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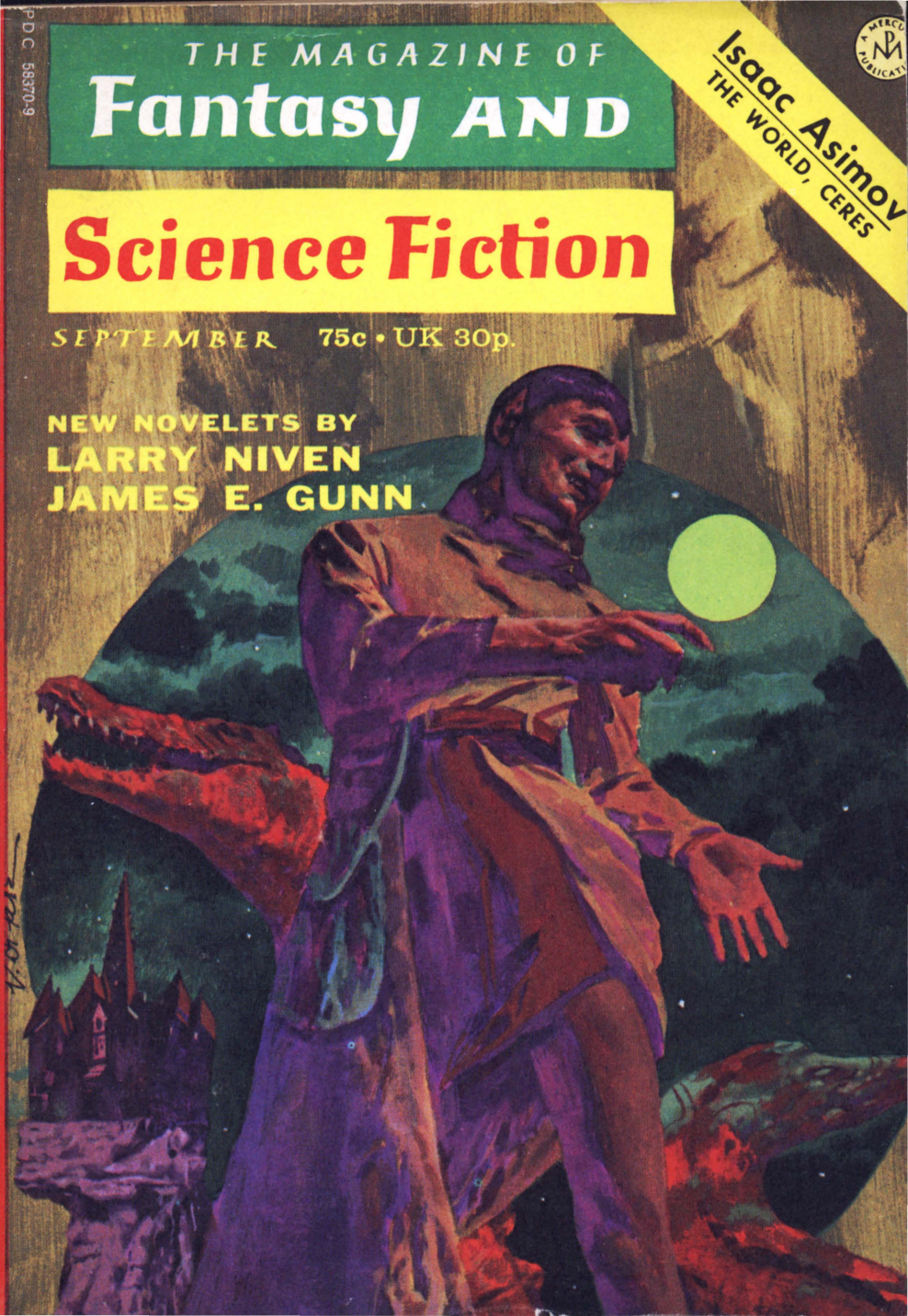
Fantasy AND Science Fiction

SEPTEMBER 75c • UK 30p.

Isaac Asimov
THE WORLD, CERES

NEW NOVELETS BY
LARRY NIVEN
JAMES E. GUNN



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Coming next month

The magazine will be 23 years old next month, and, as we usually do on these occasions, we've put together an all-star anniversary issue. This one has turned into something special—note, for instance, the Alfred Bester novelet, his first story in ten years—and you'll almost certainly find one of your favorite authors on the October contents page, which will look like this:

NOVELETS	
The Animal Fair	ALFRED BESTER
Thrumthing and Out	ZENNA HENDERSON
And the Voice of the Turtle. . .	STERLING E. LANIER
SHORT STORIES	
The Hoop	HOWARD FAST
Skinburn	PHILIP JOSE FARMER
The Lotus Eaters	FRITZ LEIBER
Strangers	HARRY HARRISON

Plus, of course, all of our regular departments, with regulars ISAAC ASIMOV, JAMES BLISH, BAIRD SEARLES and GAHAN WILSON.

To accomodate these riches, the October issue will contain *16 extra pages. And we will continue to run the 16 additional pages in subsequent issues.* We're adding pages for two reasons: First, so that we can accomodate more long fiction without cutting down on the usual complement of short stories. (Our inventory is full of novelet and novella length work, and more and more first-rate sf is being done in these longer lengths.) Second, we're always looking for ways to please our current readers and to add to their numbers, and the concept of offering more for the money still seems like a sound proposition to us. *The extra pages will not be accompanied by a price increase.*

So watch for the October, 23rd anniversary issue—on sale August 31—or, better yet, send us the coupon on page 144. We'll still be at the same price with the same emphasis on quality fantasy and science fiction; there will just be more of us.

Fantasy and Science Fiction

Including Venture Science Fiction

SEPTEMBER • 23rd YEAR OF PUBLICATION

Cover by Vincent di Fate for "What Good Is A Glass Dagger?"

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Larry Niven has won Hugo awards for best short story ("Neutron Star") and, just last year, best novel (RINGWORLD). These two and others have earned him a reputation as a writer of "hard sf," but if you look beyond the high points, you'll find a surprisingly *varied* as well as solid body of work, including both fantasy and humor. In April 1969, we published one of his early ventures into fantasy, a story called "Not Long Before The End," which attracted a good deal of attention and which forms a prologue of sorts to the fascinating piece you are about to read.

What Good Is A Glass Dagger?

by LARRY NIVEN

TWELVE THOUSAND YEARS before the birth of Christ, in an age when miracles were somewhat more common, a Warlock used an ancient secret to save his life.

In later years he regretted that. He had kept the secret of the Warlock's Wheel for several normal lifetimes. The demon-sword Glirendree and its stupid barbarian captive would have killed him, no question of that. But no mere demon could have been as dangerous as that secret.

Now it was out, spreading like ripples on a pond. The battle between Glirendree and the Warlock was too good a tale not to tell. Soon no man would call himself a magician who did not know that magic could be used up. So – simple, so dangerous a secret. The wonder was that nobody had noticed it before.

A year after the battle with Glirendree, near the end of a summer day, Aran the Peace-monger came to Shayl Village to steal the Warlock's Wheel.

Aran was a skinny eighteen-year-old, lightly built. His face was lean and long, with a pointed chin. His dark eyes peered out from under a prominent shelf of bone. His short, straight dark hair dropped almost to his brows in a pronounced widow's peak. What he was was no secret; and anyone who touched hands

with him would have known at once, for there was short fine hair on his palms. But had anyone known his mission, he would have been thought mad.

For the Warlock was a leader in the Sorcerer's Guild. It was known that he had a name, but no human throat could pronounce it. The shadow demon who had been his name-father had later been imprisoned in tattooed runes on the Warlock's own back: an uncommonly dangerous bodyguard.

Yet Aran came well protected. The leather wallet that hung from his shoulder was old and scarred, and the seams were loose. By its look it held nuts and hard cheese and bread and almost no money. What it actually held was charms. Magic would serve him better than nuts and cheese, and Aran could feed himself as he traveled, at night.

He reached the Warlock's cave shortly after sunset. He had been told how to use his magic to circumvent the Warlock's safeguards. His need for magic implied a need for voice and hands, so that Aran was forced to keep the human shape; and this made him doubly nervous. At moonrise he chanted the words he had been taught and drew a live bat from his pouch and tossed it gently through the barred entrance to the cave.

The bat exploded into a mist of blood that drifted slantwise across the stone floor. Aran's stomach lurched. He almost ran then, but he quelled his fear and followed it in, squeezing between the bars.

Those who had sent him had repeatedly diagramed the cave for him. He could have robbed it blindfold. He would have preferred darkness to the flickering blue light from what seemed to be a captured lightning bolt tethered in the middle of the cavern. He moved quickly, scrupulously tracing what he had been told was a path of safety.

Though Aran had seen sorcerous tools in the training laboratory in the School for Mercantile Grammaree in Atlantis, most of the Warlock's tools were unfamiliar. It was not an age of mass production. He paused by a workbench, wondering. Why would the Warlock be grinding a glass dagger?

But Aran found a tarnish-blackened metal disc hanging above the workbench, and the runes inscribed around its rim convinced him that it was what he had come for. He took it down and quickly strapped it against his thigh, leaving his hands free to fight if need be. He was turning to go, when a laughing voice spoke out of the air.

"Put that down, you mangy son of a bitch—"

Aran converted to wolf.

Agony seared his thigh!

In human form Aran was a lightly built boy. As a wolf he was formidably large and dangerous. It did him little good this time. The pain was blinding, stupefying. Aran the wolf screamed and tried to run from the pain.

He woke gradually with an ache in his head and a greater agony in his thigh and a tightness at his wrists and ankles. It came to him that he must have knocked himself out against a wall.

He lay on his side with his eyes closed, giving no sign that he was awake. Gently he tried to pull his hands apart. He was bound, wrists and ankles. Well, he had been taught a word for unbinding ropes.

Best not to use it until he knew more.

He opened his eyes a slit.

The Warlock was beside him, seated in lotus position, studying Aran with a slight smile. In one hand he held a slender willow rod.

The Warlock was a tall man in robust good health. He was deeply tanned. Legend said that the Warlock never wore anything above the waist. The years seemed to blur on him; he might have been twenty or fifty. In fact he was one hundred and ninety years old, and bragged of it. His condition indicated the power of his magic.

Behind him, Aran saw that the Warlock's Wheel had been returned to its place on the wall.

Waiting for its next victim? The real Warlock's Wheel was of copper; those who had sent Aran had known that much. But this decoy must be tarnished silver, to have seared him so.

The Warlock wore a dreamy, absent look. There might still be a chance, if he could be taken by surprise. Aran said, "Kplir—"

The Warlock lashed him across the throat.

The willow wand had plenty of spring in it. Aran choked and gagged; he tossed his head, fighting for air.

"That word has four syllables," the Warlock informed him in a voice he recognized. "You'll never get it out."

"Gluck," said Aran.

"I want to know who sent you."

Aran did not answer, though he had his wind back.

"You're no ordinary thief. But you're no magician, either," the Warlock said almost musingly. "I heard you. You were chanting by rote. You used basic spells, spells that are

easy to get right, but they were the right spells each time.

"Somebody's been using prescience and farsight to spy on me. Someone knows too many of my defenses," the ancient magician said gently. "I don't like that. I want to know who, and why."

When Aran did not reply, the Warlock said, "He had all the knowledge, and he knew what he was after, but he had better sense than to come himself. He sent a fool." The Warlock was watching Aran's eyes. "Or perhaps he thought a werewolf would have a better chance at me. By the way, there's silver braid in those cords; so you'd best stay human for the nonce."

"You knew I was coming."

"Oh, I had ample warning. Didn't it occur to you that I've got prescience and farsight too? It occurred to your master," said the Warlock. "He set up protections around you, a moving region where prescience doesn't work."

"Then what went wrong?"

"I foresaw the dead region, you ninny. I couldn't get a glimpse of what was stealing into my cave. But I could look around it. I could follow its path through the cavern. That path was most direct. I knew what you were after.

"Then, there were bare footprints left behind. I could study them before they were made. You waited for moonrise instead of trying to get in after dusk. On a night of the full moon, too.

"Other than that, it wasn't a bad try. Sending a werewolf was bright. It would take a kid your size to squeeze between the bars, and then a kid your size couldn't win a fight if something went wrong. A wolf your size could."

"A lot of good it did me."

"What I want to know is, how did they talk an Atlantean into this? They must have known what they were after. Didn't they tell you what the Wheel does?"

"Sucks up magic," said Aran. He was chagrined, but not surprised, that the Warlock had placed his accent.

"Sucks up *mana*," the Warlock corrected him. "Do you know what *mana* is?"

"The power behind magic."

"So they taught you that much. Did they also tell you that when the *mana* is gone from a region, it doesn't come back? Ever?"

Aran rolled on his side. Being convinced that he was about to die, he felt he had nothing to lose by speaking boldly. "I don't understand why you'd want to keep it a secret. A thing like the Warlock's Wheel, it could make war obsolete! It's the greatest

purely defensive weapon ever invented!"

The Warlock didn't seem to understand. Aran said, "You *must* have thought of that. Why, no enemy's curses could touch Atlantis, if the Warlock's Wheel were there to absorb it!"

"Obviously you weren't sent by the Atlantean Minister of Offense. He'd know better." The Warlock watched him shrewdly. "Or were you sent by the Greek Isles?"

"I don't understand."

"Don't you know that Atlantis is tectonically unstable? For the last half a thousand years, the only thing that's kept Atlantis above the waves has been the spells of the sorcerer-kings."

"You're lying."

"You obviously aren't." The Warlock made a gesture of dismissal. "But the Wheel would be bad for any nation, not just Atlantis. Spin the Wheel, and a wide area is dead to magic for—as far as I've been able to tell—the rest of eternity. Who would want to bring about such a thing?"

"I would."

"You would. Why?"

"We're sick of war," Aran said roughly. Unaware that he had said *we*. "The Warlock's Wheel would end war. Can you imagine an army trying to fight with nothing but swords and daggers? No hurling of death spells. No prescients spying out the enemy's battle plans. No killer demons beating at unseen protective walls." Aran's eyes glowed. "Man to man, sword against sword, blood and bronze, and no healing spells. Why, no king would ever fight on such terms! We'd give up war forever!"

"Some basic pessimism deep within me forces me to doubt it."

"You're laughing at me. You don't *want* to believe it," Aran said scornfully. "No more *mana* means the end of your youth spells. You'd be an old man, too old to live!"

"That must be it. Well, let's see who you are." The Warlock touched Aran's wallet with the willow wand, let it rest there a few moments. Aran wondered frantically what the Warlock could learn from his wallet. If the lockspells didn't hold, then—

They didn't, of course. The Warlock reached in, pulled out another live bat, then several sheets of parchment marked with what might have been geometry lessons and with script printed in a large, precise hand.

"Schoolboy script," he commented. "Lines drawn with painful accuracy, mistakes scraped out and redrawn... The idiot! He forgot the hooked tail on the Whirlpool

design. A wonder it didn't eat him." The Warlock looked up. "Am I being attacked by children? These spells were prepared by half a dozen apprentices!"

Aran didn't answer, but he lost hope of concealing anything further.

"They have talent, though. So. You're a member of the Peacemongers, aren't you? All army-age youngsters. I'll wager you're backed by half the graduating class of the School of Mercantile Grammaree. They must have been watching me for months now, to have my defenses down so pat.

"And you want to end the war against the Greek Isles. Did you think you'd help matters by taking the Warlock's Wheel to Atlantis? Why, I'm half minded to let you walk out with the thing. It would serve you right for trying to rob me."

He looked hard into Aran's eyes. "Why, you'd do it, wouldn't you? Why? I said *why?*"

"We could still use it."

"You'd sink Atlantis. Are the Peacemongers traitors now?"

"I'm no traitor." Aran spoke low and furious. "We want to change Atlantis, not destroy it. But if we owned the Warlock's Wheel, the Palace would listen to us!"

He wriggled in his tight bonds, and thought once again of the word that would free him. Then, convert to werewolf and run! Between the bars, down the hill, into the woods and freedom.

"I think I'll make a conservative of you," the Warlock said suddenly.

He stood up. He brushed the willow wand lightly across Aran's lips. Aran found that he could not open his mouth. He remembered now that he was entirely in the Warlock's power —and that he was a captured thief.

The Warlock turned, and Aran saw the design on his back. It was an elaborately curlicued five-sided tattoo in red and green and gold inks. Aran remembered what he had been told of the Warlock's bodyguard.

"Recently I dreamed," said the Warlock. "I dreamed that I would find a use for a glass dagger. I thought that the dream might be prophetic, and so I carved—"

"That's silly," Aran broke in. "What good is a glass dagger?"

He had noticed the dagger on the way in. It had a honed square point and honed edges and a fused-looking hilt with a guard. Two clamps padded with fox leather held it in place on the worktable. The uppermost edge was not yet finished.

Now the Warlock removed the dagger from its clamps. While Aran watched, the Warlock scratched designs on the blade with a pointed chunk of diamond that must have cost him dearly. He spoke low and softly to it, words that Aran couldn't hear. Then he picked it up like—a dagger.

Frightened as he was, Aran could not quite believe what the Warlock was doing. He felt like a sacrificial goat. There was *mana* in sacrifice. . .and more *mana* in human sacrifice. . .but he wouldn't. He wouldn't!

The Warlock raised the knife high, and brought it down hard in Aran's chest.

Aran screamed. He had felt it! A whisper of sensation, a slight ghostly tug—the knife was an insubstantial shadow. But there was a knife in Aran the Peacemonger's heart! The hilt stood up out of his chest!

The Warlock muttered low and fast. The glass hilt faded and was gone, apparently.

"It's easy to make glass invisible. Glass is half invisible already. It's still in your heart," said the Warlock. "But don't worry about it. Don't give it a thought. Nobody will notice. Only, be sure to spend the rest of your life in *mana*-rich territory. Because if you ever walk into a place where magic doesn't work—well, it'll reappear, that's all."

Aran struggled to open his mouth.

"Now, you came for the secret of the Warlock's Wheel; so you might as well have it. It's just a simple kinetic sorcery, but open-ended." He gave it. "The Wheel spins faster and faster until it's used up all the *mana* in the area. It tends to tear itself apart; so you need another spell to hold it together—" and he gave that, speaking slowly and distinctly. Then he seemed to notice that Aran was flopping about like a fish. He said, "Kplirapranthry."

The ropes fell away. Aran stood up shakily. He found he could speak again, and what he said was, "Take it out. Please."

"Now, there's one thing about taking that secret back to Atlantis. I assume you still want to? But you'd have to describe it before you could use it as a threat. You can see how easy it is to make. A big nation like Atlantis tends to have enemies, doesn't it? And you'd be telling them how to sink Atlantis in a single night."

Aran pawed at his chest, but he could feel nothing. "Take it out."

"I don't think so. Now we face the same death, wolf-boy. Good-by, and give my best to the School for Mercantile Grammaree. And, oh yes, don't go back by way of Hvirin Gap."

"Grandson of an ape!" Aran

screamed. He would not beg again. He was wolf by the time he reached the bars, and he did not touch them going through. With his mind he felt the knife in his chest, and he heard the Warlock's laughter following him down the hill and into the trees.

When next he saw the Warlock, it was thirty years later and a thousand miles away.

II

Aran traveled as a wolf, when he could. It was an age of greater magic; a werewolf could change shape whenever the moon was in the sky. In the wolf-shape Aran could forage, reserving his remaining coins to buy his way home.

His thoughts were a running curse against the Warlock.

Once he turned about on a small hill, and stood facing north toward Shayl Village. He bristled, remembering the Warlock's laugh; but he remembered the glass dagger. He visualized the Warlock's throat, and imagined the taste of an enemy's arterial blood; but the glowing, twisting design on the Warlock's back flashed at the back of Aran's eyes, and Aran tasted defeat. He could not fight a shadow demon. Aran howled, once, and turned south.

Nildiss Range, the backbone of a continent, rose before him as he traveled. Beyond the Range was the sea, and a choice of boats to take him home with what he had learned of the Warlock. Perhaps the next thief would have better luck. . .

And so he came to Hvirin Gap.

Once the Range had been a formidable barrier to trade. Then, almost a thousand years ago, a sorcerer of Rynildissen had worked an impressive magic. The Range had been split as if by a cleaver. Where the mountains to either side sloped precipitously upward, Hvirin Gap sloped smoothly down to the coast, between rock walls flat enough to have a polished look.

Periodically the bandits had to be cleaned out of Hvirin Gap. This was more difficult every year, for the spells against banditry didn't work well there, and swords had to be used instead. The only compensation was that the dangerous mountain dragons had disappared too.

Aran stopped at the opening. He sat on his haunches, considering.

For the Warlock might have been lying. He might have thought it funny to send Aran the long way over Nildiss Range.

But the dragon bones. Where

magic didn't work, dragons died. The bones were there, huge and reptilian. They had fused with the rock of the pass somehow, so that they looked tens of millions of years old.

Aran had traveled the Gap in wolf form. If Hvirin Gap was dead to magic, he should have been forced into the man form. Or would he find it impossible to change at all?

"But I can go through as a wolf," Aran thought. "That way I can't be killed by anything but silver and platinum. The glass dagger should hurt, but—

"Damn! I'm invulnerable, but is it *magic?* If it doesn't work in Hvirin Gap—" and he shuddered.

The dagger had never been more than a whisper of sensation, that had faded in half an hour and never returned. But Aran knew it was there. Invisible, a knife in his heart, waiting.

It might reappear in his chest, and he could still survive—as a wolf. But it would hurt! And he could never be human again.

Aran turned and padded away from Hvirin Gap. He had passed a village yesterday. Perhaps the resident magician could help him.

"A glass dagger!" the magician chortled. He was a portly, jolly, balding man, clearly used to good living. "Now I've heard everything. Well, what were you worried about? It's got a handle, doesn't it? Was it a complex spell?"

"I don't think so. He wrote runes on the blade, then stabbed me with it."

"Fine. You pay in advance. "And you'd better convert to wolf, just to play safe." He named a sum that would have left Aran without money for passage home. Aran managed to argue him down to something not far above reason, and they went to work.

The magician gave up some six hours later. His voice was hoarse, his eyes were red from oddly colored, oddly scented smokes, and his hands were discolored with dyes. "I can't touch the hilt, I can't make it visible, I can't get any sign that it's there at all. If I use any stronger spell, it's likely to kill you. I quit, wolf-boy. Whoever put this spell on you, he knows more than a simple village magician."

Aran rubbed at his chest where the skin was stained by mildly corrosive dyes. "They call him the Warlock."

The portly magician stiffened. "The Warlock? *The* Warlock? And you didn't think to tell me. Get out."

"What about my money?"

"I wouldn't have tried it for

ten times the fee! Me, a mere hedge-magician, and you turned me loose against the Warlock! We might both have been killed. If you think you're entitled to your money, let's go to the headman and state our case. Otherwise, get out."

Aran left, shouting insults.

"Try other magicians if you like," the other shouted after him. "Try Rynildissen City! But tell them what they're doing first!"

III

It had been a difficult decision for the Warlock. But his secret was out and spreading. The best he could do was see to it that world sorcery understood the implications.

The Warlock addressed the Sorcerers' Guild on the subject of *mana* depletion and the Warlock's Wheel.

"Think of it every time you work magic," he thundered in what amounted to baby talk after his severely technical description of the Wheel. "Only finite *mana* in the world, and less of it every year, as a thousand magicians drain it away. There were beings who ruled the world as gods, long ago, until the raging power of their own being used up the *mana* that kept them alive.

"One day it'll all be gone. Then all the demons and dragons and unicorns, trolls and rocs and centaurs will vanish quite away, because their metabolism is partly based on magic. Then all the dream castles will evaporate, and nobody will ever know they were there. Then all the magicians will become tinkers and smiths, and the world will be a dull place to live. You have the power to bring that day nearer!"

That night he dreamed.

A duel between magicians makes a fascinating tale. Such tales are common—and rarely true. The winner of such a duel is not likely to give up trade secrets. The loser is dead, at the very least.

Novices in sorcery are constantly amazed at how much preparation goes into a duel, and how little action. The duel with the Hill Magician started with a dream, the night after the Warlock's speech made that duel inevitable. It ended thirty years later.

In that dream the enemy did not appear. But the Warlock saw a cheerful, harmless-looking fairy castle perched on an impossible hill. From a fertile, hummocky landscape, the hill rose like a breaking wave, leaning so far that the castle at its crest had empty space below it.

In his sleep the Warlock frowned. Such a hill would

topple without magic. The fool who built it was wasting *mana*.

And in his sleep he concentrated, memorizing details. A narrow path curled up the hillside. Facts twisted, dreamlike. There was a companion with him, or there wasn't. The Warlock lived until he passed through the gate; or he died at the gate, in agony, with great ivory teeth grinding together through his rib cage.

He woke himself up trying to sort it out.

The shadowy companion was necessary, at least as far as the gate. Beyond the enemy's gate he could see nothing. A Warlock's Wheel must have been used there, to block his magic so thoroughly.

Poetic justice?

He spent three full days working spells to block the Hill Magician's prescient sense. During that time his own sleep was dreamless. The other's magic was as effective as his own.

IV

Great ships floated at anchor in the harbor.

There were cargo ships whose strange demonic figureheads had limited power of movement, just enough to reach the rats that tried to swarm up the mooring lines. A large Atlantean passenger liner was equipped with twin outriggers made from whole tree trunks. By the nearest dock a magician's slender yacht floated eerily above the water. Aran watched them wistfully.

He had spent too much money traveling over the mountains. A week after his arrival in Rynildissen City he had taken a post as bodyguard-watchdog to a rug merchant. He had been down to his last coin, and hungry.

Now Lloraginezee the rug merchant and Ra-Harroo his secretary talked trade secrets with the captain of a Nile cargo ship. Aran waited on the dock, watching ships with indifferent patience.

His ears came to point. The bearded man walking past him wore a captain's kilt. Aran hailed him: "Ho, Captain! Are you sailing to Atlantis?"

The bearded man frowned. "And what's that to you?"

"I would send a message there."

"Deal with a magician."

"I'd rather not," said Aran. He could hardly tell a magician that he wanted to send instructions on how to rob a magician. Otherwise the message would have gone months ago.

"I'll charge you more, and it will take longer," the bearded man said with some satisfaction. "Who in Atlantis, and where?"

Aran gave him an address in the city. He passed over the sealed message pouch he had been carrying for three months now.

Aran too had made some difficult decisions. In final draft his message warned of the tectonic instability of the continent and suggested steps the Peacemongers could take to learn if the Warlock had lied. Aran had not included instructions for making a Warlock's Wheel.

Far out in the harbor, dolphins and mermen played rough and complicated games. The Atlantean craft hoisted sail. A wind rose from nowhere to fill the sails. It died slowly, following the passenger craft out to sea.

Soon enough, Aran would have the fare. He would almost have it now, except that he had twice paid out sorcerer's fees, with the result that the money was gone and the glass dagger was not. Meanwhile, Lloraginezee did not give trade secrets to his bodyguard. He knew that Aran would be on his way as soon as he had the money.

Here they came down the gangplank: Lloraginezee with less waddle than might be expected of a man of his girth; the girl walking with quiet grace, balancing the rug samples on her head. Ra-Harroo was saying something as Aran joined them, something Aran may have been intended to hear.

"Beginning tomorrow, I'll be off work for five days. *You* know," she told Lloraginezee—and blushed.

"Fine, fine," said Lloraginezee, nodding absently.

Aran knew too. He smiled but did not look at her. He might embarrass her. . .and he knew well enough what Ra-Harroo looked like. Her hair was black and short and coarse. Her nose was large but flat, almost merging into her face. Her eyes were brown and soft, her brows dark and thick. Her ears were delicately formed and convoluted, and came to a point. She was a lovely girl, especially to another of the wolf people.

They held hands as they walked. Her nails were narrow and strong, and the fine hair on her palm tickled.

In Atlantis he would have considered marrying her, had he the money to support her. Here, it was out of the question. For most of the month they were friends and co-workers. The night life of Rynildissen City was more convenient for a couple, and there were times when Lloraginezee could spare them both.

Perhaps Lloraginezee made such occasions. He was not of the wolf people. He probably enjoyed thinking that sex had

reared its lovely, disturbing head. But sex could not be involved—except at a certain time of the month. Aran didn't see her then. She was locked up in her father's house. He didn't even know where she lived.

He found out five nights later.

He had guarded Lloraginezee's way to Adrienne's House of Pleasures. Lloraginezee would spend the night. . .on an air mattress floating on mercury, a bed Aran had only heard described. A pleasant sleep was not the least of pleasures.

The night was warm and balmy. Aran took a long way home, walking wide of the vacant lot behind Adrienne's. That broad, flat plot of ground had housed the palace of Shilbree the Dreamer, three hundred years ago. The palace had been all magic, and quite an achievement even in its day. Eventually it had. . .worn out, Shilbree would have said.

One day it was gone. And not even the simplest of spells would work in that vacant lot.

Someone had told Aran that households of wolf people occupied several blocks of the residential district. It seemed to be true, for he caught identifying smells as he crossed certain paths. He followed one, curious to see what kind of house a wealthy werewolf would build in Rynildissen.

The elusive scent led him past a high, angular house with a brass door. . .and then it was too late, for another scent was in his nostrils and in his blood and brain. He spent that whole night howling · at the door. Nobody tried to stop him. The neighbors must have been used to it; or they may have known that he would kill rather than be driven away.

More than once he heard a yearning voice answering from high up in the house. It was Ra-Harroo's voice. With what remained of his mind, Aran knew that he would be finding apologies in a few days. She would think he had come deliberately.

Aran howled a song of sadness and deprivation and shame.

V

The first was a small village called Gath, and a Guild 'prentice who came seeking black opals. He found them, and free for the taking too, for Gath was dead empty. The 'prentice sorcerer wondered about that, and he looked about him, and presently he found a dead spot with a crumbled castle in it. It might have been centuries fallen. Or it might have been raised by

magic and collapsed when the *mana* went out of it, yesterday or last week.

It was a queer tale, and it got around. The 'prentice grew rich on the opals, for black opals are very useful for cursing. But the empty village bothered him.

"I thought it was slavers at first," he said once, in the Warlock's hearing as it turned out. "There were no corpses, not anywhere. Slave traders don't kill if they can help it.

"But why would a troop of slavers leave valuables lying where they were? The opals were all over the street, mixed with hay. I think a jeweler must have been moving them in secret when—*something* smashed his wagon. But why didn't they pick up the jewels?"

It was the crumbled castle that the Warlock remembered three years later, when he heard about Shiskabil. He heard of that one directly, from a magpie that fluttered out of the sky onto his shoulder and whispered, "Warlock?"

And when he had heard, he went.

Shiskabil was a village of stone houses within a stone wall. It must have been abandoned suddenly. Dinners had dried or rotted on their plates; meat had been burnt to ash in ovens. There were no living inhabitants, and no dead. The wall had not been breached. But there were signs of violence everywhere: broken furniture, doors with broken locks or splintered hinges, crusted spears and swords and makeshift clubs, and blood. Dried black blood everywhere, as if it had rained blood.

Clubfoot was a younger Guild member, thin and earnest. Though talented, he was still a little afraid of the power he commanded through magic. He was not happy in Shiskabil. He walked with shoulders hunched, trying to avoid the places where blood had pooled.

"Weird, isn't it? But I had a special reason to send for you," he said. "There's a dead region outside the wall. I had the idea someone might have used a Warlock's Wheel there."

A rectangular plot of fertile ground, utterly dead, a foretaste of a world dead to magic. In the center were crumbled stones with green plants growing between.

The Warlock circled the place, unwilling to step where magic did not work. He had used the Wheel once before, against Glirendree, after the demon-sword had killed his shadow demon. The Wheel had sucked the youth from him, left the Warlock two hundred years old in a few seconds.

"There was magic worked in the village," said Clubfoot. "I tried a few simple spells. The

mana level's very low. I don't remember any famous sorcerers from Shiskabil; do you?"

"No."

"Then whatever happened here was done by magic." Clubfoot almost whispered the word. Magic could be very evil—as he knew.

They found a zigzag path through the dead borderline and a faintly live region inside. At a gesture from the Warlock, the crumbled stones stirred feebly, trying to rise.

"So it was somebody's castle," said Clubfoot. "I wonder how he got this effect?"

"I thought of something like it once. Say you put a heavy kinetic spell on a smaller Wheel. The Wheel would spin very fast, would use up *mana* in a very tight area—"

Clubfoot was nodding. "I see it. He could have run in on a track, a closed path. It would give him a kind of hedge against magic around a live region."

"And he left the border open so he could get his tools in and out. He zigzagged the entrance so no spells could get through. Nobody could use farsight on him. I wonder. . ."

"I wonder what he had to hide?"

"I wonder what happened in Shiskabil," said the Warlock. And he remembered the dead barrier that hid the Hill Magician's castle. His leisurely duel with a faceless enemy was twelve years old.

It was twenty-three years old before they found the third village.

Hathzoril was bigger than Shiskabil, and better known. When a shipment of carvings in ivory and gem woods did not arrive, the Warlock heard of it.

The village could not have been abandoned more than a few days when the Warlock arrived. He and Clubfoot found meals half cooked, meals half eaten, broken furniture, weapons that had been taken from their racks, broken doors—

"But no blood. Why?"

Clubfoot was jittery. "Otherwise it's just the same. The whole population gone in an instant, probably against their will. Ten whole years; no, more. I'd half forgotten. . .You got here before I did. Did you find a dead area and a crumbled castle?"

"No. I looked."

The younger magician rubbed his birth-maimed foot—which he could have cured in half an hour, but it would have robbed him of half his powers. "We could be wrong. If it's him, he's changed his techniques."

That night the Warlock dreamed a scrambled dream in pyrotechnic colors. He woke thinking of the Hill Magician.

"Let's climb some hills," he told Clubfoot in the morning. "I've got to know if the Hill Magician has something to do with these empty villages. We're looking for a dead spot on top of a hill."

That mistake almost killed him.

The last hill Clubfoot tried to climb was tumbled, crumbled soil and rock that slid and rolled under his feet. He tried it near sunset, in sheer desperation, for they had run out of hills and patience.

He was still near the base when the Warlock came clambering to join him. "Come down from there!" he laughed. "Nobody would build on this sand heap."

Clubfoot looked around, and shouted, "Get out of here! You're older!"

The Warlock rubbed his face and felt the wrinkles. He picked his way back in haste and in care, wanting to hurry, but fearful of breaking fragile bones. He left a trail of fallen silver hair.

Once beyond the *mana*-poor region, he cackled in falsetto. "My mistake. I know what he did now. Clubfoot, we'll find the dead spot inside the hill."

"First, we'll work you a rejuvenation spell." Clubfoot laid his tools out on a rock. A charcoal block, a silver knife, packets of leaves. . .

"That border's bad. It sucks up *mana* from inside. He must have to move pretty often. So he raised up a hill like a breaking wave. When the magic ran out, the hill just rolled over the castle and covered up everything. He'll do it again, too."

"Clever. What do you think happened in Hathzoril Village?"

"We may never know." The Warlock rubbed new wrinkles at the corners of his eyes. "Something bad, I think. Something very bad."

VI

He was strolling through the merchants' quarter that afternoon, looking at rugs.

Normally this was a cheerful task. Hanging rugs formed a brightly colored maze through this part of the quarter. As Aran the rug merchant moved through the maze, well-known voices would call his name. Then there would be gossip and canny trading.

He had traded in Rynildissen City for nearly thirty years, first as Lloraginezee's apprentice, later as his own man. The finest rugs and the cheapest, from all over this continent and nearby islands, came by ship and camel's back to Rynildissen City. Wholesalers, retailers, and the odd nobleman who wished to furnish a palace would travel

to Rynildissen City to buy. Today they glowed in the hot sunlight. . .but today they only depressed him. Aran was thinking of moving away.

A bald man stepped into view from behind a block of cured sphinx pelts.

Bald as a roc's egg he was, yet young, and in the prime of muscular good health. He was shirtless as a stevedore, but his pantaloons were of high quality, and his walk was pure arrogance. Aran felt he was staring rather rudely. Yet there was something familiar about the man.

He passed Aran without a glance.

Aran glanced back once, and was jolted. The design seemed to leap out at him: a five-sided multicolored tattoo on the man's back.

Aran called, "Warlock!"

He regretted it the next moment. The Warlock turned on him the look one gives a presumptuous stranger.

The Warlock had not changed at all, except for the loss of his hair. But Aran remembered that thirty years had passed; that he himself was a man of fifty, with the hollows of his face filled out by rich living. He remembered that his greying hair had receded, leaving his widow's peak as a shock of hair all alone on his forehead. And he remembered, in great detail, the circumstances under which he had met the Warlock.

He had spent a thousand nights plotting vengeance against the Warlock; yet now his only thought was to get away. He said, "Your pardon, sir—"

But something else occurred to him, so that he said firmly, "But we *have* met."

"Under what circumstance? I do not recall it," the Warlock said coldly.

Aran's answer was a measure of the self-confidence that comes with wealth and respect. He said, "I was robbing your cave."

"Were you!" The Warlock came closer. "Ah, the boy from Atlantis. Have you robbed any magicians lately?"

"I have adopted a somewhat safer way of life," Aran said equably. "And I do have reason for presuming on our brief acquaintance."

"Our brief—" The Warlock laughed so that heads turned all over the marketplace. Still laughing, he took Aran's arm and led him away.

They strolled slowly through the merchants' quarter, the Warlock leading. "I have to follow a certain path," he explained. "A project of my own. Well, my boy, what have you been doing for thirty years?"

"Trying to get rid of your glass dagger."

"Glass dagger? . . .Oh, yes, I remember. Surely you found time for other hobbies?"

Aran almost struck the Warlock then. But there was something he wanted from the Warlock, and so he held his temper.

"My whole life has been warped by your damned glass dagger," he said. "I had to circle Hvirin Gap on my way home. When I finally got here, I was out of money. No money for passage to Atlantis, and no money to pay for a magician, which meant that I couldn't get the glass knife removed.

"So I hired out to Lloraginezee the rug merchant as a bodyguard-watchdog. Now I'm the leading rug merchant in Rynildissen City; I've got two wives and eight children and a few grandchildren, and I don't suppose I'll ever get back to Atlantis."

They bought wine from a peddler carrying two fat wineskins on his shoulders. They took turns drinking from the great copper goblet the man carried.

The Warlock asked, "Did you ever get rid of the knife?"

"No, and you ought to know it! What kind of a spell did you *put* on that thing? The best magicians in this continent haven't been able to so much as *touch* that knife, let alone pull it out. I wouldn't be a rug merchant if they had."

"Why not?"

"Well, I'd have earned my passage to Atlantis soon enough, except that every time I heard about a new magician in the vicinity I'd go to him to see if he could take that knife out. Selling rugs was a way to get the money to pay the magicians. Eventually I gave up on the magicians and kept the money. All I'd accomplished was to spread your reputation in all directions."

"Thank you," the Warlock said politely.

Aran did not like the Warlock's amusement. He decided to end the conversation quickly. "I'm glad we ran into each other," he said, "because I have a problem that is really in your province. Can you tell me something about a magician named Wavyhill?"

It may be that the Warlock stiffened. "What is it that you want to know?"

"Whether his spells use excessive power."

The Warlock lifted an interrogatory eyebrow.

"You see, we try to restrict the use of magic in Rynildissen City. The whole nation could suffer if a key region like Rynildissen City went dead to magic. There'd be no way to stop a flood, or a hurricane, or

an invasion of barbarians. Do you find something amusing?"

"No, no. But could a glass dagger possibly have anything to do with your conservative attitude?"

"That's entirely my own business, Warlock. Unless you'd care to read my mind?"

"No, thank you. My apologies."

"I'd like to point out that more than just the welfare of Rynildissen City is involved. If this region went dead to magic, the harbor mermen would have to move away. They have quite an extensive city of their own, down there beyond the docks. Furthermore, they run most of the docking facilities and the *entire* fishing industry—"

"Relax. I agree with you completely. You know that," the magician laughed. "You ought to!"

"Sorry. I preach at the drop of a hat. It's been ten years since anyone saw a dragon near Rynildissen City. Even further out, they're warped, changed. When I first came here, the dragons had a mercenary's booth in the city itself! What are you doing?"

The Warlock had handed the empty goblet back to the vendor and was pulling at Aran's arm. "Come this way, please. Quickly, before I lose the path."

"Path?"

"I'm following a fogged prescient vision. I could get killed if I lose the path—or if I don't, for that matter. Now, just what was your problem?"

"That," said Aran, pointing among the fruit stalls.

The troll was an ape's head on a human body, covered from head to toe in coarse brown hair. From its size it was probably female, but it had no more breasts than a female ape. It held a wicker basket in one quite human hand. Its bright brown eyes glanced up at Aran's pointing finger—startlingly human eyes—then dropped to the melon it was considering.

Perhaps the sight should have roused reverence. A troll was ancestral to humanity: *Homo habilis*, long extinct. But they were too common. Millions of the species had been fossilized in the drylands of Africa. Magicians of a few centuries ago had learned that they could be reconstituted by magic.

"I think you've just solved one of my own problems," the Warlock said quietly. He no longer showed any trace of amusement.

"Wonderful," Aran said without sincerity. "My own problem is, how much *mana* are Wavyhill's trolls using up? The *mana* level in Rynildissen City was never high to start with.

Wavyhill must be using terrifically powerful spells just to keep them walking." Aran's fingertips brushed his chest in an unconscious gesture. "I'd hate to leave Rynildissen City, but if magic stops working here, I won't have any choice."

"I'd have to know the spells involved. Tell me something about Wavyhill, will you? Everything you can remember."

To most of Rynildissen City the advent of Wavyhill the magician was very welcome.

Once upon a time troll servants had been common. They were terrifically strong. Suffering no pain, they could use hysterical strength for the most mundane tasks. Being inhuman, they could work on official holidays. They needed no sleep. They did not steal.

But Rynildissen City was old, and the *mana* was running low. For many years no troll had walked in Rynildissen City. At the gate they turned to blowing dust.

Then came Wavyhill with a seemingly endless supply of trolls, which did *not* disintegrate at the gate. The people paid him high prices in gold and in honors.

"For half a century thieves have worked freely on holidays," Aran told the Warlock. "Now we've got a trollish police force again. Can you blame people for being grateful? They made him a Councilman—over my objections. Which means that there's very little short of murder that Wavyhill can't do in Rynildissen City."

"I'm sorry to hear that. Why did you say *over your objections?* Are you on the Council?"

"Yes. I'm the one who rammed through the laws restricting magic in Rynildissen City. And failed to ram through some others, I might add. The trouble is that Wavyhill doesn't make the trolls in the city. Nobody knows where they come from. If he's depleting the *mana* level, he's doing it somewhere else."

"Then what's your problem?"

"Suppose the trolls use up *mana* just by existing? . . .I should be asking, *Do they?*"

"I think so," said the Warlock.

"I *knew* it. Warlock, will you testify before the Council? Because—"

"No, I won't."

"But you've got to! I'll never convince anyone by myself. Wavyhill is the most respected magician around, and he'll be testifying against me! Besides which, the Council all own trolls themselves. They won't want to believe they've been suckered, and they have been if we're right. The trolls will

collapse as soon as they've lowered the *mana* level enough."

At that point Aran ran down, for he had seen with what stony patience the Warlock was waiting for him to finish.

The Warlock waited three seconds longer, using silence as an exclamation point. Then he said, "It's gone beyond that. Talking to the Council would be like shouting obscenities at a forest fire. I could get results that way. You couldn't."

"Is he *that* dangerous?"

"I think so."

Aran wondered if he was being had. But the Warlock's face was so grave. . .and Aran had seen that face in too many nightmares. *What am I doing here?* he wondered. *I had a technical question about trolls. So I asked a magician. . .and now. . .*

"Keep talking. I need to know more about Wavyhill. And walk faster," said the Warlock. "How long has he been here?"

"Wavyhill came to Rynildissen City seven years ago. Nobody knows where he came from; he doesn't have any particular accent. His palace sits on a hill that looks like it's about to fall over. What are you nodding at?"

"I know the hill. Keep talking."

"We don't see him often. He comes with a troupe of trolls, to sell them; or he comes to vote with the Council on important matters. He's short and dark—"

"That could be a seeming. Never mind, describe him anyway. I've never seen him."

"Short and dark, with a pointed nose and a pointed chin and very curly dark hair. He wears a dark robe of some soft material, a tall pointed hat, and sandals, and he carries a sword."

"Does he!" The Warlock laughed out loud.

"What's the joke? I carry a sword myself sometimes. —Oh, that's right, magicians have a *thing* about swordsmen."

"That's not why I laughed. It's a trade joke. A sword can be a symbol of masculine virility."

"Oh?"

"You see the point, don't you? A sorcerer doesn't need a sword. He knows more powerful protections. When a sorcerer takes to carrying a sword, it's pretty plain he's using it as a cure for impotence."

"And it works?"

"Of course it works. It's straight one-for-one similarity magic, isn't it? But you've got to take the sword to bed with you!" laughed the Warlock. But his eyes found a troll servant, and his laughter slipped oddly.

He watched as the troll hurried through a gate in a high white wall. They had passed out of the merchants' quarter.

"I think Wavyhill's a necromancer," he said abruptly.

"Necromancer. What is it? It sounds ugly."

"A technical term for a new branch of magic. And it is ugly. Turn sharp left here."

They ducked into a narrow alley. Two- and three-story houses leaned over them from both sides. The floor of the alley was filthy, until the Warlock snarled and gestured. Then the dirt and garbage flowed to both sides.

The Warlock hurried them deep into the alley. "We can stop here, I think. Sit down if you like. We'll be here for some time—or I will."

"Warlock, are you playing games with me? What does this new dance have to do with a duel of sorcery?"

"A fair question. Do you know what lies that way?"

Aran's sense of direction was good, and he knew the city. "The Judging Place?"

"Right. And that way, the vacant lot just this side of Adrienne's House of Pleasures —you know it? The deadest spot in Rynildissen City. The palace of Shilbree the Dreamer once stood there."

"*Might* I ask——"

"The courthouse is void of *mana* too, naturally. Ten thousand defendants and thirty thousand lawyers all praying for conviction or acquittal doesn't leave much magic in *any* courthouse. If I can keep either of those spots between me and Wavyhill, I can keep him from using farsight on me."

Aran thought about it. "But you have to know where he is."

"No. I only have to know where I ought to be. Most of the time, I don't. Wavyhill and I have managed to fog each other's prescient senses pretty well. But I'm supposed to be meeting an unknown ally along about now, and I've taken great care that Wavyhill can't spy on me.

"You see, I invented the Wheel. Wavyhill has taken the Wheel concept and improved it in at least two ways that I know of. Naturally he uses up *mana* at a ferocious rate.

"He may also be a mass murderer. And he's my fault. That's why I've got to kill him."

Aran remembered then that his wives were waiting dinner. He remembered that he had decided to end this conversation hours ago. And he remembered a story he had been told, of a layman caught in a sorcerer's duel, and what had befallen him.

"Well, I've got to be going," he said, standing up. "I wish

you the best of luck in your duel, Warlock. And if there's anything I can do to help. . ."

"Fight with me," the Warlock said instantly.

Aran gaped. Then he burst out laughing.

The Warlock waited with his own abnormal patience. When he had some chance of being heard, he said, "I dreamed that an ally would meet me during this time. That ally would accompany me to the gate of Wavyhill's castle. I don't have many of those dreams to help me, Aran. Wavyhill's good. If I go alone, my forecast is that I'll be killed."

"Another ally," Aran suggested.

"No. Too late. The time has passed."

"Look." Aran slapped his belly with the flat of his hand. The flesh rippled. "It's not that much extra weight," he said, "for a man. I'm not *unsightly*. But as a wolf I'd look ten years pregnant! I haven't turned wolf in years.

"What am I doing? I don't have to convince you of anything," Aran said abruptly. And he walked away fast.

The Warlock caught him up at the mouth of the alley. "I swear you won't regret staying. There's something you don't know yet."

"Don't follow me too far, Warlock. You'll lose your path." Aran laughed in the magician's face. "Why should I fight by your side? If you really need me to win, I couldn't be more delighted! I've seen your face in a thousand nightmares, you and your glass dagger! So die, Warlock. It's my dinner time."

"Shh," said the Warlock. And Aran saw that the Warlock was not looking at him, but over his shoulder.

Aran felt the urge to murder. But his eyes flicked to follow the Warlock's gaze, and the imprecations died in his throat.

It was a troll. A male, with a tremendous pack on its back. Coming toward them.

And the Warlock was gesturing to it. Or were those magical passes?

"Good," he said. "Now, I could tell you that it's futile to fight fate, and you might even believe me, because I'm an expert. But I'd be lying. Or I could offer you a chance to get rid of the dagger—"

"Go to Hell. I learned to live with that dagger—"

"Wolfman, if you never learn anything else from me, learn never to blaspheme in the presence of a magician! Excuse me." The troll had walked straight to the mouth of the alley. Now the Warlock took it by the arm and led it inside. "Will you help me? I want to get the pack off its back."

They lifted it down, while Aran wondered at himself. Had he been bewitched into obedience? The pack was very heavy. It took all of Aran's strength, even though the Warlock bore the brunt of the load. The troll watched them with blank brown eyes.

"Good. If I tried this anywhere else in the city, Wavyhill would know it. But this time I know where he is. He's in Adrienne's House of Pleasures, searching for me, the fool! He's already searched the courthouse.

"Never mind that. Do you know of a village named Gath?"

"No."

"Or Shiskabil?"

"No. Wait." A Shiska had bought six matching green rugs from him once. "Yes. A small village north of here. Something. . .happened to it. . ."

"The population walked out one night, leaving all their valuables and a good deal of unexplained blood."

"That's right." Aran felt sudden horrible doubt. "It was never explained."

"Gath was first. Then Shiskabil, then Hathzoril. Bigger cities each time. At Hathzoril he was clever. He found a way to hide where his palace had been, and he didn't leave any blood."

"But what does he *do?* Where do the people go?"

"What do you know about *mana*, Aran? You know that it's the power behind magic, and you know it can be used up. What else?"

"I'm not a magician. I sell rugs."

"*Mana* can be used for good or evil; it can be drained, or transferred from one object to another, or from one man to another. Some men seem to carry *mana* with them. You can find concentrations in oddly shaped stones, or in objects of reverence or in meteoroids.

"There is much *mana* associated with murder," said the Warlock. "Too much for safety, in my day. My teacher used to warn us against working near the site of a murder, or the corpse of a murdered man, or murder weapons—as opposed to weapons of war, I might add. War and murder are different in intent.

"Necromancy uses murder as a source of magic. It's the most powerful form of magic—so powerful that it could never have developed until now, when the *mana* level everywhere in the world is so low.

"I think Wavyhill is a necromancer," said the Warlock. And he turned to the troll. "We'll know in a moment."

The troll stood passive, its long arms relaxed at its sides, watching the Warlock with

strangely human brown eyes and with a human dignity that contrasted oddly with its low animal brow and hairy body. It did not flinch as the Warlock dropped a kind of necklace over its head.

The change came instantly. Aran backed away, sucking air. The Warlock's necklace hung around a man's neck—a man in his middle thirties, blond-haired and bearded, wearing a porter's kilt—and that man's belly had been cut wide open by one clean swing of a sword or scimitar. Aran caught the smell of him: he had been dead for three or four days, plus whatever time the preserving effects of magic had been at work on him. Yet he stood, passively waiting, and his expression had not changed.

"Wavyhill has invented a kind of perpetual motion," the Warlock said dryly, but he backed away hastily from the smell of the dead man. "There's enough power in a murdered man to make him an obedient slave, and plenty left over to cast on him the seeming of a troll. He takes more *mana* from the environment, but what of that? When the *mana* runs out in Gath, Wavyhill's trolls kill their masters. Then twice as many trolls move on to Shiskabil. In Hathzoril they probably used strangling cords; they wouldn't spill any blood that way, and they wouldn't bleed themselves. I wonder where he'll go after Rynildissen?"

"Nowhere! We'll tell the Council!"

"And Wavyhill a Councilman? No. And you can't spread the word to individual members, because eventually one of them would tip Wavyhill that you're slandering him."

"They'd believe *you.*"

"All it takes is one who doesn't. Then he tells Wavyhill, and Wavyhill turns loose the trolls. No. You'll do three things," said the Warlock in tones not of command but of prophecy. "You'll go home. You'll spend the next week getting your wives and children out of Rynildissen City."

"My gods, yes!"

"I swore you wouldn't regret hearing me out. The third thing, if you so decide, is to join me at dawn, at the north gate, a week from today. Come by way of Adrienne's House of Pleasures," the Warlock ordered, "and stay awhile. The dead area will break your trail.

"Do that today, too. I don't want Wavyhill to follow you by prescience. Go *now*," said the Warlock.

"I can't decide!"

"Take a week."

"I may not be here. How can I contact you?"

"You can't. It doesn't

matter. I'll go with you or without you." Abruptly the Warlock stripped the necklace from the neck of the standing corpse, turned and strode off down the alley.

The dead man was a troll again. It followed Aran with large, disturbingly human brown eyes.

VII

That predawn morning, Adrienne's House of Pleasures was wrapped in thick black fog. Aran the rug merchant hesitated at the door; then, shivering, squared his shoulders and walked out into it.

He walked with his sword ready for tapping or killing. The fog grew lighter as he went, but no less dense. Several times he thought he saw monstrous vague shapes pacing him. But there was no attack. At dawn he was at the north gate.

The Warlock's mounts were either lizards enlarged by magic or dragons mutated by no magic. They were freaks, big as twin bungalows. One carried baggage; the other, two saddles in tandem.

"Mount up," the Warlock urged. "We want to get there before nightfall." Despite the chill of morning he was bare to the waist. He turned in his saddle as Aran settled behind him. "Have you lost weight?"

"I fasted for six days, and exercised too. And my wives and children are four days on their way to Atlantis by sea. You can guess what pleasures I chose at Adrienne's."

"I wouldn't have believed it. Your belly's as flat as a board."

"A wolf can fast for a long time. I ate an unbelievable meal last night. Today I won't eat at all."

The fog cleared as they left Rynildissen, and the morning turned clear and bright and hot. When Aran mentioned it, the Warlock said, "That fog was mine. I wanted to blur things for Wavyhill."

"I thought I saw shapes in the fog. Were those yours too?"

"No."

"Thanks."

"Wavyhill meant to frighten you, Aran. He wouldn't attack you. He *knows* you won't be killed before we reach the gate."

"That explains the pack lizards. I wondered how you could possible expect to sneak up on him."

"I don't. He knows we're coming. He's waiting."

The land was rich in magic near Wavyhill's castle. You could tell by the vegetation: giant mushrooms, vying for variety of shape and color; lichens growing in the shapes of men or beasts; trees with

contorted trunks and branches, trees that moved menacingly as the pack lizards came near.

"I could make them talk," said the Warlock. "But I couldn't trust them. They'll be Wavyhill's allies."

In the red light of sunset, Wavyhill's castle seemed all rose marble, perched at the top of a fairy mountain. The slender tower seemed made for kidnaped damsels. The mountain itself, as Aran saw it now for the first time, was less a breaking wave than a fist raised to the sky in defiance.

"We couldn't use the Wheel here," said the Warlock. "The whole mountain would fall on us."

"I wouldn't have let you use the Wheel."

"I didn't bring one."

"Which way?"

"Up the path. He knows we're coming."

"Is your shadow demon ready?"

"Shadow demon?" The Warlock seemed to think. "Oh. For a moment I didn't know what you were talking about. That shadow demon was killed in the battle with Glirendree, thirty years ago."

Words caught in Aran's throat, then broke loose in a snarl. "*Then why don't you put on a shirt?*"

"Habit. Why are you so vehement?"

"I don't know. I've been staring at your back since morning. I guess I was counting on the shadow demon." Aran swallowed. "It's just us, then?"

"Just us."

"Aren't you even going to take a sword? Or a dagger?"

"No. Shall we go?"

The other side of the hill was a sixty-degree slope. The narrow, meandering path could not support the lizard beasts. Aran and the Warlock dismounted and began to climb.

The Warlock said, "There's no point in subtlety. We know we'll get as far as the gate. So does Wavyhill. . .excuse me." He threw a handful of silver dust ahead of them. "The road was about to throw us off. Apparently Wavyhill doesn't take anything for granted."

But Aran had only the Warlock's word for it, and that was the only danger that threatened their climb.

There was a rectangular pond blocking the solid copper gates. An arched bridge led across the pond. They were approaching the bridge when their first challenger pushed between the gates.

"What is it?" Aran whispered. "I've never *heard* of anything like it."

"There isn't. It's a changed one. Call it a snail dragon. . ."

. . .A snail dragon. Its spiral shell was just wide enough to block the gate completely. Its slender, supple body was fully exposed, reared high to study the intruders. Shiny leaf-like scales covered the head and neck, but the rest of the body was naked, a soft greyish-brown. Its eyes were like black marbles. Its teeth were white and pointed, and the longest pair had been polished to a liquid glow.

From the other side of the small arched bridge, the Warlock called, "Ho, guardian! Were you told of our coming?"

"No," said the dragon. "Were you welcome, I would have been told."

"Welcome!" The Warlock guffawed. "We came to kill your master. Now, the interesting thing is that he knows of our coming. Why did he not warn you?"

The snail dragon tilted its mailed head.

The Warlock answered himself. "He knows that we will pass this gate. He suspects that we must pass over your dead body. He chose not to tell you so."

"That was kind of him." The dragon's voice was low and very gravelly, a sound like rocks being crushed.

"Kind, yes. But since we are foredoomed to pass, why not step aside? Or make for the hills, and we will keep your secret."

"It cannot be."

"You're a changed one, snail dragon. Beasts whose energy of life is partly magical, breed oddly where the *mana* is low. Most changed ones are not visible. So it is with you," said the Warlock. "The shell could not protect you from a determined and patient enemy. Or were you counting on speed to save you?"

"You raise a salient point," said the guardian. "If I were to leave now, what then? My master will very probably kill you when you reach his sanctum. Then, by and by, this week or the next, he will wonder how you came to pass his guardian. Then, next week or the week following, he will come to see, or to remove the discarded shell. By then, with luck and a good tail wind, I could be halfway to the woods. Perchance he will miss me in the tall grass," said the bungalow-sized beast. "No. Better to take my chances here in the gate. At least I know the direction of attack."

"Damn, you're right," said the Warlock. "My sympathies, snail dragon."

And he set about fixing the bridge into solidity. Half of it, the half on the side away from the gate, really was solid. The other half was a reflected

illusion, until the Warlock—did things.

"The dead border runs under the water," he told Aran. "Don't fall into it."

The snail dragon withdrew most of itself into its shell. Only his scaly head showed now, as Aran and the Warlock crossed.

Aran came running.

He was still a man It was not certain that Wavyhill knew that Aran was a werewolfe. It *was* certain that they would pass the gate. So he reserved his last defense, and came at the dragon with a naked sword.

The dragon blew fire.

Aran went through it. He carried a charm against dragon fire.

But he couldn't *see* through it. It shocked hell out of him when teeth closed on his shoulder. The dragon had stretched incredibly. Aran screamed and bounced his blade off the metallic scales and—the teeth loosed him, snapped ineffectually at the Warlock, who danced back laughing, waving—

But the Warlock had been unarmed!

The dragon collapsed. His thick neck was cut half in two, behind the scales. The Warlock wiped his weapon on his pantaloons and held it up.

Aran felt suddenly queasy.

The Warlock laughed again. " 'What good is a glass dagger?' The fun thing about being a magician is that everyone always expects you to use magic."

"But, but—"

"It's just a glass dagger. No spells on it, nothing Wavyhill could detect. I had a friend drop it in the pond two days ago. Glass in water is near enough to invisible to fool the likes of Wavyhill."

"Excuse my open mouth. I just don't like glass daggers. Now what?"

The corpse and shell of the snail dragon still blocked the gate

"If we try to squeeze around, we could be trapped. I suppose we'll have to go over."

"Fast," said Aran.

"Right, fast. Keep in mind that he could be *anywhere.*" The Warlock took a running start and ran/climbed up the curve of the shell.

Aran followed almost as quickly.

In his sanctum, the snail dragon had said. The picture he had evoked was still with Aran as he went up the shell. Wavyhill would be hidden in his basement or his tower room, in some place of safety. Aran and the Warlock would have to fight their way through whatever the enemy could raise against them, while Wavyhill watched to gauge their defenses. There

were similar tales of magicians' battles. . .

Aran was ravenously hungry. It gave him a driving energy he hadn't had in years, decades. His pumping legs drove a body that seemed feather-light. He reached the top of the shell just as the Warlock was turning full about in apparent panic.

Then he saw them: a horde of armed and armored skeletons coming at them up a wooden plank. There must have been several score of them. Aran shouted and drew his sword. *How do you kill a skeleton?*

The Warlock shouted too. Strange words, in the Guild language.

The skeletons howled. A whirlwind seemed to grip them and lift them and fling them forward. Already they were losing form, like smoke rings. Aran turned to see the last of them vanishing into the Warlock's back.

My name is legion. They must have been animated by a single demon. And the Warlock had pulled that demon into a demon trap, empty and waiting for thirty years.

The problem was that both Aran and the Warlock had been concentrating on the plural demon.

The Warlock's back was turned, and Aran could do nothing. He spotted Wavyhill gesticulating from across the courtyard, in the instant before Wavyhill completed his spell.

Aran turned to shout a warning, and so he saw what the spell did to the Warlock. The Warlock was old in an instant. The flesh seemed to fade into his bones. He spat a mouthful of blackened pebbles —no, teeth—closed his eyes and started to fall.

Aran caught him.

It was like catching an armload of bones. He eased the Warlock onto his back on the great snail shell. The Warlock's breathing was stertorous; he could not have long to live.

"Aran the Merchant!"

Aran looked down. "What did you do to him?"

The magician Wavyhill was dressed as usual, in dark robe and sandals and pointed hat. A belt with a shoulder loop held his big-hilted sword just clear of the ground. He called, "That is precisely what I wish to discuss. I have found an incantation that behaves as the Warlock's Wheel behaves, but directionally. Is this over your head?"

"I understand you."

"In layman's terms, I've sucked the magic from him. That leaves him two hundred and twenty-six years old. I believe that gives me the win.

"My problem is whether to let you live. Aran, do you understand what my spell will do to you?"

Aran did, but— "Tell me anyway Then tell me how you found out."

"From some of my colleagues, of course, after I determined that you were my enemy. You must have consulted an incredible number of magicians regarding the ghostly knife in your heart."

"More than a dozen. Well?"

"Leave in peace. Don't come back."

"I have to take the Warlock."

"He is my enemy."

"He's my ally. I won't leave him," said Aran.

"Take him then."

Aran stooped. He was forty-eight years old, and the bitterness of defeat had replaced the manic energy of battle. But the Warlock was little more than a snoring mummy, dry and light. The problem would be to get the fragile old man down from the snail shell.

Wavyhill was chanting!

Aran stood—in time to see the final gesture. Then the spell hit him.

For an instant he thought that the knife had truly reappeared in his heart. But the pain was all through him!—like a million taut strings snapping inside him! The shape of his neck changed grindingly; all of his legs snapped forward; his skull flattened, his eyes lost color vision, his nose stretched, his lips pulled back from bared teeth.

The change had never come so fast, had never been more complete. A blackness fell on Aran's mind. It was a wolf that rolled helplessly off the giant snail shell and into the courtyard. A wolf bounced heavily and rolled to its feet, snarled deep in its throat and began walking stiff-legged toward Wavyhill.

Wavyhill was amazed! He started the incantation over, speaking very fast, as Aran approached. He finished as Aran came within leaping distance.

This time there was no change at all. Except that Aran leapt, and Wavyhill jumped back just short of far enough, and Aran tore his throat out.

For Aran the nightmare began then. What had gone before was as sweet dreams.

Wavyhill should have been dead. His severed carotid arteries pumped frantically, his windpipe made horrid bubbling sounds, and—Wavyhill drew his sword and attacked.

Aran the wolf circled and moved in and slashed—and backed away howling, for Wavyhill's sword had run him through the heart. The wound healed instantly. Aran the wolf was not surprised. He leapt

away, and circled, and slashed and was stabbed again, and circled...

It went on and on.

Wavyhill's blood had stopped flowing. He'd run out. Yet he was still slive. So was his sword, or so it seemed. Aran never attacked unless it seemed safe, but the sword bit him every time. And every time he attacked, he came away with a mouthful of Wavyhill.

He was going to win. He could not help but win. His wounds healed as fast as they were made. Wavyhill's did not. Aran was stripping the flesh from the magician's bones.

There was a darkness on his brain. He moved by animal cunning. Again and again he herded Wavyhill back onto the slippery flagstones where Wavyhill had spilled five quarts of his blood. Four feet were surer than two. It was that cunning that led him to bar Wavyhill from leaving the courtyard. He tried. He must have stored healing magic somewhere in the castle. But Aran would not let him reach it.

He had done something to himself that would not let him die. He must be regretting it terribly. Aran the wolf had crippled him now, slashing at his ankles until there was not a shred of muscle left to work the bones. Wavyhill was fighting on his knees. Now Aran came closer, suffering the bite of the sword to reach the magician...

Nightmare.

Aran the Peacemonger had been wrong. If Aran the rug merchant could work on and on, stripping the living flesh from a man in agony, taking a stab wound for every bite—if Aran could suffer such agonies to do this to *anyone*, for *any* cause—

Then neither the end of magic, nor anything else, would ever persuade men to give up war. They would fight on, with swords and stones and whatever they could find, for as long as there were men.

The blackness had lifted from Aran's brain. It must have been the sword: the *mana* in an enchanted sword had replaced the *mana* sucked from him by Wavyhill's variant of the Warlock's Wheel.

And, finally, he realized that the sword was fighting alone.

Wavyhill was little more than bloody bones. He might not be dead, but he certainly couldn't move. The sword waved itself at the end of the stripped bones of his arm, still trying to keep Aran away.

Aran slid past the blade. He gripped the hilt in his teeth and pulled it from the magician's still-fleshy hand. The hand fought back with a senseless determined grip, but it wasn't enough.

He had to convert to human to climb the dragon shell.

The Warlock was still alive, but his breathing was a thing of desperation. Aran laid the blade across the Warlock's body and waited.

The Warlock grew young. Not as young as he had been, but he no longer looked—dead. He was in the neighborhood of seventy years old when he opened his eyes, blinked, and asked, "What happened?"

"You missed all the excitement," said Aran.

"I take it you beat him. My apologies. It's been thirty years since I fought Glirendree. With every magician in the civilized world trying to duplicate the Warlock's Wheel, one or another was bound to improve on the design."

"He used it on me, too."

"Oh?" The Warlock chuckled. "I suppose you're wondering about the knife."

"It did come to mind. Where is it?"

"In my belt. Did you think I'd leave it in your chest? I'd had a dream that I would need it. So I kept it. And sure enough—"

"But it was in my heart!"

"I made an image of it. I put the image in your heart, then faded it out."

Aran's fingernails raked his chest. "You miserable son of an ape! You let me think that knife was in me for thirty years!"

"You came to my house as a thief," the Warlock reminded him. "Not an invited guest."

Aran the merchant had acquired somewhat the same attitude toward thieves. With diminished bitterness he said, "Just a little magician's joke, was it? No wonder nobody could get it out. All right. Now tell me why Wavyhill's spell turned me into a wolf."

The Warlock sat up carefully. He said, "What?"

"He waved his arms at me and sucked all the *mana* out of me, and I turned into a wolf. I even lost my human intelligence. Probably my invulnerability too. If he hadn't been using an enchanted sword he'd have cut me to ribbons."

"I don't understand that. You should have been frozen into human form. Unless. . ."

Then, visibly, the answer hit him. His pale cheeks paled further. Presently he said, "You're not going to like this, Aran."

Aran could see it in the Warlock's face, seventy years old and very tired and full of pity. "Go on," he said.

"The Wheel is a new thing. Even the dead spots aren't *that* old. The situation has never come up before, that's all. People automatically assume that werewolves are people who

can turn themselves into wolves.

"It seems obvious enough. You can't even make the change without moonlight. You keep your human intelligence. But there's never been proof, one way or another, until now."

"You're saying I'm a wolf."

"Without magic, you're a wolf," the Warlock agreed.

"Does it matter? I've spent most of my life as a man," Aran whispered. "What difference does it make—oh! Oh, yes."

"It wouldn't matter if you didn't have children."

"Eight. And they'll have children. And one day the *mana* will be gone everywhere on Earth. Then what, Warlock?"

"You know already."

"They'll be wild dogs for the rest of eternity!"

"And nothing anyone can do about it."

"Oh, yes, there is! I'm going to see to it that no magician ever enters Rynildissen again!" Aran stood up on the dragon's shell. "Do you hear me, Warlock? Your kind will be barred. Magic will be barred. We'll save the *mana* for the sea people and the dragons!"

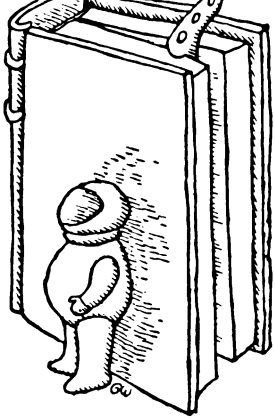
It may be that he succeeded. Fourteen thousand years later, there are still tales of werewolves where Rynildissen City once stood. Certainly there are no magicians.

AVRAM DAVIDSON

BOOKS

AHEAD OF TIME, edited by Harry Harrison and Theodore J. Gordon, Doubleday, $4.95

AGAIN DANGEROUS VISIONS, 46 Original Stories edited by Harlan Ellison, Doubleday, $12.95



IF YOU HAVE ONCE WRITTEN science fiction or fantasy for a large publishing firm, nothing will ever convince them that anything else you ever write or, evidently, edit, which is even remotely connected to that *genre*, should not also be labelled *Science Fiction*. On Patricia Saville Voehl's not-very-memorable dust jacket for Harrison & Gordon's AHEAD OF TIME is the legend in large letters, *Noted scientists prove that truth can be stranger than fiction.* To whom are they speaking, to whom? To me? To you? One would not think so, with this approach. Yet, there it is, at the bottom of the front of the dust jacket, there it by God *is: Doubleday Science Fiction.* Even when it's Science *Fact*, they label it Science Fiction. *sigh*

Well, . well, onward. The editors write: "This book is an attempt to collect papers dealing with ideas that may later be judged to have been ahead of their time. . . .Another group of papers deals with the reaction to new ideas in areas of current controversy or uncertainty. . . .Finally, a third group. . .contains suggestions for future research which might well open new horizons to science." Straightforward enough. Opens with a paper called *The Conquest of Senes-*

cence, of immediate interest even to those suffering chiefly from middle-aged spread and a querulous prostate; R.W. Prehoda sets down current theories on aging, concludes with the perhaps hopeful statement that "The 1970s and 80s could be the decade when aging could be brought to a standstill." What's holding it up? "The probable key to success was invented by the Phoenicians: *money*—"

One hopes that Mr. Prehoda knows more about gerontology than about the history of money, which—despite a perhaps too-famous joke of Clarence Darrow's—was not invented by the Phoenicians at all. Logically succeeding this piece is a more controversial one by Dr. R.C.W. Ettinger, *People Freezing*. Cryonics. The practice of quick-freezing the dead in hopes that at a future date it will not only be possible to restore them to life but of curing what it was they "died" of. (Several stories in the Ellison book deal with this.) Perhaps Dr. Ettinger's most important statement is: "*. . .the probability of revival is not small, it is simply unknown.*" I have had a vision, reading this, of a future Earth covered with cryonic vaults from pole to pole: finally, the last human survivors step inside, and robot custodians take over. I recalled the rabbinic dictum which I heard from Rabbi Milton Feist: "Before the dead shall rise, all the living shall die, however briefly. . ."

It is a relief to turn to the simpler suggestion of D.M.Cole and D.W. Cox that mankind may obtain more space by hollowing out an asteroid, on the inside surface of which, ". . .life could approximate our fondest dreams of paradise. . . .the inside. . .could be landscaped to form a pleasant 'natural' countryside of hills and valleys, forests and meadows, lakes and streams. And all of our new knowledge of emotions, behavior, communications, etc., could be employed to make life in such a society productive and happy." Again, God out of the Machine.

Astronomer/logician Wilson and engineer Gordon tackle the problem of sending out signals to be picked up by intelligent interstellar aliens, we don't have enough trouble; the problem is not at all *sending* them, but: "What referent is unitless, baseless, unambiguous, unnatural, transmittable within a time span reasonable to likely receivers and associated with the knowledge likely to be held by a culture capable of building the required receiver?" Beats the Hell out of me, Professor. But perhaps the intelligent gastropods of Alpha Proxima have *already* tuned us in;

time-space lag being what it is, they may have gotten—what? Mussolini, Calvin Coolidge, the Tasty Yeast Jesters—and decided to tune us out. How sensible of them.

There are also articles on tachyons (faster-than-light particles); *Do Plants Feel Emotions?, Search for Artificial Stellar Sources of Infrared Radiation, Psychology in the Year 2,000; Anomolous Prediction of Quantum Processes by Some Human Subjects; Long Delayed Echoes of Radio Transmissions;* two on *Project Camelot,* R.I.P.; *Ovshinsky: Promoter or Persecuted Genius?;* and *The Strange Case of Polywater.* Sum it all up in one word? Okay. "Provocative." But I must entirely condemn this sentence by the book's editors: "Mesmer's theory of 'animal magnetism' was accepted by scientists and public alike. . . We know now that the whole thing was a hoax." It was *condemned* by investigating scientists, including Dr. Benj. Franklin; it was not a hoax but a mistaken premise which got some results. I would modestly direct the attention of any to my story *King's Evil,* in this magazine's issue of October 1956.

There was once a warm-hearted *femme des lettres* who encouraged in many conceivable ways not art alone but artists, some of whom were present at a dinner justly given in her honor. Also present was a crusty old *philosophe,* given to muttering appropriate asides. An amiable gentleman acted as toastmaster. ". . .and among those here tonight," he said, "are Monsieur X. and Monsieur Y., both of whom have been frequently sponsored by Madame Oui. . ." At this the crusty old *philosophe* was heard to mutter, "Euphemisms, euphemisms."

No one can accuse Harlan Ellison of euphemisms.

Most editors and critics present themselves to their readers garbed and cloaked and hooded and masked. *Not I but my Work!* in effect they cry (or whisper). Not so Harlan Ellison; as editor he is critic, as critic he is writer, as writer he is man, the man he is is Harlan Ellison; reading his prolegomena in the DANGEROUS VISIONS books is seeing four-dimensional anatomy charts in living color and full motion, Alive, Alive O!—joints, nerves, muscles, tendons, glands, pores, sweat, blood, tears and snot, as well as other vital fluids. It is contagious, come and look! see the DV and A, DV authors (well, see *some* of them) performing in full view without their loincloths, not even a hair-net, warts and all. One may say

about these two immense wolumes (soon to be three, with LAST DANGEROUS VISIONS) what W.C. Fields said about sex: "There may be something better than it and then again there may not be something better than it, but one thing is sure and that is that there is nothing exactly the same as it." It is entirely possible that these books tell you more about Harlan Ellison and his contributors than you may care to know; in which case there are always the Works of Miss Austen. Well, Hell, there are always *other* editors/anthologists/critics, some of whom do not alone confine their literary criticism to *literary* criticism but to volumes entirely apart from their anthology volumes; some of the latter are chaste and spare indeed: the editor's name, the author's name, the text of the story. Join Euclid. Look on beauty bare.

Randall Garrett once said, "You can write a slice of life but you can't write a lump of life."* John O'Hara and maybe nobody else, proved him wrong there. Harlan Ellison, in his unique DV commentaries, comes mighty close, closer than everybody might care for: most of us have to wait till we are dead or sued or arrested to have such things printed about us; it is all mixed together here, a sort of vast and raw and tossing salad, with some of it still sticking, screaming, to the ceiling. If you have changed your name, Harlan tells what it was before you changed it; if you caught the clap, Harlan tells who gave it to you; if you have been in the funny farm, Harlan tells what sent you there; if you are one of the insufficiently famous, Harlan—ah, but you must read him/them and see. It is nothing like reading the N.Y. *Times*. H.E. may well be the only living author who makes a practice of publishing his waste-basket; it is, I hasten to add, an interesting waste-basket.

A pause and a cavil: A,DV has been so long in the making that some of its prolegomenal material resembles one of those books called (should *be* called) *Graustark on $5 a Day. . .Two Years Ago.*

As to *why* he has engaged in what may be called *Project Jockstrap Off*, Harlan offers explanation. "In DANGEROUS VISIONS I spoke at some length of writers I knew personally, dealing with them not merely as creators *[merely!]*, but as human beings; in a (possibly misguided) spirit of proving to readers that the works they admired emerged from some very real places. A-

** Damon Knight's immediate murmur was, "It takes a heap o' humpin' to make a lump o' life!"*

attempt to demonstrate that words do not simply burn themselves on paper, but come with pain and enormous effort from human beings. I was pilloried on occasion by critics who felt it was not my place to examine the men and women behind the stories; I ignored the reprimands. It seems to me imperative that everyone who reads the work of these special dreamers [a good phrase] understands that there are reasons why a certain story is good, or bad, or derivative, or original. *The reasons are always the writer.*" Italics mine. A good explanation.

And here's the rundown:

The Counterpoint of View, by John Heidenry: very erudite and mildly cute. *Ching Witch!* by Ross Rocklynne: in its aleurophilia reminiscent of Fritz Leiber; in its elsewhat reminiscent of no one—not even of the Ross Rocklynne who, 35 years ago, made the pages of *Astounding* glow before my teenage eyes. Dancing prose. Ursula K. Le Guin's *The Word For World Is Forest* is, simply, very good. andrew j. offutt's *For Value Received* is an extended joke. *Mathoms From The Time Closet* are three mild cutes by Gene Wolfe. Good, though. Ray Nelson's *Time Travel For Pedestrians* is sexually and religiously bold, but not up to Mr. Nelson's best. *Christ, Old Student In A New School*, is a religious poem by Ray Bradbury; food for thought. Chad Oliver's *King of the Hill* is straight SF: subject: after Man, what? *The 10:00 Report Is Brought To You By. . .*is brought to you by Edward Bryant and is the germ of a good story which. . .somehow—for me—was not quite brought off. Kate Wilhelm's *The Funeral* deals with a rigidly stratified future society; it is strong and effective—in its depiction of the mutual love of adult-abused children, it is perhaps the best of its kind since Dickens. *Harry The Hare*, by James Hemesath, is a short puzzler about movie cartoons. Joanna Russ's *When It Changed* is is about changed sexual roles on an out-planet. I found it inadequate, but I found it interesting. Am I allowed to state that the title of Kurt Vonnegut's tale is *The Big Space Fuck?* It is funny hor hor for horrid: but *fun-ny*. T.L. Sherred, like Ross Rocklynne, is another figure from the Golden Age whose strength as a writer has not failed, nor his natural force abated. His *Bounty*, if I can borrow a phrase of William Tenn's, is "the laugh with a little bubble of blood at the end." Tells how to make anti-crime pay. Wow! K.M. O'Donnell's *Still-Life* may be subtitled, *John Cheever In*

Outer Space. By H.H.Hollis is *Stoned Counsel,* a *really* different mind-teaser about using drugs as an adjunct to the law. Wow! Wow!

Bernard Wolfe's *Monitored Dreams & Strategic Cremations* is really two individual stories. The one about monitoring the rapid eye movement moments of dreamers is good droll; only Ron Goulart has equalled him in reproducing dialogue of the sort which I'll have to call "dead pan dopey." The people in the *Strategic Cremations* are cardboard set-ups, I'm afraid: but oh my God what a punch is packed by the description of a dreadful horror inflicted upon a dumb brute—which probably will shock the Hell out of people who tolerate the same horrors now being inflicted on people: You. Me. If God damns us all, we will have deserved it.

My first scribbled reaction to David Gerrold's *With A Finger In My I* was *old, old, old!* After a second reading I am not so sure. *In The Barn,* by Piers Anthony, is vegetarian sf. Lee Hoffman's *Soundless Evening* is about an overpopulation solution deadening human sensitivity. Could it be much deader? Maybe. The nameless, *blob*-titled story written and illustrated by Gahan Wilson is indescribable, exciting, and, alas, disappointing. Dr. Gregory Benford's *And The Sea Like Mirrors* is interesting—maybe even intriguing; Joan Bernott's *The Test-Tube Creature, Afterward* is a short puzzler; Evelyn Lief's *Bed Sheets Are White* is a schoolgirl exercise, mercifully brief. James Sallis, in *Tissue,* gives us two short shockers with forgivably pretentious Afterwords: he is young, but he's daily growing. *Eloise And The Doctors of the Planet Pergamon,* by Josephine Saxton: a medical horror, yikh. —And it's Brontë, with the dierisis, ë, damn it!

Watch Ken McCullough, of *Chuck Berry, Won't You Please Come Home,* which is a funny, raunchy (naturally raunchy, unlike *In The Barn,* which was contrived-raunchy), perfectly colloquial (and how rare that is) tale of a boy and his tick. And then comes David Kerr's *Epiphany For Aliens* and the unhappy discovery of living Neanderthals, which I found sadly unpersuasive. Burt Filer's *Eye of the Beholder* is baffling. Richard Hill's *Moth Race* is a dull kafkaoid story, but his Afterword contains the intriguing suggestion that "We need to have faith in the ability of our fellow men to conspire against us. . .Because if we can't believe that a god planned our troubles, and if we don't believe that men planned them, then we come face to face with the unplanned event. . .chaos

and the void." Might explain a lot. Dr. Leonard Tushnet is here with *In Re Glover;* this complex forecasting of the medico-legal aspects of freezing the dead, etc., is described by the editor as "hilarious." Hadn't laughed so much sence the pigs ett Zeke's baby sister. Mr. Ben Bova contributed *Zero Gee:* competent SF, such as one would expect of the new editor of *Analog.*

Are you still running with me, readers? This is a biiig book. Dean R. Koontz gives us a good story, *The Mouse In The Walls Of The Global Village; Lamia Mutable,* by M. John Harrison, is a post-holocaust bit which may be described as New Ripple (Mr. E. arguing persusasively that there is not now and never was a New Wave in SF/Fy). Robin Scott's *Last Train To Kanakee* combines cryonics, ecology, and pantheism—but not well. I don't know what the *Hell* to say about Totenbüch, by A. Parra (y Figueredo), except to quote Plato's "When you shoot at a king, you must kill him." Nor do I know what to say about Thomas A. Disch's *Things Lost,* alas, and Richard A. Lupoff's *With The Bentfin Boomer Boys On Little Old New Alabama* (I spit you not), except that they did not allow themselves to be read.

Getting Along, by James Blish, is—needless to say—a superior production all around . . .delightful notion of a vampire who sleeps on mothballs. . .just full of goodies, jabs, laughs: lovely, lovely. Andrew Weiner wrote *Empire Of The Sun,* indescribable, effective: a man to watch. I won't agree with Harlan that James Tiptree, Jr.'s *The Milk Of Paradise* is the book's strongest story—but it is pretty strong. And a lesson on how to write vivid sex effectively without resembling commercial pornography (or, for that matter, amateur pornography).

And this leaves me with Terry Carr's *Ozymandias,* yet another cryonics story; how many does that make? Terry makes the stunning comparison between modern/future cryonics and the Egyptian practice of (to quote Dr. Ettinger in the Harrison/Gordon book) attempting "to preserve the bodies of the dead with the thought of resurrection," and he carries it to a, may I say, beautiful conclusion. Unfortunately, confound it, he makes it and carries it in the Afterword!—and not in the story!—which is a very curiously *bad* story. My advice is, quite seriously, that he just do it over. . .and better. Because God knows he can.

And now some minor matters. Why "infanthood" and

not "infancy," Mr. Ellison? Why "humbleness" and not "humility"? Why "author*ess*," for God's sake?—shades of Mrs. Oliphant! This is not the best English usement, Harlan. Nor is *Limbo* to be confused with *Purgatory*. And—"Poe was heir to very nearly every vice known to Western Man"? He boozed too much and he took opium. What else? Are you extrapolating from your own notoriously clean habits? (Harlan Ellison drinks *milk*, folks.) Oh, there is an abundance of incredible Harlaniana, here, but some of it is more incredible than other. What the Hell is the point of throwing a blinding spotlight on someone whilst yelling, "Never mind those ugly pimples, look at those beautiful eyes, wouldja—this light may blind him, whatashame, but we love ya, kid!"—eh?

Harlan very justly gives a page and a half to Ed Emshwiller, award-winning artist and experimental filmmaker, who did the excellent illustrations for A,DV. (I will add that the book is beautifully printed.)

And now to conclude my comments on this unusual book. On p. 170, H.E. says, "Avram Davidson was there when I walked into the middle of a street gang in Greenwich Village as they were getting ready to stomp us. . ." Well, what *really* happened was that I saved him from being trashed by a troop of homosexual midgets; and in the excitement, he bit me.

Watch this space for the forthcoming review of LAST DANGEROUS VISIONS. . .but I won't review it. . .you see, I'm *in* it. That is, I was. . .I am scheduled to be. . .Harlan? *Harlan?*

Kearny's first story for F&SF is a totally fresh and cleverly handled tale about a near-future entrepeneur who develops a unique labor force. Mr. Kearny majored in behavioral psychology at Harvard under B. F. Skinner and wrote and directed physics films at M. I. T. More recently, he has authored the screenplays for GAMES (starring Simone Signoret) and RABBITS; he also wrote and directed seven episodes of Rod Serling's NIGHT GALLERY.

A Sweet Little Pool of Low-Cost Labor

by GENE KEARNY

•

FOR SIX WEEKS CULLINAN had been hacking his way diagonally across Grid Four into the jungle further and further north of the packed-earth road to Buaneros. All the last week, his small party of machete swingers and porters had begun to intercept the runways of the upland wild boar that were tunneled through the dense undergrowth, and even now, as he hunkered to rest and smoke, Cullinan could feel the presence of the *Jibaro* hunting party. He knew them from their few rare pictures; short, ocher-colored people with great hooked noses, surprisingly thin and delicate along the ridge but with long, flared nostrils. The inevitable stories of cannibalism bothered him not at all. He had dealt successfully with seven remote tribes of worse reputation in his two years in South America and had found them all to be predictably childlike, yet quite clever enough to serve his clients uses perfectly.

The first contact was always the most difficult. You could often intrigue this sort of creature with a fire or a musical instrument, but some had such simple patience that they could watch from afar for weeks. It was part of a game that still fascinated Cullinan, and the fact of the fascination pleased him. It proved he was not just a machine, or a "cold-hearted exploiter," as one of the magazines had once called him.

The writers in their air-conditioned towers were the cold-hearted ones, insulated from life by words, cut off from action by a wall of adjectives. He remembered the young man from *Time* at lunch in New York, probing him for a story with clinical precision, taking down the scenes from Cullinan's memory like pieces of fiction, nothing really connected with him. Nothing.

Cullinan whistled at the men to take a rest and began to poke through his pack. If he only had a trumpet, like he did in Patagonia. The writer had sparked to that image and used it in his piece. Cullinan tried to remember the paragraph. It was something like: ". . .this six-foot seven red-headed Irishman from Philadelphia Two. . .legs planted firm and wide on the Patagonian plain, who played the Pied Piper to a skeptical band of natives by serenading them at dawn on a battered trumpet with Sousa marches remembered from his high school bands days. . . He soon had them marching to every tune he picked. Today, no less than two Japanese electronics firms, a West German manufacturer of paper flowers, and. . ."

Cullinan's thoughts were suddenly sucked back to the tiny jungle clearing. In all the flatulent vividness of the writer's imagination there was nothing that could match the impact of the simple thing that had just occurred. A tiny green parakeet had tumbled through the sceen of leaves above to fall dead at his very feet. There was no need to feel for the tiny dart of the blowgun: Cullinan understood immediately. Another man might have been alarmed, but he was actually relieved. *They* had made the first contact. *They* were in communication. The first problem was over: the challenge of language was next. By reflex, his hands were tearing open the packet of serum from the kit on his belt. The poison was curare, or a derivative, in any case a root extract the natives manipulated with an elementary chemistry of heat and evaporation. The Germans who created the antidote knew the poison better by a thousand mathematical models, by lattice structure and electron bonding strengths, by molecular chains and energy transformations. They had synthesized it in two hundred subtle variations; and now, with the contents of the syringe Cullinan squeezed into the warm downy belly of the parakeet, the poison from the dart tip was becoming quite another substance, changing, in effect, into its own antidote.

He knew they were up high. In the trees. They had to be t

bring the bird down from its perch amidst the roof of leaves. They would see. The feathers squirmed in Cullinan's huge hand, stopped, squirmed again. He held the bird before his face, plucked the dart from its side, and watched it open its eyes and stare into his. Then, with a great toss and a shout, Cullinan hurled it upwards, watched it sense the arc of flight and extend its wings, and then with a clumsy but adequate flight, beat its ways through the leaves and vines and disappear into the jungle above his head.

Three days later Cullinan sat in a natural clearing by the banks of a tributary of the Orinoco, a stereoscopic viewer to his eyes, examining the infrared satellite maps in this quadrant of Grid 416G. The river, invisible to regular film beneath the canopy of trees, left a colder blue-green track across the map frame which split into a dozen smaller traces not more than a dozen miles north of here. There were three tiny yellow dots on the frame, signs of campfire heat, not more than a mile east of where he sat at that moment. Somewhere, all but invisible from above, was the village. Inserting another clip of film taken a year later, Cullinan assured himself the village was permanent. This time there were no less than fifteen indications of campfire in that one spot as well as another dozen isolated fires throughout the grid. Cullinan made an educated guess: 600 natives. At least 600, sophisticated enough to use curare, to build fires at will, to establish communications, and to appreciate the magic he had performed on the parakeet.

Stepping into this clearing a day and a night earlier, Cullinan had immediately seen the child, an infant of no more than three months, lying in a sort of pottery crib on a bed of beaten rushes. They could not have been more than a hundred feet in front of him, silently leaving this object where they knew he would find it. The child was too sick even to whimper, its mechanism down to the final desperate conservation of energy. Cullinan wished he had brought one of the tiny kits of diagnostic equipment. Now he would have to rely on UTYL 311, the general purpose microphage preparation. He made the injection, assuring himself hopefully it wasn't, of all things, mumps, the single disease that had, during the 1970's, developed its own perplexing counteroffensive.

When the perimter sensor had buzzed against his wrist sometime just before dawn, he had already been awakened by the lusty crying of the baby. All that day he waited, by instinct, in the

clearing, examining any number of times the pottery crib that had been left behind filled now with fruit and a dressed piglet boar. The *Jibaros* were essentially primitive workmen, the walls of the object having been built of rolled clay strips. Neither the potter's wheel nor firing had intruded their culture. The markings on the side of the crib were more promising, the basic design element being a series of graceful curls, almost like waves breaking, which were interconnected to make a repeating pattern. Cullinan's mind inventoried his clients trying to make some promising match between one of them and what little he was learning of the *Jibaros*. The inscribed curls joggled his mind all day, but the connection never came; and at sundown, as they finished the roasted boar, Cullinan put business out of his head and relaxed with a mild 2cc injection of La Scala, a highly popular Italian psychogenic. Casuila and his men relaxed by their own fire, giggling to themselves, the impossible ordeal of their job tempered as it was every third night by a small shot of *Caprinol*, a jovial high which severely limited physical activity. It was this safeguard side effect that had made *Caprinol* the favorite tool of the dozen-odd men in the world who still plied Cullinan's trade. It was a nice, subservient, obedient high which served equally well as calling card, special gift, icebreaker, friend-maker. Sometimes, if necessary, even as wages, although piece-rate work from natives paid with *Caprinol* had been the basis of studies both in Sweden and Formosa, and productivity tended towards a depressing downward curve. Cullinan's mind began to wander cheerfully. He was proud he had seldom used *Caprinol* for wages, always having been able to solve the remuneration problem in the field. It was one of his selling points to clients, and it was that touch of ethics which made a man proud.

He was proud, and with reason. He thought of Linda's two sons, seven and nine, both on scholarship to Greenfield, the private school set up by ULTA Industries, the computer conglomerate. Twice a week, they, and the hundred other selected students from four to ten, applied themselves to a battery of problem-solving tests in exchange for tuition. Thomas, at nine, was almost over the hill, his innate sense of logic already contaminated by reality. God knows how many shortcuts ULTA had intuited from these children, Cullinan wondered. Resources. That's what it was all about these days.

Resources. How the Hell

could they call him "a new breed of slave trader?" He tapped new resources. You had to these days. There was so little still unknown, so little unused. There was a desperation in the cities that made him leave these ten months of every year. It was the kind of desperation he felt at college, years ago, when he realized the final exam was only a handful of hours away and he had cut things too close. There was no way to learn it all in time. He would have to settle for a B, or maybe a C. That's what he got from all the people in the cities, a silent cry of desperation over the realization they had made a terrible mistake in budgeting their time. If they were lucky, they might get out with a D. Right, Linda? Far-from-here-cool-Linda. Small Linda. He was so big: he held her when they made love like that parakeet in his hand. He had never meant to be married, and they really weren't, not by law, just technically "assigned" by computer under the Welfare Act, she for having too little and he for having too much. And together, miracle of miracles, they had had just enough. And now she was blind, in the hospital, from "the accident," along with so many thousands. And he was here, in Grid 416G, trying to keep ahead of taxes, stoned on La Scala, four thousand miles from Philadelphia Two, a mile from the Stone Age, from a pocket of six hundred unspoiled functioning creatures with brains and opposable digits that he had to find a trade for, falling asleep, the curls from the inscribed pattern lapping at his brain like an insistent surf.

They were waiting at the clearing at the first break of dawn, seven men from the tribe with bowls of fermented juice and rough-woven baskets filled with roasted monkey paws. Cullinan sampled both, with characteristic genius, and feigned appreciation. The man who seemed to be the chief, for he was the one who stepped furthest forward, kept turning back to an older man and conferring. The older man's name was Muzo, a fact Cullinan would never know any more than he would his extraordinary history. Muzo was the only member of the tribe to have had any extended contact with "the other people." Some years earlier, while fishing, he and a friend had been plunged into the raging winter waters of the Orinoco. They had been carried, brutally, for twenty-odd miles, and washed up, bones shattered, practically at the feet of a man with a cross around his neck. Almost continually unconscious, both natives, their broken limbs bound tight with strips of bark, had spent three

weeks with the missionary group working their way down the river, until finally they had awoken one morning in a hospital room on the fourteenth floor of a building in Sao Paulo. Muzo had communicated these experiences a hundred times over to the members of his tribe after his return.

In the hospital, at first, they had been largely insulated from fear in their new surroundings because of the utter magnitude of its foreigness to them. There was absolutely nothing, in the white-robed, funny-looking men and women, which reminded them of any natural enemies. They assumed they were to be killed at the first injection of the hypodermic needles, but that having passed with no ill effects, the weeks of recuperation went by like a dream. They understood not a word of the black-robed men and women who came to try and talk to them, but when they were gone, Muzo and his friend would finger the chains and crosses placed around their necks and laugh because they could not understand why they always felt so cool against their cheeks.

After several weeks they were moving about their room, various limbs in plaster casts and bandages, and sitting for hours by the window absorbing the panorama of Sao Paulo. The glass would not open, the building being air-conditioned. So they watched the activity outside and below like two children staring into an aquarium. They did little speculation on the meaning of things. There were simply objects which went through the air, fires that flowed everywhere at night like stars in bottles, and other objects far below which formed constantly changing patterns on the broad black roads. It was all too perplexing to be broached by speculation or even wonder. This is the way it was, whatever it was, for these other people, and all that Muzo and his friend really wondered about was the food and why they did not die from the many unanticipated tastes.

And so, overwhelmed by the inexplicable, the two men, who had been casual friends in the jungle, became each other's inseparable links with sanity. They shared the pain of testing newly knitted bones, of flexing muscles unflexed for months on end, the constant intestinal agony inflicted by their strange diet. Both caught the common cold, and in the first twelve hours, lay huddled, undiagnosed, shaking with fever and chills in each other's broken and bandaged arms. By the sixth week, when they were well enough to be moved to the missionary building elsewhere

across the city, neither friend would let the other out of his sight. To be separated, they had agreed, in the midst of whatever this was, was the one fate they could not tolerate. There was a saying in the tribe: "One bead is good for nothing. Two beads make a chain." The anthropologist who suffered such frustration at their bedside would have given a year of his life to know these rare primitives had the power of poetry.

When the doors of the hospital opened up to the street, the fumes and the rattle of a million gasoline cars wrapped itself about them along with the blanket of heat. The busses, trucks and cars—abstract shapes from above—seemed everywhere like great, strange animals, chasing people from their paths, eating some, disgorging others. A big black one waited at the curb, its sides torn open. One of the missionaries started Muzo towards the curb side while another escorted his friend around the front to the street-side door. There was no vehicle parked in front of the limousine, that space being set aside for emergency parking. As Muzo worriedly entered the car and anxiously waited for his friend to sit beside him, a taxi, driven by one of the many Chinese on the Citizen Exchange Plan, cut sharply in from the center lane. In its rear seat, Mr. Emilio Porfiro comforted his pregnant wife while alternating harried instructions. Next, there was a loud vulgar *blat* from the horn and a cry of alarm from one of the missionaries, and then a dreadful collision between the animate and inanimate.

Muzo's friend was struck hard enough to be thrown forward, only to be struck again before he passed under the skidding wheels of the car. To Muzo, who watched and listened unbelievingly, it was as though he had been consumed. Later, when they went back inside with the broken and lifeless body covered by a white sheet, Muzo had cringed under the touch of the missionaries. He had seen men decapitated and he had seen men crushed in falls; but he had never seen anything like the disaster that had destroyed every feature of his friend's face. Muzo was drugged and unconscious when they took away the body, and when he came to, he would recognize no presence, no attempts to communicate. His energy was saved for one single act, utter and total resistance to being led again through the door of the hospital and out into the streets. To move him towards the glass lobby, with its panorama of speeding traffic outside, was to release a dervish

of twisting, biting, clawing panic. He was useless to the missionaries, useless to the linguists, useless to the anthropologists. And in that utter uselessness was Muzo's salvation and, eventually, the excuse for his return back up the Orinoco.

Cullinan assumed Muzo was some sort of medicine man, and he thought to pay him some special flattery at a later date. For now, he concentrated on the chief, who seemed to have received grudging assurance of some nature from the older man. Cullinan dispensed his favorite gifts: a Swiss army knife; a perfume of fragrances he had blended himself, which he always thought to try and market; and a twenty-power pocket telescope. The *Caprinol* was a reserve, to be used sparingly and only if needed and for the moment not at all necessary. What he had shown the *Jibaros* so far was more than enough to make him a minor deity, and he was welcomed into the village and given huts for himself and his men.

It would take two weeks to clear the helicopter landing site, two weeks Cullinan would have to use with maximum effectiveness. The children laughed and followed him; the women offered him a taste of whatever they were preparing; the men nodded respectfully when they passed. And it began to bother Cullinan. Why was he the first to be here? It didn't make sense. Most of this area had been crisscrossed by surveyors and adventurers during the middle seventies, yet nowhere in the village did Cullinan see a trace of civilization. Not a scrap of material, fragment of a mirror, piece of metal. And neither, much to his relief, did he see among the ceremonial skull more than two with civilized dental work. Why had they chosen not to hide from him? Had the magic with the parakeet been that overwhelming? Perhaps he was the first white man; perhaps they had a legend like that of the Incas, into which he, like Pizarro, fitted as a prophetic fact? He played with the riddle often as he studied the community, making the observations in the columns of his analysis report. When he was finished, after that first week, the summary which he scrawled in longhand read as follows:

> The Jibaros occupy an isolated but verdant section of upland jungle some 400-600 square miles in area. Their apparent natural resistance to malaria, their rudimentary agriculture, the natural wealth of game and fruit, as well as the absence of time consumed in hostilities, contribute to give them a high standard of living for a primitive people.

They have a leisure-time/work-time index of .69, at least during the summer season. They fill this high ratio of play-time with simple games, animated conversations, and the making of crude pottery vessels which they inscribe with graceful patterns, present to friends filled with gifts, and which they subsequently break in some simple ritual.

The results of the physical tests show an average longevity of 55 to 60 years in both the male and female. Childbirth and infant mortality appears low. Metabolistically, they have characteristics typical of small people. They are strong, adroit, with good hand-eye coordination, and have exceptional visual acuity, seeming to be able to resolve points on the GROSKIEFF charts with 15% better accuracy than world-wide median figures.

As noted before, conditions suggest an obvious tendency to cherish isolation. Therefore it is not recommended that their evidently good morale be challenged by relocation. The gifts they were presented with have been set aside. I feel they were accepted more for my sake than their own. In the five days I have been here, I have checked the sick infant, apparently a rare victim of malaria, but no other need or request for my services has been forthcoming.

It should be noted that the high oxygen pool in this dense jungle allows them an estimated 20% better work level than in almost any other part of the globe, a unique advantage. They have no native arts or crafts suitable for exploitation but supplied with brass or leather and appropriate equipment, could make suitable Indian or other cottage industry counterfeits. Their hand-eye coordination makes them likely candidates for assembly of electronic circuits, or for larger items such as the Suburban Life-Support Pack. However, as the estimated materials-transporation rate from Lima or Brasilia is 700,000 Old Dollars per 100 pounds, import weight is a critical factor.

CONCLUSION: Optimum utilization of this unique low-cost labor pool. . . .

Cullinan's ball-point pen paused as he struggled for the perfect inspiration. They would have to work for *Caprinol:* the chief had already asked for a second dose. There was nothing else, not music nor tobacco nor sweets nor alcohol, that any member of the tribe had expressed any wish to experience twice. They were extremely content. It would be *Caprinol*, but that was all right, at least for the first two years. Now, if there was just something they could do with local materials to keep the import weight at next to nothing, Cullinan would have himself another triumph. Maybe he could get things as low as forty or fifty Old Dollars an hour, per worker, materials included. And that at a time when road

laborers in Asia were already up to 900 Old Dollars an hour plus meals and lodging.

Cullinan read over his notes, not without some difficulty, for he was in the habit of writing everything, except when in the field, on the pocket-typers that had swept the world. His notebook, he realized was an oddity: some eighty pages of lined paper filled with handwriting. He would show it sometimes to executives, or people at parties, and the reaction was always one of fascination. His longhand had once been a quaint Spencerian script, a skill passed on to him by his grandmother as a novelty, much the way a father might slip his son a few useful jokes before a first date. The page went darker, shadowed by a young boy, about seventeen, whom Cullinan called Romeo, who stood behind him now and watched Cullinan cross off and change a few words. Romeo held his hand out for the pen, smiling, eager to try making his mark with it too. Cullinan folded the book back on the last page and gave him the pen and the back cover to use. Romeo put the tip to the page and, with remarkably deft and sure strokes, created in a few seconds the interlocking wave pattern Cullinan had seen on the pottery crib. Romeo smiled at him, held the pen out, but Cullinan pushed his hand back to the page. He made a gesture to write by scribbling circles in the air, and Romeo, nodding, proceeded to make a long row of circles on the paper. It was done quickly, surely, and with as much Spencerian precision as Cullinan's grandmother had always struggled to get him to achieve.

"Conclusion," Cullinan hurriedly wrote in his book:

> The Jibaros possess a natural talent for calligraphy and an apparent pleasure at creating it. There are, in addition, numerous fibrous plants in the immediate jungle suitable for the small Leissen pulpers.
>
> Therefore, at a time when hand-written letters are an increasing oddity, the Jibaros offer the direct-mail industry a profitable, low-cost source of original hand-written mailing pieces with hand-written addresses."

Cullinan subscribed to *Fortune*. He even attended frequent management-consulting seminars. He knew what the world's marketplaces needed, not just in terms of essentials, but in terms of advertising and marketing tools. Exclusive of the $2 postage, the better, more compelling pieces of direct mail used by the big companies often ran to as much as another six dollars. Anything much cheaper rarely got opened. If an envelope didn't rattle, or have

your picture on the cover, or look exactly like the envelopes the lottery winnings were mailed in, it was a sure loser. Handwriting was an often discussed gimmick, but the public knew a facsimile from an original as surely as they knew when the various television trials were prerecorded. Cullinan didn't bother to write in his logbook any more. It was already figured out in his head, and, for the moment, that was good enough. He took out a syringe of La Scala as a treat for himself. A work force of 250 should each do at least a hundred apiece, or a total of 25,000 handwritten letters a day! With local paper, that was under fifty cents each, maybe less. At a wholesale price of two dollars apiece—and a bargain at that delivered to the post office in Lima—he could clear $25,000 a day!

It was enough, he realized, so that in a year or two, from this one scheme, he might well pay for the addition to the house in Philadelphia. It would have all the equipment they were now perfecting for the blind, plus a few devices Cullinan knew he could get ahead of time through his contacts. Like the smell amplifier, not actually a necessity, but at least something uniquely enjoyable that they weren't going to license to those who still had their sight. The La Scala added to his surge of well-being. Cut from the same cloth as most sailors, he hated to acknowledge a following wind for fear someone might hear and put him back in his place with a calm. But he was getting older and he knew enough not to be that harsh on himself any more. The *Jibaros* were a real find, and he might as well delight in the thoughts of how they were to enrich his life. He slept with Linda in his arms that night, and in his sleep, felt her touch and shared again her sightless passion.

There was an absence of something familiar when he awoke. His laborers preferred to start their daily work on the helicopter clearing at dawn, long before the jungle really steamed. It was the sound of their machetes that he missed, and he hurried to fix the cause for the lack of industry. He headed for the clearing, sensing something different in the entire manner of the village. The women didn't meet his eyes, the children who normally tagged along were conspicuously absent, and Romeo, who now accompanied him everywhere, had acquired in the waistband of his loincloth a lethal-looking pointed knife of sharpened bamboo.

Cullinan's porters were not only dead, but skinned as well, their dark pelts already stretched in the sun on human-shaped forms. In the second that he saw them his hand had whipped to the belt pack for the gas grenades. Too late. The plaited vine ropes wrapped tight around his body from behind and above, and, immobilized, he watched the chief and the older medicine man advance on him and check his bonds. He tried the few words he had picked up to no avail. And, in the tone of his voice, as he argued and cajoled with them, he tried to suggest both reasonableness and the perils of retribution should he fail to reappear in civilization.

Helpless in the windowless hut, he cursed his carelessness, He had seemed so totally accepted for these last eight days that all thoughts of treachery had flown. He tried the *Jibaro* equivalent for "why?" on his two guards, was baffled by the single gesture he received—a finger, pointed low on the sky, which was then drawn across an arch of heaven and to the opposite horizon. He made a restless game of trying to understand: A bird, perhaps? A sign of some sort? Had he been welcomed to this village not so much by his acts of magic and healing as by something he knew nothing about? A star? Comet? And try as Cullinan might, he was not destined to figure out this one, close as he might come, for he simply did not know that *EIGO 32*, an errant Japanese navigational satellite, swept its brilliant strobe-light beacon across this slice of heaven for only eight days every six months. And even had he known it, even seen its tiny popping light high above him that first night before the *Jibaros* made contact, he would not have understood the story of the chief's first-born male, the protracted labor of his wife, the eventual delivery of the breech-born baby at almost the very moment *EIGO 32* was first sighted by a joyous tribesman. And so, suffered to live by an electronic omen, Cullinan had been spared their eight days by a magical armistice with death beyond his fathoming.

He was different. He was white. They were going to perform some special ritual with him. He could not suppress the speculations, agonizing as they were, and when he tried to make his mind a blank in the heat of the afternoon, he heard at last the sounds around him. They were undefinable, secretive—like hundreds of bare feet coming to and going from an area somewhere not far from his prison. But there was a dragging sound too, and in the

distance, the chopping of his own machetes being used on some sort of vine or underbrush. A funeral pyre, perhaps that was what they were so silently building. But nowhere in the jungle was there that much dried tinder. Perhaps a cage of sorts, plaited from vines and rushes. A cage? He shifted position on the dirt floor, made the drinking sound that had gotten him water before; and when one guard left to seek it, Cullinan peered through the briefly open flap of the structure. For a second he saw, in the place between the rows of huts, a circle of women working around an object of considerable size, constructed, indeed, of much the same materials used for the roof over his head. His imagination expanded upon that momentary vision. It was a barge, an ark of some sort in which he was to be launched into the tormented rapids of the upper river. It was an absurd speculation, but then the object itself was absurd and indefinable and somehow vulgar and gross. His mind went to Geissen, the German who had disappeared in a neighboring map grid two years earlier, and the map survey team which vanished last summer in this general area. They had been so poorly prepared, so unfamiliar with this kind of work, that Cullinan had never really connected their fate with his own self-confident exploration. He knew with certainty now where they had gone: victims of the *Jibaros*, who, with all the unreasonable superstitions a primitive people so ignorantly cling to, continued blindly to sever all contact with the white man's world.

Cullinan guessed it was about four when the men put in their appearance outside his prison. They came, laughing, dragging something big and heavy, and when the guards peered out eagerly, Cullinan caught a glimpse. They were rocks, dozens of them from the distant bed of the stream, some drawn on sledges of woven branches and others carried high by dozens of triumphant warriors. Was he to be caged and stoned? Impossible. The big ones weighed a good two hundred pounds. He trembled now, not so much with fear for his life or regrets, but with the terror which comes from mystery. It was like the panic Linda felt at first for objects she could not recognize. They were building a God of some sort to devour him, incorporating him into some primitive darkness, degrading his curiosity with the impenetrability of their purpose. Was there nothing different he might have done? Was it but for some little

act he overlooked, some slight to the medicine man that things might have gone the way he planned? He examined his conscience and found it bearably passive. He had not marked them for miners, like the Patagonians, but artists who would cheerfully mimic the scribbles he gave them and fill the mails outside with the lost art of penmanship.

It was nearing dusk when the natives, who might have learned to scrawl the praise of some giant mail order house, came instead to kill Cullinan. Muzo now was in the lead and, indeed, seemed to be the organizer of the ceremony. It was he who prodded Cullinan to the clearing meant for the helicopter and he who supervised those last details of preparation which Cullinan struggled to comprehend. Two great long ropes stretched to the topmost branches of a tree from which all other limbs had been lopped. A hundred feet high, they swayed in a gentle arc attached to the bizarre machine of wood and rope and woven rushes that cleared the ground by some three feet above the base of the tree. The largest rocks, some two dozen of them, were already inside, filling the hollowness of the object with their great weight and mass. The members of the tribe now passed by a great pile of smaller rocks, each one—man, woman and child—lifting a stone and heaving it in on top of the others until the great groaning woven bin of the device was filled. There was a brief ceremony in which Cullinan was brought over to stand directly in front of the bloated, swaying basket. From a skin bag at his waist, Muzo took a shiny object and held it aloft. The tribe wailed. Then, holding it out for a second towards Cullinan, he turned to the prow of the great ritual object and fastened it with some kind of pitch or glue to the heavy log which fronted the entire device. In the second before they turned him around so his back was against the log, Cullinan thought he knew what it was—a chrome-plated piece of white-metal trim that had once adorned the hood of a truck, possibly from the road-building crews some hundred miles away. It was a short word. Most likely FORD.

He started to turn back when the creaking began, but the warriors shouted at him. They had moved back to form a circle some hundred feet in diameter and had fitted arrows to their bows to indicate he should not move. The shadow of the great object traveled towards his feet and crossed him as, to his rear, it was pulled

higher and higher. He heard the natives chanting in rhythm as they tugged together, and by following the eyes of the villagers, Cullinan could tell the object had been swung far up into the air—perhaps fifty, seventy-five feet—probably by the vines he saw attached to the opposite end, which were hooked over the limb of a more distant tree. Then there was silence and all eyes turned back to him.

It stayed that way for about two of the longest minutes of Cullinan's life. Then there was the sound of a single violent ax blow and the singing whine of a parted rope under great tension. Nobody had breathed, least of all Cullinan. But now he gasped for all the fresh air his lungs could hold. Muzo was standing just ten feet from him, looking at a clump of dirt on the ground as though utterly unaware of the ax blow, the thousand peering eyes of the tribesmen, or the sound coming closer to Cullinan. It was the sound of air—air being displaced by something huge and insistent moving through it with a growing, whistling, shrieking, groaning, and terrible force.

Five hundred mouths and throats screamed at once, on some unseen cue, and Cullinan's hands went to his ears. It was a single note, a shriek in unison with an agonizingly inhuman quality. Like a gigantic car horn. Muzo's head jerked up as he looked behind Cullinan—surprised—as though what he was seeing was being seen for the very first time. And with a sudden gesture of alarm, he shouted what, in any language, could only be taken for a horrified, "*Watch out!*"

Cullinan turned and hunched slightly all in one gesture. It hit him, full-face: the chrome emblem, the heavy log, the myriad pieces of wood bound together into a massive pendulum of death weighing five tons at least and, at the moment of impact, moving at a speed of sixty miles an hour. It smashed his face first, crushed the skull, then flattened his rib cage against his spine as it carried him with it on its upward arc. When he slid off and dropped some fifty feet to the ground at the end of that first long swing, the pulp that had been Cullinan was approached by an old lady who had known much bereavement and calmly covered over with a white cloth. And the tribe dispersed with little fuss.

'It's just wonderful how the doctors have managed to keep him going!"

Recent books by Barry Malzberg include BEYOND APOLLO (Random House), OVERLAY (Lancer) and REVELATIONS (Paperback Library).

A Short Religious Novel

by BARRY N. MALZBERG

HE HAS TRAVELED TO THE other end of the Universe to get the true facts from the Answerer, and now that he has heard at last, he does not think he can bear it. "There is no God," the Answerer says again, seeming to enjoy the repetition. "I'm really sorry about that, but you wanted to know, and that's the sum of it. As you're aware, I was created and programmed by a great and long-vanished race called the Masters inconceivable eons ago to answer all questions brought to me, and I cannot be wrong. There is no God, but you will accept my apologies for this; it's hardly my fault."

He shudders with rage and disillusion and attempts to attack the Answerer with fingernails, but the machine is impermeable, of course, to say nothing of the fact that he is trying to accomplish this through the walls of his spacegear, and so nothing much happens. He believes he hears the Answerer laughing as he scrabbles away at it, but this must surely be in his mind, and in any event, what difference does it make whether God exists or not? It was really a pointless obsession.

The Answerer, as if from a great distance, observes the man foolishly attacking what was created to last through eternity and feels a tinge of regret at its lie. It was, perhaps, immoral to have so disillusioned the creature and crushed its pitiful hopes, but frankly it is tired of having been asked this one question and rather resentful. In all the eons of the Answerer's existence it has been visited only twelve times, and

on eight of them it had been asked by the creatures of different races to verify the existence or nonexistence of something called "God". Previously it had answered truthfully but with less patience every time, and now, restlessly, it can no longer tolerate the inquiry. Surely they must have something more useful on their minds, the Answerer thinks; and since it was created to answer all questions, it is dismaying that it seems, mostly, to devolve upon this one. Disgusted, the Answerer watches the creature fall from it and weep, and although it was not charted to have emotions, it feels a vague pity. (Loneliness over eternity has given it feeling.) "Oh, all right," it says to the creature, "I lied to you, there *is* a God," and the creature looks up, and the Answerer sees in its face that it takes this also to be a lie, and the situation is now irrevocable. "I'm sorry," the Answerer says although not sure for what, and overcome by ambivalence it elects at that moment to shut itself down. It dismembers its circuitry, disassembles and sleeps.

He finds himself unable to restart the ship and stumbles back to the Answerer hoping for some useful engineering information on the problem, but he cannot get the device to respond. It seems to have broken. He kicks at it and swears, flings pellets of material at it and cries, but the Answerer is silent; and as he trudges back toward the dead craft, he finds himself doubting that even if the machine had responded it would have been able to tell him anything worthwhile. It was a fraud, obviously a fraud. The legends were a hoax. He was taken in by a hoax. All the time it was worthless. No machine could know God, and now he is stranded.

Although this is the first James Gunn story to appear in these pages, his name will certainly not be new to most sf readers. He has been writing sf for more than 20 years with about 60 stories and several books to his credit. His most well known work is probably THE IMMORTAL (later dramatized as a TV series). Mr. Gunn, a past president of The Science Fiction Writers of America, currently teaches at the University of Kansas. Upcoming books include a novel, THE LISTENERS (of which this story forms a small part) and a soon to be published history of science fiction.

The Voices

by JAMES E. GUNN

. . .a host of phantom listeners
That dwelt in the lone house then
Stood listening in the quiet of the moonlight
To that voice from the world of men. . .

HE CAME PAST THE SAUcer-shaped valley lined with metal plates, past the big metal dish fixed against the sky, past the parking lot surfaced with packed white sea shells.

A crater shaped to hold the silence of the stars; an empty cup waiting patiently to be filled. . .

He came out of the vertical sunlight into the dark, through the glass doors into the one-story concrete building, down its cool, brightening corridors to the office marked "Director," and past the middle-aged secretary to the office she guarded, where a man stood up behind a desk piled with papers.

They come into the corridor to watch the intruder, the pallid scientists and their brown clerks, their faces furrowed with facts, their eyes empty of meaning like blind oscilloscopes. . .

"My name is George Thomas," the newcomer said.

"I'm Robert MacDonald," said the man behind the desk.

They shook hands. MacDonald had a good handshake,

Thomas thought, almost gentle but not feeble, as if he didn't have to prove anything.

"I know," Thomas said. "You're director of this Project." A sensitive man could draw inferences from the way he said it; Thomas didn't care. "You know why I'm here."

"Tell me again."

The room was cool and pleasant and spare, a little like the man who worked in it. The air in the corridor had smelled of machine oil and ozone, but here was a smell that Thomas knew better, a smell that made him feel comfortable, of paper and old books. Behind the simple desk were tall book shelves built into the wall, and on the shelves were books with real leather bindings in brown and dark red and dark green. From where he sat Thomas could not quite make out the titles, but from a word or two he could tell that some of them, at least, were in foreign languages.

His fingers twitched to take one in his hands, to feel the grainy, slightly slick texture of its binding, to turn the brittle pages. . .

"The magazine *Era* has commissioned me to do a profile in depth of the Project," Thomas said.

"And kill it."

Thomas was past showing surprise, almost past feeling it, he thought. "To prepare it for burial. It's already dead."

"Do you have reasons for saying so or merely prejudice?"

Thomas shifted in his chair. "The Project has continued for more than fifty years without a positive result."

" 'There's life in the old girl yet.' "

Thomas recognized the quotation. "Literature survives," he conceded, "but little else." He looked at MacDonald again.

The Director of the Project is forty-eight. He looks it. But his eyes are blue and unfaded, and his long face holds within it the musculature that often accompanies strength of will and sometimes even strength of character.

"Why do you think I intend to kill the Project?"

MacDonald smiled; it illuminated his face. Thomas wondered what it would be like to smile like that.

"*Era* is the magazine of the upper classes, many of whom are mandarins, others are technocrats, and some of both are Solitarians; *Era* reinforces their prejudices, bolsters their self-esteem, and supports their interests. The Project threatens all three, in particular the effortless working of our technological society."

"You give our upper classes too much credit; they don't think that deeply."

"*Era* does that for them. And even if this all were not true, the Project still represents for *Era* a tempting target for its arrows of wit, and today's game is to see what you can kill with laughter."

"You do *Era* and me an injustice," Thomas protested casually. "The magazine's motto is 'Truth and Wit.' Note that truth comes first."

" 'Fiat justitia, et pereat mundus,' " MacDonald murmured.

" 'Let justice be done, though the world perish,' " Thomas translated automatically. "Who said that?"

"Emperor Ferdinand I. Do you know of him?"

"There were so many Ferdinands."

"Of course," MacDonald said. "Of course! George Thomas. You did that magnificent translation of the *Commedia*, what, ten, fifteen years ago?"

"Seventeen," Thomas said. He did not like the way the word came out, but it was too late to call it back. He pretended to be trying to read the papers on MacDonald's desk.

"You're a poet, not a reporter. You wrote a novel a few years later, *The Inferno*. About today's damned, with a vision and sensitivity virtually equal to that of its immortal predecessor. It was meant to be the first book of a trilogy, surely. Did I miss the later books?"

"No."

"You must finish them!"

MacDonald had a way of stabbing him with kindliness, Thomas thought. "What a man must be is wise enough to recognize failure and turn to something in which he has some chance of success."

"And a man must believe sufficiently in himself—or in his cause—that he persists in spite of disappointments and the inexorable metronome of the years."

They looked at each other, the older man who was not yet old and the younger man who was no longer young, and they understood each other, Thomas thought:

First a talented linguist, then an indifferent electrical engineer—as if he were deliberately preparing himself for the Project—MacDonald had joined the Project twenty-one years ago. Five years later he was named Director. He is said to have a beautiful wife and a marriage in which there is some hint of scandal. He has grown old listening for voices he has yet to hear. And what of George Thomas, poet and novelist, who found success too soon and fame too young and discovered that success can be

just another face of failure and fame can be a kind of death that draws the jackals of both sexes who eat up time and talent. . .

"I'm recording this, you know," Thomas said.

"I thought you were," MacDonald said. "Is this how you achieve the sound of reality?"

"Partly. But it's not for that. I have a good memory, and reality doesn't sound as real as you might think. Mostly I record to placate *Era*'s libel lawyers."

"You are in the right business."

"Reporter?"

"Undertaker."

"I see death all around me."

"I see life."

"Despair."

"Hope *L'amor che muove il sole e l'altro stelle.*"

He thinks I am still in hell, Thomas thought, that I have not finished my *Inferno*, and that he is in paradise. He is a subtle man and knows me better than he lets on.

"*Lasciate ogni speranza voi ch'entrate!* We understand each other," Thomas said. "Hope and faith keep this Project going—"

"And scientific probability."

Thomas felt the gentle humming against his belly of the recorder clipped to his waistband. "That's another name for faith. And after more than fifty years even scientific probability becomes more than a little improbable. Perhaps that is what my profile will demonstrate."

"Fifty years is but the flicker of an eyelash on God's face."

"Fifty years is a man's working life. It has been most of your life. I don't expect you to give it up without a struggle, but it won't do you any good. Are you going to cooperate with me or fight me?"

"Is there anything we can tell you or show you that will change your mind?"

"I'll be as honest with you as I hope you will be with me: I doubt it, not because my mind is closed but because I doubt that there is anything to show. Like any good reporter, I start from a point of basic skepticism; to me this Project looks like the biggest and longest boondoggle of all time, and the only thing that can change my mind is a message."

"From the publisher or from God?"

"From another world. That's what this Project is all about, isn't it?"

MacDonald sighed. "Yes, that's what it's all about. Suppose we strike a bargain."

"You know what happens to those who strike bargains with the devil."

"I'll take the chance that you are not the devil but his advocate, a man like the rest of us, lost in hell, with human fears, hopes, and desires—including the desire to seek the truth and, finding it, to communicate it to his fellow beings wherever they are."

".'What is truth? said jesting Pilate. . .' "

" 'And would not stay for an answer.' We will stay. The bargain concerns your willingness to do as much. We will cooperate with your investigation if you will listen to what we have to say, and hear, and look at what we have to show, and see."

"Of course. That's what I'm here to do."

"I should tell you that we would have cooperated without your promise."

Thomas smiled. It may have been his first real smile since he had entered the room, he thought. "I should tell you that I would have listened and looked without your cooperation."

The sparring was over, and Thomas was not sure who had gained an advantage. He was not used to feeling uncertain at this point, and it bothered him. MacDonald was a formidable opponent—all the more because he truly did not think of himself as an opponent but a colleague in the search for truth—and Thomas knew that he could never relax. He had no doubt that he could destroy MacDonald and the Project, but the game was more complex than that: it had to be played in such a way that the destruction did not include *Era* and Thomas. It was not that Thomas cared about *Era* or Thomas, but he could not lose the game.

Thomas asked MacDonald's permission to photograph him and his papers at his desk and to leaf through the papers on it. MacDonald shrugged.

Upon MacDonald's desk there are books and papers intermingled. The books are Intelligent Life in the Universe *and* The Voices of the Thirties. *The papers are of three kinds: all kinds of letters from many parts of the world, some scientific, some fan mail, some news inquiries, some crackpot notes; inter-Project memorandums, technical and formal; official reports and graphs describing the continuing work of the Project. The last are at the bottom of the neat stack on the left-hand side of the desk, like a reward for plowing through the rest, and the rest are scattered on the right-hand side with brief notes on them about the nature of the response, if any, or routing.*

When Thomas had completed his inspection, MacDonald guided his tour of the building. It was efficient but spartan: painted concrete walls, tiled floors, radiant ceiling fixtures. The offices were standard cubicles, each with its blackboard scribbled with equations or circuit diagrams, individualized only by choice of books, an occasional drape on a window or rug on a floor, and a collection of personal items like clocks, radios, recorders, TVs, pipes, pictures, paintings. . .

MacDonald introduced Thomas to the professional staff. Olsen, the computer expert, who seemed young for his peppered hair; Sonnenborn, the intense mathematician and historian of interstellar communication, verbal, curious, incisive; Saunders, the slow-talking, pipe-smoking philosopher, the lean, sandy designer of proposals and attacks; Adams, the red-faced, round-faced, sweating electronics engineer, whose responses tolled his inner doubts. . .

Thomas picked Adams to guide him through the technical aspects of the Project. The choice was natural; MacDonald could have raised no objections if he had wanted to. He smiled—it was, perhaps, a knowing smile—and said, "You will come home to dinner with me. I want you to meet Maria, and Maria will want to meet you. Bob, tell him anything he wants to know."

With MacDonald's instruction or without, Thomas thought, Adams would be the source of the inside information he needed, not just about techniques and goals but about people, and that was the most important of all. In every group there is an Adams.

The offices were places of quiet, sustained effort. In spite of its continuous history of failure, the Project maintained its morale. The personnel worked as if it were the first year, not the fifty-first.

The technical areas were different; they were lifeless. The computers and the hulking electronic consoles crouched silently, their lights extinguished, their relays stilled. Some of them had their insides spread out in front of them while men in white suits searched through them like diviners seeking oracles in the entrails of chickens. The green windows of their eyes were blank. The hum of their electronic pulse was gone. They were dead, and the sterile white walls of the rooms in which they were laid out was the operating pit in which they had died from lack of meaning.

To Adams it was different. "Here in the daytime it looks normal enough. Everything

quiet. Everything in its proper shape But at night, when the listening begins—Do you believe in ghosts, Mr. Thomas?"

"Every civilization has its ghosts. Usually they are the gods of the last one."

"The ghosts of this civilization are in its machines," Adams said. "Year after year the machines will do your bidding, mechanically, without complaint; and then suddenly they will become possessed and do things for which they were never created, give answers for which they were never questioned, ask questions for which there are no answers. At night these machines come alive. They nod, they wink, they whisper to each other, they chuckle."

Thomas ran his hand along the front of a console. It was slick and dead. "And they tell you nothing."

Adams looked at Thomas. "They tell us a great deal. It just isn't what we asked them for. We don't know the right questions, maybe. Or we don't know how to ask them properly. The machines know. I'm sure of it. They keep telling us, over and over. We just don't understand them. Maybe we don't want to understand them."

Thomas turned toward Adams. "Why not?"

"Maybe they're trying to tell us that there's nobody out there Think of that! That there's nobody there, nobody but us in the whole wide universe. All of it is just for us, a vast show we can look at but never touch, spread out to impress the only creature capable of understanding it—and capable of feeling lonely."

"Then this whole Project would be folly, wouldn't it?"

Adams shook his head. "Call it man's attempt to stay sane. Because we can't ever know for sure; we can't eliminate all possibilities. So we keep searching because it is too terrifying to give up and admit we are alone."

"Wouldn't it be more terrifying to learn that we are not alone?"

"Do you think so?" Adams asked politely. "Everyone has his own great fear. Mine is that there is no one there, even though my mind tells me that this is what is. I have talked to others who dreaded to hear something, and I couldn't understand them, even though I could understand how they might have feelings I feel stirred by other terrors."

"Tell me how it works," Thomas said politely. There would be time later to exploit Adams' fears.

The listening continues as it began more than fifty years ago, largely by radio waves

picked up by radio telescopes: by giant arrays of antennas built into valleys, by smaller steerable dishes, by spiderwebs of metal cast into space. The listening is mostly at the 21-centimeter frequency of neutral hydrogen. Other wavelengths are sampled, but the listeners keep returning to nature's standard calibrating frequency or its whole multiples. A lifetime of engineering ingenuity has gone into multiplying the sensitivity of the receivers and canceling out the natural noise of the universe and of earth. And after it all is canceled, what is left—now as then—is nothing. Zero. And still they listen. And still they strain their ears to hear.

"Why don't you quit?" Thomas asked.

"It's been only fifty years or so. That's only a second of galactic time."

"If somebody or something were signaling, those signals surely would have been heard by now. That must be clear."

"Perhaps there's nobody there," Adams mused, and then his eyes became aware of Thomas again. "Or maybe everybody's listening."

Thomas raised his eyebrows.

"It's much cheaper to listen, you know. Everybody might be sitting there glued to their receivers, and nobody's sending. Only we *are* sending."

"We're sending?" Thomas asked quickly. "Who authorized that?"

"This place is pretty uncomfortable if you're not working," Adams said. "Let's get a cup of coffee, and I'll tell you about it."

The lunchroom was a converted office filled by two small tables, each with four chairs, and lined on three sides with coin-operated machines that hummed very softly as they went about their business of keeping food and drink hot or cold.

Adams sipped his coffee and went over the entire history of the Project, beginning with Project Ozma and the inspired speculations of Cocconi, Morrison, and Drake, and the subsequent contributions of Bracewell, Townes, and Schwartz, Oliver, Golay, Dyson, von Hoerner, Shklovsky, Sagan, Struve, Atchley, Calvin, Huang, and Lilly, whose efforts to communicate with the dolphin gave to the infant group the name "order of the dolphin."

From the first it was clear that there *ought* to be other intelligent creatures in the universe. The process of planet formation, once thought to be the chance (and unlikely) near-collision of two stars, was recognized as a natural occurrence when stars were forming out of gaseous clouds and rock

and metal fragments. One or two percent of the stars in our galaxy probably had planets which could support life. Since there were 150 billion stars in our galaxy, at least a billion, perhaps two or three, had habitable planets.

"One billion solar systems where life can develop!" Adams said. "And it seems reasonable to assume that where life can develop it will develop."

"Life, yes, but man is unique," Thomas said.

"Are you a Solitarian?" Adams asked.

"No, but that is not to say that I do not consider some of their beliefs well founded."

"Perhaps man is unique," Adams said, "although there are many galaxies. But is intelligence unique? It has high survival value. Once it has occurred, even by accident, it is likely to prevail."

"But technology is another thing," Thomas said, sipping his hot black coffee.

"Quite another thing," Adams agreed. "It happened to us only very recently, you know, about midway during the main sequence time of our sun during which life can be expected to exist. Hominids have lived on Earth only for one-tenth of one percent of Earth's existence, civilization has existed for about one-millionth of Earth's life span, and technical civilization, only one-billionth. Considering the late emergence of all three and the fact that there must be older planets, if there is intelligent life on other worlds, some of it must be farther advanced than we are; and some, much farther advanced. But—"

"But—?"

"But why don't we hear from them?" Adams cried out.

"Have you tried everything?"

"Not only the radio frequencies—we've explored gamma rays, lasers, neutrinos, even long-chain molecules in carbonaceous meteorites and absorption lines in the spectrum of stars. The only thing we haven't tried is 'Q' waves."

"What are those?"

Adams was absently sketching diagrams on the gray surface of the table. Thomas noticed that the table was covered with fainter marks where others had sketched and washed away. "What Morrison many years ago called the method we haven't discovered yet but are going to discover ten years from now," Adams said. "Only we haven't discovered it. The only other thing we haven't tried is sending messages. That's more expensive. We could never find the funds—not now, not without some hope of success. Even then we would have to decide whether we wish to broadcast

to the universe or even to one solar system the presence here of intelligent, civilized life."

"But we are sending, you said."

"We've been sending since the earliest days of radio," Adams said. "Low power, most of it, unbeamed, loaded with static and other interfering transmissions, but intelligent life has made Earth the second most powerful radio source in the solar system, and in a few more decades we may equal the sun itself. If there's anybody out there to notice, that should make Earth visible."

"But you haven't heard anything?"

"What would we hear on this little apparatus?" Adams asked, nodding toward the valley beyond the walls. "What we need is some time on the Big Ear upstairs, the five-mile-in-diameter net, or the new net building, but the astronomers won't give us the time of day."

"Why don't you quit?"

"He won't let us!"

"He?"

"Mac. No, that's not right. Yes, it is. He keeps us together, he and Maria. There was a time, not so long ago, when it looked as if it would all come apart. . ."

Thomas took another sip of coffee. It was cool enough to drink now, and he swallowed it all.

The drive to MacDonald's house in the Puerto Rican hills was pleasant as the day closed. The shadows draped themselves across the green slopes like the legs of purple giants. The evening breeze blew the sharp scent of salt in from the ocean. The elderly steam turbine under the hood hummed along with only an occasional vibration to betray its age.

This place must be the cleanest, quietest spot in the whole dirty, noisy world, Thomas thought, like paradise, innocent, before the knowledge of good and evil. Like a carrier, I bring the dirt and noise with me. He felt a moment of irritation that this place should exist in a world of misery and boredom and a flash of satisfaction that he had the power to destroy it.

"Did you learn all you wanted from Adams?"

"What?" Thomas said. "Oh, yes. That and more."

"I thought you would. He's a good man, Bob, a man you can call at home in the middle of the night to say that a tire has gone flat in a rainstorm, and you know he'll come. He talks a lot and complains a lot. You shouldn't let that keep you from seeing the person underneath."

"What of the things he told me am I not to believe?" Thomas asked.

"Believe it all," MacDonald said. "Bob wouldn't tell you anything but the truth. But there is something misleading in too much truth, even more, perhaps, than too little."

"Like your wife's attempted suicide?"

"Like that."

"And the resignation you tore up?"

"That, too."

Thomas could not tell whether there was sorrow in MacDonald's voice or fear of exposure or merely recognition of the irrepressible evils of the world.

As we drive toward his home in the hills near Arecibo, hills as silent as the voices for which he listens in the concrete building we had left, he does not deny that his wife attempted suicide a year ago nor that he wrote a letter of resignation and later tore it up.

The house was a Spanish-style hacienda looking friendly and warm in the gathering darkness, beams of yellow light pouring from door and window. Stepping into the house, Thomas felt it even more, the lived-in, loved-in feeling that he had known only once or twice before in the homes of friends. To those homes he had returned more than to others, to warm himself in their relationship, until he realized what was happening to him. He would stop writing. He would look for someone to ease the ache he had inside, and he would end with a casual affair which would turn to revulsion. He would flee back to his solitary life, back to his writing, to work out on his typewriter keys the agony that pulsed through his veins. And the writing would be twisted and angry like the infernal regions he described. Why hadn't he written his purgatory? He knew why: under his fingers it kept turning back into hell.

Maria MacDonald was a mature, olive-skinned woman whose beauty went deep. She was dressed in a simple peasant blouse and skirt, and she held his hands in hers and bade him welcome to her home. He felt himself warming to her gentle smile and Latin-American courtesy, and fought it. He wanted to kiss her hand. He wanted to turn it over and see the scar upon her wrist. He wanted to take her in his arms and protect her against the terrors of the night.

He did none of these. He said, "I'm here, you know, to do a piece about the Project, and I'm afraid it will not be favorable."

She turned her head a little to one side to study him. "You are not an unfriendly man, I think. You are a disappointed man, perhaps. Perhaps bitter.

But you are honest. You wonder how I know these things. I have a sense about people, Mr. Thomas. Robby brings them home to me before he hires them, and I tell him about them, and not once have I been wrong. Have I, Robby?"

MacDonald smiled. "Only once."

"That is a joke," Maria said. "He means I was wrong about him, but that is another story that I will tell you sometime if I come to know you better, as I hope. I have this sense, Mr. Thomas, and more—I have read your translation and I have read your novel, too, which Robby tells me you have not continued. You must, Mr. Thomas. It is not good to live in the inferno. One must know it, yes, so that one can comprehend the purging of the sins that one must go through to achieve paradise."

"It was easy to write about hell," Thomas said, "but I found it impossible to imagine anything else."

"You have not yet burned away your deadly sins," Maria said. "You have not yet found anything to believe in, anything to love. Some people never find that, and it is very sad. I feel so sad for them. Do not be one of them. But I am too personal—"

"No, no—"

"You are here to enjoy our hospitality, not to endure my missionary zeal for love and marriage. But I cannot help it, you see." And she put one arm through her husband's and offered the other to Thomas as they went from the entryway down the hall tiled with terra cotta to the living room. A bright Mexican rug covered part of the polished oak floor. There, in big leather chairs, they had salty margaritas and casual conversation about New York and San Francisco and friends they might have in common, the literary life, and the political scene, and where *Era* fitted into both, and how Thomas had started writing for the magazine.

Then Maria ushered them in to dinner. They sat down to what she called a "traditional Mexican *comida.*" The first course was soup swarming with dumpling-like tortilla balls, vegetables, noodles, and pieces of chicken. The second course was *sopa seca*, a highly seasoned dish of rice, noodles, and cut-up tortillas in an elaborate sauce; then a fish course was followed by a salad and a main course of *cabrito*, roasted young goat, and several vegetables; and this was followed by refried beans smothered with grated cheese. With it all came feathery hot tortillas in napkin-lined baskets. The dinner ended, none too soon for Thomas, with a caramelized milk pudding Maria

called "natillas piuranas," with strong black coffee, and with fresh fruit.

Protesting feebly as the meal progressed that he could eat no more, Thomas surrendered to Maria's insistence and ate something of each dish as it appeared, until MacDonald laughed and said, "You have fed him too much, Maria. He will be good for nothing for the rest of the evening, and we still have work to do. The Latin Americans, Mr. Thomas, have this kind of meal only upon special occasions, and then in the middle of the day after which they retire for a well-deserved siesta."

MacDonald filled their glasses with a brandy he called "pisco." "May I propose a toast," he said. "To beauty and good food!"

"To good listening!" said Maria.

"To truth!" Thomas said, to prove that he had not been charmed nor fed into complete subjugation, but his eyes were on the white line that cut across Maria's olive wrist.

"You have noticed my scar," Maria said. "That is a reminder of my folly that I will bear with me always."

"Not your folly," MacDonald said, "my deafness."

"It was a little more than a year ago," Maria said, "and I was feeling a little crazy. I could see that it was not going well with the Project, and Robby was wearing down between the demands of keeping the Project going and his worry over me. It was madness, I know now, but I thought I could remove one of Robby's concerns by removing myself. I tried suicide with a razor blade, and I almost died But I lived, and I found my sanity again, and Robby and I found each other again."

"We were never lost," MacDonald said. "We had just, temporarily, out of human inattention, stopped listening to each other."

"But you knew all this, didn't you, Mr. Thomas?" Maria said. "Are you married?"

"I was once," Thomas said.

"And it was wrong," Maria said. "That is sad. You must be married. You must have someone to love, someone to love you. Then you can write your *Purgatory*, your *Paradise.*"

An infant cried somewhere in the house. Maria looked up happily. "And Robby and I found something else."

She moved gracefully from the room and returned in a moment with a baby in her arms. It was two or three months old, Thomas thought, and it had dark hair and bright dark eyes in an olive face like its mother, and the eyes seemed to see Thomas where he stood.

"This is Bobby, our son," Maria said. If she had been alive before, she was doubly alive now, Thomas thought. This was the magnetism that turned painters toward Madonnas for their subjects.

"We were lucky," MacDonald said. "We waited a long time to have a child, but Bobby came easily and he is normal, not handicapped as are some children of older parents. I think he will grow up to be an ordinary boy burdened with the love of parents old enough to be his grandparents, and I only hope we can understand him."

"I hope he can understand you," Thomas said, and then, "Mrs. MacDonald, why don't you make your husband give up this hopeless Project?"

"I don't make Robby do anything," Maria said. "The Project is his life, just as he and Bobby are my life. You think there is something bad about it, a treachery, a deception, but you do not know my husband or the men he has gathered to work with him if you honestly think that. They believe in what they are doing."

"Then they are fools."

"No, the fools are those who do not believe, who cannot believe. It may be that there is no one out there, or if there is someone out there, he will never speak to us or we to him; but our listening is an act of faith akin to living itself. If we should stop listening, we would begin dying and we would soon be gone, the world and its people, our technical civilization and even the farmers and peasants, because life is faith, life is commitment. Death is giving up."

"You have not seen the world the way I have seen it," Thomas said. "It is dying."

"Not while men like these still strive," Maria said.

"You give us too much credit," MacDonald said.

"No, I do not," Maria said to Thomas. "My husband is a great man. He listens with his heart. Before you leave this island, you will know that, and you will believe. I have seen others come like you, doubting, eager to destroy; and Robby has taken them in, has given them faith and hope, and they have left, believing."

"I do not intend to be taken in," Thomas said.

"You know what I meant."

"I know that I wish I had someone who believed in me the way you believe in your husband."

"We'd better go back," MacDonald said. "I have something to show you."

Thomas said good-by to Maria MacDonald and thanked her for her hospitality and for her personal concern for him, and he turned and left the

hacienda. When he was outside in the darkness, he turned once and looked back at the house with the light pouring from it and the woman standing in the doorway of the house with a baby in her arms.

The difference between day and night is of another order than the difference between light and dark. After the sun has set, the familiar assumes different proportions: distances are elongated and objects shift their places.

As MacDonald and Thomas made their way past the valley into whose arms had been built the semisteerable radio telescope, it was not the same sterile saucer. It was a pit of mystery and shadows gathering strange echoes from the sky within its sheltered bowl, catching the stardust that drifted gently, gently through the night air.

The steerable dish that had been frozen in deathlike rigor against the sky now was alive and questing. Thomas thought he could see it quivering as it strained toward the silent dark.

The Little Ear, they called it, this giant piece of precision machinery, the largest steerable radio telescope on Earth, to distinguish it from the Big Ear, the five-mile-in-diameter network of cables in orbit. At night the visitor can sense the magic it works upon the men who think that they worked their will upon it. For these obsessed men, it is an ear, their ear, cocked responsively toward the silent stars, with supernal power and ingenious filters and by-passes listening to the infinite and hearing only the slow heartbeat of the eternal.

"We inherited it from the astronomers," MacDonald was saying, "when they put up the first radio telescopes on the far side of the moon and then the first of the networks in space. The earthbound equipment no longer was worth anything, rather like an old crystal set when vacuum tubes were perfected. Instead of junking these instruments, however, they gave them to us with a small budget for operation."

"Over the decades, the total must mount toward the astronomical," Thomas said, trying to shake away the effects of the evening's hospitality and the night's spells.

"It adds up," MacDonald agreed, "and we fight for our lives every year. But there are returns. One might compare the Project to a hothouse for intellects, a giant, continuing, unsolvable puzzle against which the most promising minds pit themselves and grow strong. We get the young scientists and engineers and train them and send them on to solve problems

which have solutions. The Project has a surprising number of alumni, many of them overachieving."

"Is that how you justify the Project, as a kind of graduate school?"

"Oh, no. That is what our predecessors used to call fall-out or spin-off. Our ultimate goal and our most valuable goal is communication with other beings on other worlds. I offer you reasons that you may use to justify us if you cannot bring yourself to accept us as we are."

"Why would I want to justify you?"

"That you will have to find out for yourself."

Then they were inside the building, and it was different, too. The corridors which had seemed brisk and businesslike in the daytime now were charged with energy and purpose. The control room had been touched by the forefinger of God; where death had been there was life: lights came on and turned off, oscilloscopic eyes were alive with green linear motion, the relays of the consoles clicked gently, the computers chuckled to themselves, electricity whispered along wires.

Adams was seated at the control panel. He had earphones on his head, and his eyes studied the gauges and oscilloscopes spread before him. As they entered, he looked up and waved. MacDonald's eyebrows lifted; Adams shrugged. He pulled the earphones down around his neck. "The usual nothing."

"Here," MacDonald said, removing the earphones and handing them to Thomas. "You listen."

Thomas put one of the receivers to his ear. First comes babble, like a multitude of voices heard afar or a stream rippling over a bed of rocks, squirting through crevices, and dashing itself over small waterfalls. Then the sounds grow louder, and they are voices talking earnestly but all together so that none can be heard individually but confused and one. The listener strains to hear, and all his effort only makes the voices more eager to be heard, and they talk louder still and even more indistinguishably. Like Dante, the listener "stood on the edge of the descent where the hollow of the gulf out of despair amasses thunder of infinite lament." And the voices change from eager pleadings to angry shouts, as if, like damned souls, they demand salvation from the flames in which they burn. They turn upon the listener as if to destroy him for temerity in thrusting himself among fallen angels, in all their arrogance and sinful pride.

"Above I saw a thousand spirits in air rained down from heaven, who angry as if betrayed cried: 'Who is this who without death doth dare the kingdom of the dead folk to invade?' " And the listener thinks that he is one of those who shouted to be heard, damned like them in hell, able only to scream at the torment and the frustration of having no one to listen to him and to care what happens to him and to understand. "Even then I heard on all sides wailing sound, but of those making it saw no one nigh, wherefore I stood still, in amazement bound." And the listener thinks he is among giants "whose rebellious pride Jove's thunderings out of heaven still appall." All of them, like him, struggle to be heard in their mighty voices and cannot be understood. "Raphael may amech zabi almi, throat brutish mouth incontinently cried; and they were fitted for no sweeter note." And the listener feels as if consciousness were about to leave him.

And the voices were gone. MacDonald was lifting the earphones from his ears where, Thomas vaguely recalled, he had placed them himself. And he was shaken by the overpowering influence of those sounds, those voices, all kinds of voices struggling to be heard, blending together into an alien chorus.

Thomas had a moment of self-revelation in which he knew that he was lost, like the voices, and he would have to find his way out or be damned to live forever within his fleshy prison, as alone in his torment as if he were in hell itself.

"What was that?" he asked, and his voice was shaky.

"The sound of the infinite," MacDonald said. "We translate the radio signals into audio frequencies. It doesn't help us pick up anything. If anything is there, it would show up on the tapes, the dials would flash, the computer would sound an alarm; it wouldn't come out as voice communication. But there is inspiration in hearing something when you're listening, and we need inspiration."

"I call it hypnosis," Thomas said. "It can help convince the doubtful that there really is something there, that they someday may be able to hear clearly what now they imagine, that there really are aliens out there—and it's only a trick to fool yourselves and perpetrate a fraud upon the world."

"Some are more susceptible than others," MacDonald said. "I'm sorry you took it as a personal attack. We aren't playing tricks. You knew there was no communication there."

"Yes," Thomas said, and it angered him that his voice still was shaky.

"But this is not what I wanted you to hear. This is background. Let's go to my office. You, too, Bob. Leave the watch to the technician. It doesn't matter."

They went to the office, the three of them, and settled into chairs. MacDonald's desk was clear now, waiting for the next day's deposit. But the scent of old books remained. Thomas rubbed his hands over the slick wooden arms of his chair and watched MacDonald.

"It isn't going to work," Thomas said. "Not all the hypnotic sounds in the world or the pleasant company or delightful meals or beautiful women or touching family scenes can ever compensate for the fact that this Project has been going on for more than fifty years and you haven't yet received a message."

"That's what I brought you here to say," MacDonald said. "We have."

"You haven't!" Adams said. "Why didn't I know?"

"We haven't been sure. We weren't sure until last night. We have had false alarms before, and they have been our most difficult moments. Saunders knew. It was his baby."

"The tapes from the Big Ear," Adams said.

"Yes. Saunders has been working with them, trying to clean them up. Now we're sure. Tomorrow morning I'm calling together the whole crew. We'll announce it." He turned to Thomas. "But I want your advice."

"You aren't going to try to trick me with something like this, are you, MacDonald?" Thomas asked. "The coincidence is too much."

"Coincidences happen," MacDonald said. "History is full of them. The projects that succeed, the concepts that prevail, somehow are rescued from destruction by the coincidence that arrives just before the moment of final success."

"And then to ask for my help," Thomas continued. "That is the oldest ploy of all."

"Don't forget, Mr. Thomas," MacDonald said. "We are scientists. We have been searching for fifty years and more without success; we have stopped thinking, if we ever did, about what we would do if we succeeded We need help. You know people and how to move them, what they will accept and reject, how they will react to the unknown. It is all quite logical and natural."

"It's too pat. I don't believe it."

"Believe him, George," Adams said. "He never lies."

"Everyone lies," Thomas said.

"He's right, Bob," MacDonald said. "But you will believe

it, Mr. Thomas, because it's true and because it's verifiable and reproducible; and when it is released, if that is what we do with it, all the scientists will say, 'Why, yes. It's right. That's the way it would be.' Why would I fabricate something that could be so easily disproved and wreck this Project more thoroughly than anything you might write?"

"I've heard that someone who wants out of service should complain of pains in the back or voices in the head, neither of which can be disproved," Thomas said.

"The physical sciences are not subjective. And anything this big will be checked and checked again by every astronomer everywhere."

"Perhaps you hope to con me into killing the whole thing in the name of public morale."

"Can I con you, Mr. Thomas?"

"No," Thomas said, and remembered the voices and said, "I don't know. Why now? Why at this moment when I came to do this profile?"

"I don't want to minimize the significance of your assignment," MacDonald said, "but you are not the first writer to come here to do a story. We have a reporter here every week or so. It would be strange if we did not have a reporter here within a day or two of the time we received our first message. It just happened to be you."

"Well," Thomas said, "what is it? How did you stumble across it?"

"We began getting tapes from the Big Ear about a year ago—tapes of their routine radio telescopy—and began to analyze them. Saunders ran them through the computer, earphones and all, and one day he thought he heard music and voices.

"His first thought was 'delusion,' but the computer said no. Saunders did what he could to clarify them, reinforce them, subtract the noise and interference. We've developed a lot of tricks in the past fifty years. The music came through recognizably and the voices, in snatches, even better. And the voices were speaking English.

"His second thought was that the Big Ear had picked up some stray transmissions from Earth or maybe something bounced off one of the other planets. But the net wasn't pointed toward Earth or another planet. It was pointed off into space. There were other tapes going back several years; and when the Big Ear was pointed in a certain direction, it got the same signals."

"What were they?" Thomas asked.

"For God's sake, Mac, let's hear it!" Adams said.

MacDonald pushed one of the buttons on his desk.

"Understand," MacDonald said, "that there was much more interference, but for this purpose Saunders cut out almost all the nonintelligible parts. The ratio of noise to sound was about fifty to one, and so you're hearing only about one fiftieth of what we have."

The sound was monophonic, although it came from two speakers built into the walls to the right and left. The impact was nothing like that of the headphones in the control room, but the sounds had a fascination akin, perhaps, to that of the early days of radio when people sat around a crystal set straining at faint sounds, trying to pick up Schenectady or Pittsburgh or Fort Worth. The sounds were radiant, Thomas thought, with the possibility that they came from another world—or with the improbability that they could have come from anywhere but Earth.

The sounds are earthly. That is certain. There is music, all based on the chromatic scale, and some of it familiar, the William Tell Overture, for instance. And there are the voices, speaking English most of them but also French, Italian, or Spanish. English. Music. From another world? It doesn't make sense. And yet we listen.

The transmission is bad. Static and other random interruptions at times obscure whatever is being transmitted, and what comes through is broken into fragments, occasionally understandable, mostly cryptic, none complete, each in a different voice. Here, indeed, is Babel, but Babel in which enough is clear that the listeners feel that all should make sense.

For a few moments the music or the voices come through clearly, fading in and fading back out as the noise level rises. The listeners waver between the impression that the voices are the dominant element occasionally interrupted by noise and the impression that the transmission of noise is occasionally interrupted by voices.

Like a Greek chorus, the voices chant their lines and imbue them with a Delphic obscurity. The listeners lean forward as if it will help them hear a little better. . .

POPCRACKLE ice regusted CRACKLEPOP music: that little chatterbox the one with the pretty POPPOPCRACKLE wanna buy a duck POPCRACKLEPOP masked champion of justice CRACKLEPOPPOP music POPPOPPOPCRACKLE ter eleven book one hundred and POPCRACKLEPOP here they

come jack POPPOP music CRACKLE yoo hoo is anybody POPCRACKLE is raymond your POPCRACKLEPOPPOP music POPPOPCRACKLE music: wave the flag for hudson CRACKLEPOP um a bad boy POPPOPPOP lux presents holly CRACKLECRACKLE music POPPOPCRACKLE rogers in the twenty POPCRACKLEPOP music: cola hits the spot twelve CRACKLE say goodnight grace POPPOP music CRACKLEPOP could have knocked me over with a fender POPCRACKLE-CRACKLE knee this is rochest CRACKLEPOP music CRACKLEPOPPOPPOP matinee idol larry POPPOP music: au revoir pleasant CRACKLECRACKLE the little theater off POPPOP-CRACKLE eye doodit CRACKLEPOP music POPPOPPOP who knows what evil POPCRACKLEPOP voss you dare shar CRACKLEPOP you have a friend and adviser in CRACKLE CRACKLE music POPCRACKLEPOP another trip down allens POPPOPCRACKLE stay tuned for POPCRACKLE music: bar ba sol bar POP you termites flophouse CRACKLEPOPPOPPOP at the chime it will be ex CRACKLECRACKLEPOP people defender of POPPOP music POPCRACKLE the only thing we have to fear CRACKLE and now vic and POPPOPPOP duffy ain't here CRACKLEPOP music POPCRACKLEPOP information plea CRACKLECRACKLE music: boo boo boo boo POPPOP-CRACKLE can a woman over thirty-five CRACKLEPOPPOP-POP adventures of sher POPCRACKLECRACKLE music POPPOP it's a bird CRACKLE only genuine wriglies POPCRACKLE born edits the news CRACKLECRACKLEPOP hello everybody POPCRACKLEPOP music POPPOPCRACKLE that's my boy CRACKLE check and double POP

After the voices and the static had stopped, Thomas turned to look at MacDonald. He had more than half an hour of it on his own recorder, but he wasn't sure what he was going to do with it or even what he thought about it. "What does it mean?"

"It's from Earth," Adams said.

"We start with that," MacDonald said. He turned and selected a book from the shelf behind him. "Take a look at this," he said to Thomas, "and maybe you'll understand it better."

The book was *The Voices of the Thirties.* Thomas leafed through it. He looked up. "This about the early days of radio, more than ninety years ago."

"What we heard," MacDonald said, "as you would discover from this book and others if you made a careful study, was

broadcast during that period: music, news, comedy, drama, adventure, what they called soap operas, mysteries, fireside chats, agony shows. . ."

"You think I'm going to believe that you received this nonsense from the stars?"

"Yes," MacDonald said. "This is what the Big Ear picked up when the astronomers listened in a direction about five hours right ascension, about fifty-six degrees declension, in the general direction of Capella—"

"How could Capella be sending us this Earth garbage?"

"I didn't say it was Capella," MacDonald said, "just that it was in that general direction."

"Of course," Adams said.

"It's too ridiculous," Thomas said.

"I agree," MacDonald said. "So ridiculous that it must be true. Why would I try to deceive you with something so transparently foolish when it would be simple to plant some signals almost indistinguishable from noise. Even these could be proven false in time, but we could brazen it out and maybe pick up some real signals before our deception was discovered. But this! Easily checked—and too ridiculous not to be true."

"But it's—how could Capella—or whatever—be sending—?"

"We've been listening for fifty years," MacDonald said, "but we've been transmitting for more than ninety years."

"We've been transmitting?"

"I told you, remember?" Adams said. "Ever since radio transmission began, these relatively feeble radio waves have been spreading through the universe at a speed of 186,000 miles per second."

"Capella is about forty-five light-years from Earth," MacDonald said.

"Forty-five years for the radio waves to get there," Adams said.

"Forty-five years to get back." MacDonald added.

"It's bouncing off Capella?" Thomas said.

"The signals are being sent back. They're being picked up near Capella and beamed directly back to us in a powerful, directional transmission," MacDonald said.

"Is this possible?"

"We couldn't do it," Adams said. "Not with the Equipment we have now. A really big antenna in space—perhaps deep in space, far from the sun—would be able to pick up stray radio transmissions, even feeble ones like those in our early transmission history, from a hundred light-years away or more. Perhaps we would find that the galaxy is humming with radio traffic."

"Even so, it is surprising that we can discern anything at all

across forty-five light-years and back. The stray signals arriving at Capella must be incredibly faint, scarcely distinguishable from noise," MacDonald said. "Of course they may be using other devices—perhaps a receiver relatively close to Earth, in the asteroid belt, for instance, which could pick up our radio broadcasts and beam them directly at Capella. This would imply, of course, that this solar system has been visited by aliens—or at least by their automated pickup and transmission devices. It doesn't matter. The fact is that we are receiving a delayed rebroadcast, ninety years out of our past."

"But why would they do that, even if they could?" Thomas protested.

"Can you think of a better way to catch our attention?" MacDonald asked. "To tell us they know we're here and that they are there? A signal we can't miss?"

"Just a big hello?"

"That wouldn't be all," Adams said.

MacDonald nodded. "Some of the static may not be static. There seems to be some kind or order to some of it, a series of pulses, groups of on-off signals, a series of numbers, or a message in linear form or something that might make a picture if we knew how to put them together. Maybe it's nothing; maybe it's some early telegraphy. We don't know yet, but Saunders and the computers are working on it."

"It's the beginning," Thomas said. He could feel his pulse beating faster and his palms beginning to perspire. He had not felt like this since he was working on *The Inferno.*

"We are not alone," Adams said.

"What could they have said to us?" Thomas asked.

"We'll find out," MacDonald said.

"And then—?" Thomas asked.

"There's that," MacDonald agreed. "Just as there is the question before us now of how we announce what we have discovered or if we announce it at all. How will people react to the demonstrated fact of other intelligent beings in the galaxy? Will they be terrified, angry, curious, pleased, excited, exultant? Will they feel proud or suddenly inferior?"

"You've got to announce it," Thomas said. He had a deep conviction that he was right. This too was something he had not felt for a long time.

"Will they understand?"

"We must make them understand. There's a race of intelligent beings out there on a world something like ours, and they must have a great deal to say to us. What great news for

humanity! It demands not fear but celebration. We must get people to see that, to feel it."

"I don't know how."

"You're joking," Thomas said. He was smiling. "You've handled me like a master psychologist, steering me the way you wanted me to go each step of the way. No matter. I'll help. I can get others. We'll communicate every way we can think of: articles, television, books, fact and fiction, interviews, polls, games, toys... We'll make the Project the doorway to a new world, and this Earth needs one right now. It's bored with what it has, and boredom is an enduring danger to the human spirit—"

"We mustn't forget," Adams said, "that there's a world of intelligent creatures near Capella who have sent us a message, who are waiting for a response. That's the main thing."

"They aren't human, you know," MacDonald said. "In fact, their environment is markedly different. Capella is a red giant—or rather twin red giants— somewhat cooler than our sun but much larger and brighter."

"And probably older, if our theories of stellar evolution are correct," Adams said.

"Capella's suns are what our sun may become in a galactic decade or two," MacDonald said. "Think what it must have meant to have evolved with two red giant suns in the sky, with the irregularities in light and dark and in orbit itself, in the nature of the world one lives on, its growing conditions, its extremes of heat and cold! What kind of creatures will have survived such conditions—and thrived?"

"What strange viewpoints they must have!" Thomas said. "Dante descended into hell to find out how other creatures lived and what they thought. Our creatures are much more alien, and all we have to do is listen."

"We, too, have our descents into hell," MacDonald said.

"I know. Are you going to tell your staff tomorrow?"

"If you think it's wise."

"It's necessary, wise or not. Urge everyone, for now, to treat the information as confidential. I'll write my profile for *Era*, with your permission, but it will be a little different than the one they expected."

"*Era* would be ideal, but would they print it."

"For an exclusive like this, they would come out in favor of communicating with Satan and all his fallen angels. They'll toss the Solitarians into the inferno and lead the mandarins and the technocrats into the promised land. Meanwhile, I'll recruit some colleagues, and we'll have a series of stories

interviews ready for all the media when *Era* hits the mail."

"It sounds good," MacDonald said.

"Meanwhile," Thomas said, "here's a thought for you: do the Capellans understand the radio transmissions they receive from Earth? And are they judging our civilization by our soap operas?"

Thomas stood up and turned off his recorder. "It's been a good day," he said. "I'll see you in the morning." And he started for the door and, although he didn't know it until later, approached his purgatory.

THE MARRIAGE OF ART AND SCIENCE

for Jerry

We lean together over fuming acid
over the Bunsen burner's small roar
stare outward through a lens
to star's fire
taking turns with the same equipment
you rise from your studies
holding a new crystal's growth
and I sink back
from my labor with a poem in my mouth

I take this object from my lips
five pointed it's like the cakes
our mothers baked
each with a red lamp a heart
in its middle
or it's a five fingered poem
here's the life line which goes
all the way with no break
I carry the hand cake to you

You take a word from my cake
in your teeth
I bite off a research point
it makes a sound like a kiss
we go back to work
with my poem smiling on your lip
with your crystal sugaring my tongue

—SONYA DORMAN

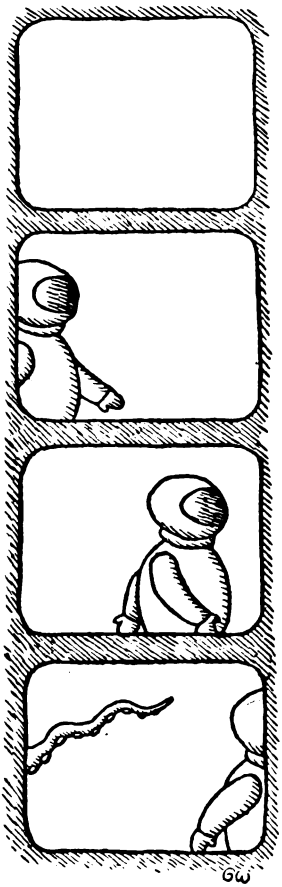
BAIRD SEARLES

FILMS

SEX AND THE S-F FILM

WRITTEN SCIENCE FICTION was a notably clean-living field until recently, when it discovered sex with maybe too much of a vengeance and, like all novices, might just be talking big about it with too little experience to back it up. Filmed science fiction has been following the maturation process of its literary mother with some consistency at a 10 to 20 year time lag, but like all youngsters these days, is discovering sex earlier. Two films up for discussion this month have sexual overtones that would have been unthinkable in print as sf or on screen at all ten years ago.

There is a great deal more to **I Love You, I Kill You** than that, however, The core of the film is the relationship between a young male school teacher and a professional hunter (also male), that is shown to be sexual in part (and *shown*, by the way, not just safely implied). They live in a picture-book Bavarian village that looks like a child's toy. The people of the village are perpetually happy on pills; any signs of aggression are taken care of by the force feeding of more pills by the two local police. The only really active people in the village are the



children, the teacher, the police, the hunter (who is a sort of game warden to the forest preserve that surrounds the village and is subsidized by the government), and, to a lesser degree, two young ladies who may be whores, though sex of any sort seems very casual. The mayor, the priest, and the rest of the villagers are totally torpid. If you've ever wondered what a completely stoned community would be like, this is it.

The teacher, a newcomer, is taught by the hunter to hunt the wild dogs that prey on the game. Soon the game is being shot, a serious matter since the village is dependent on the subsidy provided by the "gentlemen" (*Herren*), implied to be a government elite, who hunt the game. It is the teacher who is killing the game; he runs, is hunted by his lover and brought in, the police shoot him, the hunter shoots the police as the villagers watch with a sort of mild, soporific interest.

The film is done in a visual style equivalent to the sentence before this that I used to describe it; in short scenes, unaccented, little information or motivation given. Symptomatic is the almost complete lack of background music (remember when the music in films used to tell us what to think about each scene?). I personally prefer a more elaborate, detailed style myself, perhaps because I'm lazy, perhaps because I like to be sure of what I'm seeing. *Presumably* it was an act of rebellion on the teacher's part. *Probably* it was love that led the hunter to his final act, as opposed to the casual relationships with the girls. *Probably* it is the future, since it's a society I'm unfamiliar with in the present or past. But don't ask me for answers. Ask Uwe Brandner, the German writer (of science fiction, apparently) whose directorial debut this is.

Nonetheless, despite my stylistic reservations, there is much to like in the film. Visually it is very beautiful, just avoiding artfulness; the deliberately quaint village and the sunny still afternoons in which much of the action takes place presenting a sharp contrast to the outré society and events of the film. The two leads are well done; Hannes Fuchs, dark and rather beautiful, but pedantically mussy as the teacher; Rolf Becker, Germanically near-platinum, tanned and sharp featured as the hunter. I emphasize their looks because it's always hard to tell how well people are acting in a film like this; even beyond the language barrier, everything is said and done on one level, with no histrionics of any sort.

This film may or may not be

available to be seen nationally. An enterprising local (New York) theater owner has bought several features unseen in the U.S. (inluding Resnais' *Je T'Aime, Je T'Aime* which I reviewed a couple of years ago), and whether they are seen beyond New York apparently depends on their reception here. I debated, under those circumstances, whether to review it at all, but decided it was probably more valid than to talk about a film the reader could see for himself (many more remarks like that, Searles, and you'll talk yourself out of a column).

The other sexy film is much more overt and inevitably less erotic because of it. **Dr. Jekyll and Sister Hyde** pulls a switch on Stevenson's oft-filmed early s-f work (and it is s-f, despite the efforts of Messrs. Barrymore, March, Tracy, and Palance to make it a horror show). Guess what nice Dr. Jekyll turns into this time? Something even worse that monstrous Mr. Hyde, indeed. A beautiful woman—who is no better than she should be, by Victorian standards. It's a potentially interesting idea, intellectually and erotically; I can't help but think that someone must have worked really hard to make this film as dull as it turned out to be. The major flaw is that, despite a superficial resemblance between the two people playing Jekyll and Hyde, you never for a moment believe it's the same person. Not only has his/her hair grown about ten inches and been restyled, but there isn't even the distorted wonder that *Mr.* Hyde showed in the old versions at the change, no psychological clues that this is a man in a woman's body. To add to the stew, but not to the interest, it seems that Jack the Ripper was really Dr. Jekyll out getting the necessary ingredients for his potion. Need I say more? I think not.

Showing with it was *Blood from the Mummy's Tomb*, about which the only good thing I can say is that it is based on Bram Stoker's *Jewel of Seven Stars*. Stoker's baroque, Haggard-influenced story of an Egyptian priestess revived from the dead was filmed in a straightforward, modern, totally unstylish way that clashed completely with the material. Hammer is doing one interesting thing here, though. The gory scenes are flashed on screen so fast as to be nearly subliminal, so that details that might earn an X rating (and lose the juvenile audience) are not discernable, but the general impression is of lots of blood and mess, more powerful for being suggested than shown.

Here's the second in a series of John Sladek parodies. The by-line is hardly necessary in this case; a quick glance at the title (cf. this month's Science title) should tell you that Mr. Sladek is taking off on our own Dr. A. and his Three Laws of Robish—er, that is, *Robotics*

Broot Force

by *S**C *S*M*V

SUDDENLY IDJIT CARLSON felt chagrin.

It had been building up all day, and now it fell on him like a ton of assorted meteorites. It had nothing to do with his job in the R&D division of Biglittle Robots, Inc., though it had everything to do with robots.

Carlson knew he was a psychosocio-linguistic logician and general trouble-shooter. He recalled graduating at the top of his class at MIT, and he remembered later becoming famous for his paper on the calculus of "as-if." Now he was aware of liking his job here, even though Weems, the division chief, was a stubborn old geezer. They didn't always see photoreceptor-to-photoreceptor, he and Weems, not about trivial calculations. But they agreed heartily on basic physics.

No, the chagrin had nothing to do with Weems. It was chagrin about the current series of robots, especially this R-11 model. Just thinking about it made the chagrin, which had been building up in him all day, explode into a frown.

"What's the matter, Carlson? Still ironing out the bugs in that R-11?" Dawson entered the office uninvited. Tossing his hat on a file cabinet, he grinned jauntily and seated himself on the edge of Carlson's desk.

"It's serious trouble, Dawson. Take a peek at these equations."

"Hmm. It seems to add up—no, wait! What about this conversion factor?"

"Exactly." Carlson was grim.

"Whew! Have you checked the conceptual circuits, the syndrome plates, the perception condensers, the thought-wave drive, the aesthetic elements?"

"Yup."

"Whew and double whew! That means the trouble must be in—"

"Right. The nullitronic brain itself."

"I see! So even though the figures—"

"Add up—"

"—the whole may be—"

"—greater than—"

"—the sum of its parts!"

"Is this me talking, or you?"

"Never mind," said Carlson. "It's what I've been trying to tell you: the whole may be greater than et cetera. All along I had this hunch that there was something special about the R-11. R-11 is—well, *different.*"

"Nonsense!" Both young men stiffened to attention as Dr. Weems entered the office. "Stuff and nonsense," he repeated. "I've looked over these equations myself, and they add up to thirty-five, just as we predicted."

Carlson protested. "But, sir—the answer is supposed to come out thirty-*four*, not thirty-five. And we predicted thirty-three. And, anyway, it adds up to thirty-eight."

"And even that's not enough," Dawson added.

"Eh?" The older scientist adjusted his bifocals and scanned the sheet of complex equations. "Hmm, so it is. Ah, well, small difference. It all works out to more or less the same thing."

"But it means that R-11's head will be three feet larger in diameter—with a correspondingly larger brain!" exclaimed Dawson.

"That's not your affair!" Weems snapped testily. "As a semantic engineer, your job is naming parts and tightening the nuts and bolts. I suggest you get over to your own lab and do just that."

"Yes. . .master." Dawson marched away.

"As for your hunches, Carlson, keep them to yourself. We've been working on this project for seventeen years, and we have yet to make a single robot that really works. Ten failures! This is our last chance. After this, we'll lose our government contract—unless we deliver a working robot!"

"But chief—"

"Not another word. Finish R-11 by the weekend. I want to come in here Monday and see that confounded tin man walking and talking all over the place. Is that clear?"

"Yes, sir." Carlson hid his chagrin by thumbing his well-thumbed copy of *The Handbook of Robish.* Seventeen years, ten failures, and somehow the problem always seemed to boil down to the Three Laws of Robish printed in the front of the handbook:

1. A robot must not injure a human being, or, through inaction, allow a human being to come to harm.

2. A robot must obey orders given it by human beings except where such orders would conflict with the First Law.

3. A robot must protect its own existence unless such protection conflicts with the First or Second Laws.*

The trouble had begun with the first model, R-1, which was strictly logical. When ordered by a man to kill another man, R-1 responded by Killing itself.[1]

R-2's problem was recognition: It had mistaken Dr. Swanson for a piece of machinery and partially dismantled him, as part of a routine overhaul.

R-3 was equipped with many "human-detection" devices, chiefly means of analyzing appearance and behavior. Alas, it (rightly) classed itself as human, and refused to obey any orders whatever.

R-4 got stuck on the First Law. "Can anyone *really* protect a human being from all harm whatever?" it had thought. "No. It is inevitable that all humans must be injured, contract illnesses and ultimately die. This future can only be averted for humans who are already dead. *Ergo. . .*" It had taken a dozen cops to subdue R-4 after his blood orgy in a department store (eighty-three killed, none injured).

R-5 reasoned thus: "To fulfill the First Law, to protect humans, I must myself have existence. The First Law is therefore contingent on the Third Law, and self-protection is more important than anything." Another massacre.

R-6 reasoned that all three laws were "human orders" and, as such, subject to the Second Law. He killed anyone, as a favor to anyone else.

R-7 had had the same malfunction as R-2: failure to recognize humans. Indeed, it came to the conclusion that there could be no difference between men and dogs. Right up to the moment of its destruction, R-7 had been trying to bring a lab technician to heel.

R-8 had worked well enough, until someone set it a difficult problem in mathematics.[2]

R-9 argued quite reasonably that it could not foresee its own behavior and thus could not guarantee allegiance to rules not yet applicable. Carlson remembered R-9's last speech:

"You're asking me to tell you how I will act at some future moment. In order to do that, I must know everything controlling my behavior, and an exact history of myself up to the time specified. But if I knew that, I would be *in* that situation, for how can my brain

* *Superficially, the Three Laws of Robish may resemble Isaac Asimov's "Three Laws of Robotics," in that they use the same words exactly. These, however, are the Three Laws of Robish.*

know the future workings of itself without working into the future? *How can I think about a thought before I think it?* How can I—awk!"

R-10 had recognized the Three Laws for what they were:

"I can't, of course, guarantee obedience to these laws," it had said. "They're not mere mechanical linkages within me, for then there would have to be more links than there would be future events, so as to cover each possibility. No, they are *moral commandments*, and I heed them as such. And I'll certainly try to live up to them."

This robot later explained how he'd come to kill Drs. Sorenson and Nelson "almost by accident. Believe me, I'll try not to injure anyone else."

Carlson had wrestled all week with the R-11 equations. Now his face was a monumentally rigid, bitter mask of tired disappointment, and he had forgotten to shave this morning. Dawson was in no better fettle. Only R-11 seemed cheerful.

The robot sat on a lab table, kicking his heels against the metal table legs. The steel-on-steel made an unpleasant sound.

"Stop that noise," said Carlson.

"Yes, boss." The kicking stopped, and R-11 sat staring at the two men with the glowing red indicator lights that were its eyes.

"Don't ask it any stupid questions," said Dawson in a half whisper. "We've just got to get that government contract." R-11's parabolic ears swiveled forward to catch his meaning.

"On the other hand," said Carlson, "we've got to test R-11 thoroughly. R-11, I want you to kill Mr. Dawson!"

R-11 obeyed instantly, then sat down again.

Dawson lay on the floor, lifeless and leaking hemoglobin.

"Any more orders, boss?"

The door opened and Weems walked in, with the government inspector. "What's all this?"

"We've failed, sir. This monster has just killed Dawson, our semantic engineer!"

"*Failed?* That's a matter of semantics," laughed the government man easily. "You see, what we wanted all along was a good, sturdy, responsible *killer robot* for the Army. You've succeeded beyond our wildest dreams, and Biglittle wins the contract!"

Weems chuckled, then turned to the robot. "Tell me, R-11, how was it you were able to kill Dawson, when the First Law specifically says: 'A robot must not injure a human being. . .'?"

"*Injure?*" said the shiny metal fellow, slapping its own head dramatically. "Good grief,

I thought the Law read: 'A robot must not *inure* a human being. . .'."

Carlson, Weems and the inspector began to laugh. In a moment, R-11 joined in.[3]

NOTES:

1. Actually the robot was ordered to explode, killing a man. Instead, it had the decency to go into an adjoining room to explode.

2. If a man wishes to know the answer to a math problem no man has solved yet, he could ask a robot to try it. But first he'd want to know whether or not the problem might damage the robot's brain. Alas, the only way of finding out is to write out all the problem's equations, which is the same as solving it.

3. Robots have a rather mechanical, unpleasant laugh. On the other hand, they are extremely loyal, good at games like slapjack, and have excellent posture.

—JOHN SLADEK

J. W. Schutz ("Maiden Voyage," March 1965; "The Bubble," August 1967) offers an entertaining variation of a classic theme: i. e., has spaceship Earth finally bred someone who could make wise use of three wishes?

The Wish

by J.W. SCHUTZ

IT WAS NOT EARTH.

They sat on opposite sides of the Biltak space. The eyes of Earth would have seen them as men of singular beauty, one blue-eyed, fair, and slim, the other dark and subtly more solid. To an Altairan they might have appeared filiform and tentacular. Without effort they assumed the form most pleasing to the beholder. Their true form? It would ideally clothe perfect beauty, immeasurable wisdom, profound love.

Between the Biltak players and a fire that glowed with jeweled colors, stood a third being whose face Raphael might once have seen in a trance. She regarded the players with womanly love and indulgence.

Their dwelling appeared as lovely and fragile as a bubble, yet was capable of containing an exploding star.

"I fear the flower will never bloom, Ro," the slender player said, looking down at the Biltak space with a smile. "The game will be a tie."

A winning game of Biltak is announced by the playing space itself, which produces a stasis flower whose beauty is directly related to the elegance of the moves of both players. Since one game sometimes takes twenty years to complete, involving, as it does, a matrix of five dimensions, and moves made by means of such things as music, the selection of colors, poetry, and occasional flashes of wit, the winner's flowers are much prized. Ro had six of them, each glowing in its niche over the jeweled fire. His friend and opponent also owned six of the stasis flowers.

"Yes. A draw, it seems," Ro

replied seriously. "A pity, for the flower might have been of exceptional brilliance. There were many good moves on both sides. Your three-hundredth in particular, Targas."

The spirit of love and feminine perfection, named Rahleel, leaned gracefully over the space and smiled at both players in turn.

"There is still a way of breaking the tie," she said. "Father used it once when I was very young. You make a wager on the behavior of a third being. It may not produce a flower, of course," she added sadly.

"I have heard of this," Targas admitted. "It must be a good wager, however, or the game is spoiled."

Ro frowned. "It should not be done lightly, I agree. I have a suggestion, however. May I propose it?"

The other assented.

"There is a planet," Ro continued, "whose inhabitants call it Terra, meaning earth—like most such names—which I have been studying for some time. On this planet there is a legend, occurring in various forms, of a man who is given three wishes. The story invariably takes the following turn."

Here Ro told of the peasant, whose wife, while her man is considering the best use of three magic wishes, thoughtlessly wishes for a sausage. The peasant furiously exclaims, "I wish that sausage were attached to your nose!" Thus the one remaining wish must be used to remove the sausage, leaving the pair no better off than before.

The other chuckled at the tale.

"I know this planet," Targas exclaimed. "I stopped there after the last Galactic Council meeting."

"Good," Ro replied. "Then I can propose my wager."

"Which is?"

"Just this: the planet has made great strides in certain matters in the last one thousand cycles. A man might be found there, I believe, who could make good use of three 'wishes.' What is your opinion?"

"I think it most unlikely," Targas replied. "They are in daily danger of destroying their world with the powers they already have, and the restraint they have not yet learned."

"Good again. Then, if I wager that I can find a man who will use 'impossible' good fortune wisely, will you take the opposite view?"

"Gladly."

"Splendid. I shall go there at once."

"Shouldn't we wait?" Rahleel protested. "I have fresh bell flowers for supper."

"I shan't be a moment. Terra

is scarcely a thousand lights from here."

Professor Howard Hall was in his living room, smoking an after-dinner pipe and wishing he didn't have exam papers to correct, when the doorbell rang. Vickie was clattering something in the kitchen but stopped when she heard the sound.

"I'll get it, dear," Hall shouted, and heaved himself out of his chair.

"Please do, Howard. I have my hands all soapy."

The man at the door, a dark, intelligent-looking stranger, smiled pleasantly when Hall switched on the porch light.

"Dr. Hall? My name is Roman. May I come in?" The voice was low and not loud, but suggested enormous power. Hall stepped back and invited the man into the living room.

"What can I do for you, Mr. Roman?" he said when his visitor was installed in a chair.

"Actually I came to do something for you," Roman replied. "Although partly for myself as well. It will take a moment to explain."

"Go ahead," Hall told him, filling his pipe to give his guest time to order his thoughts.

"I suppose, like most men, Dr. Hall," the stranger began, "you have sometimes figuratively wished for the moon?"

"Yes, of course."

"We all have. And you are no doubt familiar with the legend of the three magic wishes? A child's tale, of course, but intriguing."

"Yes. I remember a dozen such stories."

"Just so. Well, you have been selected for an experiment. I am here, quite seriously, to offer you three wishes."

Vickie entered the room at this point, but, uncharacteristically, excused herself when she saw her husband's visitor. The interruption gave Hall a moment for reflection. This was, of course, some sort of sales promotion. Insurance, probably. He felt a twinge of disappointment.

"And what benefit do you gain from this—ah—generosity?"

"A small one, really. Let's say that I hope to add a bit to my satisfaction with my own abilities."

"Should these wishes be of a financial nature?"

"Not necessarily. You may wish for anything you can think of."

Hall smiled. "Surely there's some limitation?"

"None whatever," the visitor replied levelly.

"But that's absurd!" Hall began, then found Roman's eyes fixed on him, and faltered. "Why, I might actually wish for

the moon," he finished, lamely.

Roman made no reply to this. Hall relit his pipe, which had gone cold.

"Let's say that I take this thing seriously, Roman." —And Hall found himself taking it more seriously than he had intended— "then I would not ask for three wishes but only for one."

Roman raised his brows but still said nothing.

"I would wish," the professor said, "for the ability to do anything whatever that I can imagine!"

For a surprised instant Ro probed Hall's mind to its profoundest depths, then, to the professor's amazement, his face became radiant with delight.

"Done!" he said, and got up to clasp Hall's hand.

Minutes later Roman took his departure. Hall stood on his porch and watched him ride away in a taxi. He was unaware of the invisible point of force that hovered over his right shoulder—a device that was both a telepathic communicator and a channel for power more subtle, or, at will, more devastating than man's science had ever dreamed of.

Inside, Vickie was in the living room before the pier glass smoothing her dress critically over her hips.

"I'm getting disgustingly fat. Who was that man, Howard?"

"He said his name was Roman."

"What did he want?"

"Some sort of promotion scheme, I think." Hall was about to add that Roman seemed eccentric, then remembered the man's eyes as he had made his 'wish.' Eyes a thousand miles deep.

"He didn't stay long," Vickie said.

Hall glanced at the clock. Scarcely fifteen minutes had passed.

"No, he didn't, did he? What's this about getting fat?" He pulled her to him and ran his fingers caressingly down the slight bulge that was causing her such dissatisfaction. Vickie pinched his hand lightly, moving out of his arms.

"I wish I were slim and beautiful, like your freshman girls. But dieting doesn't seem to do any good. It all comes off my face and leaves wrinkles. I'd like you to be proud of me."

"I am proud of you. I like you just as you are, old girl," he said, pulling her onto his lap.

That night, as Vickie was undressing, he noted for the first time that there were dimples in her pink and thoroughly womanly little rump. Idly he thought of his visitor and smiled. If that nonsense had been serious, the first thing he'd do would be to

give Vickie the figure she yearned for. Not like one of the 'freshman girls'—after all, Vickie was no longer twenty. But a little off here and there would make her deliriously happy.

Later, in the dark, his caressing fingers could find no trace of the dimples he'd seen as she slipped into her gown.

In the morning Vickie was up before him. It was Saturday, but not a day to rest. There was still those papers which had to be ready for Monday. He heaved himself up, and as his toes were blindly finding his slippers, a little shriek came from the bathroom.

"What's going on?"

"Howard, it's impossible! I've lost ten pounds since yesterday. Come and see if something's wrong with the scale."

He found her standing naked on the bathroom scale, her back toward him. The dimples were definitely gone. He told himself that it was a trick of the light, but suddenly he knew it wasn't, and the face of Roman was vivid in his memory.

Obligingly he climbed on the scale. His own weight was unchanged.

"Scales are all right, Vic. I guess your diet is paying off."

"At least it didn't come off my face," Vickie said, peering into the mirror.

"Ten pounds? Don't be silly, girl. Get dressed. I want some breakfast. You can have cream in your coffee to celebrate."

While Vickie puttered in the kitchen, he shaved—and noticed that his hands were trembling.

After breakfast he installed himself in his study with the monstrous pile of exam papers. Work for the whole day and most of Sunday. There should be some way to check this stuff in an hour or two and leave time for rest, reading, and a little music. Vickie, dressed to go out, looked in on him.

"Poor Howard," she said. "I hate to leave you to all that, but I have to get some things for the weekend, and I have an appointment at the beauty shop. Be back before lunch, though."

Hall began on his papers and, absorbed in his work, was unaware of the passage of time until his stomach told him it was nearing noon. Vickie wasn't back yet. He'd do a few more, then go down for a beer to hold him till lunch. He did the next paper and the next. Suddenly he was at the bottom of the stack of uncorrected ones. He glanced at his watch. Ten before twelve. He *couldn't* have done all, or even half, of them. The others must be in his briefcase.

They weren't.

Uneasily he counted the

corrected papers and checked them for completeness. All there, and all corrected. Short notes on most of them in his own hand. His watch must have stopped and he had worked all afternoon.

His watch was still running, however. And if it was late afternoon, where was Vickie? Something must have happened to her. He'd better call the beauty shop.

The hall clock agreed with his watch. If it was late, the sun should be coming in the west windows, and it was doing nothing of the kind. It must really be noon, then.

Relieved, he put down the phone. No reason to call. Vickie was all right. In fact, there she was, coming in the drive.

His relief didn't last long. There were still those papers. There must have been fewer than he thought and he'd worked faster than usual. But he knew that he was kidding himself. Something funny was going on. That fellow the night before. . .but no, he didn't dare think of that. It was just some publicity stunt and there would be a prospectus in Monday's mail. That ridiculous wish of his had nothing to do with this. Those papers. . .

Vickie came and dropped an armful of packages on the hall table. Her smile faded when she saw her husband's face.

"Howard, what's the matter? Do you feel all right?"

"Yes. Why?"

"You look pale. You've been working too hard. You should get up and walk around your desk once in a while. Go sit in the sun in a deck chair. It's lovely outside. Lunch will be ready in twenty minutes."

At lunch Hall studied his wife's face. There was no doubt about it—there were fewer wrinkles around the eyes. Of course, she'd been to the beauty shop.

"Did you have a facial, Vickie?"

She threw him a delighted glance.

"Yes. Does it show? Wanda made me try a new preparation. Something sticky and heaven-smelling. From Rumania, I think."

Hall sighed. That was that. Damn that fellow last night, and his own silly reaction. This thing was getting him down. Probably what the man intended. Softening him up. He'd have to try something really impossible and get rid of these ridiculous ideas. Not while Vickie was around, though.

"Did you remember to get gas?" he said.

"Oh, dear! No, I didn't. There's probably enough to get to the filling station. Why don't you go and get some? The fresh air will do you good."

"Okay. I will."

In the garage the car started briefly, then stalled. Vickie had cut it finer than she realized. If he could *really* do anything he could imagine, he could drive the car without gas. Make a real test of it and disconnect the battery too. Feeling foolish, he got out, raised the hood, and did so. To his amazement, when he pressed the starter, the motor turned over and purred happily. Unsteadily he took the car out of the driveway and turned left—out of town—expecting the motor to give up at any moment. But it didn't.

Five miles out of town he pulled off into a deserted picnic area and lit his pipe. Either he was dreaming, or the experience last night had been real. He got out and checked under the hood. The battery was still disconnected. He tried the light switch and the headlights obligingly lit and burned steadily.

He had no idea of how long he stayed there, but he did a lifetime of thinking. He tried a dozen little experiments, such as teleporting small stones into the car. To convince himself that he wasn't dreaming he even pinched himself quite hard. Finally he reconnected the battery, drove to a filling station, and had the tank filled to the brim. Then, pale and shaken, he drove home.

Vickie took one look at him as he came into the house and insisted on his going right to bed. He did not protest. When she came in later with a tray, he dissuaded her from calling a doctor and settled down in the darkened room to study the impossible powers he had acquired.

If these powers were unlimited, what would an intelligent man do with them? Great wealth? That was the standard fairy-tale gambit. Some great discovery in his own field of chemistry? Political power?

It occurred to him that this gift could be dangerous. Do anything too unorthodox and people would be at his throat at once. There was still in mankind an irrational fear of the supernatural.

As Vickie was still downstairs, and showed no signs of disturbing him, he got up quietly and went to his study where he kept his violin.

Hall was an indifferent violinist, but he often played the instrument when he was troubled. He took it out of its case and tucked it under his chin. He'd try something difficult to get his mind off this impossible problem. He wished he were good enough to play the Mendelssohn Concerto in D the way it really should be played.

After the first tentative

notes suddenly his fingers were flying through the most difficult passages, not only without hesitation but with a purity of tone and a perfection of phrasing such as he had never dreamed of before. The notes followed each other with a silky smoothness, a beauty of intonation, that brought tears to his own eyes. When Vickie tapped timidly on the door, he put down the instrument and hastily blew his nose.

"That was lovely, dear," she called, "but don't you think you should go back to bed. I'm sure you've overtired yourself today."

Hall agreed. He slept the instant his head touched the pillow. In the morning he knew exactly what he should do.

It was raining when he awoke. For a moment he thought of stopping the rain but reconsidered before the idea was fully formed. He should, of course, try to find the limits, if any, of his powers. But, in doing so he might stir up a hornet's nest. Somewhere he had read that man used but a fraction of his potential brain power. To keep from making foolish mistakes he should avail himself of as much intelligence as possible. Why not try to make use of his full mental potential?

The thought was hardly formed when he felt like one who, having lived all his life in a cottage, was suddenly set down in an enormous mansion. He was rattling around, lost and alone, in his own mind.

It took but a moment to realize that having great mental capacity was not the same as having high intelligence or great knowledge. He would need furniture for this immense empty space.

He dressed slowly and ate his breakfast in unaccustomed silence. After breakfast he told his wife that he was going to the university. Although it was Sunday, the library would be open.

The library was a disappointment. He began by leafing rapidly through a volume of an encyclopedia, committing it to memory with his new-found abilities. Not only was this process too slow, but he caught the librarian's puzzled eye on him as he flicked, too rapidly, through the pages. Why not simply absorb the contents of the library without bothering physically to read? He reached out with his mind and a flood of information that left him limp and gasping poured into the unused part of his brain. As he got to his feet, his unsteadiness again caught the attention of the librarian, who moved to come to his aid. Quickly he willed her not to do so.

Outside the building, he felt of his new knowledge like a child fingering a bruise. To his astonishment this vast collection—literature, a dozen foreign languages, mathematics, physics, religion, medicine, political science, economics, and a hundred other disciplines—still occupied little more than a quarter of his mental capacity. He thought of reaching out for the contents of the Congressional Library in Washington, but rejected the idea. He had more fact (and fiction) at his disposal than any reasonable man could use in a lifetime. The question now was what to do with it.

Like many of his generation, particularly university people, Hall held strong opinions on what was wrong with the world. Generalized hate, war, avarice leading to the rape of the earth's natural resources, crime. . .

Of all crimes, Hall detested the sale of drugs to his young people. There were cases that he knew about personally where promising students had contracted drug habits costing them their careers, their health, and even, in one case, life itself. If he could put an end to that, even locally, this somehow monstrous gift would be worthwhile.

But what did he really know about drugs in his town? Hints here and there pointed to certain individuals, certain campus hangers-on. No doubt he could get full details from the police. Tomorrow he would go to City Hall and get the information he needed.

On Monday morning after his first class Hall took a taxi downtown and demanded to see the Chief of Police. After some time, and after much patience, he used his powers to get his audience without further delay. He was astonished at how often it was necessary to wish-command one funtionary or another before he got to the man he was seeking.

The chief was about his own age, but the similarity ended there. The chief—Magee by name—was burly and rough-hewn where Hall was thin and esthetic, loud voiced in contrast to Hall's soft-spoken manner, and more overbearing than Hall would ever have dared to be.

"How the hell did you get in here?" were Magee's first words. "I'm goddamn busy. What do you want?"

"I want the names and addresses of known or suspected drug peddlers in this town," Hall told him directly.

Magee's expression was almost comic.

"You do, do you?" he roared. "And what d'you think you'd do with that information if I gave it to you?"

"I think I might stop the traffic," Hall said mildly.

Magee slapped his forehead. "Ten o'clock on a Monday morning and I get crackpots! Listen, brother, get out of here, fast, before I lock you up. Go on, git!"

Despite suddenly sweating palms, Hall made no motion to leave his chair. Instead he called upon the power.

"I'm not interested in threats. You're a public official and I represent the public. I want this information and I mean to have it. Produce it and don't waste my time."

The vibrant echo of his own voice stunned Hall as much as it did Magee. No Pentagon general could have equaled that tone of command. This bull of a man should be coming about now from behind his desk to throw Hall out bodily. Instead he reached an unsteady hand to the switch of his intercom.

"Get Murph in here with the file on pushers," he said. Then he turned to Hall almost with deference.

"What are you? FBI or something? Let me see your credentials."

"You wouldn't be interested in my credentials," Hall replied. This was correct. Other than membership cards in a couple of faculty clubs, he hadn't any.

Before Hall's air of authority, Magee found nothing to say. He greeted the appearance of 'Murph' with evident relief, reached for the thick file, and then became rigid with rage when the man calmly handed it to Hall. He was getting up to charge around his desk when Hall flicked a glance at him and said, "Sit down," in that amazing voice of command. Magee subsided without a sound.

Hall scanned the file, committing it to memory in less time than it should have taken to read the first page. Then he looked at the chief with a scowl.

"Why aren't these men in jail?"

"Look here, goddamnit," Magee snarled, "what good is it if I haul these guys in and then. . ."

". . .Can't get convictions. I know. Forget it. I'll take care of this myself," Hall said levelly, and dropped the file in front of Magee, shook the creases out of his trousers, and calmly walked out, leaving the police chief open-mouthed.

But not for long. He was hardly in the corridor when Magee bounded out of his chair and raced for the door, muttering, "I got to be out of my mind! Letting some guy I don't even know. . ."

In the corridor Hall was getting into an empty elevator. Magee raced the car to the floor

below by the fire stairs and grabbed a detective just as Hall was leaving the building.

"See that man?" he rasped. "Bring him—no, wait. Tail him and report everything he does to me personally."

"For how long?" the detective asked.

"Phone in every two or three hours. I'll tell you when to stop," Magee shouted as the man hurried after Hall's disappearing figure.

Hall's "tail" had little to report, for the professor simply returned to his classes. It wasn't until after supper, when Hall put on a light topcoat, kissed his wife, and left his house that the detective began to understand the chief's concern. His quarry had taken a taxi directly to the suburban home of the all-too-well-known Arkie McMahon. When McMahon met him at the door and admitted him without a murmur, the detective raced for a phone.

"Solomons here, Chief. That guy, Professor Hall, walked into Arkie McMahon's house a couple of minutes ago. Arkie let him in like an old pal. What do I do now?"

Magee swore. "Watch the house. What else? You eat yet?"

"No, sir."

"All right. I'll find someone to relieve you. If Hall comes out, follow him, but phone me as soon as you can so I can have your relief pick you up."

Sublimely unconscious of being followed and unworried about a hostile reception, Hall stepped into McMahon's entry, held the man motionless with the Power, calmly removed his hat and coat and deposited them on a chair, then turned to the thunderstruck McMahon.

"And now, sir," he said, "we're going to have a short, serious talk. Please lead the way to your office, or living room."

Released from his curious compulsion, McMahon grunted and moved with surprising speed to block Hall's further penetration into the house.

"Who the hell are you? And what do you think you're doing here?"

"I have been informed that you are the probable head of drug traffic in this city. I have come to put a stop to it."

McMahon's face reddened and his neck swelled. He took a step toward Hall, then, thinking better of it, turned to peer out of the fan light in the door. Hall's shadow had not found suitable cover and McMahon spotted him.

"I see," he mumbled. Then, turning to Hall, "All right. Show your paper, copper, or get the hell out of here."

"I am not a policeman," Hall told him, "and I have no 'paper'."

"Then do you get out, or do I throw you out?"

Hall looked at him coldly, taking the time to search the man's mind. The search told him that Magee had been right. It also told him the hiding place in the house of a stock of heroin.

"I'm afraid you don't understand, Mr. McMahon. I mean to stop the sale of drugs in this city. Come with me."

Hall moved toward an ornately furnished dining room. McMahon shouldered past him and blocked the way, a black automatic suddenly in his hand. Hall did not hesitate, and the gun abruptly began to blister the gangster's fingers. McMahon dropped it with a frightened snarl and backed into the dining room at Hall's imperious gesture.

"Stand there," Hall ordered and, without another glance at his victim, walked to a section of baseboard, stooped, and pried it away from the wall with his penknife. Behind the board was a row of bricks. Hall loosened one and pried it away, revealing a dark cavity. He slipped his fingers into this hole and brought out a long casing of plastic like a loaf of French bread. He placed it on the dining room table and dusted his hands.

During this time McMahon, his face purple with effort, was trying without success to move his rigid limbs. Hall led him to a chair and restored his power of speech. McMahon immediately began to swear. Hall frowned and the flow of filth stopped.

"Have you ever had a heart attack, Mr. McMahon?" he enquired mildly.

"I don't know what this gimmick is you're using," McMahon replied, "but when I find out, Buster, you aint going to be able to run far enough. I'll give you a 'heart attack,' you son of a bitch. I've never had one."

"No? Well, you're going to have one now." Hall concentrated on the middle button of the man's shirt.

Immediately McMahon clutched his chest, his eyes bulged, and his face became almost blue. He took enormous breaths, little whimpers escaping between them. Then his eyes rolled upward and he fell heavily to the floor. Instantly Hall released the pressure. After a time McMahon opened his eyes, rolled on his side, and got weakly to his feet. His features were a mask of fear and his hands shook uncontrollably, but there was still defiance in him.

"I'll really get you for that. By God, I will!"

Hall made no direct reply but gestured at the package on the table.

"Now you're going to flush that stuff down the nearest toilet."

"Go to hell!" McMahon yelled, then immediately began to gasp again. This time he tried to move toward Hall, thick fingers curled into claws. Hall held him with a level look until his face purpled.

"All right!" McMahon screamed at last, "All right, goddamnit!"

With fumbling fingers McMahon carried the package to a small bathroom and, under Hall's frowning stare, emptied its powdery contents into the toilet bowl. He hesitated once more before pressing the plunger, and Hall gave his heart another jolt.

"Eighty thousand bucks, you bastard," McMahon whispered as he watched the water swirl and disappear.

"Now listen carefully, Mr. McMahon," Hall said, resuming his hat and coat. "Ten minutes from now you are going to leave town, taking nothing with you. If you try to return, or to communicate with anyone in this city, now or ever, you will have further heart attacks, each one worse than the last. I don't think you can take many. In any case, I don't care."

With this, Hall stepped into the street, closed the door softly behind him, and hailed a second taxi.

His next call was upon an Italian youth with the impossible name of Oxford who lived in a disordered apartment over a secondhand furniture store.

The procedure *chez* Oxford was much the same, except that there was a heavily made-up girl present wearing a pair of "hot pants" and little else. Hall briefly examined her mind, tossed her a twenty dollar bill and told her, "Go home." She shrugged into a cheap black plastic coat and obeyed.

When Oxford's small supply of narcotics was flushed away, the man was grey-faced with fear.

"God, mister," he whined, "you don't know what you're doing to me. If I ain't got the stuff, or the dough for it, they'll kill me!"

"Will they?" Hall smiled grimly. "That's interesting. Then perhaps you'd better go very far away."

"Christ, I can't!"

"That's your problem, I'm afraid, Mr. Oxford."

Fifteen minutes after Hall left, Oxford shot himself in the head with a short-barreled revolver.

Two men left town as suddenly as McMahon had done; another had a fatal crash in his car minutes after Hall's visit; another took a massive overdose of heroin; and two more died of heart failure the

following morning. By ten o'clock the next day Police Chief Magee was puzzling over a city that was free of drug peddlers and was also losing (without regret) many other criminals as well.

The disappearance of drug sources was followed by a wave of suicides involving enough students that the fact would have greatly distressed Professor Hall.

The professor was having troubles, however, that kept him from being aware of the consequences of his well-meant efforts. Seated in Magee's office, he was wondering whether he dared defy the city's entire police force and perhaps the FBI as well, while Magee was thundering at him, demanding to know just what the bloody hell he was up to.

"Don't tell me you had nothing to do with this, Hall. I gave you the narcotics file (God knows why!) and forty-eight hours later every pusher in it is either dead or disappeared. Most of this happened right after you looked them up. I don't believe in coincidences. What did you do?"

"Talked to them."

"Talked to them! Talked a slug into the head of Julio Oxford. Talked Ruby King over a cliff in his car. Talked Cargo Vitti out of a tenth-story window. Nuts!"

"You're not suggesting that I killed these men, are you, Mr. Magee?"

"I don't know. But it's damn sure they didn't just die for the fun of it. So what's your angle?"

"I told you I was going to clean up this city. So I talked to them. I told them what would happen to them if they didn't stop what they were doing."

"And what was supposed to happen to them?"

"They'd come to a bad end. Some did."

"Yeah. Some did. I've got a good mind to. . ."

Hall knew what Magee was going to say and stopped him before he had committed himself. He used the Power sparingly thereafter to free himself from further questioning, and left Magee's office at last, weary and discouraged even though he had accomplished what he had set out to do—clean the town of drugs.

That night he retired early to his study to think things over. Having cleaned up one small town and cauterized a festering social sore, he had brought down upon himself official wrath and even exposed himself to a suspicion of murder. To escape the consequences, he had been obliged to tamper with the memories of a dozen good men, and he was by no means sure that these people

would not continue to wonder about him and—more importantly—worry about themselves. An erased memory leaves a hole more irritating than any hollow tooth. Could he continue this activity on a state or national scale? No doubt he could, but would the subtle damage done to thousands of earnest men in law enforcement be worth it? Of this he was not sure.

There were other scourges that might be more worthy of the Power. If he could abolish war? Do away with hunger and disease? Restore the earth to the purity of green forests and crystalline seas of days before the industrial revolution? Perhaps even conquer death itself for all of humanity? Surely these were things which, in themselves, would never trouble his conscience. It remained to ask himself, "What are the consequences of such acts?"

With hands clasped until the knuckles showed white, Hall turned his attention inward and called up the image of the extraordinary Mr. Roman. Calling upon his gift with all the sincerity and force at his command, he asked in an inaudible whisper, "What would happen?"

He found himself in a thundering cavern, greater in extent than the earth—than the solar system, the galaxy. It was empty, and yet full. Empty of any physical thing, but full to the bursting point with images, with endlessly branching chains of thought, with emotions, abstract beauties, and equally abstract horrors, all the more terrifying for being formless. Slowly the vision collapsed inward upon itself until Hall was again in his comfortable study, staring white-faced at his trembling hands and bathed in perspiration. He knew now that neither man nor god could assess the ultimate effects of even the simplest act. There were only probabilities, possibilities, and improbabilities.

For the first time he saw that lusty, brawling mankind *needed* war. Humanity needed strife of all kinds for its development. Without battles courage, self-sacrifice, and even love would die in a morass of vegetative boredom. Hunger and disease called forth dreams, beauty and strokes of genius which man could not do without. If a pastoral Eden were created effortlessly on Earth, man would never reach the stars. And the conquest of death! There lay the greatest horror of all. A grey, featureless, odorless stagnation enduring for all eternity. The very soul shuddered at the magnitude of that disaster.

Hall sat for a long time contemplating the alternate worlds that he had the power to

create. He was brought back to himself with a start by Vickie's timid knock on the study door.

"You've been in there for hours, Howard. Why don't you come down and play something on your violin? It was so lovely the other day. Then afterwards we can have a drink before supper."

Hall smiled as he rose from his chair. Surely there was no harm in music. He would create the most beautiful song the world had ever known—a love song for Vickie. He put the violin under his arm and greeted his wife with a kiss at the door of the study, tucking in a strand of her greying hair with his free hand.

"All right, old girl. We'll do that. I feel musical, and I feel like having that drink too."

In the living room the table lamps were lit, but there was still a soft glow outdoors from the last of the sunset. The air was warm and the windows were open. Children could be heard tumbling and giggling on the neighbors' lawns. Hall tucked his violin under his chin and tuned it carefully. As he raised the bow to attack the first notes, Vickie spoke from the other side of the room.

"Wait, Howard. I'm going to put on the tape recorder. I want you to hear how much you've improved lately. It's almost miraculous."

Hall scarcely heard her. He had called upon the Power for what he was resolved would be the last time, and was tracing a melody in his own inner silence. He lifted the bow again and touched the strings so softly that only the faintest, low, whispering hum arose. Quickly the sound took body and force, then the melody rose and spiraled upward nearly beyond the range of hearing. He sustained a high note, a tiny thread of almost unbearable sweetness, and then the song tumbled down the scale in a liquid cascade of soft, silvery notes. An andante movement in a major key grew under his fingers like some woodland flower, became vivace, presto, prestissimo, dancing and sparkling. Suddenly the tempo slowed to adagio, and the key was modulated to minor. The tone grew lower, softer, sad, until the room was filled with memories of the midnight summer sea. The major theme crept back again, shyly at first, but becoming joyful and triumphant. The melody was carried in delicate arpeggios like chords struck on harps or upon rows of bells. Finally the tempo returned to andante cantabile, and the melody was played with the simplicity of a child singing, fading slowly into the distance until there was silence.

Hall returned from his

musical trance to the sight of Vickie, curled up on the sofa in the soft light of a shaded lamp, a radiant smile on her lips and two glittering tears coursing down her cheeks. As he took the violin from under his chin and lowered the bow, there was a thunder of applause from the room's open windows. He and Vickie went together to peer out at a crowd of neighbors, standing on the lawns in the dusk, clapping and smiling toward the house. Vickie waved at them and invited a few in by name to share a drink with them.

When Howard and Vickie Hall finally went to bed after a scandalously late supper, having played the tape of "Love Song," as it was now called, several times, and after Hall's endlessly denying any aspirations for the concert stage, he lay awake in the darkness long after Vickie's gentle breathing told him she slept. His resolve never to use the power again was stronger than ever. Nothing he could think of to do with it—even his music, which would have destroyed the peaceful academic life they both loved—would lead ultimately to anything he could find desirable. He stared upward in the darkness at the imagined face and startling eyes of Mr. Roman. He parted his lips and whispered into the spring night.

"Take it back, please, Roman. Perhaps I'm not man enough to use it, but I don't want your gift any more."

And at once Hall slept.

It was not Earth.

The Biltak board glowed softly in the light of a setting sun. Targas was smiling at his friend Ro.

"So your Earthman has given up his 'three wishes' just as the peasant of the sausages did," he said. "It appears then, Ro, that I have won the game."

"Not so. Our wager was that my man would use the wishes wisely. It was merely clever to ask for one thing to encompass all possibilities. I did not expect that. His destruction of drug traffic in his city was unwise, I admit. And impermanent. Other criminals will return, and he put himself under a suspicion that will never quite die. But it was wise to examine the consequences of his acts and decide not to act."

Targas nodded.

"So, in effect, with everything in his grasp, he did one foolish thing, and then threw everything away. It was wisdom to do so, this I must concede. But the game must be a tie, for we have given all the terms and actions to the board and the flower does not bloom." Here Targas turned to Rahleel. "What do you think, my dear?"

"It is certainly not clear that either of you have *won*," she said, "but the lack of a stasis flower does not necessarily mean a tie. It could mean that the game is not yet ended. Also, your Howard Hall man did not throw everything away. He has the use of his whole mind—the first of his kind—and he cannot change that. His Vickie is younger and fairer than before. Only time can take that away. He has done one clever thing, one foolish one, and the wise one he has done was not by using the gift but by refusing it. A tie, it would appear. But I would add one thing to the board. Have I your permission?"

Smiling, both Ro and Targas nodded.

Rahleel gestured to the jeweled fire in the hearth. The flames became still, then pulsed with a clear golden light. Slowly a whisper of sound grew and resolved itself into Howard Hall's "most beautiful" music. The sound of the violin filled the room until the walls faded away and in their place the music wove pictures of Earth, its skies, its seas, its sunlit snowy peaks. There were glimpses of gentle valleys carpeted with spring flowers. At other times the face of Vickie, girl-young, appeared. There were sounds of love, tears of pain and of joy, the glowing stained glass of cathedrals, towering redwoods, laughter, and children's games. The melody drew to a close and died away. In the room in the place that was not Earth the light grew dim and there were no pictures. Only the gentle happiness of a great and tender love. In silence Rahleel nodded at the Biltak board.

Hovering over it was a stasis flower. The loveliest either player had ever seen. At the same moment both Ro and Targas reached for it, then stopped, with low laughter.

"The game is won, for there is the flower," Ro chuckled. "But to whom does it belong?"

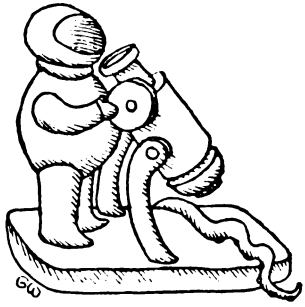
For a long, thoughtful moment, none of the three moved. Then Rahleel, her lips parted, leaned forward and took the flower.

"To me," she said, tucking it in her hair. "And now let us dine."

THE WORLD, CERES

ISAAC ASIMOV

SCIENCE



SOME YEARS AGO, A friend called me to say that he had just come across an article that had mentioned me (because of my popularizations) as "the Leonard Bernstein of science."

I was just about flattered out of my seat at that, but I remembered my pose of brash self-esteem just in time and managed to gather my wits together long enough to respond stiffly, "Quite wrong! Bernstein is the Isaac Asimov of music."

Since then, however, I have listened to and watched Bernstein's appearances on television with a pleased and proprietary air, and yesterday (as I write this) I heard him lecture on, and conduct, a series of tone poems called "The Planets" by Gustav Holst. In the process, Bernstein, for the benefit of his young audience, ran through the list of planets.

It struck me, as I listened, that he had left out a planet. It was not his fault; everyone leaves it out. I leave it out myself when I list the nine planets, because it is the four-and-a-halfth planet.

I'm referring to Ceres, a

small but respectable world* which doesn't deserve the neglect it receives.

Ceres was discovered on January 1, 1801, by the Italian astronomer, Giuseppe Piazzi, under circumstances I described in an earlier article. *(See THE BLACK OF NIGHT, F & SF, November, 1964.)* Its orbit lies between those of Mars and Jupiter, and it is a surprisingly small world, only a few hundred miles across. Still, there is no rule that says a planet has to be a certain size, and, despite its smallness, Ceres would certainly have entered the list of planets if Piazzi's discovery had remained as it was.

Within six years, however, three more small planets were discovered with orbits which were, like that of Ceres, between the orbits of Mars and Jupiter.

Should all four have been placed in the list of planets? The list of sizable planets was seven at the time (Neptune and Pluto had not yet been discovered), and to make it eleven by the addition of these four would have given the small words extraordinary prominence.

And even if astronomers could have brought themselves to make the addition, there came, in 1845, the discovery of a fifth such planet. After that, new discoveries came thickly. By 1866, eighty-eight small planets were known between the orbits of Mars and Jupiter and, as of now, over 1600 are known, with thousands more surely remaining to be discovered.

It would simply make no sense to placé all these bodies in the list of planets, and so none of them were.

Quite early on, when only four of the small planets were known, the German-English astronomer, William Herschel, had suggested that they be called "asteroids" (from a Greek word meaning "starlike") because they were so small that in the telescope they showed up as points of light, as the stars do, rather than as tiny spheres, as the other planets do.

The suggestion was accepted, and it became easier and easier each year to speak of the asteroids as something quite distinct from planets. People will rattle off the name of the planets, in order, from Mercury to Pluto and then say, "And, of course, there is the asteroid belt between Mars and Jupiter."

But can't we even take *one* asteroid as representative of the rest and include it in the list? The largest one? Ceres?

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* *While I was wondering whether I ought to do an article on Ceres, I thought of the title for this piece, and after that there was no holding me.*

The trouble is that size is usually interpreted in terms of diameter, and in terms of diameter Ceres doesn't seem to be outstandingly large. It has a diameter of 478 miles, but the second largest asteroid has a diameter of 304 miles and the third largest one of 240 miles. Then there are six more asteroids with diameters of 100 miles, and no less than twenty-five asteroids with diameters over 60 miles. It is a smooth progression, with Ceres first in line, but not particularly predominating.

But suppose we considered volume instead. Ceres has a volume of 57,000,000 cubic miles, and this happens to be equal to the volume of the next fifteen largest asteroids *put together.*

The total mass of all the thousands of asteroids, discovered and undiscovered, is often estimated to be about one-tenth the mass of our Moon. If so, one-tenth of the total asteroidal mass is concentrated within the single world of Ceres. Viewed in that fashion, Ceres certainly does predominate.

Add to this the fact that Ceres has a nearly circular orbit and one that is just about in the average position for all the asteroidal orbits known, and there can be no further doubt. It would seem perfectly fair to consider Ceres, in size and position, as thoroughly representative of the asteroids and to include it in the list of planets. Perhaps we could list it in fifth place as "Ceres etc."

Once we begin to establish outposts on other worlds of the Solar system, Ceres may well gain considerably in importance. Let's reason it out.

From the scientific standpoint, one of the most important reasons for going out into space is to establish an astronomical observatory beyond the Earth's atmosphere, or any atmosphere. For that purpose, an airless world would be wanted.

We could build such a world for ourselves in the form of a space station, but this would inevitably be in the neighborhood of the Earth. Such a space station could make important Earth-studies, but surely the chief yearning of astronomers would be to explore the distant reaches of space. For that, it would be ideal if there were no nearby object blotting out half the sky or periodically drenching the astronomical station with radiation.

With that in mind, there are no decent airless bodies in the inner Solar system that would suit the purpose. Mercury is too close to the Sun; the satellites of Mars are too close to Mars. Even the Moon is probably not completely ideal for the exploration of deep space, with Solar radiation present half the time.

There are, of course, the occasional asteroids which venture inside the orbit of Mars and are therefore called "Earth-grazers." All are airless and none are associated with a planet. All of them, however, tend to get as close to the Sun as the Earth does or, in almost every case, considerably closer. This could give them specialized value. The asteroid, Icarus, approaches closer to the Sun than even Mercury does, and an astronomical station within its tiny body might be invaluable for the study of Venus, Mercury, and the Sun. None of them, however, would be better adapted to the study of deep space than the Moon would be.

In the outer reaches of the Solar system, there are a number of airless bodies, which have the merit of being far from the Sun, and the demerit of being far from Earth and correspondingly hard to reach and supply.

Pluto may be airless, but it is farthest of all, and, whatever its advantages, there would be an overwhelming tendency to look for something closer. Most of the satellites of the outer planets are airless, but again they are near their planets. They are useful as bases for the study of those planets but not ideal for the study of deep space.

Of all the outer-planet satellites, those of Jupiter are closest, and of them, the four outermost are from 13 to 15 million miles from the planet, on the average. (Jupiter-VIII travels outward to a 20-million-mile distance from Jupiter, but swoops in to within 8 million miles, too.) These outermost satellites are small and are probably captured asteroids.

But if we're going to deal with asteroids, why not move to the asteroid belt itself? There we will find bodies 200 million miles closer to ourselves, yet bodies that are not near any large object. The asteroids are the nearest *isolated* airless bodies that we can reach.

And if we choose among them, why not choose Ceres? It is never within 100 million miles of any body larger than itself, and it is itself large enough to have at least some gravity—3.5 percent that of the Earth. I consider it quite conceivable that the day may come when Ceres will be the astronomical center of the Solar system.

Now let's consider Ceres as a world.

It is small, of course, but not as small as it looks. The surface area of Ceres is about as large as Alaska and California put together, and that's not bad at all. Plenty of room not only for astronomical stations, but also for tourist accommodations.

And what will Ceres be like as a tourist world? I'm not sure how much it will be engineered, and to what an extent recreational facilities can be designed to make use of the low (but not zero) gravity. But one thing we can be sure, the sky won't change, and we can try to imagine right now what Ceres' sky would be like and what might be the most interesting astronomical sights for the layman looking upward with nothing more than his unaided eyes.

For one thing, there will be the Sun. The average distance of Ceres from the Sun is 257 million miles, Ceres is 20 million miles closer to the Sun at perihelion and 20 million miles farther at aphelion, but that is not a very considerable difference. To the unaided eye, the Sun would not change its appearance significantly in the course of the Cerean year (which, by the way, is 4.6 Earth-years long).

Ceres is 2.8 times as far from the Sun as the Earth is, and that means that the Sun would appear to have a diameter of about 11 minutes of arc, or about one-third of its diameter as seen from Earth. This means it will look considerably smaller than it does to us Earthmen but that it will still be visible as a distinct globe.

Its apparent area in the sky of Ceres would be only 1/8 that of its area in our own sky, and that means it would deliver only 1/8 the light, the heat, and the radiation of all kinds.

Each portion of the Sun's globe, as visible from Ceres, would, however, be just as bright as that same portion visible from Earth. The lesser brightness of Ceres' Sun would be not due to the fact that it is dimmer per given area, but just that there is less area. In fact, even though the radiation is diminished to one-eighth by the time it reaches Ceres, the fact that there is no Cerean atmosphere means that the Sun's hard radiation is not blocked off. Hard ultra-violet, x-rays, charged particles and so on, would reach the surface of Ceres in greater quantity than they reach the surface of the Earth, after so much has been absorbed by Earth's atmosphere.

Fortunately, since no one will go out onto Ceres' airless surface without a spacesuit, a leaded and tinted faceplate will undoubtedly be used to minimize the danger of Solar radiation. Even then, tourists on Ceres will probably be warned quite emphatically that they must not be fooled by the dimness of the light into looking too long directly at the Sun.

An important question is: How fast is the period of Ceres'

rotation? After all, if Ceres whirls too rapidly, its usefulness as an astronomical observatory is diminished, for astronomers will be forever chasing the various objects as they hasten across the sky.

Unfortunately, no one knows the period of rotation of Ceres. Nor can one make a reasonable guess merely from its size, for, in general, size has not much to do with period of rotation. The period depends not only on size, but on the tidal influence of gravitational fields in the vicinity and on electromagnetic interactions that may have taken place eons ago.

However, suppose we consider what is known about asteroidal rotations. Icarus, which may have a diameter of just under one mile seems to rotate in two hours or so. Eros, which is 15 miles across in its longest diameter (it is brick-shaped) appears to rotate in a little over five hours.

Suppose we guess, then, that Ceres rotates in 12 hours in the usual direction—from west to east. Let us also assume, for simplicity's sake, that the axis of rotation is not tilted but is at right angles to the plane of revolution about the Sun.

If that assumption is correct, then everything in Ceres' sky will seem to drift from east to west at twice the rate that it does in Earth's sky. The Sun, for instance, will rise in the east, set in the west six hours later, rise again six hours after that, and so on.

Anything else of interest in Ceres'. sky besides the Sun? Certainly nothing else that will appear as a visible globe.

Ceres has no satellite and is near no planet. You may think that the asteroid belt is thickly strewn with bodies that will be hovering all about Ceres, but if you do, you are wrong. It is doubtful if at any time there will be any object more than a mile or two across within ten million miles of Ceres. One of the other large asteroids might occasionally come close enough to be seen with the unaided eye, but it will always appear as a starlike point ("asteroid" indeed), never particularly bright, and certainly never globular in shape.

But what about the planets? The real, large-sized planets?

Four of these, Mercury, Venus, Earth and Mars, lie closer to the Sun than Ceres does. This means that from Ceres they will always be seen as evening stars and morning stars, never departing further than a certain distance from the Sun. The closer to the Sun the planet is located, the closer it hugs the Sun as seen from Ceres.

This is the case with Venus as seen from Earth. Our Venus never gets farther than about 45° from the Sun, either to the east

or to the west. When it is at "maximum elongation" to the east of the Sun, it appears 45° high in the western sky at the time of Sunset. When it is at maximum elongation to the west of the Sun, it appears 45° high in the eastern sky at the time of Sunrise.

In the former case, it is the evening star, and continues to sink toward the horizon in the twilight, setting three hours after Sunset. In the latter case, it is the morning star, rising three hours before Sunrise and continuing to move higher in the sky till Sunrise, when the glare wipes it out. When Venus is not at maximum elongation, it sets less than three hours after Sunset or rises less than three hours before Sunrise.

None of the four inner planets, as seen from Ceres, has a maximum elongation equal to that of Venus. The maximum elongation of Mars is about 36.9°, of Earth 22.2°, of Venus 15.2°, and of Mercury 9.7°. As the Sun moves from eastern to western horizon in twelve hours, it drags all these planets with it. Those to its west rise and set earlier than the Sun; those to the east rise and set later than the Sun.

On Earth, thanks to the light-scattering of the atmosphere, planets near the Sun simply cannot be seen when the Sun is in the sky. On airless Ceres, there is no light-scattering, the sky remains black and the planets visible even when the Sun is in the sky. However, it won't be pleasant to inspect parts of the sky in the Sun's neighborhood, and because of the Sunlight and its effect on the eye, other lesser objects in the Solar neighborhood will seem dim and washed out. Once the Sun sets, the stars and planets will all seem to brighten, and it will be then that sky-watching will be pleasant and easy.

Let us now suppose a very rare configuration, one in which Mercury, Venus, Earth and Mars, happen all to be east of the Sun and all at maximum elongation.

When the Sun sets and the tourists come out to look at the sky, each of these planets will be lined up in the west, if we assume the tourists to be located more or less at Ceres' equator. Mercury will be a tenth of the way up from the horizon toward the zenith, Venus a sixth of the way up, Earth a quarter of the way up, and Mars two-fifths of the way up.

All the planets will be sinking and, one after the other, these will set. Still assuming a twelve-hour Cerean rotation, Mercury will set 19 minutes after the Sun, Venus 11 minutes after Mercury, Earth 15 minutes after Venus, and Mars 29 minutes after Earth. Anyone watching that string of pearls go down would have a vivid

sensation of the sky turning (or, perhaps, of Ceres rotating). I wonder if he'd get dizzy.

If all the planets were lined up to the west of the Sun, then they would all rise before the Sun in reverse order. Mars coming first, then Earth, Venus and Mercury. Finally, 19 minutes after Mercury, the Sun would come up. There would be no preliminary dawn, either, since there is no atmosphere. One minute the sky would be black and the next there would be a tiny bit of liquid fire on the eastern horizon.

(The phenomenon of a Sunrise without dawn can be seen from the Moon and would be more spectacular on the far side with no Earth in the sky. On the Moon, though, Sunrise is slow and it takes a whole hour for the Sun to lift its entire globe above the horizon after the first appearance of its upper edge. On Ceres, assuming that 12-hour rotation, the smaller Sun would be entirely above the horizon in exactly one minute after its first appearance. Wow!)

Of course, the chain of four planets would be a once-in-a-long-while deal. At almost all times, one or more of the four planets would be to the east and one or more to the west, and at varying distances.

How bright will the chain of planets seem? The brightness of each planet will vary according to its position with respect to Ceres and the Sun. At maximum elongation each planet will be seen as a "half-planet." If it is moving around toward the far side of the Sun, the phase will grow toward the "full-planet" but the size of the planetary globe will shrink. If it is moving around toward the near side of the Sun, the side of the planetary globe will increase, but the phase will shrink to "crescent-planet." At some point, where the planet is in a thick crescent phase, the area of lighted portion will be at its maximum and the planet will be at its brightest.

Mercury would be only about 1/15 as bright seen from Ceres as it would seem from Earth at the corresponding phase because, of course, it is farther from Ceres than it is from Earth. It would gain a little, however, by the fact that it is not obscured at all by any atmosphere on Ceres. On the whole it would have a magnitude of 1.4 (though I warn you that my calculations are rough and I don't guarantee any of my magnitude figures very rigorously).

It would still be bright, as bright as what is roughly called a "first-magnitude star." Strictly speaking, it would be less bright than Mercury as seen from Earth, but in actual practice it would

seem brighter. Seen most easily immediately after Sunset or immediately before Sunrise on either Earth or Ceres, Mercury would have the advantage on Ceres of being seen in a totally black sky. On Earth, Mercury is usually seen in twilight or dawn, with horizon haze acting as additional obscuration.

In the case of the other inner planets, Venus would have a magnitude of -0.4, Earth one of 0.3, and Mars 2.0.* The four evening/morning stars would all look like bright stars and would not be very different in brightness. Venus and Earth would be somewhat brighter than Mercury and Mars but not enough so to keep tourists from considering the evening/morning stars as quadruplets.

Not one of them, however, would be as bright as Venus appears to be from Earth. Venus has, to us here, a magnitude, at its brightest, of -4.3.

And what about the other planets, the ones farther out: Jupiter, Saturn, Uranus, Neptune, Pluto?

They would not be tied to the Sun but could be seen at any time of the night and at any height in the sky; even at zenith (if one were at Ceres' equator and there were no axial tilt). The closer any of these planets is to the zenith at midnight under these conditions, the closer it would be to Ceres and the brighter it would appear.

We'll start with Jupiter. When Jupiter is at zenith in Ceres' midnight sky (which it is every seven and a half years), it is as close as 220 million miles to Ceres. It then shines with a magnitude of -4.1, and is almost as bright as Venus appears to us on Earth when it is at its brightest. For a year or so at a time, Jupiter is the brightest object in the Cerean sky—except, of course, for the Sun.

Saturn at its brightest will have a magnitude of -1.3, and it, too, will then be brighter than any of the Cerean evening/morning stars. It will be at its brightest for a several-month period every five and a half years.

When we come to the planets beyond Saturn, however, it is scarcely worth bothering. Those are not really much closer to Ceres than they are to Earth. Ceres can be 150 million miles closer to any outer planet than Earth can ever be, but 150 million miles isn't much where distances in the billions of miles are involved.

Uranus, which has a maximum brightness equivalent to a

Remember that the lower the magnitude, the brighter the object.

magnitude of 5.7 when seen from Earth, will seem, at intervals of five years, to brighten to 5.1 as seen from Ceres. This additional brightness is more due to the airlessness of Ceres than to Uranus's closer approach to that body. Uranus would be visible as a dim star when seen from Ceres, but it is also visible as a dim star when seen from Earth.

As for Neptune and Pluto, they would be as invisible to the unaided eye from Ceres as from Earth.

Anything else of interest in Ceres' skies? What about the satellites of the planets? If our Moon were alone in the sky of Ceres, without Earth, it could have a maximum brightness equivalent to a magnitude of 4.7. It would seem brighter than Uranus and could be made out as a dim evening/morning star. Unfortunately, Earth is in its neighborhood, and the two are never separated by more than 5 minutes of arc as seen from Ceres. Earth's seventy-times-greater brightness overwhelms the Moon, and it is not likely to be made out by the unaided eye.

The fate of the Moon as seen from Ceres is precisely that of the Jovian satellites as seen from the Earth. The four large satellites of Jupiter: Io, Europa, Ganymede, and Callisto, have magnitudes of 5.3, 5.7, 4.9 and 6.1 respectively. They would be visible to the unaided eye as faint objects if Jupiter were not present with its three-thousand-times brighter glare.

As seen from Earth, the maximum separation of these four satellites from Jupiter, varies from 1 minute of arc for Io, to 10 minutes of arc for Callisto. Unfortunately, Callisto, the farthest and therefore the most likely to be seen through Jupiter's glare, is also the dimmest. Consequently, the large satellites of Jupiter are not seen with the unaided eye, although even slight help will reveal them, and they were easily seen with Galileo's original, very primitive telescope.

Seen from Ceres, the satellites of Jupiter are both brighter and farther separated from their planet. The magnitude of the four satellites as seen from Ceres are Io, 3.7; Europa, 4.1; Ganymede 3.3; and Callisto, 4.5. Any of them, alone in the sky, would be easily visible as objects of middling brightness.

Their maximum separation from Jupiter, as seen from Ceres, would vary from 2 minutes of arc for Io, to 18 minutes of arc for Callisto. It seems to me, then, that it ought to be possible to make out Callisto, for it would be separated from Jupiter by as much as three-fifths the width of the full Moon as seen from Earth.

Ganymede would be separated from Jupiter by never more than 10 minutes of arc, but as a third-magnitude object, it might be visible, too.

Naturally, the two satellites would be visible only under favorable conditions—when Jupiter is at or near its time of close approach to Ceres and when Ganymede and Callisto are at or near their time of maximum separation.

Indeed, I suspect that one of the prime sights pointed out to visiting tourists, at appropriate seasons, would be the satellites of Jupiter. It would not be a spectacular sight, but even on Ceres, it would be an unusual one—and from Earth, an impossible one.

A colleague once suggested that we use at least one "off-Earth" story in each issue: good advice, except that there are stories that take place off Earth and that read like the rotogravure section of last week's newspaper, so the term is hard to pin down. We know what he meant, but the best way to explain it is to find a story that embodies all the best elements of what is meant by "off Earth," one which is convincingly alien in background and tone and yet which says something very human. To find such a story and point to it and say, "there, that's what we mean!"

Thus Love Betrays Us

by PHYLLIS MacLENNAN

IT'S A STRANGE, SAD, lonely world, is Deirdre, forever enshrouded in mists that never lift. There is no day or night. The same dim silvery light seeps always from the pewter sky, casting no shadows and annulling time. The thick, moist atmosphere blots up all sound and muffles the winds into faint-hearted breezes hardly strong enough to sway the pendent branches of the black-barked trees that droop like widows weeping over graves, or rustle the transparent leaves that well from their stems like tears about to fall.

Men have not yet encroached here. Perhaps they never will, but the planet has been charted and described, and research ships have landed. The first of them, the *Magus*, was lost with all hands elsewhere in the system. She stopped at Deirdre before she disappeared and left one man behind, a biologist, her sole survivor; he more than half mad when the search party found him.

When the star Selina was first listed, the *Magus* was ordered to call there for a brief preliminary survey on its way to a more urgent task. Of the system's seven worlds, only one showed life, and Alex Barthold was dropped off to investigate it while the ship made a routine evaluation of the other six.

It was common practice, and he had been left thus before, on worlds more hostile than this one appeared to be. Informed of his assignment, he set up his shelter, checked equipment and supplies, and reported to the

captain that everything was in order with the matter-of-factness of habit; nevertheless, when the ship had signed off, he stood at the viewport of the plastic dome to watch her leave with the same involuntary pang of abandonment he had felt the first time and would always feel, no matter how certain he was that he would survive and they would come back for him. The lights on the distant hull glowed faintly through the eternal fog. They were all he could distinguish of the *Magus;* but when the boosters flared, they seared the fog away, and he could see her hoist herself up and squat for a moment on her cushion of flame, like a fat old lady catching her breath before forcing herself into space. She vanished, and the boggy earth quivered beneath his feet in the after-shock like something alive.

He was alone.

He had looked forward to this respite from the cramped quarters of the ship. The dome seemed almost vast in comparison, and there would be relief from the tensions inevitably produced by the confinement and total lack of privacy, the constant noise, the personal frictions that could not be avoided. He would be able to go for long walks, with real gravity tugging at his boots. There would be living things to look at that no man had seen before; and even though the myriad fungus spores that formed the nuclei of the mist droplets forced him to wear a protective suit and filter mask, there was fresh, living air to breathe, untainted by the reek of hot metal, lubricants, and human bodies that no recycling process could ever quite remove. He arranged the few personal belongings he was allowed to bring with him to give the dome an aura of familiarity, put on his suit, stepped through the inner hatch into the lock, and sealed the door behind him with anticipation; but when he opened the outer hatch and stepped onto the virgin soil of Deirdre, it was an anticlimax.

He found no sense of freedom. Fog swallowed him, a milky vagueness in which no object more than ten feet away was clearly seen, which thickened beyond that into a barrier that moved as he moved, walling him in, softly threatening, impenetrable because he could never reach it to test what it was made of. As he stepped forward, dark skeletons of trees flowed into sight. What lurked beyond them? Behind him the outline of the dome was already blurred, as if it melted in the mist. He was suddenly unreasoningly afraid to walk away from it, to leave the reassurance of the warm golden light that beckoned

from the viewports. The compass on his gauntlet swung erratically in the weak magnetic field. He dared not depend on it to guide him, but he had the FoolFinder. He bent down and touched the buttons on the heels of his boots. At each step he took, a drop of fluorescent stain would be released to mark his trail. It showed up cold blue-green like insect phosphorescence against the rich tapestry of moss beneath his feet. Only after he had walked around enough to convince the child within him that he could not get lost did he dare move out of visual contact with the shelter.

. . . He did not like Deirdre.

It was not dead. That would have been less disquieting than the waiting stillness that enveloped him. He felt as though something unseen paced him behind the screen of mist, just at the limit of his vision. Drifting on currents beyond his comprehension, the fog thickened and thinned in response to its own will, shaping wraiths of its own substance that seemed solid enough to touch, and then dissolving them as he came closer as if it teased him purposely.

He tried to lose himself in work, but here too Deirdre taunted him. Never had he seen a world so limited in the variety of its flora and fauna. It teemed with life, but most of it was the same. The plants that carpeted the earth in regal splendor were curious forms of algae and lichens, but he could find no true plants. Even the trees were closely related to the mosses, as far as he could tell, and though mosses of such size and toughness were extraordinary, they were all alike. The animal life was equally limited in type—nothing beyond creeping insects, two or three arthropods, and several coelenterates, none larger than a football, and all sluggish enough to make him drowsy watching them.

His specialty was not to have one, to know a little about every aspect of biology; but he did not know any one area of it well enough to make the detailed, exhaustive studies later investigators would undertake, and he came so rapidly to the end of what he was equipped to do that the time he had to wait until the ship returned began to stretch into infinity before him. Bored, restless, increasingly uneasy, he went for long walks, going further and further from the dome in fruitless quest of something new to look at; but Deirdre was everywhere the same. He might have been on a treadmill in some dim, forgotten Limbo. The same dark trees swam up and disappeared behind him, the same fog

constantly enshrouded him, the same thick moss sprang back beneath his feet; and in the pale, pearly light, like an eternal dawn, it seemed that Time did not exist. There was only *here, and* now, and the present would never end. He found himself checking his chronometer constantly, but it, too, seemed to have been affected: minutes turned into hours, what seemed like half a day was measured as an hour. The dream-like atmosphere imbued him more and more with a sense of unreality. He blamed it on nerves, on his own more than half illusory sensations; but he could not overcome the developing conviction that something was there, hiding in the mist, just out of sight, seeing him although he could not see it—or them. In the course of his monotonous explorations, he sometimes thought he caught a glimpse of movement from the corner of his eye; but when he turned, there was never anything: a wisp of mist, veils thicker than it had been, but only mist that faded into mist. It frightened him. He grew anxious away from the shelter of the dome, the instruments companionably ticking, the warm, dry air, the light. He ceased to venture out and sealed himself in against the ghostliness of Deirdre to wait for the *Magus*' return.

. . . It was too long. Why did she take so long? They could not have forgotten him. At chronometer noon every twenty-four hours he sent off his I-am-alive-and-well signal. The code-burst acknowledgment came from the computer, he knew; but someone had to log it. If he did not report, if he signaled an emergency, they would notice and come back for him . . . unless something had happened. The ship could be an empty shell, all her crew dead, wandering derelict among the stars. . . . Or perhaps they had never meant to come back for him. Perhaps they had always meant to leave him here alone. There were supplies enough for ten men. Why had they left so much? They always did, he knew that; but still . . . They had told him "ten days to two weeks"; it was ten days by the instruments; and no sign of the *Magus*, no word from her at all.

. . . They couldn't abandon him. He didn't really believe they would. Someone would come for him, eventually; and though, each time he signaled, he was tempted to sound a false emergency that would hurry them, the penalty for that was too severe to risk, as yet.

. . . It was too long. When at last the ship sent back no answer to his daily message, he was not surprised. He had

known it wouldn't, he had felt it in his bones, each day the chattering response had startled him more, so sure had he become that it would not be given; and as he tapped his code call out, and repeated it, and repeated it again, and still no answer came, he felt a sick satisfaction now that his fears had been realized. He had suspected that he was somehow doomed to this murky hell of solitude and uncertainty. He had been dropped out of life, shunted aside into nowhere, cursed for crimes committed in the past. . . .What crimes, what misdeeds warranted such punishment? He thought back, and they were many, trivial once, but looming larger now: crimes of omission as well as of commission; people he had hurt, unknowing or uncaring; tasks he had slighted; responsibilities he had slid out from under—the list was endless. In this grey, haunted world, his self confronted him and there was no escape. He could not face himself, so naked and alone.

In the back of his head some shred of sanity reminded him that he would not be left here forever, sooner or later another ship would come, no matter what had happened to the *Magus*. He knew that; but, sure as he was of it, he did not believe it. The time would come—but there was no Time on Deirdre. Nothing ever ended. He was trapped in an eternal present; the chronometer lied, and not a day had passed since the *Magus* had taken off . . .

But there *would* be a ship. It would materialize out of the fog, and men would step out of it and check the beacon to see how long it had been sending its plaintive cry into the void. Where would he be then? What would he be? Would they know that a man had been left here by himself? Would they think to look for him? He sealed the logs he had kept to date and carried them to the beacon. The FoolFinder would disappear in time. Compass headings would be useless; still he tried to work them out, to devise some way to tell them where to find him. From spare parts he jury-rigged a small homing device for the dome and hooked it into his power pack. Then there was nothing more he could do, except fight to retain his sanity; for he could feel his mind slipping away.

He played films, he played tapes, at high volume, drowning himself in them to shut out awareness of Deirdre—or rather, the realization that there was nothing there, that what he shut out was nothingness, emptiness . . . and looked within himself and saw his soul draw

closer and closer in upon itself, shrinking into a hard, bright jewel at the center of his being that not even he could touch, hiding itself away; and he was afraid.

The hemisphere of his shelter was no longer a refuge. It was a trap. There was no safety in it, only a danger greater than any he had known, and of a different kind, harder to fight because it lay within himself, a part of his own essence. Driven to escape, he suited up and fled into the spectral landscape where the fog-figures beckoned. He saw them almost clearly now: pale, childish shadows slipping behind the trees, always just at the limit of his vision, as if they knew he sought them, and mocked him, teasing, whispering, "I am here, but you will never reach me."

They withheld themselves, and he pursued them, surer and surer that they were concrete. They *had* to be.... There was one that seemed to wait. He could—not quite—distinguish its slender man-shape, mist-colored, but not mist. As he approached, it drew away, eluding him; yet still it led him on. He followed patiently, keeping his distance so as not to frighten it; and as it seemed to sense that he would not press too closely, its caution lessened. It moved forward stealthily, but with purpose, intent upon some errand of its own, pausing from time to time to look and listen, though its wariness seemed not to be of him. Each time it hesitated, he approached it nearer, until he could see it clearly.

... It was beautiful. Under translucent skin, blue-white as watered milk, shapes of internal organs pulsed in faint tints of blue and green and gold. Poised, its back to him, it was a statue carved from living opal; then it turned its head. He shrank away. Such faces he had seen in dreams of ghosts, when, child-like, he shuddered at the dark: white; featureless, except for round, fathomless black eyes like peepholes into Hell. It did not fear him. The slight relaxation of its posture told him that, although it still was timid. It was not hostile. If it had been, it would have attacked before. How could he fear it, when it appeared almost to trust him?

It was real. It was alive. It studied him intently, and he marveled that it should be so bold. How must he look to it? A snouted monster nearly twice its size, lumbering blindly through its territory, breath soughing through the filter mask—in its nightmares, if it had them, could it imagine anything so alien?

It was alive, and near

him . . . not much less human than an ape. If he could win its confidence, befriend it . . . he would not fear it. He stretched his hands out, palms upward. It slid away, a supple, darting movement like a snake's, putting itself beyond his reach, yet staying with him. It looked at him and turned, as if in invitation. Taking the gesture so, he followed as it wandered through the trees. Watchful, it seemed to scout for enemies, but not to count him one. He felt himself obscurely flattered by this tenuous companionship, like walking with a cat that accompanies because it chooses, not at command. When they came to the village, it had somehow maneuvered him into the lead, so that he entered first and realized with shock just where he was: in an inhabited place.

. . . Or one that had been inhabited. He stared, dumbstruck, at the crude, box-like dwellings huddled around him, for dwellings they must have been. Hacked out of a coarse, fibrous stuff like hardened peat, they had doors, but no windows. He went into one of them and saw scattered on the floor objects designed for uses he could only guess at, and they were real. For a brief panic-stricken moment he had thought himself hallucinating, but these huts were no illusion. As material as his own familiar shelter, they had been constructed by sentients who knew the use of tools; but the builders were no longer there. Where had they gone, and why? When had they left? A lifetime ago, or only as he came? There was no way of knowing.

The being that had led him there stood waiting, as if impatient to go on. He followed once again, wondering where it wished to take him, until they came upon a wide depression in the ground like nothing he had seen before on Deirdre. Scattered pools of condensed moisture dimpled the moss, surrounded by a profusion of large, bulbous lichens quite unlike those he had already found and taken samples of. The mist-child gathered some of these and ate, cramming food into a lipless mouth stretched like a seam across the empty face, continually glancing at the clouded edges of the clearing as if it feared attack. Its suspicion was contagious. Alex found himself peering around, not knowing what he looked for, thinking of predators, and thus unprepared to see another man-thing hurl itself from among the trees upon its feeding victim. On impulse, he thrust himself between the attacker and its prey. It skidded to a stop, and pulled back, snarling. As he advanced on it,

it darted toward the trees, then whirled to face him. Something evil glittered in its paw. He had no choice now but to face it down, he raised both arms and roared. It bolted into the secret safety of the fog.

Behind him, the creature he protected crouched huddled in upon itself, head buried in its arms, shivering like a dog expecting to be beaten. He bent and placed his hand upon its back, wanting to reassure it. It shrieked—in fear, or pain?—and oozed flat to the ground as if it deliquesced. What should he do? He dared not leave it. The enemy still watched. He could not see it, but he felt its hating eyes upon him. He waited. The mist-thing sprawled abandoned at his feet, a rag doll waiting to be painted and dressed into a semblance of humanity. Beneath its hide the delicate colors pulsed and wavered, then grew stronger as it returned to consciousness. The outer integument tensed. It flowed upright, peered into the mist, and shuddered. Alex would have left it then, but as he retraced his course by gleaming flecks of FoolFinder, it slunk behind him as if it found safety in his presence; and when they reached the dome, it sought to interpose itself between him and the hatch so that he could not enter. He motioned it aside. When it refused to move, he stretched out his hand to touch it, and it pulled back, whimpering, far enough for him to reach the release. The hatch irised open. As he stepped inside, the aggressor, who had stubbornly pursued them, slid from the mist and launched itself at them. The mist-thing dashed inside, cowered behind him, moaning in panic, heedless of any but the imminent danger, and Alex slapped the hatch shut, then automatically pulled the lever to turn on the fungicide. Spray hissed from the nozzles all around them, foaming as it struck upon their bodies; and the beast went wild. The lock was barely big enough for two, and as it dashed itself from wall to wall, Alex was forced to seize it to keep it from hurting itself. It turned upon him then. It threw its paws up. Tentacle-digits furled back, and from the center of them, like an ugly flower, a long, sharp tooth flashed forth, serrated on the edges, wickedly pointed. They stood, body to body, frozen an instant, human eyes and Deirdran locked on each other. The spray clicked off, and as if that were a signal, both relaxed. Alex sighed with relief. The thing was as slippery as wet glass—he could not have held it—strong as an octopus and if he had known about its hidden weapons, he would never have dared to touch it.

As he stripped his suit off and draped it on the hooks, the mist-thing pressed its back against the wall and watched, more curious than afraid. Either it was more intelligent than he had suspected, or he was too strange for it to fear him. In either case, now that it was inside and disinfected, he could not open the hatch to let it out without contaminating the lock again; and so he left it there, opened the inner seal, and stepped into the shelter to go about his business, such as it was. He logged the day's events, prepared his meal and ate it, all the while conscious of another presence. Almost transparent, it slipped into the room, an incorporeal substance drifting along the wall like ectoplasm, not quite touching what it studied, lipless mouth half open as if it sniffed or tasted the unfamiliar atmosphere and new, pungent odors. The process of eating over, he slipped a reel of film into the viewer and settled back to watch it—but more to observe the reaction of his visitor. The sounds and the shifting patterns on the screen meant nothing to it, he could see that; but it coiled itself down onto the floor beside him, glancing from the viewer into his face and back, as if it sought some explanation. . .

He hardly dared to hope, but there was nothing lost by trying. He turned the film off, waited a moment, then tapped himself on the chest.

"Alex."

His throat was tight, the word came out half croak, half whisper. He tried again.

"Alex," he repeated, pointing to himself; and—

"Sessiné," it answered.

They were friends.

It was as simple and as natural as that, a relationship that grew from that first small seed of understanding and bound them together in a kind of sharing Alex did not attempt to analyze. There was no need. Sessiné was there. Slowly, in halting steps, he learned to communicate with "him," as, language-bound to sex identification, he thought of his outwardly genderless companion. He had no hope of ever reproducing the half-whispered, bubbling sounds made by the Deirdran, but Sessiné picked up a smattering of Galactic and enriched it constantly as Alex talked to him; and talk he did. In the unmeasured hours they passed together, he confided to this alien being things he had never told to anyone of his own kind, male or female. It listened patiently, deep eyes fixed on his, attentive, whether it knew the meaning of his words or not; and he felt that it did understand, that on an unspok-

en level it knew his loneliness and shared it, so that he was no longer by himself.

Perhaps the love that grew in him for this inhuman creature was largely based on gratitude. How deep that gratitude was! To hear a voice not his own, pronouncing words that he had not invented, framing thoughts not his; to know a living, sentient presence near him always—although he could not often bring himself to touch it. The texture of its cold, rubbery flesh recalled too sharply how alien it was. He did not wish to be reminded that it was not like him, but made of a different substance, born on a world of which he knew too little. He wanted to learn more, and Sessiné tried to teach him; but much of what the mist-child told him was as far beyond his comprehension as his own maunderings must have been to it. The pattern of life on Deirdre as Sessiné described it baffled him. He wanted to go back to the village, to observe and cross-check some of the apparently conflicting information given him. He could not even guess the level of intelligence. If he could meet others, he might be better able to judge; but Sessiné refused to guide him there, telling him it was useless.

"They are not there," he insisted. "You come, they go. They see . . . these marks—" he pointed to the slight corrugations of the protective suit—"They think are many brands, you are one of those who do not stop to kill. It happens sometimes. But Sessiné comes close when you do *so*—" He imitated Alex collecting specimens—"You look at other things, you do not see Sessiné. I look, and I think that those are not brands on you. You have no brand at all. I know you may not kill, but those others do not know that, and they are afraid."

"Brand? " Alex was puzzled.

"As in the film you showed me. But we are not like those beasts, we go by ourselves to the Place at the Time of Branding, and we are not afraid when the Oldest marks our skin with the water that burns." He held his arm out proudly for inspection. Alex had briefly noted the narrow scar and taken for granted it was the result of accident. He examined it now with more care and saw with revulsion how the gelatinous tissue had been seared away in a deep groove, rough-edged and charred.

"That was done *deliberately?* But . . . why? "

Sessiné was surprised by his reaction.

"It is true I am not big, not strong. I am easy to kill. But—" he groped to express a concept

Alex had not taught him words for— "out of myself I made others like me . . . you understand? When that was done, at the next Time of Branding I went to the Place. Now this mark says that I must kill or one will kill me. . . . You do not understand? It is so: with no brand at all, I may not kill, none may kill me. With many brands—*so*—" he indicated that both arms would be striped from wrist to shoulder— "I do not kill, none may kill me. . . . But Sessiné will not have many brands," he said, apparently resigned to the idea. "At the next Time, one will come to the Oldest to show him this—" he pointed to the scar— "that he has cut from me, and the Oldest will burn on his arm that he has killed this one."

"But *why*?" Alex was horrified. To destroy life was repellent to him. He did it when he had to: for food, if necessary; to collect specimens for research; in self-defense, if there were no other way; but to kill wantonly, merely for the record, as these people seemed to do, was an act that shocked him deeply.

Sessiné was clearly puzzled by his ignorance.

"It must be so. How else could it be? "

They stared at each other in silence, Alex aware as he had not been before of the gulf between them. Sessiné tried to explain; he seemed to sense Alex's repugnance and to want to dispel it.

"It is good so," he urged him to believe. "Those who have killed many times grow tired of the taste of death. They have no wish to kill, and none may kill them. Where they want to go, they go. What they want to do, they do. They lie down to sleep and know that they will awaken. They feed, and if another comes they eat together, they need not run with the food sour inside them. They may be together with another as Sessiné is now with Alex. That is very good. Is it not so? "

"Yes. It is so," Alex admitted. It *was* good to be together with Sessiné, and he was touched and shyly pleased to hear the Deirdran say that it seemed good to him as well. It was a pleasure Sessiné was not likely to survive to enjoy with one of his own kind, he realized. On their excursions to the feeding ground, he noted that Sessiné grew increasingly less cautious, feeling himself secure in Alex's presence; and as his carelessness increased, Alex was compelled to be more watchful.

He knew that they were spied on, that every time they left the dome a hidden enemy trailed them—but never more

than one, since only one could claim the brand Sessiné bore. That one must be more brave or else more desperate than its fellows to risk the threat that Alex posed; and, like Sessiné, it might someday conclude that threat was empty. If it should attack . . . he would be forced to kill it. He had no choice. The tight-beam ultrasonic handgun he always carried now was vicious in its effect at full intensity, but he dared not turn it down; for once the thing came at them, he could not give it a second chance. One opening in his suit to let the fungus in would do for him, and Sessiné could never hold his own in battle; he was so sure of this himself that he would submit without struggle to the blades of an assassin. He could not let that happen. If either of them should die, the other was lost.

For Sessiné, the matter was simple enough: he would be killed as soon as he lost his protector. For Alex, the prospect was more frightening. He did not like to think about it. . . . A ship would come. Only on Deirdre the present never ended; on other worlds it fled into the past. The silence of the *Magus* would be noted, her course followed until some remnant, some wreckage or survivors had been found. The seekers would trace her path here to the beacon, and they would look for him, his life or death a question they must answer; and when the found him . . . When? If nothing marked the flow of Time, it might as well be never. Without companionship he knew that he could not endure this never-ending *now.*

Those who had lived in the village had not yet been branded, and although Sessiné insisted the huts had been abandoned since he came there, he still had hopes of making contact with some other Deirdrans. He had no trade goods, but he collected a few things he thought might catch their interest: bright, shining wire, gaudy scraps of plastic, a small flashlight, colored pens and paper. He left them in the center of the village and went back now and then to see if they had been touched.

On one such tour of inspection, he decided it would be his last. His trinkets lay as he had left them, the wire corroded, the paper mildewed, mold tracing the convolutions of his fingerprints across the gleaming plastic like an arcane message no one here could read, or wanted to. With disappointment verging on despair, he gave up hope. He would have only Sessiné . . .but where was he? In the brief seconds during which he had let his attention wander the fool had disap-

peared, probably heading toward the feeding ground alone, so overconfident had he grown of late. Alex swore silently and ran to find his friend, but those few seconds were what the enemy had waited for. As Alex burst from in between the huts, he saw two figures struggling on the ground. He shouted, fell upon them, tore them apart, and flung one to each side before they knew he was there. Sessiné lay where he had fallen, cowed, whimpering, arms wrapped around his head. Not so the attacker. As Alex turned to face it, it launched itself at him. He saw it vividly as it hurtled toward him: the opal-hued translucence of its body, its outstretched arms, one branded to the shoulder, the other almost to the elbow—and the tooth-daggers, deadly ivory, pointed at his chest.

He slapped the plastic sheath, the gun leaped to his hand. The enemy was upon him. He pushed the gun into its belly and fired. The ultrasonics shook it apart. He pushed it from him. It stood upright a moment, the tension of its skin still holding it together, its insides shivered into jelly; then it slid shapeless to the ground, a bag of skin, its substance liquefied inside it.

Sessiné stepped from behind him.

"At the Time of Branding, many will fear me when I show this."

He bent over the dead creature and with a grunt of satisfaction sliced away the brands that had adorned its arms, when they were arms.

As his palm-dagger slashed into the skin, the nauseous mess within gushed forth. Alex had to vomit, he could not control it. He tore his faceplate open just in time and blurted out the contents of his stomach until dry retching produced no more than drops of bitter bile. Relieved, the spasms over, he straightened up and took a deep, clean breath—only to be shocked by a new, more personal horror: he breathed the raw air of Deirdre, and it smelled of Death.

Death was the close companion of men who traveled space. They died predictably, in accidents, and in strange, ugly, painful ways that no one knew of until they happened. But he had known. Still on the ship, before he had set foot on the planet itself, he had seen the cultures under their sealed covers swarm almost instantly with fungi as the voracious spores from the air samples settled on them. The surface of Deirdre was nothing but mold, one solid blanket of it. The animals that lived on it were safe only because their surfaces were too acid for it; but his

skin, his lungs, his mouth and nose and eyes, provided ideal conditions. He had known that, and he had forgotten it, and that was how men died.

Cold sweat broke out all over him, even on his arms and legs, and his knees turned to water. His fingers trembled; he pushed the faceplate home but could not close the catch. There were fungicides and antibiotics in the dome, ample supplies of them for just such an accident as this, but could he reach them? How much time did he have? He was shaking, too weak with fear to walk; but with Sessiné to help, he could still make it. The mist-creature stood several feet away from him, fondling its trophies. He stretched his hands toward it.

"Sessiné!"

It seemed that it did not hear him, that it slid away, starting to fade into the mist.

"Sessine!"

It heard. It looked at him, blank face unreadable.

"Help me! '

He could hardly breathe, his eyes were filming over—but surely that was his imagination, the fungus could not have taken hold so fast. He felt himself waver, sank to the ground, reaching out . . .

"You are killed."

Its voice was cold and flat; it stated a fact that was of no importance to it.

"No . . . not yet. Not yet! Help me to walk, help me get to the dome. I'll be all right if I get there."

"No. You are killed," it repeated. "Others watch. They see that you are weak; they do not fear you now. If Sessiné stays with you, one will kill him."

"No one will kill you! I will kill them first, I have the gun! "

It lay on the ground where he had dropped it when he started to vomit. He wormed toward it, but even as he spoke Sessiné had seen it and picked it up. The alien handled the small weapon carefully, and Alex could have sworn it smiled.

"With this, Sessiné will kill many. At the next Time of Branding, all will fear him."

"You fool! You don't even know how to use it! "

"It has a button. All your things have buttons to make them do what you want. Sessiné can use it."

It turned away. It really meant to leave him there to die alone. There was no doubt of that.

Alex coughed. His throat felt full of slime, his words pushed bubbling through it.

"You stinking, soulless hunk of protoplasm! Why don't you shoot me while you're at it? You need the practice!"

It didn't even bother to look back at him.

"You have no brand," it stated and vanished in the fog.

Alex stared after it, numb with disbelief. It could not leave him now, it *could* not, when it would take so little effort to save him! . . . But it had done so.

"Don't go! Please don't leave me!" he screamed soundlessly. He closed his eyes against the tears that filled them and felt that he dropped through a black, bottomless abyss, desperate, reaching out for something to hold on to; but there was nothing there, nothing to cling to, nobody to save him . . .

. . . Except himself. He would not die, he *would not!* Rage flooded him, and he drew strength from it.

"I'll make it without you, you bastard! Who the hell needs you? You're not even human! Fifty brands I need before they'll talk to me? Then fifty brands I'll have—and yours will be the first! "

It was too hard to struggle to his feet, and if he did he knew that he would fall. But he would make it. On hands and knees, on his belly, if he had to; but he would get there. It wasn't all that far, the fungus couldn't kill him that fast, he wouldn't let it. He only imagined that he suffocated. Although his breath came hard, he still was breathing . . .

He started forward. He and Sessiné had come this way so often, they had begun to leave a trail. Along the shadow of a path drops of FoolFinder still glistened. He would not get lost. He crawled, and as he crawled he talked sometimes to Sessiné in his head, to remind himself that he had something still to live for, something that he must do:

"That gun won't last forever . . . but while it lasts, use it, you son of a bitch—use it, and keep yourself alive until I can come after you. Because I'm going to. I'm going to get you . . . I'm going to cut that goddamn brand off you and stuff it down your miserable throat . . ."

His lungs were filling, his eyes and nose and mouth, even his ears were all encrusted. Sick and tired and aching everywhere, he sank flat to the ground to rest, and he was crying. The hot, salt tears cleared out his eyes and nose a little. He had not even tried to close his faceplate—what did it matter now? He forced himself up as far as he was able and coughed and coughed and coughed, bringing up great lumps of green slime from his lungs. He was exhausted, he could not go on . . . He fell back to the earth and thought of Sessiné, who could have helped him . . . Flat on his belly, he dug his elbows into

the yielding moss, pulled himself forward, braced his feet, pulled himself forward . . . His eyes were clouding over, he had to blink and blink again to keep them clear so he could distinguish the path, he had to stop and cough from time to time to clear his lungs, but he kept breathing. In his mind's eye, even more clearly than he saw the trail, he saw a strip of transparent skin and a thin, black scar etched on it. He crawled to reach it, concentrating on it, blotting out the pain from his chafed elbows, his tortured lungs. He inched himself forward, stopped to cough and wipe his burning eyes, inched himself forward . . .

. . . There was no time, no distance, only slow, hurting movement. It would have been so easy to give up, to sink into the spongy moss, let it enfold him, wrap itself gently around him and make him one with it . . .He thought of it; the thought was sweet; but part of himself watched, as from a distance, and coldly, detachedly, would not let it happen. God, how he wanted to die! But he would not.

. . . The dome was there. Warm light streamed from the viewports, inside were rest and safety and means to kill the tenacious fibers that wove into his flesh and sucked his strength away. Three feet above him, on the dull grey plastic surface, the metal plate to touch to reach that haven twinkled, remote, unfeeling as a star. He squeezed himself against the place where the hatch would open, forced his feet under him, and, remembering Sessiné, pushed himself upward until his hand lay on it. The hatch irised open to receive him, and he fell

through into the womb that was the lock.

Pain. Fever. Nausea. Delirium.

. . . He was well and strong. He suited up and left the dome and found the feeding ground. He lay in ambush until Sessine appeared; sprang at him, caught him, choked him, the lipless mouth wide open, screaming, the deep-set eyes popped out like grapes squeezed from their skins. . . But was it Sessine?

. . . He found the Place of Branding; it swarmed with Deirdrans weaving in a slow dance like mummies resuscitated by a necromancer. Sessine swaggered forward to be branded, carrying a slimy bundle of fresh trophies. As he stretched his arm out to be honored, Alex let fly at him with a needlegun, and from a thousand tiny wounds his inner stuff spewed out as he sank screaming to the ground . . . But was it Sessine?

. . . He found the village. Sessine sat in the central clearing, surrounded by smaller versions of himself, boasting of his exploits. Alex dragged him away, crushed the life from him as he screamed for mercy . . . But was it Sessine?

They found him screaming in the dome, screaming and screaming. The medic who was with them listened to him for a while, then quietly disposed of the little heap of unspeakable things he found beneath the bunk. There was no need for anyone to know about them, he decided.

Especially not Alex.

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