, for Apollinaire was gifted with high originality in plot and content as well.

There exists today a small group of science-fiction writers who are attempting to experiment in style overtly and with spiritual content covertly. Apollinaire should have been enshrined as one of their patron saints, for in this story, "Remote Projection" (which first appeared in the collection *L'hérésiarque et Cie* (in 1910), he not only proves to be one of the pioneers in the science fiction concepts of matter transmission and matter duplication, but carries his ideas forward with such elan and dazzling change of pace that he presents an entirely new perspective on the theme.

"Remote Projection" was accompanied in Apollinaire's 1910 collection by at least one other science-fiction masterpiece, "The Disap-

pearance of Honoré Sabrac," which concerns a man who can blend completely into any solid object. The consequences of this talent are delineated with such effectiveness that it is not inconceivable that a later French science fiction writer, Marcel Aymé, may owe a debt to Apollinaire, most particularly for the now well-known story "The Man Who Walked Through Walls."

L'hérésiarque et Cie has gone through many editions since 1910 and is now available in the U.S. (see footnote) and in England under the title of *The Wandering Jew And Other Stories* (Rupert Hart-Davis). It was so highly regarded in France that it was the runner-up to Colette's *La Vagabondia* for the *Prix Goncourt*.

REMOTE PROJECTION

by Guillaume Apollinaire

NEWSPAPERS HAVE REPORTED the extraordinary story of Aldavid, whom a large number of Jewish communities in the five continents of the world believe to be the Messiah, and whose death occurred in seemingly inexplicable circumstances.

Having been concerned in these events in a most tragic manner, I find it necessary to unburden myself of a secret, which oppresses me.

Opening the newspapers one morning, my attention was caught by the following items, datelined Cologne:

"Jewish communities on the

right bank of the Rhine between Ehrenbreitstein and Boppard are in a state of great turmoil. It is said that the Messiah is being brought to them, at Dollendorf. It is believed to have demonstrated his coming by performing a large number of miracles.

"The disturbance caused by the affair is the subject of considerable concern in the provincial government which, having the serious ferment aroused among the people as a question, has taken steps to suppress any disturbance that may occur.

"There is no doubt in that governmental circles that the Messiah, whose name is believed to be

"Remote Projection" from the book, *The Wandering Jew and Other Stories*, by Guillaume Apollinaire, translated by Nancy Lewis Hart, Harcourt © 45, Inc. Publishers of the U.S. Printed by Knickerbocker Co., Inc.

Aldavid, is an impostor. Dr. Frobenius, the distinguished Danish ethnologist, at present a guest of the University of Bonn, went, out of curiosity, to Dollendorf, and states that Aldavid is not a Jew, as he claims, but more likely a Frenchman from the Savoy, where the race of the Allobroges has maintained its pure state over the years. However this may be, the authorities would willingly have expelled Aldavid, if this had been possible; but the man whom the Jews from the Rhineland call the Saviour of Israel disappears whenever he wishes, as if by magic. He is usually to be found in front of the synagogue in Dollendorf, preaching the reconstitution of the Kingdom of Judah in violent and impassioned terms reminiscent of the raucous eloquence of the prophet Ezekiel. There he spends three or four hours a day, and in the evening disappears, no one can discover where. Nobody knows where he lives, or where he takes his meals. It is hoped that before much time has elapsed, this false prophet will be unmasked, and that neither the authorities nor the Rhineland Jews will be further abused by his mountebank tricks. Recognising their error, the latter will be the first to insist on being rid of the adventurer, whose lies tend to induce in them a regrettable arrogance towards the rest of the population, which might well provoke an explosion of anti-Semi-

ism during which poor innocent people might not feel sorry for its victims. We would add that Aldavid speaks perfect German. He also professes to know the Jewish customs, and knows their dialect."

This news, which aroused public curiosity greatly when it appeared, caused me, why I do not know, to regret the absence of Baron d'Ormesan, from whom I had not heard a word for almost two years.

I said to myself:

"Here is something which would really rouse the Baron's imagination. He would no doubt have many stories of false Messiahs to tell me."

And forgetting the synagogue at Dollendorf, I began to think of my vanished friend, whose imagination and habits never ceased to be disturbing, but in whom, in spite of everything, I still retained a lively interest. Affection had bound me to him since our schooldays together, when he was plain Dormesan; then there were our numerous encounters during which he had given me occasion to appreciate his singular character, his lack of scruples, his somewhat disorderly erudition, and his agreeable and kindly disposition: all were reasons for my sometimes experiencing a desire to see him again.

Next day, the newspapers car-

ried further news about the Dollendorf affair, which was even more sensational than that of the previous day.

Dispatches dated Frankfurt, Mainz, Leipzig, Strasbourg, Hamburg and Berlin respectively announced simultaneously the presence in their cities of Aldavid.

As at Dollendorf, he had appeared before the principal synagogue in each city.

The news spread quickly in each case; the Jews had assembled, and the Messiah had preached in identical terms everywhere, according to the reports.

In Berlin, at about five o'clock, the police had tried to seize him. But a crowd of Jews surrounded him and put up strong opposition, accompanied by shouts and lamentations. They even resorted to violence, and a large number of arrests were made.

Aldavid himself had disappeared, as if by a miracle . . .

This news made a great impression on me, though no more than it did on the public, who were passionately in favour of Aldavid. Later in the day, special editions of the papers came out, one after another, announcing the appearance (they no longer said the presence) of the Messiah in Prague, Czarow, Amsterdam, Vienna, Leghorn, and even by Rome.

All over the world, feelings reached a climax, and various movements: it will be remembered

held special meetings, the decisions they came to being kept secret, and with good reason, for all of them resulted in an acknowledgment of the fact that since Aldavid's powers seemed to be of a supernatural order, or at least inexplicable by the normal means at the disposal of modern science, it would be better to await, without intervention, the outcome of events which the police seemed unable, for various reasons, to control.

Next day, diplomatic dispatches exchanged between the cabinets of the governments concerned resulted in the arrest of the leading Jewish bankers of each nation.

This measure seemed vital. For if, as appeared likely, Aldavid's preaching were to bring about a new exodus of the Jews to Palestine, an exodus of capital from all countries to the same destination could be predicted, and the financial disasters that would be the consequence of this event would be avoided. It was also felt, and with reason, that the Messiah — whose ubiquity seemed uncontestable, if not the other miracles which were being attributed to him — might well proceed by supernatural means to inaugurate the new Kingdom of Israel where the necessity arose. Thus the Jewish banks, though started with the greatest respect, were shut down, which did not fail to cause a large number of financial disasters.

stock-exchange panic, contempts, and suicides.

All this time, the ubiquity of Al David was manifesting itself in France at Nîmes, Avignon, Bordeaux, and Bancerre, and on Good Friday, the man whom the Jews proclaimed as the Star which was to spring from Jacob, and whom the Christians did not call anything less than the Antichrist, appeared at about three o'clock in the afternoon in Paris, before the synagogue in the Rue de la Victoire.

Everyone had been awaiting his advent and for several days the Jewish community in Paris had been standing by in the synagogue in Rue de la Victoire, and in all the neighbouring streets. The windows of nearby apartments had been hired for huge sums of money by Israelites who wished to see the Messiah.

When he appeared, the din was tremendous. It could be heard from the heights of Montmartre as far as the Étoile. I was on the boulevards at the time, and with everyone else I hurried in the direction of the Chaussée d'Antin, but could not get further than the junction of the Rue Lafayette, where barricades, with plain-clothes men and mounted police, had been set up.

I learned only in the evening from the newspapers of the new aspects of the affair which emerged during this appearance.

From the moment when he had ceased to appear exclusively in German-speaking countries, Al David spoke less. His previous sessions lasted quite as long as the first ones, but he often fell silent, praying in a low voice, always picking up his preaching in the language of the people among whom he found himself. This gift of tongues, which made his life a daily Pentecost, was no less astonishing than his gift of ubiquity, and the faculty of causing himself to disappear whenever he wished.

During one of his moments of silence, when he appeared to be praying quietly before a concourse of prostrate and silent Jews, a powerful voice rang out suddenly from one of the windows facing the synagogue.

Raising their heads, the congregation saw a monk with a calm, inspired face standing at the window. With his left hand, he held out towards Al David a crucifix, while with his right he shook an aspergillum, and drops of holy water fell upon the prodigious man. At the same time, the monk repeated the Catholic formula for exorcism, but the effect was null. Al David did not even look up at his exorciser, who, falling on his knees, turned his eyes towards Heaven, kissed the crucifix, and remained for a long time in prayer, face to face with the man from whom the legion of Devils had refused to depart, and who, if he was

The Antichrist, appeared to be so sure of himself that even exorcism had not troubled his oration.

The effect of this scene on the crowd was immense, and, contemptuous and triumphant, the Jews who had witnessed it refrained from insults or mockery of the monk. They feasted their ardent eyes on their Messiah; then, with exulting hearts, all of them, men, women and children, joined hands, and in close-knit rows began to dance, like David of old before the Ark, singing hosannas and hymns of joy.

On Holy Saturday, Aldavid appeared again to the Rue de la Victoire, and in the other towns where he had already shown himself. His presence was also announced in several large towns and cities in America and Australia, in Tunisia and Algeria, Constantinople, Thessalonica, and Jerusalem, the holy city. There were also reports of activity among a very large number of Jews who were preparing for their departure from various countries for Palestine. Everywhere, emotion ran high. The most sceptical spirits yielded to the evidence, admitting that Aldavid was indeed the Messiah whom the ancient prophecies had promised to the Jews. Catholics awaited anxiously a lead from Rome on these events, but the Vatican seemed to disregard what was happening, and the Pope himself, in his encyclical en-

titled *Misericordiam*, on the question of armaments, which he proclaimed at this time, made no allusion to the Messiah who appeared every day in Rome, just as he did elsewhere . . .

On Easter Sunday, I was sitting at my desk, carefully reading the telegraphed reports of the previous day's news, Aldavid's pronouncements, and the new exodus of the Jews, the poorest of whom were said to be leaving on foot for Palestine.

Suddenly, I heard my name spoken loudly behind me, causing me to look up; and there in front of me stood Baron d'Ormesan himself.

"There you are!" I cried. "I thought that I should never see you again. You have been away for at least two years . . ."

"But how did you get in? I undoubtedly left my door open!"

I stood up, went over to the Baron, and we shook hands.

"Sit down," I said to him, "and tell me about your adventures. Because I have no doubt that some extraordinary thing has happened to you since I saw you last."

"I shall certainly relate your curiosity," he told me, "but only if you will give me the opportunity of seeing Aldavid first. I do not feel like introducing him."

"No, no doubt," I replied. "But first tell me when you have returned from your travels?"

He answered, smiling.

"Would you not do better to ask where I am now?"

"In my house, of course," I replied impatiently. "You have not changed—always the mystery man. But I suppose what you have just said is part of your story. All right, then. Where are you?"

"I have, in fact, been in Australia for almost three months," he replied, "in a small place in Queensland, and I like it there very much. Nevertheless, it will not be very long before I embark for the Old World, where I am called to important business matters."

I looked at him, somewhat taken aback.

"You astonish me," I said. "However, you have made me used to so many strange things as far as you are concerned that I am willing to believe what you say, but please, I beg of you, explain yourself. You are in my house, yet you say you are in Queensland, Australia. Admit that I have some cause to feel baffled."

He smiled again, then continued:

"I am in fact in Australia, which does not prevent you from seeing me in your home, just as others are seeing me at this very moment in Rome, Berlin, Leghorn and Prague, and in such a vast number of other cities that to name them would be tedious, and—"

"Would you," I cried, interrupt-

ing, "suppose to be a Messiah?"

"Certainly," replied Harry Dormesca, "and I trust that you do not doubt my words any longer."

I went up to him, touched his forehead with my hands, and looked at him. There was no doubt about it; he was there, leaning against the wall in front of me. I sat down in an armchair and eagerly contemplated this astonishing personage, who, though he had been several times in prison for theft, and was the unpunished perpetrator of a number of celebrated murders, was also undeniably the most miraculous man alive. I did not dare say anything more to him, and it was he who finally broke the silence:

"Yes," he said, "I am AIdavid, the Messiah of the prophecies, the future King of Judah."

"You amaze me," I protested. "Explain to me how you have managed to work miracles which have held the whole world in suspense?"

He hesitated for a moment, then seemed to reach a decision:

"Science," he said, "is the cause of the alleged miracles I accomplish. You are the only person in whom I can confide, because I have known you for so long, and know also that you will never betray me. Also, I am in great need of a confidant. . . . You know that my real name is Dormesca, and you are also aware of some of the artistic crimes committed by me, which are the joy of my life. I have scientific knowledge as vast

as is my knowledge of literature, which is itself no small matter. I know perfectly a great number of foreign languages, and am thus familiar with all the great literatures, ancient and modern. All this has been most useful to me. True, I have had my ups and downs, but any one fortune of those that I amassed and dissipated, either by gambling or in prodigalities of all kinds, would be considered a respectable sum, even in America . . .

"Anyway, when a small legacy of about two hundred thousand francs fell into my hands, so to speak, four years ago, I used the money for scientific experiments, and carried out research in wireless and wireless telegraphy, the transmission of photographs, colour photography and photography in relief, cinematography, the phonograph, and so on. These experiments led me to concern myself with a point until then neglected by all scientists who had shown interest in these fascinating problems—I mean remote projection. And I ended up by laying down the principles of this new science.

"Just as the human voice can be transmitted from one point to another far distant point, so the appearance of a body, and that solid through which the spirit assumes the notion of it, can be transmitted without it being necessary for the ubiquitous to be connected physically with the body he

projects. I may add that the new, transmitted body retains full human faculties to the limits within which these are exerted through the transmitter by the real body. Those miraculous tales, the popular fairy stories, which accord certain characters the gift of ubiquity, show that other men before me have been aware of the fact of remote projection; however, these were only imaginative works of no particular importance. It fell to me to resolve the problem practically and scientifically.

"Naturally, I leave aside those phenomena, or alleged phenomena, of a mediumistic nature, bearing on the duplication of bodies; these phenomena, about which little is known, have, to my knowledge, nothing to do with my own experiments, which were fruitful.

"After a number of attempts, I managed to construct two machines, one of which I kept 2000 m. and placed the other 2000 m. away beside a park on the Parc Montsouris. My experiment was wholly successful, and by operating that transmitter which had cost me so much hard work and money I now see a small tree for all time. I was able, without leaving the spot where I was, to make it appear at the same time to the Parc Montsouris, and if you so wish to take a walk there, it is possible, set, 1911, 1908, and 1907, to be in the two places at once. Later, I was called another of my inventions, but

able to trace to the Champs-Élysées, and crowded with so, that I could also be in three places at the same time. From that on, the world was mine. I could have blown immense profits from my invention, but I preferred to keep it solely for my own use. My receivers are small and inconspicuous to look at, and no one has yet removed one of them from the place where I installed it. I go into your house two years ago and this friend, but this is the first time that I have used it, and you have never noticed it."

"Quite true, I have never noticed it," said.

"These machines look like an ordinary nail," he continued. "For two years I travelled about, nailing my receivers to the facades of all the synagogues. My design was, from a self-styled Baron to become a King, and I could not hope to succeed in this save by founding again the Kingdom of Judah, for the re-establishment of which the Jews have been waiting so long.

"I travelled the five continents in succession, always maintaining contact thanks to my ubiquity, with my house in Paris, and with my mistress, whom I love and who loves me, but who would have been a trouble to me had she travelled with me. But note, all the same, the practical side of this invention! My mistress, a charming married woman, has never known about my travels. She does not even know if I have left Paris, for every

night, in my travels, when she went to town and buying for me, she never thought for her in bed. I have found several receivers that, and in that respect I have been able to see, in Paris three confidants from Chicago, Melbourne and London respectively, who, alas, will not become kings."

"May you be pardoned," I said, "as the real bloods purchased the woman taken in adultery."

He ignored my last remark, and added:

"As for what has happened since, you know it all as well as I do."

"I know everything that has happened," I answered, "but Lenoir criticize you severely. I do not believe you have the qualities required to found an Empire, far less those of a monarch. Your criminal propensities will work against you, and your imagination will one day bring your people to ruin. As a man of science, as a man skilled in the arts, in spite of your crimes, you deserve the indulgence and perhaps even the admiration of people of education and good sense. But as King! You have no right to be one! You will never know how to promulgate just laws, and your subjects will merely be playthings of your fancies. Give up this mad dream of a throne of which you are unworthy. Hundreds of people have set out on foot, believing that you are a sacred personage who will rebuild

the Temple of Jerusalem. A great number of them have already died for you, miserable impostor that you are. Give up proclaiming that you are the Messiah, which you are not; otherwise I shall denounce you!"

"They will take you for a madman," said the false Messiah, sneering at me. "Do you think me so stupid as to have given you enough information to allow you to harm me by destroying my machine? Do not deceive yourself!"

Anger blinded me, and I no longer knew what I was doing. I seized from my table a revolver which I always kept there, and fired all six shots into the false, but apparently solid, body of the false Messiah, who collapsed with a scream of pain. I jumped on him to hold him down; the body was really there. I had just killed my friend Dormesau, a criminal, but such a pleasant companion! I did not know what to do.

"He deceived me," I said to myself. "It was one of his tricks. He came here without warning me, entered my house without my hearing him, though the door was certainly open. Then he fooled me by pretending to be Ahdavid, which was fantastic and charming. I allowed myself to be taken in, and now I have killed him. . . . Alas! What will become of me?"

I remained alone with my thoughts for a few moments beside

the bleeding corpse of my friend

Then, all of a sudden, I was startled by an extraordinary uproar. "Another of Ahdavid's dodges," I said to myself. "I expect he is announcing his coronation. Can I have killed him, and yet still have my friend Dormesau with me?"

I opened the window to discover what further marvels the miracle-worker had performed, and saw a swarm of news vendors of various papers, who, despite a police order forbidding the release of the news, were tearing along as fast as their legs would carry them, shouting:

"Death of the Messiah. Strange details of sudden end."

My blood seemed to freeze in my veins, and I fainted.

I came to myself at about one o'clock in the morning, and wondered as I touched the woman who lay beside me. I got up at once and, lifting it from the floor, I summoned all my strength, and threw the body out of the window.

I spent the rest of the night removing the fragments from my floor, and then went out to buy the newspapers, to read what of the world now knows the sudden death of Ahdavid in such a manner and first news to come in the five continents of the globe.

The man they called the miracle-worker seemed to have been waiting for more friends than I had, and, indeed, he was a great success in

holes, made resembling Egyptian obelisks, appeared on two near Westminster; the collied one died at length over the world's state of the one which was located on him.

The provision of corpses belonging to one man—there were exacted about hundred and forty-one of them, because for some strange reason two of the bodies were found in Paris—did not greatly astonish the public, to whom *Amovid* had given so many other occasions for surprise.

Even here, the Jews gave him magnificent funerals. They could hardly believe that he was dead, and so said that he would raise himself from the dead in due time. But they waited in vain, and the subscription of the Kingdom of

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I returned, perhaps the most when *Domestic* first appeared) as well. I did indeed find a real one, but it was so that what looks with which I cannot say I had it given to me impossible it could be one of his secretaries.

After all, both he and I had the himself that he had concealed from me the most important particulars of his operations for making false bodies appear so abundant, by means of his discovery of the law governing the same process.

Thus, I am incapable of providing any further information at all about this prodigious invention of Baron d'Ormesan, whose adventures, astonishing or amusing, had delighted me for so long.

Coming next month. . .

. . . is, of course, part two of Piers Anthony's exciting new novel. Brian Cleeve will be on hand with a funny sequel to *THE DEVIL AND DEMOCRACY* (November 1966), and K. M. O'Donnell (*FINAL WAR*, April 1968) offers a jarringly different story called *DEATH TO THE KEEPER*. Also: Ed Emshwiller and Samuel R. Delany report on *2001: A Space Odyssey*, the new movie by Stanley Kubrick and Arthur C. Clarke. The August issue is on sale June 27.

Since, in literary reputation it is complete without a word of, or, go! featured ribbing in print, so we offer this take-off on the work of one of science fiction's most distinctive and creative writers.

THE SUBLIMATION WORLD

by J.G. B.*****

Chapter 1: The Eternal Grocer

Price looked across the lagoon, a dry sweep of land, at the mirage. The lagoon was sublimating, turning from liquid ice directly into crystalline air, and through its wavering layers he could make out a Giacometti statue that was probably one of King's men, grown thin. Fronds of zygote enwrapped the old supermarket now, smothering it in lianas and spermaceti, turning it into a fairly good Jackson Pollock painting, the one he always dreamed about. This, too, had a dreamlike mist about it, as did King's man, turning and turning, driven by a wind of solidity. Pterodactyls honked overhead.

Chapter 2: The Harpies' Bazaar

It had become more than a month between Price's visits to the kayak. It was a Faberge gem of a

kayak. Mona lay back in her yellow empire gown, trailing one lavender glove in the water. Pterodactyls watched as she combed and brushed out her hair, looking at herself in the atmosphere. Price felt suddenly very tired—but then he had always been suddenly very tired. He wanted to give it thirty to sublimate awhile with the world around him, to rise bearing Eastern wings into the hot purple sunset. But this could not be, not to the moment. He still felt a peculiar loyalty to the frozen species. There was still discussion to be cleared up, the need to turn the generator to be fixed, the to be pipe and how to through his nose, as at King's elephant. He was wondering about it, as he was, today's black flag.

Chapter 3: Storm of Tundra

His world came to the govern-

light in the morning, burning out of the canyon. It was during the noon heat, when the hot, heavy purple tree-leaft grapes grew their eyes on the middle of a frozen mountain and illuminated flame, and hanging from their vines. He plucked three grapes at a time, and washed them in a tin of water. The water ran like sand down the perfect flank of earth. But the last grape he returned to wash against the roof of his mouth like a spot poison, ap- pally before he died. In the dream he never died.

Chapter 4: Desert of Gas

Man had caused the sublimation. For years, decades, man had poured black, oily fumes into the atmosphere. Some of these fumes descended as solids, to soak into the earth once more, to polarize its proteins. Other matter had risen, faster during the warm days and slower at night, until it reached the sun, altering it slowly and subtly. For over a hundred years, the sun had been getting dirty; now its purplish glow turned the sensitive proteins of earth into iodine.

Price lived in a small, abandoned Abbey, sleeping on the altar and using the decaying harmonium for a cupboard. He kept in the cupboard a few time-fragments, relics of his own past: a beaded belt he'd made in scouts; a

combat vest; a worn-out gold and diamond watch; and a bottle of benzoin. Then the days became his battles. He grew old, then off, secured streams and thrown in the furnace; poor but died to death.

A shot of foot broke the helmet-flats. One of Price's legs darted like an angry sun's wing, flung across his vision and fell to the distance. Joe Ottimo had wrapped himself in a black mantle. He drove madly about in his chariot, his way thick and out like the tongue of a giant. Price could hear the high-pitched whistles of the horses and Joe's back, Rasputin laugh.

Chapter 5: The Parsee of the Cobra Casino

King had in his great circus train more food and water and treasure than he and his assassins could hope to use up. It was foolish of Price to try holding out against them. They were the cruel life-force itself. Why should he drink dew? Why cook his last tins of food over a fire of pterodactyl guano? There was finally nothing left to eat but his beaded belt and the few peanuts that King's sharp-eyed elephant might overlook.

King had parked the train in a circle, broken only where the chip of blue lake lay soundless, mirroring nightly strange rites. By the light of gas torches, the tattooed

Monart was charming a cobra. King lay, in his red silk mandarin pajamas, on an enamelled couch, fanning himself with one of Mona's kites. He was barely visible, a slash of red among the yellow balloons, like a wound. At his feet, the pet pseudactyl was busy, methodically ripping apart a peacock.

Chapter 6: An Ozymandian Tangram

There was no water anywhere. All the water had grown heavy and sunk out of sight beneath the earth, which was slowly turning to dry ice. At last Price hitched up the remains of his belt—so emaciated had he become that, though he had eaten half of it, the belt still fit him—and struck out for the purple flats. *I must look like a Garçonetti*, he thought. The silver flats turned azure-grey at noon while the heated air became dank and brown. He looked back and saw the galloping skeleton of the elephant, the howda swinging, King, or the ghost of King, was pursuing him; a ghost they couldn't let him go off and the shadows. They wanted to pursue him for joining his back to them, for re-

fusing, like some inverse Toby Tyler, to join their circus.

The elephant was dissolving, and King, sinking slowly to the ground, was falling behind. He took up his electric megaphone and shouted:

"Come back, Price. We need you at camp. Don't be a bloody fool, man!"

Chapter 7: The Blast of Joy

He came upon the dead car at dusk. For awhile he was agitated, save that King might possibly find here, too, using the master code. Then he saw that the car had long since departed, leaving only an ash of tracks. The master code was a cheat. He had nothing at the end of the line, the ground was real. The wheels were not a golden globe, not a metal globe, not a globe from a tree, a globe from a tree, like a rounded elephant's nose which had been a flattened fruit once, rip, rot, rot, rot, rot, rot, rot.

The new car was a form of machine, strong, like a lion and like King, was made of metal and wood, but it was not a machine, it was a machine for the machine. It was a machine for the machine, a machine for the machine, a machine for the machine.

—THE END—





LITTLE LOST SATELLITE

by Isaac Asimov

THE OLDER ONE GETS, THE MORE one tends to reminisce, I suppose. This year, as it happens, I celebrate (if that's the word I want) my *thirtieth* anniversary as a professional writer—something quite unbelievable to me, since it seems to me I am not very much more than *seven* years old.

To emphasize this fact, I have already had to renew the copyright of an even dozen of my early science fiction stories, and when one begins renewing copyrights, it becomes necessary to face it—late youth is upon the doorstep.

So my mind keeps turning back, more than it used to, to the first science fiction story I ever sold—back in October of 1938. The receipt of the letter of acceptance, with enclosed check, from Ray Palmer of *Amazing Stories* was one of the high points of my life. I couldn't very well frame the check for I needed the money, so I framed the letter of acceptance.

The letter was written with a dead ribbon on gray paper and only a close scrutiny made it legible at all. This was good, since it kept my modesty intact. I didn't have to say a single vainglorious word. A visitor would ask, "Why have you got an empty frame on the wall?" and I would merely say, "It isn't empty." Then my visitor would automatically approach the frame and read the letter.

Best advertisement a modest fellow ever had.

The name of that first story was *MAROONED OFF VESTA*. I've never done an article about Vesta, which is well worth an article, and this year I ought to. So I will, and we will begin with the asteroids generally, for Vesta, as you undoubtedly know, is an asteroid.

The first asteroid to be discovered was, surprisingly, the largest. No, that is not a typographical error. You might well suppose that it would be natural to see the largest first, but that isn't so in this case, and I will come back to why later.

This discovery took place on January 1, 1801, under circumstances described in THE BLACK OF NIGHT (F & SF, November 1964), so I won't go into detail here.*

A second asteroid was discovered in 1802, a third in 1804 and a fourth in 1807, and there it stopped. For thirty-eight years that was how matters stood and astronomers, who had been rattled at finding four objects in what was essentially a single orbit, settled down.

But you can always count on one troublemaker, and in this case it was a German astronomer, Karl Ludwig Hencke, who, in 1830, decided he would scour the heavens and see if he could find a fifth. Year after year he searched and searched and then in 1845, he found it. And in 1847, he found a sixth, while the English astronomer, John Russell Hind, found a seventh and eighth. After that, it was just a rat race.

Some 1600 asteroids are now sufficiently well known to have their orbits plotted. It is estimated that there are about 44,000 asteroids with diameters of more than a mile and heaven knows how much rubble less than a mile in diameter.

But never mind the thousands. I am going to concentrate on those first four asteroids which, between 1807 and 1845, exerted the greatest splendor in the consciousness of astronomers. Their names, in the order of discovery are: Ceres, Pallas, Juno, and Vesta.

As it happens, these are large bodies as asteroids go, and the best figures I can find for their diameters are listed in Table 1.

Table 1

	Diameter (miles)
Ceres	476
Pallas	356
Juno	129
Vesta	246

It seems quite certain that no other known asteroid has a diameter

* The more articles I write, and this is #117, the more likely it becomes that I must repeat a point now and then. Since I don't read, write, or file, and memorize every article I write, I wish you to write to please when necessary. However, repeating is dull for me and probably also for those reading, and I prefer to remember and I avoid it when I think I can get along with it.

as much as 240 million as Ceres, Pallas and Vesta are the more recent arrivals in that order—quite a much better question. A number of asteroids, however, are very likely to have distances between 220 and 240 million, and some have actually been estimated with considerable uncertainty to be in that range. However, by virtue of time of discovery and position of orbit, Juno makes a natural fourth and we can speak conveniently, if not entirely accurately, of the "Big Four."

The Big Four have perfectly ordinary orbits, firmly between those of Mars and Jupiter. Some of the details are given in Table 2:

Table 2

	Distance from the Sun (millions of miles)			Eccentricity of orbit
	average	closest	farthest	
		(perihelion)	(aphelion)	
Ceres	257	237	278	0.079
Pallas	257	197	319	0.235
Juno	247	184	310	0.258
Vesta	219	206	239	0.088

The orbit of Ceres, as you see, is nearly circular. Its eccentricity of 0.079 is less than that of Mars. What's more, its mean distance, 257 million miles, is very nearly that of the average distance of all the asteroids whose orbits are known. Vesta's orbit is only slightly less circular and it is distinctly closer to the Sun than Ceres is. Vesta's farthest point from the Sun is about as far from it as is Ceres' closest point. As for the period of revolution of the Big Four, that is in Table 3:

Table 3

	Period of Revolution	
	(days)	(years)
Ceres	1680	4.60
Pallas	1686	4.61
Juno	1593	4.36
Vesta	1325	3.63

Pallas and Juno, from the data given in Table 2, seem to have nearly identical orbits. This may make it sound as if these two, particularly, are too close and are going to collide one of these days. Not at all.

The orbital diagrams you usually see in astronomy texts are two-dimensional projections of a three-dimensional reality. Orbits are tipped by different amounts to the plane of Earth's orbit (the ecliptic) as shown in Table 4:

Table 4

	Tilt to Ecliptic (degrees)
Ceres	10.6
Pallas	34.8
Juno	13.0
Vesta	7.1

Where, in two dimensions, the orbits seem to cross, a three-dimensional model would show one crossing far above or far below another. There is no danger of collision in the foreseeable future.

It is customary to consider the asteroids as small fry and discount them. Indeed, the most nearly proper name given them by astronomers is "minor planets." But that is a purely anthropocentric classification. After all, an inhabitant of Jupiter might, with considerable justification, list just four planets (Jupiter, Saturn, Uranus and Neptune) and put everything else, from Earth on down, into the "nearby planets" classification.

So let's try to consider the Big Four, at least, as objects worthy of individual consideration and see what we can find out about them.

Some have estimated that the total mass of all the asteroids is about 1/800 that of the Earth, or about 1/10 that of the Moon. This is only a rough guess, of course, but let's use it. This would mean that the total mass of the asteroids would be about 8,500,000,000,000,000,000 tons. The individual masses of the Big Four (also a rough guess) are shown in Table 5:

	Mass (tons)	Percent Total Asteroid Mass
Ceres	850,000,000,000,000,000	10%
Pallas	200,000,000,000,000,000	2%
Juno	14,000,000,000,000,000	0.2
Vesta	110,000,000,000,000,000	1.3

From the unaided eye, Ceres, in profile, only just fits through the opening of "The Dome"—Ceres, it is felt, seems to come in at the very edge of the opening and, moving as one would expect a distant object of this size, would seem to narrow the big four-holed doorway of the eye somewhat further.

Suppose, now, that we had reached the big four and climbed its top as a high mountain of snow. What would things be like in profile? (Ceres, like the moon, would be "transparent.")

At present, the diameter of the sun as seen from any given line of sight upon the surface is proportional to the square root of the distance r of the planet from the sun. The diameter of Venus is just about $1/17$ that of the Earth, the diameter of the sun as seen from Venus, about $1/16$ that of the sun as seen on Earth.

From some vantage-point the surface of a large blue planet (see Earth and sun of various kinds at last chapter, etc.) We then above ground, the horizon would be about halfway between the sun and Venus. Supposing the big four to be evenly spaced, the horizon would be on them about in the center of Table 6.

TABLE 6

	Diameter of Horizon (Feet)
Earth	4,000
Venus	2,100
Jupiter	2,000
Vesta	2,000

It comes to me this is an important point. The dome of the sky would be higher and meet the ground on Ceres, along a circle much closer to the sun than it does on Earth.

On Earth, on Earth, the presence of an atmosphere dims objects on the horizon and turns them bluish. (We can see the tops of hills and mountains much farther than 16,000 feet away, if clear, and they are all the mistier and bluer for that.) We use this mistiness as a way of unconsciously estimating distance. When the air is very clear and distant objects seem sharper than usual, we automatically think they are closer than they really are.

Well, on Ceres, where there is no atmosphere, the objects on the horizon would be sharply outlined. Even the tops of hills farther than 4,000 feet away would be sharp. We would unconsciously estimate the horizon as

Ceres to be closer than it actually is. It seems to me certain, then, that the men establishing a base on Ceres (and even perhaps on the other asteroids) would be subject to claustrophobic uneasiness. Some, who are used to wide open spaces, might not be able to make it, and perhaps the asteroids had better be staffed by city boys.

In another way, the Big Four are not so small after all. What about their surface area? See Table 7:

Table 7

	Surface Area (square mile)
Ceres	700,000
Pallas	280,000
Juno	45,000
Vesta	180,000

The surface area of Ceres is just about as large as that of Alaska plus California. Even the surface area of Juno, the smallest of the four, is equal to that of New York State, and the total area of all four is equal to one-third that of the fifty United States. There is therefore some to explore on the Big Four and, for that matter, plenty to get lost by accident.

The question of surface gravity now makes the Big Four more interesting again. If two spherical bodies are of equal density, their surface gravity is proportional to the diameter. If the asteroids, like the Moon, are essentially rocky in character, their densities are about the same as the Moon. The surface gravity of the Moon (2,160 miles in diameter) is 0.16 that of the Earth. In that case, surface gravity on Ceres

Table 8

	Surface Gravity (Percent of Earth's)	A Professional Astronaut could jump
Ceres	2.5	1.5 ft.
Pallas	2.2	1.4 ft.
Juno	0.8	1.0 ft.
Vesta	4.0	2.0 ft.

This 0.42 (11.3 ft.) of height jumps instead of 4.9 feet on Earth. A professional astronaut could jump 1.5 feet on Ceres, 1.4 on Pallas, 1.0 on Juno, and 2.0 on Vesta.

satellite altogether? Would the *Phobos* gravity well be held like sand and would he be lost in space? To test the -theory or that, it is only necessary to calculate the escape velocity as in Table 9.

Table 9

	Escape velocity	
	(miles/second)	(miles/hour)
Ceres	0.33	1200
Pallas	0.21	750
Juno	0.08	300
Vesta	0.16	600

These values are not high compared to Earth's escape velocity, which is 6.9 miles per second, or 25,000 miles an hour. Still even on Juno, the only of the four, one would have to move at a speed of 300 miles per hour to lift off the asteroid. You are certainly not going to jump upward at that speed. You are not even going to drive a ground vehicle at that speed. You will therefore be held by the asteroid, and the gravitational force—small though it may seem, will do its essential job.

But now let's raise the question of the order of discovery. I said, at the start of the article, that it was surprising that the first satellite to be discovered was the largest. The reason that is surprising is that you would expect the first satellite to be discovered to be the *brightest*, and the largest is not necessarily the brightest.

Being large helps, of course. All other things being equal, a large body catches more sunlight than a small one and is brighter. But are all other things equal? Two factors in particular may affect matters: distance and albedo.

It is clear that the farther from the Sun an asteroid is, the less light it catches and the less bright it is. A small asteroid near the orbit of Mars ought to be brighter than a considerably larger asteroid near the orbit of Jupiter, and the smaller ought to be discovered sooner than the larger.

But as it happens, the Big Four are moderately close to us as asteroid distances go, and there are no reasonably large ones that are markedly closer than they are. It is not to be expected then that any asteroid will be discovered earlier than the Big Four merely because of a distance difference.

Furthermore, the Big Four themselves are not at markedly different distances; not enough different, at any rate, to overcome the size differential. Eliminate distance, then.

What about albedo?

Albedo is the fraction of the light received by a planet that is then reflected. Thus, if a planet reflects one-fifth of the light it receives from the Sun, it has an albedo of 0.2.

As it happens, the solid rock of a planetary surface is a poor reflector of light. The Moon, which has a surface that is all rock and that is all exposed to direct sunlight (since there is no atmosphere present) reflects only about 1/16 of the light it receives. Its albedo is 0.06, and the same is true for Mercury.

A cloudy atmosphere is much better at reflecting light. Mars, with a thin atmosphere and an occasional thin cloud, has an albedo of 0.15—two and a half times that of Mercury and the Moon.

Planets with thicker atmospheres reflect an even larger fraction of the light they receive. The albedo of the Earth is 0.40, while that of the outer planets approaches the 0.50 mark. Venus's clouds do best of all for some reason, and its albedo is about 0.70.

But with respect to the asteroids, the albedo should raise no problem. It passes the bounds of belief that even the largest asteroid should be able to retain an atmosphere. If we consider the asteroids, generally, as composed of rock, all should have an albedo of 0.06. (Indeed, asteroids other than the Big Four have their diameters calculated from their known distance and brightness by assuming this albedo.)

Therefore, we can (it would seem) distribute the albedo as a factor. We can expect the brightness of the Big Four to decrease with size, and therefore we can expect that chances for the Big Four would have been discovered in order of size.

The apparent brightness of an astronomical body is measured in magnitudes, which is a logarithmic scale. That is, a body of magnitude 7 is 2.5 times as bright as one of magnitude 8 and is 2.5×2.5 or 6.25 times as bright as one of magnitude 9 and so on. (Notice that the greater the magnitude, the less the brightness.)

If we consider the first three asteroids at the distances of 40, 60, and 80 A.U. out neatly, as in Table 10

Table 10

	Diameter (miles)	Magnitude (distance in A.U.)	Brightness ($100 - 1$)	Year Discovered
Ceres	470	7.4	2.3	1801
Pallas	340	8.4	1.9	1802
Juno	110	8.7	1.0	1804

Ceres, the largest of the group, is visible to the unaided eye, but even a small telescope will show it, so you might suppose it only right that it was first discovered. Then Pallas, which is just half as bright as Ceres, and then Juno, whose glory falls as bright as Pallas.

But Vesta is larger than Juno, and should be brighter. Why was it discovered in 1807, three years after Juno? It can't be distance because it is even closer than Juno. Perhaps then, it is albedo. Perhaps, for some reason, Vesta's composed of darker rock and is dimmer than Juno despite the larger size of the former.

Yet that is not so either. In fact, Vesta's magnitude, far from being greater than that of Juno, is not only less than Juno's but less than that of Pallas and even of Ceres. Vesta has a magnitude, at closest approach, of 6.5 which means that it is no less than 7.5 times as bright as Juno. It is even 2.3 times as bright as Ceres.

To put it most sharply Vesta is the brightest of all the asteroids and its brightest can just barely be made out on a dark, moonless night by someone with excellent eyes. It is the only asteroid that can ever be seen with the unaided eye.

Why, then, did it take so long to discover Vesta?

Ceres was discovered by accident. Its discoverer wasn't looking for any planetary body and he happened to spot Ceres, the second brightest asteroid. That's reasonable enough.

Still, for six years after that, a group of astronomers searched intently for other asteroids. Why is it they found Pallas and Juno before they found the much brighter Vesta; years before?

But that's a minor mystery, after all. What is much more puzzling is why Vesta should be so bright.

The surface area of Vesta is just about $\frac{1}{4}$ that of Ceres. Allowing for the fact that Vesta is a trifle closer to the Sun and gets more light, it should be about $\frac{1}{8}$ as bright as Ceres if the two were of equal albedo. The fact that Vesta is actually $\frac{3}{8}$ as bright as Ceres means that it must have an albedo that is seven times as high. The albedo of Vesta is possibly as high as 0.5, equal to that of planets with deep, thick atmospheres.

But Vesta can't have a deep, thick atmosphere. The only remaining alternative is that it has an icy surface; that there are fields of ice (or possibly frozen carbon dioxide) on Vesta's surface, reflecting, with considerable efficiency, the feeble light of the distant Sun.

But if that is so, where did the ice come from? Why should it be only one asteroid out of all those thousands that is icy?

Or is it just one? Is it possible that there is a whole class of icy asteroids? Is it just that of the four, whose diameters we happen to have measured directly with fair accuracy, only one is icy, and that that gives us a false impression of uniqueness.

All the other asteroids have had their diameters determined on the assumption of a low albedo. Suppose a number of them have high albedoes and are considerably smaller than we assume.

Perhaps an original asteroid-planet exploded, its interior forming stony asteroids (with a few nickel-irons from its core, if it had one) while its ice-encrusted surface gave birth to Vesta-type asteroids; with only Vesta itself, of that type, clearly visible.

But there are problems. Would the catastrophe leave the ice on a surface fragment intact? Wouldn't the ice be blown off or melted off by the energies released by the explosion, and distributed through space? And would the fragment, undoubtedly irregular to begin with, coalesce into the fairly spherical shape Vesta now has, with ice remaining on the surface rather than folding into the interior?

And if the explosion-theory is eliminated, what is the alternative?

One suggestion is that Vesta is unique, because it is not an asteroid at all, but a displaced satellite. If it had been a satellite to begin with, it would have been a sphere from its time of formation, and it might have picked up an ice layer from the outer atmosphere of the young planet it was circling. Then, somehow, the satellite was pulled away from the planet and went wandering off, lost in the asteroid belt.

It's a touching picture of a little lost satellite, but what would an original planet have been? The closest planets to the asteroid belt are Jupiter and Mars. Could Vesta have once been a satellite of Jupiter?

We have one piece of information that might help us decide. In 1847, careful measurements of the brightness of Vesta were made, and a 0.1% variation within a period of $5\frac{1}{2}$ hours was reported. Significantly, this represents its period of rotation for some parts of its surface may be less densely covered with ice than others. As the relatively smooth ice comes back up again, and this is repeated over and over.

Such a rotation would be consistent with a original period of revolution about a planet. For if it had been a satellite of Jovian-type, it would have presented a hemisphere to its planet and been kept in constant contact by its period of revolution like our own Moon.

For a satellite to circle Jupiter in $5\frac{1}{2}$ hours, it would have to be 64,000 miles from Jupiter's center, or only 11,000 miles from the planet.

the cloud layer—much closer than Jupiter's clouds possess satellites.

A satellite in that position—more if it could withstand the total force of Jupiter's vast gravity—could in a possible long time feel great force from the planets enormous grip by any reasonable mechanism. Even if some unimaginable catastrophe had ripped away an outer satellite Vesta from Jupiter how could it have done so without disturbing Jupiter's other inner satellites?

How can we tell the other inner satellites weren't disturbed? Well, Jupiter's innermost satellites circle it in almost perfect circles and almost exactly in the planetary equatorial plane, and that can only be true for satellites that have never been seriously abstracted from the moment of their formation.)

If Vesta were originally a satellite of Mars, the situation would not be much better. To revolve in 5¼ hours it would have to circle Mars at a distance of 4,500 miles from its center, or 2,400 miles above its surface. It would be closer to the planet than either Phobos or Deimos. It could not have been abstracted from its position without disturbing Phobos and Deimos, and those two satellites have not been disturbed.

Besides, if Vesta had been abstracted from anywhere by some cosmic catastrophe, it would very likely have an eccentric orbit; but it doesn't, not particularly. And it revolves just about where a normal asteroid should. That's asking a lot of coincidence for a little lost satellite.

So there is no really good explanation for Vesta, and because of that very fact, it may have more to tell us about the asteroids generally, and about the Solar system as a whole, perhaps, than any other body between Mars and Jupiter.

When the time comes, then, that our manned spaceships head out beyond Mars at last, I want to put in a strong suggestion for the port of first call.

Vesta, please!



Hayden Howard (*THE EXACTO DIVISION*, Ballantine) makes his first appearance in *F&SF* with a story about the ultimate protest and drop-out, a No-Speech Movement. "Language may be a net, limiting the mental movements of the members of a society, but who can withdraw completely from it?" asks Mr. Howard. And what happens when they try?

BEYOND WORDS

by Hayden Howard

Your-their loud voices shouldn't have used the word—murder. Three of us entered the desert in silence, and three have returned. Therefore, death's only a word.

You-they handed me these denims without a belt so I couldn't hang myself. Purposely did you leave this dagger-sharp pen in my cell? With this sharp programmer's pen I could stab magnetic ink through me eye to my doped brain, and remain silent forever.

You purposely left this secretory writing pad (for ass's exams my profs used to hand out these same work-spaced writing pads. Computers instead would read the mag-

netic ink and grade it, they colleges are gone but not there).

You gave up your rights for a show. Strongly, they encourage us burning words give them my hand to my brain then when you get me back to me call them some mental of terms in the church and discussion would have never had information better.

My community without some names like a floppy name. I can't be quiet enough to me in your world where I have your hand to be the member of I can't. They compare heart of my existence could make an amazing work. It's primary because words are—

relevance or purpose. Its volatility, its mutability, could encompass their imprecision for practical communication.

—and course I'll lie! All words are meaningless. What happened to the desert beyond words.

You stared at me like I'm an animal or something. I would have been a minor last fall! Your professional face masked your fear of all else I represent in this country. In silent protest, I tore free from the net.

You're helplessly caught in the net of all the false words you've ever I arned. Ever since you were coo'ng babies, you've been supported by more tightening strings of words until you can't even feel how tightly our country's net of words has tightened around you. You can't know which words to disbelieve.

Disbelieve all of them! Before I split from the underground newspaper scene, I wrote with all the wordy grace of a stoned English lit. major. Miraculously, I became wordless. I tried to go where it's at—nine months ago. We tried. To go beyond words—

In perfect silence, the three of us knelt on the desert sand. We hurried our clothes in the mouth of the unexplored canyon. I stood up, stretching out of my mental uniform. Feeling the sunlight, grokking the wonderfully soft wind on my skin, I inhaled, turning. My grandfather sun dazzled against

the quartz (180) of the Arizona soft. Determining what of the canyon you hid in it, how hidden. You're free and loyal and good. *Am I?*

—I see what's wrong wrapped ourselves of words, making false transportation, words of freedom. But even in my cowardice, I noticed each of us still alone in at least one corner of the black and mechanical fabrication. So we had returned.

With his constant grin, George flashed his characteristic pot-lighter. To my surprise, he leaped back to our only transportation. The shiny Jeepcopter was the final bribe from his father, but George wasn't going to reapply for readmission to the Multiversity. He wasn't going to graduate with the Class of 1984. George set it afire, and the helicopter blurted oily smoke like a signal for help.

This was uncool, I thought, both sad and glad. Freed from words, joyfully unable to put George down, I danced after them around his blazing whirlybird. With a whoosh of flame and heat against our bared skins, that mechanical bribe from the middle-aged power structure ruptured its fuel tank, flung away its rotor and crumpled on the desert sand.

The afternoon sunlight slid across Sarah's bending back and gleamed on her old bruise from a cop's club as she crawled toward the dying flames. From her neck,

wallas scurrying past the shade of their feeding bushes. Through the moonlight these wrinkled thorns, too sharp for even flies scrambling to find their home crevices as one passed. A flabby chuckwilla flopped from a cactus with a red flower still protruding from its suction jaw as it fed. Extinct Indians ate these lizards. I hoped raw lizard meat would make George cop out.

Where green water-stains trickled down the canyon wall, we tilted up our heads to drink like birds. Beneath the high blue sky, our canyon moved away behind cliffs into a great bend hidden ahead. I walked faster. The cliffs seemed to tilt inward. I was anxious to meet whatever was beyond the Great Bend ahead. My heart thudding with excitement, I began to feel—if we rounded the Great Bend, we would not be coming back this way again. If we passed the Great Bend, we would be out of sight.

But George sat down. In a contortion, eye-balling the bottom of his foot, George tried to pluck out an invisible cactus spine. Impatiently I waited for him to move on. But Sarah plumped down beside him on the sand, smiling up at me, more specifically at my carton of K rations.

We had stopped short of the Great Bend. While the shadows of the cliffs leaned over us, we three squatted closer together, determinedly chewing K rations. In our eye-widening dusk, from beyond the

Great Bend something stretched. George trembled atop me.

On our backs clinging to the granite cliff, we three huddled in darkness, wordlessly incomplete, while beyond the Great Bend that fierce voice squalled like a great cat — with larynx of brass.

Crouched between us, from her soft hip to her shoulder, I felt Sarah's body flow upward in an involuntary shudder. Then she suppressed all body movement with her usual Spartan stubbornness.

Only a bobcat, I wanted to explain. Wordless, I started to put my arm around her, but George's already was.

This canyon was somewhat wilder than Multiversity Hill, where Sarah and I had squatted fully clothed on adjoining boulders for two weeks until sympathizers, who had been bringing us burgers and tacitos, forcibly carried me off to Multiversity Hospital. Please believe me, I was not copping out. Pneumonia is not copping out, no matter what Sarah must have thought and would never say. Wordless, Sarah maintained silence on her boulder in fog and rainy nights. Uptight inside my transparent oxygen tent, I closed my eyes while my ex-disciples snidely shouted for me not to worry about Sarah. At night she was being covered by some square engineering student no one had noticed before, name of George, and my fever had risen.

Belatedly, the Multiversity seemed to recognize Sarah's voiceless threat to their whole social order. They sent four big Kampus Kops to drag her off her boulder. If we don't speak, if we don't answer you cops, cops become afraid we're against whatever they're still trying to believe, and they become violent. Those four robots of the middle-aged power structure dragged Sarah off to the Multiversity Hospital. They telephoned her father again in desperation. Our perfect silence bugs them more than sing-ins or even riot-ins. They can't endure to watch us escape from them into the silence.

Sarah's father roared into my hospital room, blaming me for the whole No-Speech Movement and for Sarah's previous protests and old arrests before I even knew her. "What have you done to my daughter?" He succeeded in getting me expelled from the Multiversity although Sarah hadn't even caught cold. She wasn't harmed at all. While I was hospitalized, she had been kept warm during her silent vigil by a strange square with short hair, namely George. How did I feel about that?

From the Great Bend squalled the angry voice of the bobcat, guarding his territory. With glee I heard George frantically shifting rocks on his ledge. Although he was so much bigger than I, he was losing his cool.

He was groping for a Neanderthal Pentagon weapon and finding himself unable to become one with Nature. I hoped he would cop out and split at dawn. In the endless darkness, from around the Great Bend, the bobcat squalled.

Reassuringly, I stroked the goose pimples on Sarah's leg, trying to communicate to her that a bobcat's head is only this big. With my finger tracing on her skin, I let her navel represent the bobcat's eye. She pushed my hand away.

With her usual determination, Sarah slept while George squirmed, and finally he went to sleep before I did. On that sloping granite ledge, the night was a bumper. Sliding and squirming, I hoped George would cop out soon.

In the shivering dawn, I saw a dawn at the two of us to sleep huddled together. I don't remember that George would ever be copier before to the outside world.

What I opened again of is at time, George awoke with a long and nose imperious. Flashed on the new sunlight on the morning side of the canyon, we squirmed on either side of Sarah, while she lay from George, and I stood up, squirming in bed from around the Great Bend. But that head that I sold on the morning, promising that silent movement was, I warned, even when I passed toward me from behind. They made a great noise.

George scratched his nose. Sarah

his back. To my disgust Sarah immediately aloud. Like a bird taking a dust bath, she kept shaking herself in the billowing dust and shafts of sunlight. George kept prodding her, and my head began to throb. Splashing, walking away from them toward the Great Bend thinking back at them with fury. I walked slower and slower, all alone. At the corner of my eye, something began doing push-ups on the motionless rock slide. With no voice. I couldn't yell out my exploding rage.

That chuckwalla scrambled away as I hurled another rock. My body surged with hate at him and with surprise as I hit him. His tail lashing, that chuckwalla slid down the slope with his obese body inflating big as a swollen foot. With startling joy, I smashed his head. His beady skin, speckled like granite, burst open as I smashed out his bubbly red innards. With thudding realization, I wondered excitedly why I'd never killed anything before. I was able to use my fingers like claws, stripping out stringy meat. With my first triumphant fist full of meat which I had killed myself, I crept back down the canyon and startled them.

Sarah and George lay sagging on the sand, blinking up at me as if they'd just awakened. They were staring at my bloody fist. I squatted down and handed out tiny strips of chuckwalla meat, one for Sarah, one for George, one for

George, one for— George was sitting there too. With a discouraged expression, he glanced at Sarah. After combing her with his tongue, she sootily licked at my and methodically chewed. It felt like saw blades on my teeth—and I swallowed and smiled challengingly at George.

With her usual determination, Sarah chewed all of hers, flustering her dusty eyelids at me and nodding. George barely gulped his—or rather mine, for I had killed the chuckwalla. The first chuckwalla I had killed, and George had to eat it! But in a week, after he had sneaked the last of our K rations and his skull showed through his cheeks, George was ready to eat anything. We hunted so frantically for lizards in the rock slides that we hadn't time to advance around the Great Bend. Please believe me, I wasn't afraid of a bobcat.

In our hunting territory, on our rock slides, clumsy George was worthless. As a hunter, he had a strong arm, and his rocks always missed. Occasionally a startled chuckwalla would scurry into the wrong crevice, one so shallow our groping hands could reach it. A desperate chuckwalla inflates itself so tightly in its crevice that it becomes almost impossible to drag out.

Although the extinct Indians must have known how to deflate chuckwallas, my sharpened stick merely dimpled their leathery

them, ramming them further back into their crevices. George persistently attached an obsidian flake to the end of a stick, and I knew he was thinking the word *spear*, with all its verbal connotations. Before long he would be reinventing the bow, the gun and napalm. When I thought he was asleep, I broke his spear. To my surprise, he snarled at me like an animal, chasing me across the talus slope. Boulders slid down at him, mashing his big toe. He growled so loudly with pain that for a moment I thought he would cop out and say a word.

While his toe turned purple, I thought he would cop out and leave us. But George simply sulked around our shallow wind-cave, waiting for handouts. In my freedom, I had a perfect right to eat my chuckwallas as soon as I killed them, and did so, alone on my morning side of the canyon. But Sarah had such quick hands and so much determination, and there seemed to be so many more chuckwallas on their afternoon side of the canyon, that she fed George until his toenail came off and he started trying to hunt again.

From my morning side of the canyon, I would spy across at him as he clumsily uprooted boulders on his afternoon rock slides as if he were a grizzly bear. He dug out baby chuckwallas as if he had no concern for our winter food supply. Without walls, it would

be difficult to explain conservation. In their cave, evidently he thought my twisted smile at his scrawny kill was directed against him, because neither of them made me feel welcome any more. Together on their bed of sand and leaves, they grinned up at me infuriatingly. Lacking words to reciprocate, I poured a handful of sand on them. His other foot rammed my chest, almost knocking me off the ledge. She sat up with a snide smile. I hurled her glass bottle of pills down the canyon. Back through the dusk came the shattering sound of glass as her bottle of pills burst against the rock slide.

Sarah bleated aloud. George growled, and I scrambled away with them sliding after me as I fled. From the familiar rocks on my side of the canyon, I could hear both of them scuffling around on the rock slide, no doubt groping for her pills in the darkness. I hoped they'd find sharp glass globes. Toward dawn, through the silence I heard the squeaking of paws on the rock slide. With amazement, I wondered how the scrawny pair flicked her pills. Would there be fewer bottles?

In the morning, sunlight on my hair on my back pruned when I opened my eyes. The sun was down there when I stepped into the canyon. Was he still there? I looked at my shadow on the canyon floor about him. In self-delusion, I heard a snarl in a scolding. He had left a long

dog frightened out of its senses close by. After that I stole across the canyon into his territory, which was stronger.

From behind a boulder I would peep across the canyon when the clouds in sunset filled their cave. They would be sprawled together in their warmer sunlight than mine as winter approached. I knew Sarah would not cop out.

Vicellessly they seemed to be existing together as if they could become one with this silent canyon. Impossible together, I thought, and George never! Only those already prepared to seek solitude in perfect silence, those like inspired religious hermits, have been able to vanish into the deserts of the world and become one with the sand, their gleaming bones —

He must be insane, I thought, watching George dangerously uprooting boulders in his rock-slide. Struggling to dig out one little lizard from that motionless avalanche, he seemed free of worry that his rock slide would engulf him. Like an animal, he seemed to move more avidly, as if freed from past and future in this canyon beyond words.

Animals' lives are so short, I thought, watching George.

With silent joy I hunted high on the cliffs of my morning side of the canyon. In my hunting territory like a great cat with leathery hands and feet, I crept along my granite

edges. Struggling my throat with it, I spoke about my silence with four minutes away full of thought. Devotions normal had succeeded, I allowed a chuckle with you pleased me to escape, so that I could catch it again and again until my hunger raged and I became one with it. With a filled belly, I lazed on my high ledge like a bobcat, with slitted eyes peering through the net of my verbal heritage.

I understood, my body shaking with silent laughter. Those Biblical prophets who returned from the desert were the failure! Unable to maintain oneness with their innermost silence, no longer fed by ravens, sickened by locusts and wild honey, the prophets returned from the desert loudly condemning Mankind from whom they had failed to escape.

Cop-outs! Unable to become one with the silence, they fled bleating back to their loud-mouthed cities. I waited for George to flee back into the net of words which had been growing around him since birth. You are too numb to feel all the tight strands of your cultural heritage. But all my life I have felt pain as the net tightened around me. Struggling in protest, I didn't understand what could be clutching me.

Even at the Multiversity, I still was stupidly trying to protest from inside their net of words. I was not as wise as some four-year old boys who stubbornly try to refuse to

been to talk. But finally I understood the one way out of the net. That he scares people.

Masking their alarm with contempt, the Establishment immediately labeled my wordless hole in their net as the No-Speech Movement, as if their Madison Avenue of words could fill the tiny hole in their net of words. Such a tiny hole! In the silent canyon, I still was struggling to escape through it.

I shivered on my granite ledge with my intricately woven verbal strands of thoughts inextricably tightening around me. Even voiceless, I knew I was trapped in the net of words until I could think without words, live without verbal thought, becoming unaware of thought, freely live. Like an animal seeking freedom, I would creep closer to the Great Bend. Where the cliffs leaned inward and the bobcat's urine scent marked the rocks of its hunting territory, I shrank back from the Great Bend. Please believe me, I was not afraid of the bobcat.

Raging, as if trapped in my own tiny territory by the last two strands of the net, I spied across the canyon at Sarah and George and silently raged at them. Please believe me, you iron-faced cops with your injection making my hand write like mad, only I killed nothing which was human. I killed a bobcat.

Without words I was a wordless

thing then afternoon sunlight as if they had forgotten me long ago. She was building a nest in their open wind-cave. Sometimes when he was away hunting, my heart would pound, and I would imagine myself creeping into her cave.

Tsee-tsee, a bird cried, and on my distant ledge I shrank back into my silent oneness, wishing. Dreaming George would die—

Somewhere boulders rumbled like thunder, and I was running away. Do you believe me!— Across the canyon in the afternoon sunlight, from his avalanching rock slide the dust cloud rose like a nuclear mushroom. As swirling dust shrouded our canyon, I heard an animal squall from his back slide, a raucous shouting I did not recognize until the hair along my spine prickled, and I realized I was hearing the same word again and again. In anger George was crying the world's most important word. It was the word which launched civilization like our word four letters. To me, it was the most terrible four letter word.

Seeing someone pour oil falling rock, he was screaming that word. Through the dust I saw an iron faced man and another man and another man and another man. I had heard the important word.

The Great Bend began again. Because an animal screams with

I crept past the unannounced rock with which the bobcat needed its territory. With hissing breath, I scurried along the curving canyon. On sudden the cliffs curved as if the Great Bend had no end. Its wild west faced against my bushy face.

The wind slung, creeping across my back, filling my nostrils with the fetid meat scent of the bobcat as I turned. In the dusk, I was unable to see it stalking me. I kept glancing back. As I hurried along the narrowing canyon, the deepening cliffs of the Great Bend curved as if forever inward into the movement of geological time. In the narrowing darkness, my wide-spread hands touched opposite cliffs. I stumbled over fallen boulders in this vertical crevasse which seemed to have no end. Between stone jaws, I lay on a narrow strip of sand on my back, staring up at the distant cleft of starlight.

Up there against the stars emerged a little roundish silhouette with pointed ears, the bobcat's head appearing high above me. I stood up, intending to shout with my unused voice, to warn that I was a man, to fear me! My voice rasped out a startling animal squall. The bobcat vanished for a moment.

For months? Shadowy mornings. Weak sunlight briefly reaching in at noon. Shadowy afternoons. In the silence down here. My thoughts scattering toward

grandfather. I heard someone call me. I heard someone call a third man. My ground was meeting. Grandfather's face hung between my jaws. Snaking back the bloody square. I turned outward in the gap to freedom.

Intruder's odor on my nature territory. Its round tracks upon my sand. Its scent challengingly sprayed. Where my urine scent had marked my territory. I crouch. At night it squalls, and I squall back, hungering outward. Ravenous. My innermost essence crouches in ambush. My boulder upraised. Its crushed squall. With my teeth tearing the bobcat's hot flesh. Growling in my canyon. I am the largest carnal—carniv—? Killer.

Almost free of words. Warmer sunlight. Misty rain. Green bushes growing. Spring buds. Robbing bird's nest. Enlarging my territory. Into the approaching summer sun.

Grandfather sun dazzling. There was another. Her name was? Seasons ago. Nine months? Hot-joined restlessness. Hunting down the canyon. Past inward leaning cliffs and out. High ledges strangely familiar. This morning side of the canyon must have been my territory long ago.

Fear is the afternoon side of the canyon where something bigger once lived. But I feel bigger now. Snarling. Creeping more slowly. Alert to flee from his territory. From his rock slide a musty smell.

The heat on my spine prickles. Creeping up that motionless rock slide. Motionless. Long white leg bones crushed under the rocks. His leathery skull and white teeth. Name of George?

All around him. So many lizard bones. As if something fed him. After the jaws of the rock slide trapped him. Something carried lizards to him. Something tried to lever away the rocks. With sticks that broke. Beside the lizards' bones. So many lizards were. Carried to him. Day after day. Trying to keep him alive. Her footprints gone. In the wind-cave. In her nest. The scurrying of pack rats. In the silence. Sarah? Pack rats fleeing from—?

Who? I am the largest animal in the world. With a boulder. I smash his leathery skull. His territory is mine. My hunger rages. Hunting down the canyon. Its mouth opens on to glaring sand. Where something began. And I shrink back. From a burned and crumpled metal monster. Its engine rusted. Its rotor half buried in the sand. I would kill it. But it is dead.

Inside its metal skeleton. A nest of branches and sand. Handprints smaller than mine. Scars triggering my hunger. My muscles swelling. My heart thudding. Even faster than when I killed the Tab cat. Faster than rage. Counting after class.

I hear it scurrying near

through the bushes. Glimpse it escaping. All that meat! With ungainly belly, it scrambles away from me. Through branches crackling. Its entangled hair. I lunge. Its huge belly turning. Its mouth opening in wordless terror like a lizard. As my shadow engulfs. Her swollen belly heaving as if with a life of its own. Her eyes widening. Her mouth opening. Wordless as a lizard. Trying to remember. She gasped the same word.

It was the same four-letter word that George cried as if it is the most powerful of all words.

Believe me, you iron-faced cops. How could I have murdered anyone? Three of us went into the desert. Those have returned.

As I seized her, she begged. Wordless, her iron face was screaming upward as if trying to remember that word. Her den which tried to protect her from today. Captured by her own words. She gasped the word containing within the most powerful of all four-letter words. In a frantic, high voice. Sarah gasped. "—help!"

And I— I— I gasp from the latter world. My hand reaching. My trapping. My iron face screaming. I feel myself reaching words. My crawling. My iron face screaming. I struggle to remember that word. My hand reaching. My trapping. My iron face screaming.

With their arms outstretched, my legs sprawling, my head thrown back, I hear it scurrying near

newly sword, in my arms and hand.

I helped it struggle out. I held him squirming in my clasped hands. "George?" I giggled aloud. I asked him. "George?" I'd spoken.

Cop-out! In failure we have returned from the desert. Sarah's

million) and several (often

million) other people. We can assure people we shall have returned to your future world in words.

You iron-faced cops can't charge me with murdering that earlier George. Death's only a word.



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