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## NOVELETTES

WORLDS OF ORIGIN by Juck Vance ..... 2
Interplanetary crime solved by cultural analysis
PRISON PLANET $b_{3}$ Robert Silverberg ..... 72
The small planet was a dumping ground for prisoners
SHORT STORIES
SECRET WEAPON by Arthur Zirul ..... 28
On that new planet, the natives had odd powers
THE RED, SINGING SANDS by Keller Ernst ..... 56
The Creature was the last living thing on Mars
THE HAPPY SLEEPERS by Calvin M. Knox ..... 106
'lhe whole world was filling asleep-with dreams
THE OLD TIMER by Richard R. Smith ..... 117
The old man was the last of his special kind
TIME TRAVEL INC. by Robert F. Young ..... 122
They wanted to witriess the Crucifixion
FEATURES
FEROMAGNETIC FILM ..... 27
SCIENCE SHORTS by Edgar P. Straus ..... 71
COVER by Kelly Freas
ILLUSTRATIONS by Emsh, Orban and Eowman

W. W. Scott - Editor

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# WORLDS OF ORIGIN 

## by JACK VANCE

## NOVFLETTE

illustrated by EMSH


#### Abstract

Who done the murder? It made quite a difference from which world each suspect came. Interplanetary crimes might well be solved by a complete cultural analysis


THE Hub, a cluster of bubbles in a web of metal, hung in empty space, in that region known to Earthmen as Hither Sagitarius. The owner was Pan Pascoglu, a man short, dark and energetic, almost bald, with restless brown eyes and a thick mustache. A man of ambition, Pascoglu hoped to develop the Hub into a fashionable resort, a glamor island among the stars-something more than a mere stopover depot and junction point. Working to this end, he added two dozen bright new bưbbles _-"cottages", as he called them-around the outer mesh-
es of the Hub, which already resembled the model of an extremely complex molecule.

The cottages were quiet and comfortable; the dining salon offered an adequate cuisine; a remarkable diversity of company met in the public rooms. Magnus Ridolph found the Hub at once soothing and stimulating. Sitting in the dim dining salon, the naked stars serving as chandeliers, he contemplated his fellow-guests. At a table to his left, partially obscured by a planting of dendrons, sat four figures. Magnus Ridolph frowned. They ate in utter silence and three

of them, at least, hulked over their plates in an uncouth fashion.
"Barbarians," said Magnus Ridolph, and turned his shoulder. In spite of the mannerless display he was not particularly offended; at the Hub one must expect to mingle with a variety of peoples. Tonight they seemed to range the whole spectrum of evolution, from the boors to his left, across a score of more or less noble civilizations, culminating with-Magnus Ridolph patted his neat white beard with a napkinhimself.

From the co:ner of his eye he noticed one of the four shapes arise, approach his own table.
"Forgive my intrusion-but I understand that you are Magnus Ridolph."

Magnus Ridolph acknowledged his identity and the other, without invitation, sat heavily down. Magnus Ridolph wavered between curtness and civility. In the starlight he saw his visitor to be an anthropologist, one Lester Bonfils, who had been pointed out to him earlier. Magnus Ridolph,
pleased with his own perspicacity, became civil. The three figures at Bonfils' table were savages in all reality: palaeolithic inhabitants of S-Cha-6, temporary wards of Bonfils. Their faces were dour, sullen, wary; they seemed disenchanted with such of civilization as they had experienced. They wore metal wristlets and rather heavy metal belts: magnetic pinions. At necessity, Bonfils could instantly immobilize the arms of his charges.

BONFILS himself was a fair man with thick blond hair, heavy and vaguely flabby. His complexion should have been florid; it was pale. He should have exhaled easy good-fellowship, but he was withdrawn, and diffident. His mouth sagged, his nose was pinched; there was no energy to his movements, only a nervous febrility. He leaned forward. "I'm sure you are bored with other people's troubles-but I need help."
"At the moment I do not care to accept employment," said Magnus Kidolph in a definite voice.

Bonfils sat back, looked away, finding not even the strength to protest. The stars glinted on the whites of his eyes, his skin shone the color of cheese. He muttered, "I should have expected no more."

His expression held such dullness and despair that Magnus Ridolph felt a pang of sympathy. "Out of curiosityand without committing my-self-what is the nature of your difficulty?"

Bonfils laughed briefly-a mournful empty sound. "Bas-ically-my destiny."
"In that case I can be of little assistance," said Magnus Ridolph.

Bonfils laughed again, as hollowly as before. "I use the word 'destiny' in the largest sense, to include-" he made a vague gesture "- -I don't know what. I seem predisposed to failure and defeat. I consider myself a man of good-will-yet there is no one with more enemies. I attract them as if I were the most vicious creature alive."

Magnus Ridolph surveyed Bonfils with a trace of interest.
"These enemies, then, have banded together against you?"
"No... At least I think not. I am harassed by a woman. She is busily engaged in killing me."
"I can give you some rather general advice," said Magnus Ridolph. "It is this: have nothing more to do with this woman."

Bonfils spoke in a desperate rush, with a glance over his shoulder toward the palacolithics. "I had nothing to do with her in the first place! That's the difficulty! Agreed that I'm a fool; an anthropologist should be careful of such things, but I was absorbed in my work. This took place at the southern tip of Kharesm, on Journey's End; do you know the place?"
"I have never visited Journey's End."

Some people stopped me on the street- 'We hear you have engaged in intimate relations with our kinswoman!'
"I protested: 'No, no, that's not true!'-because naturally, as an anthropologist, I must avoid such things like the plague."

Magnus Ridolph raised his brows in surprise. "Your professiun seems to demand more than monastic detachment."

Bonfils made his vague gesture; his mind was elsewhere. He turned to inspect his charges: only one remained at the table. Bonfils groaned from the depths of his soul, leapt to his fent - nearly overturning Magnus Ridolph's table-and plunged away in pursuit.

Magnus Ridolph sighed, and after a moment or two, departed the dining salon. He sauntered the length of the main lubloy, but Bonfils was nowhere to be seen. Magnus Ridolph seated himself, ordered a brandy.

THF: lobby was full. Magnus Ridolph contemplated the other occupants of the room. Where did these various men and women, near-men and near-women, originate? What were their purposes, what had brought them to the Hub? That rotund moon-faced bonze in the stiff red robe, for instance. He was a native of the planet Padme, far across the galaxy: why had he ventured so far from home?

And the tall angular man whose narrow shaved skull carried a fantastic set of tantalum ornments: a Lord of the Dacca. Exiled? In pursuit of an enemy? On some mad crusade?

And the anthrope from the planet Hecate sitting by himself: a walking argument to support the theory of parallel evolution. His outward semblance caricatured humanity, internally he was as far removed as a gastropod. His head was bleached bone and black shadow; his mouth a lipless s!it. He was a Meth of Maetho, and Magnus Ridolph knew his race to be gentle and diffident, with so little mental contact with human beings as to seem ambiguous and secretive...

Magnus Ridolph focused his gaze on a woman, and was taken aback by her miraculous beauty. She was dark and slight with a complexion the color of clean desert sand; she carried herself with a selfawareness that was immensely provoking... Into the chair beside Magnus Ridolph dropped a short nearly-bald
man with a thick black mustache: Pan Pascoglu, proprietor of the Hub. "Good evening, Mr. Ridolph; how goes it with you tonight?"
"Very well, thank you... That woman: who is she?"
l'ascoglu followed Magnus Ridolph's gaze. "Ah. A fairyprincess. From Journey's End. Her name--" Pascogla clicked his tongue "-I can't remember. Some outlandish thing."
"Surely she dorsn't travel alone?"

Pascoglushrugged. "She says she's married to Bonfils, the chap with the three cavemen. But they've got different cottages, and I never see them together."
"Astonishing," murmured Magnus Ridolph.
"An understatement," said Pascoglu. "The cave-men must have hidden charms."

The next morning the Hub v:brated with talk, because Lester Bonfils lay dead in his cottage, with three palaeolithics stamping restlessly in their cages. The guests surveyed each other nervously. One among them was a murderer!

AN PASCOGLU came to Magnus Ridolph in an extremity of emotion. "Mr. Ri:dolph, I know you're here on vacation, but you've got to help me out. Someone killed poor Bonfils dead as a mackerel, but who it was-" he held out his hands. "I can't stand for such things here, naturally."

Magnus Ridolph pulled at his little white beard. ".Surely there is to be some sort oif uificial enquiry?"
"That's what I'm sering you about!" Pascogiu threw himself into a chair. "The Hub's outside all jurisdiction. I'm my own law-within cerlain limits, of course That is to say, if I was harboring criminals, or running vice, someone would interfere. But there's nothing like that here. A drunk, a fight, a swindle-we take care of such things quietly. We've never had a killing. It's got to be cleaned up!'"

Magnus Ridolph reflected a moment or two. "I take it you have no criminological equipment?"
"You mean those truth machines, and breath-detectors
and cell-matchers? Nothing like that. Not even a fingerprint pad."
"I thought as much," sighed Magnus Ridolph. "Well, I can hardly refuse your request. May I ask what you intend to do with the criminal after I apprehend her-or him?"

Pascoglu jumped to his feet. Clearly the idea had not occurred to him. He held out his clenched hands. "What should I do? I'm not equipped to set up a law court. I don't want to just shoot somebody."

Magnus Ridolph spoke judiciously. "The question may resolve itself. Justice, after all, has no absolute values."

Pascoglu nodded passionately. "Right! Let's find out who did it. Then we'll decide the next step."
"Where is the body?" asked Magnus Ridolph.
"Still in the cottage, just where the maid found it."
"It has not been touched?"
"The doctor looked him over. I came directly to you."
"Good. Let us go to Bonfils' cottage."

Bonfils' "cottage" was a globe far out on the uttermost
web, perhaps five hundred yards by tube from the main lobby.

The body lay on the floor beside a white chaise-lounge, lumpy, pathetic, grotesque. In the center of the forehead was a burn; no other marks were visible. The three palacothics were confined in an ingenious cage of flexible splines, evidently collapsible. The cage of itself could not have restrained the muscular savages; the splines apparently were charged with electricity.

Beside the cage stood a thin young man, either inspecting or teasing the palaeolithics. He turned hastily when Pascoglu and Magnus Ridolph stepped into the cottage.

Paccoglu performed the introductions. "Dr. Scanton, Magnus Ridolph."

Magnus Ridolph nodded courteously. "I take it, doctor, that you have made at least a superficial examination?"
"Sufficient to certify death."
"Could you ascertain the time of death?"
"Approximately midnight."
Magnus Ridolph gingerly crossed the room, looked down
at the body. He turned abruptly, rejoined Pascoglu and the doctor who waited by the door.
"Well?" asked Pascoglu anxiously.
"I have not yet identified the criminal," said Magnus Ridolph. "However, I am almost grateful to poor Bonfils. He has provided what appears to be a case of classic purity."

Pascoglu chewed at his mustache. "Perhaps I am dense-"
"A series of apparent truisms may order our thinking," said Magnus Ridolph. "First, the author of this act is currently at the Hub."
"Naturally," said Pascoglu. "No ships have arrived or departed."
"The motives to the act lie in the more or less immediate past."

Pascoglu made an impatient movement. Magnus Ridolph held up his hand, and Pascoglu irritably resumed the attack on his mustache.
"The criminal in all likelihood has had some sort of association with Bonfils."

Pascoglu said, "Don't you think we should be back in the
lobby? Maybe someone will confess, or-"
"All in good time," said Magnus Ridolph. "To sum up, it appears that our primary roster of suspects will be Bonfils' shipmates en route to the Hub."
"He came on the Maulerer Princeps; I can get the debarkation list at once." And Pascoglu hurriedly departed the cottage.

Magnus Ridolph stood in the doorway studying the room. He turned to Dr. Scanton. "Official procedure would call for a set of detailed photographs; I wonder if you could make these arrangement?"
"Certainly. I'll do them myself."
"Good. And then-there would seem no reason not to move the body."

MAGNUS RIDOLPH returned along the tube to the main lobby, where he found Pascoglu at the desk.

Pascoglu thrust forth a paper. "This is what you asked for."

Magnus Ridolph inspected the paper with interest. Thirteen identities were listed.

1. Lester Bonfils, with
a. Abu
b. Toko
c. Homup
2. Viamestris Diasporus
3. Thorn 199
4. Fodor Impliega
5. Fodor Banzoso
6. Scriagl
7. Hercules Starguard
8. Fiamella of Thousand Candles
9. Clan Kestrel, 14th Ward, 6th Family, 3rd Son
10. (No name)
"Ah," said Magnus Ridolph. "Excellent. Bus there is a lack. I am particularly interested in the planet of origin of these persons."
"Planet of origin?" Pascoglu complained. "What is the benefit of this?"

Magnus Ridolph inspected Pascoglu with mild blue eyes. "I take it that you wish me to investigate this crime?'"
"Yes, of course, but-"
"You will then cooperate with me, to the fullest extent, with no further protests or impatient ejaculations." And Magnus Ritholph accompanied
the words with so cold and clear a glance that Pascoglu wilted and threw up his hands. "Have it your own way. But I still don't understand-"
"As I remarked, Bonfils has been good enough to provide us a case of definitive clarity."
"It's not clear to me," Pascoglu grumbled. He lowked at the list. "You think the murderer is one of these?"
"Possibly, but not necessarily. It might be I, or it might be you. Both of us have had recent contact with Bonfils."

Pascoglu grinned souily. "If it was you, please confess now and save me the expense of your fee."
"I fear it is not quite so simple. But the problem is susceptible to attack. The sus-pects-the persons on this list and any others Bonfils had dealt with recently-are from different worlds. Each is steeped in the traditions of his unique culture. Police routine might solve the case through the use of analyzers and detection machines. I hipe to achieve the same end through cultural analysis."

Pascorlu's expression was that of a castaway on a desert island watching a yacht recede over the hori\%on. ". As long as the case get.s solved,' he said in a hollow voice, "and there's no notoriety."
"Come then," said Magnus Ridolph briskly. "The worlds of origin."

The additions were made; Magnus Ridolph scrutinized the list again. He pursed his lips, pulled at his white beard. "I must have two hours for research. Then-we interview our suspects."

TWO hours passed, and Pan Pascoglu could wait no longer. He marched furiously into the library to find Magnus Ridolph gazing into space, tapping the table with a pencil. Pascoglu opened his mouth to speak, but Magnus Ridolph turned his head, and the mild blue gaze seemed to operate some sort of relay within Pascoglu's head. He composed himseli, and made a relatively calm inquiry as to the state of Magnus Ridolph's investigations.
"Well enough," said Magnus

Ridolph. ":Ind what have you learned?"
"Well-you can cross Scriagl and the Clan Kestrel chap off the list. They were gambling in the game-room and have fool-proof alibis."

Magnus Ridolph said thoughifully, "It is of course possible that Bonfils met an old enemy here at the Hub."

Pascoglu cleared his throat. "While you were here studying, I made a few inquiries. My staff is fairly observant, nothing much escapes them. They say that Bonfils spoke at length only to three people. They are myself, you and that moon-faced bonze in the red robes."

Magnus Ridolph nodded. "I spoke to Bonfils certainly. He appeared in great trouble. He insisted that a woman-evidently Fiamella of Thousand Candles-was killing him."
"What!" cried Pascoglu. "You knew all this time?"
"Calm yourself, my dear fellow. He claimed that she was engaged in the process of killing him-vastly different from the decisive act whose effect we witnessed: I beg of
you, restrain your exclamations; they startle me. To continue, I spoke to Bonfils, but I feel secure in eliminating myself. You have requested my assistance and you know my reputation: hence with equal assurance I eliminate you."

Pascoglu made a guttural sound, and walked across the room.

Magus Ridolph spoke on. "The bonze-I know something of his cult. They subscribe to a belief in reincarnation, and make an absolute fetish of virtue, kindness and charity. A bonze of Padme would hardly dare such an act as murder; he would expect to spend several of his next manifestations as a jackal or a seaurchin.

The door opened, and into the library, as if brought by some telepathetic urge, came the bonze himself. Noticing the attitudes of Magnus Ridolph and Pascoglu, their sober appraisal of himself, he hesitated. "Do I intrude upon a private conversation?"
"The conversation is private," said Magnus Ridolph,
"but inasmuch as the topic is yourself, we would profit by having you join us."
"I am at your service." The bonze advanced into the room. "How far has the discussion advanced?"
"You perhaps are aware that Lester Bonfils, the anthropologist, was murdered last night."
"I have heard the talk."
"We understand that last evening he conversed with you."
"That is correct." The bonze drew a deep breath. "Bonfils was in serious trouble. Never have I seen a man so despondent. The bonzes of Padmeespecially we of the Isavest Ordainment-are sworn to altruism. We render construclive service to any living thing, and under circumstances to inorganic objects as well. We feel that the principle of life transcends protoplasm; and in fact has its inception with simple-or perbaps not so simple-motion. A molecule brushing past another-is this not one of vitality? Why can we not conjecture consciousness in each individual
molecule? Think what a ferment of thought surrounds us; imagine the resentment which conceivably arises when we tread on a clod! For this reason we bonzes move as gently as possible, and take care where we set our feet."
"Aha, hum," said Pascoglu. "What did Bonfils want?"

THE bonze considered. "I find it difficult to explain. He was a victim of many anguishes. I believe that he tried to live an honorable life, but his precepts were contradictory. As a result he was beset by the passions of suspicion, eroticism, shame, bewilderment, dread, anger, resentment, disappointment and confusion. Secondly, I believe that he was beginning to fear for his professional reputa-tion-'

Pascoglu interrupted. "What, specifically, did he require of you?"
"Nothing specific. Reassurance and encouragement, perhaps."
"And you gave it to him?"
The bonze smiled faintly. "My friend, I am dedicated to serious programs of thought.

We have been trained to divide our brains left lobe from right, so that we may think with two separate minds."

Pascoglu was about to bark an impatient question, but Magnus Ridolph interceded. "The bonze is telling you that only a fool could resolve Lester Bonfils' troubles with a word."
"That expresses something of my meaning," said the bonze.

Pascoglu stared from one to the other in puzzlement, then threw up his hands in disgust. "I merely want to find who burnt the hole in Bonfils' head. Can you help me, yes or no?"

The bon\%e smiled. "I will be glad to help you, but I wonder if you have censidered the source of your impulses? Are you not motivated by an archaic quirk?"

Magnus Ridolph interpreted smoothly. "The bonze refers to the Mosaic Law. He warns against the doctrine of extracting an eye for an eye, a tooch for a tooth."
"Again," declared the bonze, "you have captured the essence of my meaning."

Pascoglu threw up his hands,
stamped to the end of the room and back. "Enough of this foolery!" he roared. "Bonze, get out of here!"

Magnus Ridolph once more took it upon himeeli to interpret. "Pan Pascogh conveys his compliments. and begs that you excuse bim until he can find leisure to samy your views more carenain."

The bonge bowed and withdrow. Pase glu said Linterly, "When this is oser. you and the tone can chop ? ere to your heart's content. !'in sick of talk, I want :a .... vere action." He puancd : F , imm. "Ask that Journey : I Fid wom-an-Miss Thousand rondles, whatever her name is- 10 come into the library."

Magnus Ridom? raised his eyebrows. "What du you intend?"

Pascoglu refused to meet Magnus Ridolph's gaze. "I'm going to talk to these people and find out what they know."
"I fear that you waste time."
"Nevertheless," said Pascoglu doggedly. "I've got to make a start sonewhere. Nobody ever learned anything lyFre: 厄iv in the library."
"I take it then that you! no longer require my services?"

Pascoglu chewed irritably at his mustache. "Franhly, Mr. Ridolph, you move a little too slow to suit me. This is a serious affair. I've got to get action fast."

Magnus Ridolph bowed in acquiescence. "I hope you have no objection to my witnessing the intervifws?"
"Not at all."

Amoment passed, then the door opened and Fiamella of Thousand Candles stood looking in.

Pan Pascoglu and Magnus Ridolph stared in silence. Fiamella wore a simple beige frock, soft leather sandals. Her arms and legs were bare, her skin only slightly paler than the frock. In her hair she wore a small orange flower.

Pascoglu somberly gestured her forward; Magnus Ridolph retired to a seat across the room.
"Yes, what is it?" asked Fiamella in a soft, sweet voice.
"You no doubt have learned
of Mr. Bonfils' death?" asked Pascogli.
"Oh yes!"
"And you are not disturbexi?"
"I am1 very happy, of course."
"Indeed." Pascoglu cleared his throat. "I understand that you have referred to yourself as Mre. Bonfils."

Fiamella nodded. "That is how you say it. On Journey's Find we say he is Mr. Fiamella. I pick him out. But he ran away, which is a great harm. So I came after him, I tell him I kill him if he will not came back to Journey's End."

Pascoglu jumped forward like a terrier, stabbed the air with a stubby forefinger. "Ah! Then you admit you killed him!"
"No, no," she cried indignantiy. "With a fire gun? You insult me! You are so bad as Bonfits. Better be careful, I kill you."

Pascoglu stood back startled. He turned to Magnus Ridolph. "You heard her, Ridolph?"
"Indeed, indeed."
Fiamella nodded vigorously. "You laugh at a woman's beau-
ty; what else : loes she have? So she kills you, and no more insult."
"Just huw do you kill, Miss Fiamella?" asked Magnus Ridoloh politely.
"I kill by love, naturally. I come like this-" she stepped forward, stopped, stood rigid before Pascoglu, looking into his eyes. "I raise my hands-" she slowly lifted her arms, held her palms toward Pascoglu's face. "I turn around, I walk away." She did so, glancing over her shoulder. "I come back." She came running back. "And soon you say. 'Fiamella, let me touch you. let me feel your skin.' And I say, 'No!’ And I walk around behind you, and blow on your neck-"
"Stop it!" said Pascoglu uneasily.
"-and pretty soon you go pale and your hands shake and you cry, 'Piamella, Fiamella of Thousand Candles, I love you, I die for love!' Then I come in when it is almost dark and I wear only flowers. and you cry out, 'Fiamella!' Next I-"
"I think the picture is clear,"
said Magnus Ridolph suavely. "W'hen Mr. Pascoglu recovers his breath, he surely will apologize for insulting you. As for myself, I can conceive of no more pleasant form of extinction, and $I$ am half-tempted to--"

She gave his beard a playful tweak. "You are too old."

Magnus Ridolph agreed mournfully. "I fear that you are right. For a moment I had deceived myself... You may go, Miss Fiamella of Thousand Candles. Please return to Journey's End. Your estranged husband is dead; no one will ever dare insult you again."

FIAMELLA smiled in a kind of sad gratification, and with soft lithe steps, went to the dors, where she halted, turned. "You want to find out who burned poor Lester?"
"Yes, of course," said Pascoglu eagerly.
"You know the priests of Cambyses?"
"Fodor Implieq a, Fodor Manzoso?"

Fiamella nodded. "They hated Lester. They said, 'Give us one of your savage slaves.

Too long a time has gone past, we must send a soul to our god.' Lester said, 'No!' They were very angry, and talked together about Lester."

Pascoglu nodded thoughtfully. "I sce. I'll certainly make inquiries of these priests. Thank you for your information."

Fiamella departed. Pascoglu went to the wall mesh. "Send Fodor Impliega and Fodor Banzoso here please."

There was a pause, then the voice of the clerk responded. "They are busy, Mr. Pascoglu, some sort of rite or other. They said they'll only be a few minutes."
"Mmph...Well, send in Viamestris Diasporus."

> "Yes, sir."
"For your information," said Magnus Ridolph, "Viamestris Diasporus comes from a world where gladiatorial sports are highly popular, where successful gladiators are the princes of society, especially the amateur gladiator, who may be a high-ranking nobleman, fighting merely for public acclamation and prestige."

Pascoglu turned around. "If

Diasporus is an amateur gladiator, I would think he'd be pretty callous. He wouldn't care who he killed!"
"I merely present such facts as I have gleaned through the morning's research. You must draw your own conclusions."

Pascoglu grunted.
In the doorway appeared Viamestris Diasporus, the tall man with the ferocious aquiline head whom Magnus Ridolph had noticed in the lobby. He inspected the interior of the library carefully.
"Enter, if you please," said Pascoglu. "I am conducting an inquiry into the death of Lester Bonfils. It is possible that you may help us."

Diasporus' narrow face elongated in surprise. "The killer has not announced himself?"
"Unfortunately, no."
Diasporus made a swift gesture, a nod of the head, as if suddenly all were clear. "Bonfils was evidently of the lowest power, and the killer is ashamed of his feat, rather than proud."

Pascoglu rubbed the back of his head. "To ask a hypo-
thetical question, Mr. Diasporus, suppose you had killed Bonfils, what reason-"

Diasporus cut the air with his hand. "Ridiculous! I would only mar my record with a victory so small."
"But, assuming that you had reason to kill him-"
"What reason could there be? He belonged to no recognized gens, he had issued no challenges, he was of stature insufficient to drag the sand of the arena."

Pascoglu spoke querulously. "But if he had done you an injury-"

Magnus Ridoph interjected a question. "For the sake of argument, let us assume that Mr. Bonfils had flung white paint on the front of your house."

In two great strides Diasporus was beside Magnus Ridolph, the feral bony face peering down. "What is this, what has he done?"
"He has done nothing. He is dead. I ask the question merely for the enlightenment of Mr. Pascoglu."
"Ah! I understand. I woud have such a cur poisoned.

Evidently Bonfils had committed no such solecism, for I understand that he died decently, through a weapon of pre:tige."

Pascoglu turned his eyes to the ceiling, held out his hands. "Thank you, Mr. Diasporus, thank you for your help."

Diasporus departed; Pascoglu went to the wall-mesh. "Please send Mr. Thorn 199 to the library."

THEY waited in silence. Presently Thorn 199 appeared, a wiry little man with a rather large round head, evidently of a much mutated race. His skin was a waxy yellow; he wore gay garments of blue and orange, with a red collar and rococo red slippers.

Pascoglu had recovered his poise. "Thank you for coming, Mr. Thorn. I am trying to es-tablish-"

Magnus Ridolph said in a thoughtful voice, "Excuse me. May I make a suggestion?"
"W'ell?" snapped Pascoglu.
"I fear Mr. Thorn is not wearing the clothes he would prefer for so important an inquiry as this. For his own sake he will be the first to wish to
change into black and white, with, of course, a back hat."

Thorn 199 darted Magnus Ridolph a glance of enormous hatred.

Pascoglu was puzzled. He glanced from Magnus Ridolph to Thorn 199 and back.
"These garments are adequate," rasped Thorn 199. "After all, we discuss nothing of consequence."
"Ah, but we do! We inquire into the death of Lester Bonfil:."
"Of which I know nothing!"
"Then surely you will have no objection to black and white."

Thorn 199 swung on his heel and left the library.
"What's all this talk about black and white?" demanded Pascoglu.

Ragnus Ridolph indicated a strip of film still in the viewer. "This morning I had occasion to review the folkways of the Kolar Peninsula on Duax. The symbology of clothes is especially fascinating. For instance, the blue and orange in which Thorn 199 just now appeared induces a frivolous attitude, a light-hearted disre-
gard for what we Earthmen would speak of as 'fact'. Black and white, however, are the vestments of responsibility and sobriety. When these colors are supplemented by a black hat, the Kolarians are constrained to truth."

Pascoglu nodded in a subdued fashion. "W'ell, in the meantime, I'll talk to the two priests of Cambyses." He glanced rather apologetically a: Magnus Ridolph. "I hear that they practice human sacrifice on Cambyses; is that right?"
"Perfectly correct," said Magnus Ridolph.

THE two priests, Fodor Impliega and Fodor 13anzoso, presently appeared, both corpulent and unpleasant-looking, with red flushed faces, full lips, eyes half-submerged in the swelling folds of their cheeks.

Pascoglu assumed his official manner. "I am inquiring into the death of Lester Bonfils. You two were fellow passengers with him aboard the Maulerer Princeps; perhaps you noticed something which might shed some light on his death."

The priests pouted, blinked, shook their heads. "We are not
interested in such men as Bonfils."
"You yourselves had no dealings with him?"

The priests stared at Pascoglu, eyes like four knobs of stone.

Pascoglu prompted them. "I understand you wanted to sacrifice one of Bonfils' palaeolithics. Is this true?"
"You do not understand our religion," said Fodor Impliega in a flat plangent voice. "The great god Camb exists in each one of us, we are all parts of the whole, the whole of the parts."

Fodor Banzoso amplified the statement. "You use the word 'sacrifice'. This is incorrect. You should say, go to join Camb'. It is like going to the fire for warmth, and the fire becomes warmer the more souls that come to join it."
"I see, I see." said Pascoglu. "Bonfils refused to give you one of his palaeolithics for a sacrifice-"
"Not 'sacrifice'!"
"-so you became angry, and last night you sacrified Bonfils himself!'
"May I interrupt?" askcd

Magnus Ridolph. "I think I may save time for everyone. As you know, Mr. Pascoglu, I spent a certain period this morning in research. I chanced on a description of the Camgian sacrificial rites. In order for the rite to be valid, the victim must kneel, bow his head forward. Two skewers are driven into his ears, and the victim is left in this position, kneeling, face down, in a state of ritual composure. Bonfils was sprawled without regard for any sort of decency. I suggest that Fodor Impliega and Fodor Banzoso are guiltless, at least of this particular crime."
"True, true," said Fodor Impliega. "Never would we leave a corpse in such disorder."

Pascoglu blew out his cheeks. "Temporarily, that's all."

At this moment Thorn 199 returned, wearing skin-tight black pantaloons, white blouse, a black jacket, a black tricorn hat. He siciled into the library, past the departing priests.
"You need ask but a single question," said Magnus Ridolph. "What clothes was he wearing at midnight last
night? What exact clothes?"
"Well?" asked Pascoglu. "What clothes were you wearing?"
"I wore blue and purple."
"Did you kill Lester Bonfils?"
"No."
"Undoubtedly Mr. Thorn 199 is telling the truth," said Magnus Ridolph. "The Kolarians will perform violent deeds only when wearing gray pantaloons or the combination of green jacket and red hat. I think you may safely eliminate Mr. Thorn 199."
"Very well," said Pascoglu. "I guess that's all. Mr. Thorn."

Thorn 199 denarted, and Pascoglu examined his list with a dispirited attitude. He snoke into the mes.h. "A=k Mr. Hercules Starguard to step in."

HERCULES Starguard was a young man of great physical charm. His hair was a thick crop of flaxen curls, his eyes were blue as sapphires. He wore mustard-colored breeches, a flaring black jacket, swaggering black shortboots. Pascoglu rose from the chair into which he had sank. "Mr. Starguard, we are trying
to learn something about the death of Mr. Bonfils."
"Not guilty," said Hercules Starguard. "I didn't kill the swine."

Pascoglu raised his eyebrows. "You had reason to dislike Mr. Bonfils?"
"Yes, I would say I disliked Mr. Bonfils."
"And what was the cause of this dislike?"

Hercules Starguard looked contemptuously down his nose at Pascoglu. "Really, Mr. Pascoglu, "I can't see how my emotions affect your inquiry."
"Only," said Pascoglu, "if you were the person who killed Mr. Bonfils."

Starguard shrugged. "I'm not."
"Can you demonstrate this to my satisfaction?"
"Probably not."
Magnus Ridolph leaned forward. "lerhaps I can help Mr. Starguard."

Pascoglu glared at him. *Please, Mr. Ridolph, I don't think Mr. Starguard needs help."
"I only wish to clarify the situation," said Magnus Ridolph.
"So you clarify me out of all my suspects," snapped Pascoglu. "Very well, what is it this time?"
"Mr. Starguard is an Earthman, and is subject to the influence of our basic Earth culture. Unlike many men and near-men of the outer worlds, he has been inculcated with the idea that human life is valuable, that he who kills will be punished."
"That doesn't stop murderers," grunted Pascoglu.
"But it restrains an Earthman from killing in the presence of witnesses."
"Witnesses? The palacolithics? What good are they as witnesses?"
"Possibly none whatever, in a legal sense. But they are important indicators, since the presence of human onlookers would deter an Earthman from murder. For this reason, I believe we may eliminate Mr. Starguard from serious consideration as a suspect."

Pascoglu's jaw dropped. "But-who is left?" He looked at the list. "The Hecatean." He spoke into the mesh. "Send in Mr..." He frowned. "Send
in the Frecatean to us now."

TIIl: Hecatean was the sole non-human of the group, although ouiwardly, he showed great organic similarity to true man. He was tall and sticklegged, with dark brooling cyes in a hard chitin-sheathed white face. His hands were elastic fingerless flaps: here was his most obvious differentiation from humanity. He paused in the doorway, surveying the interior of the room.
"Come in, Mr.-" PascogIu paused in irritation. "I don't know your name, you have refused to confide it, and I cannot address you properly. Nevertheless, if you will be gond enough to enter. . ."

The Hecatean stepped forward. "You men are amusing beasts. Each of you has his privale name. I know who I am, why must I label myself? It is a racial idiosyncrasy, the need to fix a sound to each reality."
"Ife like to know what we're talking about," said Pascoglu. "That's how we fix objects in our minds, with names."
". And thereby you miss the great intuitions," said the Hecatean. His voice was
solemn and hollow. "But you have called me here to question ne about the man labeled Bomfils. He is dead."
"Rxactiy" said Pascoglu. "Do you know who killed him?"
"Cirtainly." said the Hecatean. "Does not everyone know?"
"Yo." said Pascoglu. "Who is it?"

The Hecatean looked around the room, and when he re. turned to Pascoglu, his eye:; were blank as holes into a crypt.
"Evidently I was mistaken. If I knew, the person involved wishes his deed to pass unnoticed, and why should I disoblige him? If I did know, I don't know."

Pascoglu began to sputter, but Magnus Ridolph interceded in a grave voice. "A reasonable attitude."

Pascoglu's cup of wrath boiled over. "I think his attitude is disgraceful! A murder has been committed, this creature claims he knows, and will not tell... I have a good mind to confine him to his quarters until the patrol ship passes."
"If you do so," said the Hecatean, "I will discharge the contents of my spore sac into the air. You will presently find your Hub inhabited by a hundred thousand animalcules, and if you injure a single one of them, you will be guilty of the same crime that you are now investigating."

Pascoglu went to the door, flung it aside. "Go! Leave! Take the next ship out of here! I'll never allow you back!"

THE Hecatean departed without comment. Magnus Ridolph rose to his feet and prepared to follow. Pascoglu held up his hand. "Just a minute, Mr. Ridolph. I need advice. I was hasty, I lost my head."

Magnus Ridolph considered. "Exactly what do you require of me?"
"Find the murderer! Get me out of this mess!"
"These requirements might be contradictory."

Pascoglu sank into a chair, passed a hand over his eyes. "Don't make me out puzzles, Mr. Ridulph."
"Actually, Mr. Pascoglu, you have no need of my services.

You have interviewed the suspects, you have at least a cursory acquaintance with the civilizations which have shaped them."
"Yes, yes," muttered Pascoglu. He brought out the list, stared at it, then looked sidewise at Magnus Ridolph. "Which one? Diasporus? Did he do it?"

Magnus Ridolph pursed his lips deubtfully. "He is a h misint of the Jacca, an amateur gladiator evidently of some reputation. A murder of this sort would shatter his silf-respect, his confidence. I put the probability at 1 percent."
"Hmph. What about Fiamella of Thousand Candle:? She admits she set out to kill him."

Magnus Ridolph frowned. "I wonder. Death by means of amorous attrition is of course not impossible-but are not Fiamella's motives ambiguous? From what I gather. her reputation was injured by Bonfile' disinclination, and she thereupon set out to repair her repputation. If she could hara's poor Bonfils to his doom by her charm and seductions, she would gain great face. She had
everything to lose if he died in any other fashion. Probability: 1 percent."
"Hymph. What of Thorn 199?"

Magnus Ridolph held out his hands. "He was not dressed in his killing clothes. It is as simple as that. Probability: 1 percent."
"Well," cried Pascoglu, "What of the priests, Banzoso and Impliega? They needed a sacrifice to their god."

Magnus Ridolph shook his head. "The job was a botch. A sacrifice so slipshod would earn them ten thousand years of perdition."

Pascoglu made a half-hearted suggestion. "Suppose they didn't really believe that?"
"Then why trouble at all?" asked Magnus Ridolph. "Probability: 1 percent."
"Well, there's Starguard," mused Pascoglu, "but you insist he wouldn't commit murder in front of witnesses..."
"It seems highly unlikely," said Magnus Ridolph. "Of course we could speculate that Bonfils was a charlatan, that the palaeolithics were impostors, that Starguard were some-
how involved in the deception..."
"Yes," said Pascoglu eagerly. "I was thinking something like that myself."
"The only drawback to the theory is that it cannot possibly be correct. Bonfils is an anthropologist of wide reputation. I observed the palaeolithics, and I believe them to be authentic primitives. They are shy and confused. Civilized men attempting to mimic barbarity unconsciously exaggerate the brutishness of their subject. The barbarian, adapting to the ways of civilization, comports himself to the model set by his preceptor-in this case Bonfils. Observing them at dinner, I was amused by their careful aping of Bonfils' manners. Then, when we were inspecting the corpse, they were clearly bewildered, subdued, frightened. I could discern no trace of the crafty calculation by which a civilized man would hope to extricate himself from an uncomfortable situation. I think we may assume that Bonfils and his palaeolithics were exactly as they represented themselves."

Pascoglu jumped to his feet, paced back and forth. "Then the palacolithics could not have killed Bonfils."
"Probabiity minuscule. And if we concede their genuineness, we must abandon the idea that Starguard was their accomplice, and we rule him out on the basis of the cultural qualm I mentioned before."
"Well-the Hecatean, then. What of him?"
"He is a more unlikely murderer than all the others," said Magnus Ridolph. "For three reasons: First, he is non-human, and has no experience with rage and revenge. On Hecate violence is unknown. Secondly, as a non-human, he would have no points of engagement with Bonfils. A leopard does not attack a tree; they are different orders of beings. $S_{0}$ with the Hecatean. Thirdly, it would be, physically as well ats psychologically, impossible for the Hecatean to kill Bonfils. His hands have no fingers: they are flaps of sinew. They could not manipulate a trigger inside a trigger-guard. I think you may dispense with the Hecatean."
"But who is there left?" cried Pascoglu in desperation.
"Well, there is you, there is I and there is-"

THE door slid back, the bonze in the red cloak looked into the room.
"Come in, come in," said Magnus Ridolph with cordiality. "Our business is just now complete. We have established that of all the persons here at the Hub, only you would have killed Lester Bonfils, and so now we have no further need for the library."
"What!" cried Pascoglu, staring at the bonze, who made a deprecatory gesture.
"I had hoped," said the bonze, "that my part in the affair would escape notice."
"You are too modest," said Magnus Ridolph. "If is only fitting that a man should be known for his good warks."

The bonze bowed. "I want no encomiums. I merely do my duty. And if you are truly finished in here, I have a certain amount of study before me."
"By all means. Come, Mr. Pascoglu, we are inconsiderate,
keeping the worthy bunce from his meditations." And Magnus Ridolph drew the stupified Pan Pascoglu into the corridor.
"Is he-is he the murderer?" asked Pascoglu feebly.
"He killed Lester Bonfils," said Magnus Ridoph. "That is clear enough."
"But why?"
"Out of the kindness of his heart. Bonfils spoke to me for a moment. He clearly was suffering considerable pyychic damage."
"But-he could be cured!" exclamed Pascoglu indignantly. "It wasn't neccsary to kill him to soothe his feelings."
"Not according to our viewpoint," said Magnus Ridolph. "But you must recall that the bonze is a devout believer inwell, let us call it 'reincarnation'. He conceived himself performing a happy release for poor tormented honfils who came to him for he'p. He killed him for his own good."

Then entered Pascoglu's office; Pascoglu went to stare out the window. "But what am I to do?" he mintered.
"That," said Maques Ridolph, "is where I can not advise you."
"It doesn't seem right to penalize the poor bonze... It's ridiculous. How could I possibly go about it?',
"The dilemma is real," agreed Magnus Ridolph.

There was a moment of silence, during which Pascoglu morosely tugged at his mustache. Then Magnus Ridulph said, "Essentially, you wish to protect your clientele from further applications of misplaced philanthropy:"
"That's the main thing!" cried Pascoglu. "I could jass off Bonfils' death-exp, iain it was accidental. I could ship the palaeolithics back to their planet..."
"I would likewise separate the bonze from parsons showing even the mildest melancholy. For if he is energetic and dedicated, he might well seek to extend the range of his beneficence."

Pascoglu suddenly put his hand to his check. He turned wide eyes to Magnus Ridolph. "This morning I felt pretty low. I was talking to the bonze... I told him all my troubles. I complained about expense-"

The dioner slid quietly aside, the bonze peered in, a halfsm!? on hi, benign face. "Do I intrule?" he asked as he spied Magnus Ridhlph. "I had heped to find you alone, Mr. Pascoglu."
"I was just going," said Magnts Ridolph politely. "If you'll excuse me..."
"No, no!" cried Pascoglu.
"Don't go. Mfr. Ridolph!"
"Another time will do as well," said the bonze politely. The dour chosed behind him.
"No!v I feel worse than ever." Pas:oglu moaned.
"Best to conceal it from the bonze," said Magnus Ridolph.

## FEROMAGNETIC FLLM

Vacuum tubes are soon to become all but obsolete in large scale computers, according to scientific predictions, but the vacuum tube's supplanter, the transistor, may also be on the way out.

This comes from Dr. Herbert Callen of Sperry Rand, who addressiad a recent gathering at Har:ard and declared that all new computers are being designed for transistors rather than vacuum tubes. But he lowked into the future of computing machines and fore-
saw the eventual decline of the transistor in favor of new ferromagnetic films, which will carry the speed of switching to as little as one billionth of a second.

Dr. Callen predicted a time when the top limit of computing speed would be restricted only by the time necessary for a pulse to travel from one point in a computer to another. The ultra-thin feromagnetic film switch is theoretically capable of this speed equal to the speed of light.

# SECRET WEAPON 

## by ARTHUR ZIRUL

illustrated by ORBAN


#### Abstract

The Bureau of Extra-Terrestial Trade was concerned about the new minor planet. The natives had quike a deal there, a deal that might upset the Federation


"WE don't know what the story is out there, Keegan; all we've been getting are some vague rumblings on the grapevine, but the Chief wants some fast action on this, and we think that youre just the man for the job."

The Director leaned back in his chair and puffed mightily on his cigar. He was very satisfied with himself. Even Walter Keegan had to admit that it had been an exceptionaliy well delivered Lets-Go-Over-The-Top-Boys specch; but it still hadn't answered all of Kecgan's questions. The BETT agent wriggled his big form looking for a soft spot in the idiotic plastic chair the Director kept in his office to
discourage lengthy visits.
"I'm afraid I'm still a little confused, Sir," he said. "Just why should the Bureau be so interested in a minor third level planet that they have to rush an MXX agent out there a month ahead of schedule?"
"Not the Burcau, Kecgan, the Federation Council. As far as the Bureau if ExtraTerrestial Trade is concerned, this job can wait, but the Council seems to feel that there is something fishy going on there. In the first place, the cost of transportation being what it is, traders usually won't fool with third level cultures unless the planet is made of solid platinum. The claim's assay report showed only nor-

mal mineral deposits."
"Was the planet reported and filed on according to normal procedure?"
"Yep, and that's also a puzzler. It was filed on by a Vegan merchant captain who claimed the usual first trade rights for his company, after BETT established an MX, but he never came lack to pick up his papers. lou know as well as I do that a prospecfor would hase to be? dead before he didn't pick up his claim papers."
"So?"
"He was very mach alive yesterday when he took off from Canarsie port for deep space at 0.300 after having given the control tower only an hour's notice. He was in an A number one rush."
"You mean he just deserted the claim?"
"Nope, and that's also why we're curious. That same morning at 0900 just as the Bureau's claim office had opened, another Vegan showed tip with what he claimed was a proxy claim report signed by the captain. Our clerk had enough sense to get suspicious and he ran the man's identi-
fication through our records department. It almost blew the fuse on the IBM machine; that Vegan had a criminal reeord as long as he was, and most of it concentrated on bootlegging. The clerk notified us, and the Chief issued orders to stall his claim until after we had done some further checking."
"For all you know that captain lost his claim in a crap game. It wouldn't have been the first time."
"Sure, and he might have been kidnapped or killed-or both by a booters gang. That wouldn't have been the first time either; but that isn't the queerest part of the whole deal. The thing that excited the Council was what happened after the V'egan left the claims office. We had him followed and he went straight to the Vegan Consulate, as fast as his air car would go."
"So?" Keegan wriggled again. "Even a criminal has a right to a passport."
"Check, except this one didn't come out of the consulate again. At least not standing up. About three hours after he went in, a private air am-
bulancer pulled up and something in a morgue basket was rushed out of the place. Sound suspicions enough to you?"
"IIm. could be coincidence."
"Could be. Could also be an organisel dooters gang or, as the ('Inneil is afraid of, something biger. We aren't on the frientliest terms with Vega. They seem to have the idea that they are the center of the universe and try to prove it at every opportunity. Of course the odds are ten to one that there's nothing wrong, but we've stayed on top for two hundred years by not taking any chances. That's why we're sending you out on this special run. You read the claim papers on that world yet?"

Kergan nodded his head, "Seems to be the usual deal. It's a basic 02 Earth type, small land masses, homo sapien population. The only odd bit was that the propulation seemed to be concentrated on only one of the minor land masses. The Vegan captain classified them as primicives after a cursory examination."
"Well, you'd better draw a
general Bett-box out of supply, just in catse." The Director pulled some sheets of paper out of a desk drawer and handed them to Ketgan. "Here are your orders. I want you to establish a Medium of Exchange with the natives as quickly as possible. But remember, your primary mission is to investigate. If there is anything wrong there we want to know about it, and fast. You're leaving at 2045 hour.: tonight aboard the Greyhound."
"Just one thing more," Keegan said, as he rose gratefully from the chair. "W'hat happens if I should run into something?"
"Try © notify us immediately. If you can't then handle it the way you think best. But don't worry; we're going to keep a constant monitor on the trip. If anything should pop we'll have a large enough force warped out to you in fortyeight hours. Anvthing else?"
"No. Sir." Keegan said as he shook the Director's hand. but as he lurned to leave the office he thought to himself. that will be a big hetp. W'hat
am I supposed to do while I'm waiting around those fortyeight hours?

THE naval cruiser Greyhound dropped out of its warp a scant 50,000 miles from the surface of TTP-1009-4B. The fourth planet of TTS1009, a Sol type, Orange Dwarf Celphid sun, which up until ten siderial days before had been identified only as a dim spot of light in the unexplored sector of the Milky Way. The cruiser traveled by heading on a sharp tangent for the planet. When it seemed that she would overshoot her mark she fired her braking jets several times in rapid succession and settled into a freefall orbit that just brushed the world's atmosphere. A hatch lock door slid open on the planet side of the hull. A tiny landing boat nosed out of its berth and began to spiral down towards the surface of the world below.

Inside the boat Keegan was Inishing the final check on the contents of his Bett-box. Everything seemed to be in order -samples of metals and min-
erals, expensive gems, cheap trinkets, micro film, tools, a gold-plated Norton Disruptor of exquisite workmanship, some small bottles of whiskey and several dozen equally dissimilar items all crammed into the compartments of the suitcase sized box. He checked his pocket transceiver. The tight beam that connected him with the Maxie operator in the Greyhound was in working order. Everything was all set to go, everything but his stomach that is, and he took a pill for that.

The boat's pilot sought and found an open area just south of the largest, and possibly the only, village on the planet. The ship had barely touched the ground when Keegan was out of the lock dragging the clumsy Bett-box after him. The boat climbed back into the night sky as soon as he was clear.

Keegan sat down on the Bett-box and looked at his watch. Two hours before dawn, that gave him plenty of time to walk the mile to the village and to survey the lay of the
land. He snapped the switch on a tiny lapel microphone and spoke softly.
"Hello Grcyhound, this is Keegan testing on closed circuit four. Can you read me?"

There was a slight crackle in the plug phone in his right ear. "You're coming in fine, Sir," the operator said. "This is Green in Maxie section. Have you any special instructions?"
"Not yet, Green; I'll keep in touch every so often. If, however, I don't report within half an hour notify the Captain. Tell him to come and get me."
"Yes. Sir, I'd appreciate a souvenir if you have time, Sir."
"I'll try," Keegan smiled. He switched off and started walking towards the village. He walked clumsily, the heavy box bumping against his leg with every step. He topped a little hill on the outskirts of the village just as the first bright edge of the sun broke the horizon. By its light he could see the village laid out beneath him. An irregular patchwork of primitive huts and dirt streets, nestled at the edge of a range
of small mountains.
"Hello, Green, this is Keegan. Hear me?" He said into the radio.
"Yes, Sir," his ear phone answered.
"OK, start your tape. I'll begin my report here. I'm at the outer perimeter of the village now. Looks like a typical A-3 third level all right. Not a sign of hand-hewn planks or even rudimentary stone work. Don't see any sewage animals in the street though. Must be too early for them to be out yet."
"Glass beads and mirrors, huh Mr. Keegan?"
"Looks that way," Keegan grimaced. Third levels rarely challenged his bargaining instinct. He set the Bett-box down and rubbed his arm. "I see signs of life now. There's a native coming out of one of the huts. Appears to be a woman. Hm, that's strange."
"What is, Sir?"
"She's covered from the neck to the waist, very odd. The climate is tropical; besides, evidence of fruitfulness is almost mandatory in a primitive culture."
"Tough luck, Sir," Keegan could almost see Green`s grin.
"Maybe the missionaries got there ifist."
"Maybe." Keegan was grinning himseli. "(Oh, oh, she saw me. Ske"s shouting swothing. ld better ga dasin. More ai them ate coming olt oi the hues."

HQ aicked up the box an l wathed carrinlly down in. slope a inwarts the gatherins knoe oi natives. butl agents hat diseovered long belore that the beat approach to a primitive sreiely was a direct one. Primitioes did not trust strangets who lurked just beyond the range ai their weapons wherens they admired, and were untirgid if a man who stepped iorward boldly.

The group of natices greiv to dous thirty or iorty individuais eventy divided between men and women. A few children stoud oil to one side and stured opened mouthed at the Bett-man. Keegan noticed that they were an unusually handstane people. tall, light-eyed, copper skinned with prominent fureleads and aqualine noses. They wore sarong type garments that appeared to be
made oi tanned animal skin. He sturlied them careiully, aliert fore any show of weapons. Hfe was surprised to see that the; caried none. not even a kuile itu their belts.

He switcherd on ini (ransanis. tre the haised his arms. palmis ow ward to show hat he held m., woapons; and spok: !oudly: in the vibrant, inspirith barinone he had been tramed (o) use.

- C'an you read me, (ireen? I'm speaking to these natives now. They don't unders!and a word I'm saying but the tone of my veice is sup)prosed to inspire confidence."
"You're coning in fine. Sir. I have Maxie on stantby. Wive already fed him alt the pertinent data on the climate and terrain. Shall I cut him in:"

Maxie was the nickname for the cybernatic monster that. had been installed in the com. puter section to be used as a translator of esoteric larguages. Without it, the Bettman's job would be alobest impossible.
"Yes, I think you'd betier. I'm moving in cluser now."
"Can you get them to say a f.w words, Sir? Maxie has to be keyed in before he can start to break down and classify their language."
"I'll try, hold on." Keegan lowered his arms slowiy and opened the Bett-box slowly. Sudden movements inviled disaster. With a twinge of conscience, he lifted out a hand mirror set in a shiny brass mount and wiggled it so that it caught the rays of the morning sum.
"I bring you gifts," Keegan said in the baritone. "I come frrm far away," he pointed at himself and then up at the sky, "and I bring gifts-see?"

A giggle ran through his audience.
"They have to talk, Sir," Green reminded him.
"I bring a mirror," he boomed. "Is your leader among you?... I'll try to get them to tal!: Green, just hold on... A nimror, see? I-HOLY MACKERAI!!"

The mirror had leapt out of his fingers as if a string were attached to it and flew through the empty air into the hands of one of the little boys standing at the edge of the groun.
"What happenerl, Sir?" Green asked. Keegan was too startled to answer.

A woman, probably the boy's mother bent down and said something to the child in a scolding voice. The mirror flew back through the air, hit Kcegan's still upraised band, and fell from his numbed fingers to the ground.
"Mr. Kecgan, are you alright? Answer please:"
"Hulh? Oh sure, sure. I'm alright. Hold on a minute Green I want to clieck something."
$\mathbf{K}^{\text {EEGATA }}$ picked up the mirror and inspected it closely. If anything had been. attached to it, it had left no mark. On a sudden impulse he moved cantiously towards the group holding cut the mirror.
"Keep listening Greers," he said tensely. "I may be foolish, but if what I suspect is true..." He held the mirror out and spope loudly to the natives, "I bring a gift, ste?",

When he was abrom ten feet from them he tossed the mirror underhanded toward a man who stood at the head. of the group. 'The miari's eyss
widened slightly. The mirror rebounded with such force it was just a blur in the air. Keegan ducked involuntarily as it whistled by, a foot over his head, and crashed into a tree some twenty yards behind him.
"W'as that a shot, Sir?" Green's voice was urgent.

Keegan had difficulty regaining his composure. He smiled warmly at the group. "I'm O.K., Green. Listen, unless I'm crazy we've stumbled on the biggest find since the bureau was established. These people are telekenetic."
"What? What was that, Sir?"
"Telekenetic. They can make things move with mental power. You know-levitation."
"What: But I thought that was imposible. Wasn't it proved impossible last year when there was that big movement on to investigate that psyche stuff as a new power source? Dr. Kiner himself wrote the equations that..."
"Could be Kiner was all wet," Keegan interrupted, still smiling at the natives. "If they can't levitate then they've invented a force field genera-
tor they can carry around in their hip pockets. In either case they're hot. Have you gotten anything on their language yet?"
"Just those few words that woman spoke, and the babble from the crowd. As far as Maxie can tell--about fifty percent accurate, Gama means boy and lud is some derrogatory adjective, probably means bad."
"Oh fine, I'm a bad boy. That'll go over great. Anything else?"
"Sorry Sir, had no reference point for the other words she used. Maxie says that Okalan probably means visitor, but that would be valid if she was referring to you."
"Well, it's something... Okalan!" Keegan beamed at the natives, widening his toothpaste-ad grin. "I am Okalan. I have come in peace and I bring gifts."

The native who had flung the mirror back at him stepped forwand and, returning Keegan's smile, spoke, "Newak a lollana Okalan."
"Ah," Green grunted in satisfaction, "tonal inflection indicates welcome. Maxie
translates-eighty percent accurate, 'welcome to our home (or village) visitor.' Okalan seems to be you alright."

The native half turned and said, "Flachat Gama," to the little boy who had first taken the mirror.
"He's ordering a boy to do something:" Green reported. "What's going on?"

Kcegan watched the boy rise gently off the ground and fly to the top of a nearby palmlike tree. He pulled some round objects loose from the tree and flew back down to the ground with them and handed them to the native. Keegan did his best to describe the scene to Green without sounding like a gawking school boy. The native gave the objects to Keegan s;aynes, "Rechat ela simak Okalan,"
"Accept (or take) this gift (or fruit) visitor," Green translated. "S $i m a k$ probably means gift. Kcep them talking, Sir. Wire doing fine."

Keegan accepted the fruit. He look another mirror from his box and handed it to the native saying, "I, Okalan, give you ela simak."

THE native looked at the mirror, but he didn't take it. Instead he returned heegan's grin and said, "Lechat Okalan. Crebasha coma wayar incli krimishia."
". Ih!" Green purred. "The word imcii has a plural ending, and so has its following modifying adverb krimishi. Also the verb uray has a sulfix indicating a deilinte conjugational set up. Now. . ."
"Come on!" Keegan said impatiently. "What are they saying?"
"Sorry, Sir, but it's most surprising, theirs scems to be an advanced rasleer hatn a primitive language. Maxie translates into the following-eighty-five percent accuraic. 'Tell me visitor, why do (or (lid) you bring such twi-ierl toys."
"Twisted?" Keegan a-hod.
Ircobably idionatic. Siaxie's weak on idions. Coutd mean odd or silly."
"Hm, live been underrating these people," Kecogan muttered. "I'll have to watch what I'm saying." Then he boomed back into his resonant baritone, "I Okalan wayar simaki, not krimishi." He lifted a
crystal netiome bottle from his box almer with a small bar oi wh:l and oilered these to the maine.
Th. prome and the bar litied frem Kergan's hands and iloated io where the narive could pick them from the air. He siudied them a moment and the:i answered. Green translated as he spoke.
"We thank you, and we are (or would be) insane (probably idmatic) if you do (or (did) mit shout so. Our ears (or heals) are quite sensitive.'

Korgan felt a flush of embarrasment creep up from his collar. "Sorry," he apologized lowering tis :oice.
"Chimehat a willa cim Okalan." the native said pointing at one oi the huts. "A nul Zamaran."
"Come to my house, visitor." Green translated. "We will talk (or rest) there."

The group parted. Keegan picked up the Bett-box and walked behind the native toward one of the huts. It was third level alright; made oi vertical. unbarked poles hammered into the ground around a circtilar iloor plan. It had
a conical roof made of leaves: from the local palm trees woven onto a wooden framework. He ducked through a curtain oi skins behind the native and entered the interior of the hur.

There was nothing on the inside to indicate anything higher than third level eitherwoven reed baskets, animal hide pallets, gourd eating dishes, and a dirt iloor. But there did seem to be something wrong, or rather missing. There was no smell. Usually the stench in a third level home was overwhelming. This one smelled almost hospital clear. No fire either and Keegan hadn't seen a community cooking pit, that usually meant that each hut kept its own fire going. He reminded himself to ask about that later. Keegan faced the native and pointing at himseli said, "Keegann."

The native nodded solemnly and putting his hand on his chest said, "Howlak."

Keagan set down the Bettbox and pointing at it said, "Simaki." It would be some hours yet before Maxie would make him fluent enough to explain the philosophy behind the Federation MX.

As Keegan bent to open the box he heard a swishing sound behind him. He twisted his head around in time to see a short, leather-skinned Vegan coming at him from behind with a Norton in his upraised hand, butt outwards. The Vegan brought the gun down viciously, aiming at the back of Keegan's head. The Bettman desperately tried to pull out from under the blow; but he wasn't quick enough. The butt of the Norton crashed into the side of his head. There was a surge of unbearable pain in his skull as he dropped to the floor, his head clutched in his hands. He blacked out before he could shout a warning into his phone.
$K^{\text {EEGAN }}$ awoke lying flat on his stomach exactly where he had fallen. He rolled over painfully, rubbing at the throbbing lump on his head. The mative was sitting crosslegged on the floor a few feet awiy from him. The Vecan was standing by the doorway of the hot pusing aside the docr-hins with one hand as he lowked up at the sky; he held the Norton in his other hand.

Keegan reached automatically to turn on his transmitter lapel switch. The switch wasn't there, neither was the radio pack he kept in his breast pocket. At the Belt-man's movements, the legan left the doorway and walked towards him.
"I have your radio, if that's what you're looking for," he said. "I had to take it from you to be sure that you do not try to contact your ship before my own re-enforcements arrive."
"Lousy booter." Keegan said with feeling as he felt the lump on his head.
"You are mistaken," the Vegan stifiened. "Aliow me to introduce myself. I an Captain A. Karla of the Second Vegan Space Corps, Intelligence Section." The legan had said his little speech so iomally, Keegan almost expected to hear the click of heets.
"I thought if I lived long enough I'd hear evetyhing, the Bett-man shook his hedi in complete amazement. He shoud up and faced the lowan. "Look, I donit haw wion er what you are and framby
don't carc. I'm giving you a chance for your life. 'There's a Federation cruiser upstairs right now. If they don't hear from me inside of thirty minutes they'll be all cuer this village, and you, like an avalanche."
"I doubt that," Karla said evenly.
"I'm not kidsling."
"Sior am I Keegan." The Vegon glanced at his watch. "There is a squadron of Vegan Heavy Cruisers meeting over this wortid at this moment. They have been sent to take these natives off and they will land whin I signal them. They should be overhad in another minete or two. Care to check?" The Vogan waved the gun towards the curtained entrance.

The Rett-man studied him for a moment. Karla didn't seem to be blufiing, but what he was saying was absolutely insane. Keegan crossed the hut deliberately: He pushed aside the curtain and looked up; the sky seemed to be clear.

He was about to turn around and tell the Vegan off when he heard the sharp but faint whine of descent beam generators. The sound grew steadily
in volume until it sounded like a gigantic hornet swarm directly overhead. The first ship passed over the hut from behind breaking into view as it crossed the ragged eave of the roof. It was a Vegan Heary and not more than five thousand feet up. It was followed by another and another for several minutes until the entire zenith was filled with them. They dropped siowly on their beams, vibrating the air with their hum.

The group of natives that had been in the strects seemed to have disappeared. They probably had fled, at the first sign of the ships, to the supposed safety of their huts.

Keegan turized back from the curtain visibly shaken. The fools weren't bluffing.
"What abrout the Greshound?" he asked.
"I imagine they are in protective custody. unless they have put up a fight. We have no intention of using force... unless we have to," he seemed to have directed his last remark at the native who was still sitting immobile on the floor rather than at Keegan. "All we want is to take these
people back to Vega with us. If you had come a day later you would have found a deserted world to report on. As it is, we will be forced to take the Greyhound and you with us."
"But why are you doing all this?" Keegan asked. "Don't you realize that you have committed an act of war against the Ferderation?"
"War is a hasty word; all we want is what is ours by right of first possession. It was a l'egan ship that first discovered this world."
"It was a Vegan captain you mean. He claimed the world for hi.s company."
"That captain was a greedy fool. He reported the world to us lirst and then he put in a claim for it when we refused tos pay him the price he asked. He forgot he was a Vegan, and a member of the Vegan State. The State comes first in all such matters. That captain has paid for his indiscretion, as do all fools; as will anyone else who tries to take this world from us. We will fight for it if We have to. The decision rests with the Federation Council."
"Then these people really
are telekenetic," Keegan said calmly.

THE Vegan looked surprised. His grip on the Norton tightened a little, but it loosened again almost as quickly. "You are very observant," he said. "Until this moment, that was the most carefully kept secret in our government. But I don't suppose it .matters now. Yes, they are telekenctic. and telepathic too, when they have a mind to."

Keegan glanced at the native. Ilowlak was sitting there studying the two men silently, almost aloofly.
"Do you honestly mean." Keegan asked turning back 10 the Vegan, "that you will ri.k war with the Federation just to get control of these people?"
"I'eegan," the Vegan's tone of voice was the sort one might use towards a child, "for years there has been a behind-thescenes struggle for control of the Federation. This is Vega's chance to win a decisive and absolute victory over Sol, and bring the control of the Federation into the hands of Vega —where it belongs."
". And I suppose you intend to use the powers of this race to back up your threat?"
"Exactly."
"Now I know you're crazy," Keegan snorted, "assuning they can levitate, what could a handful of them do against the Federation Navy?"
"Nothing," Karla smiled, "but think of what an entire system, the legan system, can do once it has been taught to use this new power. Imagine the military potential of a cullure that needs no bulky, expensive machines just to move it. Think of the productivity of a worker who can control 500 kilos of material with a thought. And that would be ciniy the beginning of what this new power would be capable of. Levitation is only one facet of an incredible new source of power.
"Our physical sciences are amazing, Keegan but they have reached the point of diministing returns. We can probice tremendous amouns fif power, but we aloogese treraminnos amounts of power. The machines necessary 10 promitce that energy have be(this so conplicated and ex-
pensive to maintain that even the Federation will soon be unable to support them. A new, cheaper source of power is necessary. Something beyond atomics, beyond even Physics.
"Our scientists have long suspected the existence of such a power, and they have been searching for the hey to it. Until now they have had no success. The few ESP sensitives we have in our systent are too inconsistent to be able to give us accurate results. These primitives may not have made full use of this tremendous energy, because they obviously cannot comprehend its potentials, but they can give us the key to it."
"How?" Keegan sneered. "Blood transfutions?"
"I.evitation. with these people, is a learned process," the Vegan said, "rot an inherited one. I have learned that much. Thry will teash us the secret. It is that simpie."
"ind supposing they won'?"

Karla smiled ayain, but not pieasantly: "They will," he said. "once we get them back to Vega."
"Rut yo:l can't kidhap a seen reason to. My actinns were whole reve"
"O:1, but we are."

0N a sudden impulsi Kuegan iumed to the native. "This man." he suld pointing, at the Yegrne "ela lul: no good, lul. H. mean.; you harm." Blast, he wished he had spent nore bane outeide with Marie. "Ela ;u', bad..."
"You cin speak Federation io him," Karla sail, anused at the Beti-man's pidgin. " $H$ : picked it up very quickiy. I told you they were telenahic."

The native looked up at Keegan's open-mouthed expression.
"It is true; I have been taught your language," he said softiy, his expression still impaisive.

The fett-man glared at Howlak. "Then it's obvious you're siding with him," he jerked a thumb at the Vegan, "or you would have warned me."
"I could not have warned you," Howlak stirred slightly, his eyes large and grey fixed on Kergan, "even if I had
a matter of expedienct. Thi: $\mathrm{m}: \mathrm{n}$ threatened violence it I did not co-eperate. It is the nature of my people to a wid vibience."
"Shates of Chamberlain's; umbrella." Keegan nutecred in disgust. " A Pacifist!"

The Bett-man cursed himseli mentally ior having walked into the trap like a plebe eadet. He should have paid mor: attontion to his job and lesis to gawking at the levitating tricks of the natives like a moron. Well, it was a class A mess now, and if he was going to d), something about it he didn'i have much time to stew over a plan of action. That Vegan squadron would be landing at any minute.

It was obvious that his best. and probably only, stratesy would be a delaying action. The Vegans must realize, as Keegan already knew, that the Federation would send a relief force when the Greynoumd failed to report. Knowing this they would be desperate in get off the planet as quickiy as possible to avoid meeting that force.

If Keegan could somehow get the natives out of the village and disperse them in the mountains, behind the village or even better over the planet -if their lesitating abilities could carry them that far, he stood an excellent chance of Etaicmating the Vegans.

The Vegans would not be able to waste the time necessary to scour the planet with search pariies. They might, however, choose to destroy the $p^{\prime}$ anet rather than let the Federation get the natives. Vegans were crazy enough to pull a stunt like that.

Kergan just had to gamble that they wouldn't do anything so foolish. Such an action would leave them open to immetliate lederation reprisals, and without the natives' power to back them up they would be cut to picces in a civil war.

The first step in his plan vould be to get Howiak alone long enough to sell him on the idea of deserting the villageforce him to if necessary. In order to do that he would first have to get rid of Karla.

T
HE: Vegan officer bad rewirned to the doorway and
was staring up at the still maneusering ships. Evidently he was waiting ior some sort of a signal. It was Keesan: guess that Karla had entered the village alone, as Kergen himself had done, to test the effectiveness of the natives' power. Even the legans would not have been so foolish as to have sent an armed party onto the planet without first having had that infornation.

The odds were that Karla was still alone, or at least he would be until the kidnapping ships landed. which meant that Keegan did not have too much time to act. Plis best attack against Karla would be a direct one while the Vicgan was off his guard watching the cruisers.

The Bett-man breathed deeply once and began to walk cautiously towards Karla. He felt about as inconspicuous as an elephant as he ostrichstepped across the hut, trying to remember the funciamentals of judo he had learned in his academy days. If the Vegan only stayed with his back to him, it would be nuch easier. Keegan raised his arm fist clenched, as he approached

Karla; he was almost close enough to touch him when Howlak suddenly said, "Keegan, what are you doing?"

The curse that Keegan muttered would have removed paint. Karla spun around, the Norton in front of him. Simultaneously, Keegan's foot was a streak in the air; the toe of his heavy combat boot caught Karla in the groin. The Vegan's body jack-knifed and he dropped to his knees, white with pain. As he struggled to raise his gun, Keegan kicked again catching him soldly under the jaw. Karla half rose under the force of the blow and fell over backwards unconscious.

The Bett-man scooped up the fallen disruptor and hastily checked its loads; it was alive. He ran to the door and tain. The street was still decarefully opened the hide curserted. The Vegan cruisers were overhead, humming on their descent beams as they settled toward the ground. He turned back into the hut. Howlak hadn't moved during the action. He was still sitting crosslegged on the floor, his eyes
staring at the Vegan sprawled grotesquely in the dirt.

Keegan crossed the hut quickly to his Bett-box. He threw open the lid and rummaged in the upper drawer until he found a length of tough plastic wire. He knelt beside Karla and tied his hands behind him with quick turns of the wire. He did the same to his feet. When he was satisfied that the man was securely bound, he closed the lid of the Bett-box and sat down on it, his heart pounding like a bass drum.
"Whew," he breathed as he loosened his collar, "this'll teach me to keep in condition."

The native looked up at him and asked gravely, "Was it necessary for you to do that?" He shifted his gaze to the trussed Vegan.
"If you had warned him a little sooner he might have done worse to me," Keegan snapped as he glared at the native. "Would that have made you feel any better?"
"Stupidity, stupidity," Howlak said softly, shaking his head.

THE Bett-man suddenly realized that this man actually did dislike violence, a trait almost unheard of in primitive societies. Keegan shrugged-every culture had its own idiosyncrasies; it wasn't his job to change them. "Howlak," he said, "if I've offended you I'm sorry, but it was the only way I could think of to save our skins. I don't relish spending the rest of my life in a Vegan prison; I'm sure your people wouldn't like it either, and that's where we'll be taken to if we don't get out of here. Now, we have a geed chance to escape; all you have to do is..."
"Why don't you leave us alone?' Howlak cut him off. "We didn't ask for your lielp. Will you please release that man?" he nodded towards Karla. "If he does not make an appearance soon those vesce's will fire upon this village. W'e could not permit that."
"What?" Keegan exploded. "Retase him? Are you crazy? low you think that you will be ailie to bargain with those manincs? Low, whatever they rffered you the Federation will double it. All I ask is
that you and your people levitate out of this village and hide out. I promise you there'll be a Federation force here within forty-eight hours to help you. Youll have nothing to..."
"Stupidity, stupidity," Howlak repeated.
"Eh? You can levitate, can't you?"
"You witnessed that for yourself."
".And you can teach it to others?"
"In a manner of speaking, but we would not be able to teach it to you. I tried to make him understand that," Howlak nodded at Karla again, "but he was no wiser than you are. Will you please release him, their vessels are almost upon us."

The sound of the bean generators had grown to a deafening roar, as the ships settled towards the ground.
"I'm not that far gone," Kecgan said as he pointed the Norton at the native. "Nor do I intend to let you give yourself into slavery, tien if I have to use this to charge your mind."

ITrowlak rose slowly from the eround. half levitating, hali uy his own physical powers. When he was standing be looked disw at the Bett-man and said coldly. . Is it the custom oi your people to kill those yuu wish to help): I.eave him tied then: I don't suppose that those creatures outside would be prersuaded one way or the other if he were present." Howlak turned lowards the doorwis.

Kernan stcod up himself, "And just what are you going to du now?"
"I am woing to order the Vegans away iron this world," Howlak ansered as he pushed avide the doorskins. "Ii they will not leaver, we shall be forced to iight."

The prore simple idiot. Kefgan thought numbly, even with his levitation what did he think he could do against a squadron of Heavies?
"Listen in me," the Bettman pleaded. "You're committing suicide: they are desperate. Ii voul deiy them, they'll think nothing oi killing hali of you just os teach the other hali a lesson. Howlak!" The native evidently hadn't even
heard inm; he had just ducked through the doorway leuving the Bect-man behind.

KEEC.I.V was about to follow the native out oi the hul when he heard a tin!. shrill voice somewhere in the hut calling, "Hello Kecgan, come in please. Hello Keegan. come in please." It was Green tryins to reach him on his radii). He had almost forgotien about the Greyhotand.

The sound was coming irom the corner where Karla was lying. Kcegan stiode to the Vegan's side and hastily searched his pockets until he found the radio unit. (ireen's voice was radiating from the rarely used emergency attention speaker mounted on the front oi the radio pack.

The Bett-man slipped the earplug and lapel mike ints place and switched the transnitter on, "Hello Green," he answered, "this is Keegan. What is it?"
"Mr. Keegan, is that ynu. Sir? I've been trying to raine you for the past hour. Sir." Green was so excited his words almost ran together. "We're being covered by a Vo.
gan Heavy. Theyve warned us that if we try to move out of our orbit or attempt to resist, they'll shoot us down."
"I know all about it," Keegan said. "Can you get any kind of an undetectable signal through to Central:"
"No, Sir, the only undetectable stuff weve got is the tight beam I'm using now, but it's strictly lecal. They have a jamming field around us that will stop any multi-mu beam cold."
"Well, that settles that," Keegan said. "Theyve got us alright. I suppose there's nothing we can do but let them herd us back to lega."
"Sir," Green said, "the Captain wants to fight. That's why l've been trying to raise you: we won't have a chance against their heavy batteries, Sir."

The military mind, Keegan swore mentally-glorious death to ignoble surrender.
"You tell that fool to do nothing!" Keegan snapped. "li he wants to be a hero, he can wait until I'm dead."
"l-yes Sir," Green sounded startled at the Bett-man's outburst. Keegan suddenly real-
ized that his nerves had become as taut as fiddle strings. It was not a pleasant thing to be waiting to be blown to little pieces by a squadron of Norton cannon.
'I'm going outside now Green," Kecgan said. "Keep this circuit monitored and let me know if your radar picks up anything that looks like a Federation force. That's all." The Bett-man knew that the chances of that happening were non-existent, but as a boy he had alway's been taught to believe that the cavalry came to the rescue at the last minute. He ducked through the doorway and out into the village street.

Howlak was standing in the center of the street. The other natives were filing out of their huts as if on an unsioken command. and were grouping around their chitf. The Vegan cruisers hovered on their supporter beams, a scant five hundred feet over their heads. 'They probably were waiting for Karla to make an appearance before they touched ground. Vegans were suspicious by nature.

Keegan looked up and down
the street wondering where he could hide. A deep cave was the only protection against a heavy Norton. There was nothing like that in sight, even if there were he had no time to get to it. Howlak had already raised his arms high over his head and was shouting at the Vegan ships.
"Go away, leave us in peace as you found us. We wish you no harm."

0NE of the cruisers, sporting a full admiral's emblem on its bow dropped lower over the assembled natives. A voice, evidently from a $P$. A. system boomed down. "Where is Captain A. Karla; have you harmed him?" A directional mike swiveled to pick up Howlak's voice.
"He is in the hut," Howlak shouted up at the ship. "He will be returned to you safely; I promise that. Now, please, leave us."
"Then you chose to resist us?" Even through the distortion of the overdriven speaker, Keegan could detect the incredulity in the Admiral's voice.

[^0]"You savages!" the speaker barked. "You shall be forced to comply. But, first, as a lesson to you for daring to lay hands on a Vegan officer..."

One of the underside Norton blisters revolved to face the group of native huts that were at one edge of the village. The gun's generators rose to an unbearable whine and then-WHAP! A bolt of sheer energy c ras hed into the ground, vaporizing one whole corner of the village. A child was in one of the huts; his scream was cut off in mid-cry as his body was dismembered by the blast. Keegan was too stunned to do anything but stand there and stare, at the blackened earth. In some curious way, he was thankful that it had been only a partial charge.
"You fools!" Howlak shouted. "You foo!s!"

The other natives also raised their arms towards the sky as the blister turned to face another part of the village. The generaior screamed again. WHAP! The charge never reached the ground. It seemed to hit a solid, unresponsive sheet two hundred
fice off the ground. The air heated to incandescence at the singt and the bolt doubled back on iradf. It flashed back at the. Vensm cruiser and washed int! : he vory blisier it had leit, tearing a sra!ing hole in the bustom ai the ship. Keegan distinctiy hased the clamor of the (i.!). bell through the apening. He contld picture the sailors scampering frantically far their we:upons.
"Viow le:ase us." Howlak shouted, "I bery of you, leave us."

The other liegan ships hovared, their crews stunned ior a monment, aud then their Norton generators began to scream up to iull charge. Simultaneously, a dozen bolts flashed down towards the village, enough destruction to obliterate hali the continent.

The charges were met and neutralized by a sheet of gossamer, glowing energy that had risen up from the group of natives. The umbrella of energy expanded outwards, with the rapidity of an alomic shock wave, enguliing the Vegan s quadron. Every ship it touched turned into a glowing mass and vaporized soundlesis-
ly in a ila, of fire-one afies the other like a series of giwantic, silent firecrackers.

Kcegan stared as io hyorobtioed at the iantastic destruction. When it was over, not a Vegan shif) remained in the sk: $\operatorname{lionhing}$ but a haze of smoke and the overpowiering smell oi ozone. He bare? heard (ireen's frantic voice in his earphone.
"习r. Keegan, what was that: That llash down there? The Vegan ships have disappeared from the radar. Are you all right? Mr. Keegan, answer please!"

Half - automatically he furned his transmitter on, "l'm O. K. How are you?"
"We're alright Sir. What ever it was didn't get up here. Our stern scopes are going crazy but that's about all. Hold on, our escort has just deserted us. She's dropping towards the village under full thrust. They must be out of their minds! Can you see it Sir?"

In a few seconds Keegan heard the scream of the Vegan cruiser as she tore through the atmosphere, and then he saw her-directly overhead-
a blur in the sky, her hull glowing red, her stern jet a torch of white firc-magnificent in her senseless vengeance. At five hundred feet she hit the natives' wall of enargy and evaporated in a silent ball of fire.

$I^{7}$
T was all over then. A dozen ships, thousands of men, gone as if they had never existed. The natives put their arms down. Some of the wonsen were crying: the men stared vacantly at the ground as they walked in silence back to their huts.

Keegan was still too shocked to do anything but continue to slare up at the vacant sky. When Green called, trying to get more information, he srapped at hinn to leave him alone, and then he shut his receiver off to make sure of it. His trance was broken by the pressure of a hand on his shoulder: it was the native Howlak.
"You must believe me Keegan," he sajd. "We did not want 10 do this."

The Belt-man turned to face the native. Howlak's eyes were large and Juminous; he looked on the verge of tears. Didrit
mean to do it, Keegan thought. Why these saiages could aipe out the Federation tomorroze. They are the most dangerous people in the Galarly. Children with the fower of Gutl.
"I'es, I suppose dangerous would be your word for us," Howlak said. Ketgan jumped slightly. He had furgotten about their telepathic abilities. "But we are noi sarage.s."
"What?"
"We despise death and destruction with a luathing you could never understand Keegan; bit even we must respond to the laus of selfprescrvation. When you cannot reason with a wild animal you destroy it, beiure it destroys you."
"What?" Keegan ȩuinted at the native in a dazed, alonot comical. expression.
"We are not of this Galaxy, Keegan. We came here in search of peace. We asked only to be let alone: but the never will let us rest!" Howhat: sume the last words almost bitterly as he stared at the smoldering ruin where the Vegan's blast had struck the village. "The young cultures, the brawling
adolescents-they understand only brute force, and the feeling of power its use gives them. Do they think that their ultimatc goal lies in the destruction of the Universe?" Howlak clucked impatiently at himself. "It is difificult for us to be impartial. We are old and set in our ways. Cultural maturity is an agonizingly slow process. Most civilizations never achicve it. Perhaps we expect too much."
"Howlak," Keegan blurted, "who are you?"
"We are the End," Howlak said. "The final product of a culture that was old before your civilization had been born. We have completed the full circle of civilization. From the savage's hut, back to the savaye's hut, but with one important difierence. The savage has to live this way because he knows of nothing better. We rhoose to live this way because we have experienced all other ways of liie. It is the simplest and most rewarding to us. When you can have anything you desire just for the asking, you soon discover that the only
things you really care about are those that you create with your own hands. We derive no feeling of accomplishment when we use the Power."
"The Power?" K eegan asked. "You mean that force you used on the Vegan squadron?"

Howlak nodded. "There is a great flow of energy through the Universe that responds to the stimulus of thought and can be controlled by the human will. It is a tremendous source of power that remains untapped by the lesser cultures simply because they do not have the understanding necessary to control it. The discovery of the Power was the final achievement of my race. It was the last link in a chain of discoveries that stretched back to the wheel and lever. It was the one that finally set us free.
"The Power became our slave, our provider. We are invincible with it, and yet we rarely use it now, except for amusement-or when we are driven to it. We prefer to keep things the way you see them."

SOMETHING clicked inside oi the Beti-man's brain. All at once be realized that these natives had a commodity to sell that the Federation would hock its last outpost for.
"Howlak," he said earrestly, "Jou have a knowledge that my cicilization is still struggling to leam, as jours once did. The Federation I represent would be very anxious to acquire the fundamentals of your Power. They would..."
"For what purpose," Howlak interrupted impatiently, "Whe same as Karla's? To maintain control of your system? Levitation and the other furces you saw us use are not a by-product of my civilization Keegan, they are the endprosluct. The principhes of the Power camot be taught to a race which dioes not have the cultural background to understand and appreciate it. I tried to make that Vegan understand that; but he could not-evidently neither can you."
"I.crik," Keegan persisted, "among my people there are several individuals who are alreally sensitive to this Power
you speak of. We call them ESP's. Surely you would be able to teach them the secret. That would be sufficient as far as we are concerned."

Howlak looked at the Bettman and sighed almost inaudibiy. "You still do not understand. The learning of this Power has nothing to do with a sensitivity to it. Every age, every race produces a few individuals who are sensitive enough to feel some of the fringe effects of the Power, but they are freaks-the same as if they oould hear a 30,000 cycle note, or bend over double. They are no more qualified to learn to use the l'ower than any other human in their race is. When you have reached the proper level of maturation jou will not need our instructionyou will have learned the sccret for yourselves."
"But we would pay you well," Keegan said. "In any medium you ask for."

Howlak's large eyes studied Keegan silently for a moment then the native shook his head. As he turned to walk back to the huts he said, "My people
are gren to leave this world, Keresan. We will move on to Anotier galluyg. Eventually we hone to iind an uninhabited sybum when we can exist in greace. I will say gorolbue now. I mutal ask yout to take Kala and. . ."
"Ha." Kexsm s!outed suddenif. the old s:me:man's gleam cominy back into his eyes. "lhat" it:"

Itwaink backed away from hint a hali step. "What are you talking about Kecegan?" he osked cantionsly.
"Mou're tired of running aren't $y^{\prime \prime o u ?}$ ? Wouldn't you like to settle diown in one place, this place--ibrever:"

Howlak frowned and turned to go. "I haven't time to banter with you Kerga!ı. I have more than tried to explain our problem. 广ou evidently aren't capable oi understanding it."
"Bitt I do under:tand it." Kergan said as he grabbed Howlak's arm. "We need the Power and you can't teach us how to use it, right?"

Howlak faced him, "So?"
"Well. why don't you rent us the Power directly?"

Howlak sighed impatiently
and turned away once more.
"Look," Keegan continned dastily, "all you'll have to dor will be to send a certain mumiber oi your poegle to wherever the Federation requests hem. The lederation will buy pores from them, saic, unlimied. non-radioactive power; to rin our power center:. If you don't like the uses the power may be put to, you simply don't supply it. You don't have to teach us anyrhing. You will form a prower company. It's that simple!"
"Why stmould we?" Howlak asked, his eyes studying Keegan coolly.
"Because we can give you sonething that you, with all your power, cannot give yourselves. It's our Medium of Exchange."
"And what might that be?" Howlak asked, a slight smile curling his lips.
"Privacy!' Keegan said triumphantly.

Howlak blinked.
"You said it yourself," Kezgan said. "You're tired of running. We have a warp, drive now. Earth type planets are extremely rare. Where could you
possibly find another planet that we, or someone else worit also find, and soon? You'll have to keep running for the rest of eternity. l'm offering you a chance to settle down here, permanently. The Federation Navy will guarantee your privacy. No one will ever set foot on your planet again without your permission. And all we ask of you is a little time from a few of your people."

Howlak's eyes pierced Keegan for a minute, then he asked thoughtfully, "What will prevent your Federation from trying to coerce us as the Vegans did?"

Keegan lookerd up at the emply sky where the Vegan fleet had once been, "Are you kidding?" he said with feeling.

AS the Grryhound broke orbit and began to build up velecity for its jump into hynerspace Keegan was busy in his cabin reading a message just received from Bett Headquarters.

CONGR.ATLI. 4 TIONS, it read, REPEAT CONGRATULATIONS O.N ESTABLISHMENT OF MX ON PIANET TTP-1009-4B. IOU WILL RECEIVE OFFICIAL COMMENDATION UPON RETURN TO CENTRAL. UNTIL THAT Dite. HOW. EVER, YOU WIIL PROCEED AT ONCE TO LBS2243. THERE IS CNUSUAL SITUATION DEVELOPING ON FIFTH PLANET WHICH NEEDS MMEDIATE ATTENTION. WE ARE AWAITING YOLR SLGGESTIONS ON THE M.qTTER. SIDNEY I.ATHAM DIRECTOR, BETT

After a few minutes of staring thoughtfully sut of a viewport at the receding planet below Kecgan murmured softly to himself, "You know Clief. I've got a suggestion that would give you a[kples.:" Then he breathed deeply wice,
 and slipped it carcially into his Bett-bor.

## THE RED,

## SINGING SANDS

## by KOLLER ERNST

illustrated by EMSH

The creature was the last living thing on Mars. So it wished to survive and struggled to re-cieate the race from which it sprang, a race which had strange powers

MARY Devlin experiericed the sinking, hopeless feeling most when she stood beside the airlock, helping her husband into his spacesuit. There the red, singing sands of Mars were in crazy, endless crescendo.
"Mary," they wailed. "Mary, Mary, Mary!"

She pressed her fingers against her ears. But the sound Tibrated through. Was it possible, she thought, that they were really doomed there forever? Stranded on a dead, Clacet? She shivered. The have let them go out there
golden, down-like hairs raised on her slender arms.
"I can't stand much more of it, Will," she said. "It's like the Lorelei must have been. It draws me."
"You stay in here," he said sharply. "Remember what happened to Marsten and Halvorsen."

Outside the sands, driven by the everlasting winds, rattled like buckshot off the windows of the plastic entrance dome.

Mary watched the black, cold windows. "You shouldn't

alone," she said, rubbing her arms.

He bent, adjusted the straps for his heavy, lead shoes. He made a snorting, angry sound. "They were grown nien," he said.
"They were mad," she said. "You knew that. Like I'll go mad if we don't get away from this awful planet."
"Mary," said the sands in their dead, dreadful drone. "Mary, Mary, Mary!"
"Stop it!" She stamped her foot. "Stop it. Stop it. Stop it!"
"Easy," Will said. "You're safe so long as you don't go gut. Above all; don't go into the Starjumper. Remember, I'm still not sure the thing can't escape frem the brig any time it chooses."

She shuddered. "Guinea pigs," she said bitterly. "Inagine, listening to all that polisical drivel about the honor of our country, of being the first space explorers."
"We're here now," said Will. "We can’t go backward in time. So there's nouse thinking Lackward, either."

Wary sighed. She clenched her hands and, in a moment, regained her: composure and
smiled up at him. She was a fair, red-haired noman, tall and wide-shouldered and ripe; a woman surely built for a warmer spot among men than the frozen wastes of Mars and its everlasting, swirling, singing red sands.
"I know," she said sofily. "Sometimes it...it just comes up to here."

She resumed helping him. She drew strength from him, from the tall, lean, dark, hardness of him. Sometimes she wondered what she would do if he, too, did not return one day. She would go mad. She was sure of that. Stark, screaming mad. On that day she would run naked inte the howling night. It would be quick, merciful in that terrible cold.

As though he had read her mind, he said, softiy:
"At least we have each other. I know how it is for you. I've felt the hopelessness of it, too. But almays remember. We still have each other. There is no end to the world when there are two."

She sluddered. "Adam and Eve," she said. "Adam and

Eve on a dead, futile, impossible planec."

She finished fastaning the back of his suit, adjosting the oxygen tan! on his shoulder. "The thing," she said. "What does it look like?"

HE turned and stared at her a. while before answering, as though determining by something in her face how much it was saie.!o tell her. "I think ic's the last life on Mars," he said inally. "I surprised it, overpowered it aiter it had killed Halvorsen, locked i.t up so it can be sturlied. It seens to have strong hypnotic power, even power to change shape. Anyway, it did, a number of times while I grappled with it."

Mary rubbed her arms uneasily. "You didn't answer me," she said. "What does it look like?"

He slipped the plasti-metal helmet over his head, twisted it into place and turned so that she could set the oxygen lines.
"I think it was trying to do away with all of us except you." His voice was eerily hollow through the helmet mike.
"Except me? Good heavens: Why?"
"I think it planned to mate with you, to start liie anew on Mars."
"Will!"
"It's a natural urge. I.ife fights extinction. It's one of the basic drives."

She stared at him openmouthed, felt the blood reced? from her face. "What does it look like?" she asked in a hali whisper. "Is it like we are?"

He spread his hands. "I don't know. Remember, whatever you do, don't go into the Star jumper. There's no knowing what the thing may be able to make you do. It's hypnotic. Perhaps, even a telepath."
"Will," she said tightly. "Why don't you tell me what it looks like?"

He stared at her. His eyes were big and black, distorted by the imperfections in the double plastic visor.
"Because," he said quietly, "it looks like me."

She watched him, in shock, as he stepped into the airlock. An instant later she heard the thuck of it as the outer door opened into the still black Martian morning. For an in-
stant his huge, ungainly figure reflected the yellow lights of the observation windows. Then the sands obliterated him and she was alone.

IN the windowless living room of the igloo-like hut, with the heavy hatch to the exitroom tightly sealed, the call of the sands was no more than a faint singing in her ears. She felt relieved. She sat down at her desk and started to fill in her daily log. She opened it idly and stared at a notation made two weeks be!ore:
"Mars-Mare Sirenum Station, April 4, 1997, 818 hours. Marsten killed by 'sand creature.'"

She turned two pages: "April 6, 904 hours. Halvorsen killed. Will subdued the sand thing today and locked it in Starjumper brig. The singing sands begin to call me. Am I next?"

She shuddered, moved on rapidly to an empty page, wrote in her round, neat hand: " $\delta 10$ hours. Seventy-ninth day." She walked across the room to where a thermometer projected through the wall. Although daylight wasn't too far
off, the instrument registered 128 degrees below zero. She returned to her desk, added: "Temperature, minus $71^{\circ} \mathrm{C}$. I wonder if Will is going crazy?"

She closed the book, leaned back and frowned at the blank metal door leading into the exit-room. She felt, suddenly, a heavy loneliness and longing. More and more, lately, she felt this when she was alone.
"There must be other women on Mars," she said aloud to the blank door. "Will hasn't touched me in weeks. How do I know he hasn't invented this ...this monster, to keep me from following?"

Faintly, then, came the call of the sands, and she started. The call was made by organisms living in the swirling sands, Will had said. Was such a thing possible? She listencd, hoping to detect some trick. But she heard only the plaintive, persistent call, dimmed now by the closed doors, sounding sad and hopeless and alone and striking a chord in her heart.

She rose and her very movements drowned out the thready vibrations. She went into the exit-room on the spur of a sud-
den resolve, thinking to follow him. Her spacesuit was there, in the closet. But her resolve died quickly, for the hypnotic call was so strong there that it was less seductive than frightening. Low, to her right, a red moon moved from west to east across the black sky. It overtook a second moon.
She stepped back quickly into the living room and slammed the hatch, sealing it tight again.
"It's impossible," she said. "Singing sands are impossible."

But she found herself shivering and perspiring. After a moment she returned to her desk and wrote, from force of habit and to get the dreadful vibrations from her mind:
"Phobos, inner moon, overtook Deimos." She gave the time, exactly, and estimated the spot as two hundred o'clock, which was as near as she could come to astronomical directions, and let it go at that. It had no particular significance. But, on the other hand, what did? Whenever she saw it, she logged it for want of something to do to kill the terrible drag of endless time.

She closed the book and sat
back. Then, on impulse, she again opened it and added a postscript.
"PS: I think Will stopped to enter the air lock."

The air lock was seven feet high. She slammed the book and rubbed her eyes and temples until she could feel the blood circulate hotly.
"Dear God," she said aloud, "What's happening to me? Am I losing my mind?"

WILL returned late in the afternoon, as usual, looking tired and disinterested.
"Any luck?" she asked.
He shook his head. "Reactor was pretty well mangled when we landed," he said. "Marsten must have misjudge the slight drag of this rare atmosphere."
"Halvorsen, you mean," Mary said. "He was the astrogator."
"I meant Halvorsen," he said tiredly.

Mary set the table in the kitchen for dinner. His mind's on other things, she thought. She watched him sidelong, but she could see nothing in his lean, expressionless face. As he started to the bathroom to clean up, she said:
"I've been wondering, Will."
He stopped and looked sharply at her. "Yes? About what?"
"About the Martian women." She tried that with a litthe smile, a kind of test jab, like a boxer, pawing out with a left to see how good are his opponent's reflexes.

She did not knock him down with the left. But, almost.
"Martian women?" he exclaimed. "Wh...where did you see Martian women?"
"Dear me,". she said. "I didn't say I saw them. I just mentioned Martian women. Is there something wrong?"

He rubbed his big, bony hands together. "No," he said. "No. There's nothing wrong. Of course not.":

She watched the washing movement. Like Pontius Pilate, she thought. He's hiding something. When a man fidgets like a cat trying to cover tracks on a tin roof, he's hiding something. And when he's biding it from his wife, it can only be money or another woman. There certainly was no money on Mars.

She felt, suddenly, terribly alone and hurt and lost.

The evening became one of the longest yet. They sat, avoiding each others' eyes. They retired early. She was certain, suddenly, that she was losing him. Probably, had already lost him. The thought made her silently frantic. She. lay beside him, her back to him, outwardly calm, but inwardly in a flush of uncertainty, of fear and of insecurity.

She tried to sleep, but couldn't. Beside her Will breathed evenly. He lay within an inch of her, coel and rela.xed. It angered her. Woman unreasonableness built up in her, like the pressures in a boiler before an explosion. At length she said, fighting to keep her voice casual:
"We're Adam and Eve."
Will shifted position. He made a soft, rustling sound. But he did not answer. Angrily she thought: "I wish the sands would call. At least, they want me."

She lay there wide awake, warmly aware of his closeness.
"Did you hear me, Will?" she asked.

He answered immediately. "Yes," he said. "I heard you."

Fut lie did not muve.
"Danımit, Will," she sairl. "Don": you love me any. more?"

He moved then. He sat up. He whe a great. bulking form in the dartwess. "Why?" he said dully.

Mary bit her lip. "That's romantic," she said. "What do I have lo do, put a gun against your spine?"

He grunted. "W'hy don't you sleep?"

She laughed exaperatedly. "Romed. A living Romeo. Are. vou sure, ne be:cko, these daily trigs aren't to see sume slinky Martian fena!e:"

Will gave a snort. "The last woman on Mars," he said, "died a hundred years ago."
raintly the sands said, "Mary, Mary, Mary."

Mary shuddered. For an instant a terrible iear clutched her. What if Will's guess was right? What ii she was the first woman on Mars in a hundred years. and only the sands, and the thing in the brig, wanted her?

Adam and Eve. The thought shocked her, lost it, humor in retrospect. She wanted, suddenly, baclly to get back to
earth. The lonsing became an ache in her which, finally, ibso Gell asleep with.

IA the morning, however, she rose with a resolve. If she could not return to Earth with W'ill, she could at least discovor what was going on. Aiter breakiast she gave him a twominule start, then she got int; her space suit.

The sands began calling as she worked into her suit. She gritled her teeth, checked her temp and oxygen controls and said, grimly: "Coming. It there's any Martian women on that ship, I pity; them."

But, when she stepped outside and closed the hatch behind her, her resolve evaporated as the wind ripped at her and the whirling sands sang her name and pressed into her, charging the muscles of her legs 10 rubber and sending sweat pressing out oi every pore of her body. It was the first time she had been outside their emergency home since the sands had started calling.

She shivered as she huddled there, recaling that day, three weeks before when she first heard her name. Then Will
had told her for the first time of the organisms, of the singing sands. And from that day on she had remained behind while he made his daily trips to the Starjumper to see whether he couldn't get it into blasting shape again.
"It's hogwash," she said finally, realizing she could not huddle there forever, that, either she had to admit defeat and dart back into her burrow or, despite her fear, press on. "Hogwash," she repeated, getting up a kind of Dutch courage. "Will merely set up a record to scare me from discovering what's going on at the ship. Who ever heard of singing organisms in flying sand?"

But she cowered beside the protective air lock until a savage gust of wind circled the hut and tore her away. She ran then for the Starjumper, two hundred yards away, leaning against the pressure of wind and sand against her long legs, her stomach, her breasts.

Once she was in the very center of the buffeting winds, however, her fears evaporated. Nothing bappened. The first few seconds were terrible ones in which she did not even
breathe. But, as with each step nothing happened, she became quickly accustomed to the sound and fury and the rattle of the sands off her helmet.

Then the Starjumper towered needle-nosed above her on its slender blasting pylons. For an instant she crouched beside the boarding ladder and stared up the ship's cold, silver-black sides. A twinge of shame touched her. She was spying. It was unworthy. She should trust. A marriage is built on trust.
"Go home," said her Conscience. "Trust him."
"Uh-uh," said her Libido with a sneer. "It's not like Will not to touch you for weeks. Something's rotten in Sirenum, Go look."
"Go home," said her Conscience. "Would you like it if he spied on you?"
"What do you lose?" said her Libido logically. "An unfaithful husband?"

As she let them fight it out, a figure descended the ladder. She slipped behind the pylon. When it reached the sands, an arm's length away, she recognized Will's form. He struck out immediately toward the
north, cutting a long-striding triangle between the ship and their home.

She watched him vanish into the red darkness.
"Now," she said.
Lightly she ran up the ladder. Excitement hammered so strongly in her that she could not hear the increased clamor of the voice in the sands.

SHE slipped into the entrance lock, waited for the outer door to close, and the air pressure to re-adjust, then she pressed the right-hand lever and the inner door opened and she stepped into the corridor. She proceeded without compunction direct to the crew's quarters, expecting to surprise Marsten and Halvorsen and their women.

But she stopped before the flat, gleaming steel door. The silence, suddenly, was like eternity. Vast and frightening. She opened the door with shaking hands.

The big room was empty. She stood there, staring stupidly , listening for something that did not, at that moment, exist. She began to feel the first, frozen fingers of fear. The
room looked as though it had not been lived in for weeks. The bunks were made up and gave an air of finality. There was no food container in the disposal; nor were there breakfast pills in the synthetics kiln which gleamed coldly back at her. There was a look of staleness, of desertion, of death. The quiet had weight. It was oppressively heavy.

She backed out, her skin crawling. She became aware that even the sands had stopped chanting. It seemed to her that everything, including the howling wind, had stopped and was now listening to her, watching her, hovering threateningly over her.

On tiptoe, holding her breath, her fists clenched, she walked into the astrogator's room. This, too, was empty and had the odor of death, a domed vault studded with rows upon rows of shining dials in which slender, black needles lay immobile, as though waiting the touch which would again send them into quivering life.

She looked back at herself out of a hundred polished dials; pale, frightened, her eyes enormous and black be-
hins d de plasti-helmet. Sloniy. as though she were picking her way ever eggs, she backed out of there, too. Cold sweat trjekled between her breasts. She -hivered violently and rubbed herself through her suit.

Her encased hand jarked snd banged against a bulklowad. It rang, like a silver gong. The vibration startled a half-sosean from her.

Fos a moment she stood there, her legs heavy as the vibrations slowly died. Jhen her name rang loudly down the corridor, and she could have fallen through the steel floor with. the shock of it.
"Mary! Mary! Mary!"
She recovered her poise quickly when she found the words rocking frem the sound box high against the corridor ceiling. The vibrations hurled her name back and forth in the narrow space. Then the outside address mike picked it up and hurled it out among the screaming sands.
"Mary," it e choed back faintly. ". . ary...ary!"
"It was a trick!" she gasped. "It wasn't the organisms in the red sands at all!"

ANGRLLY, then, she walked to the brig, from which the call appeared to come. She inched the door open and stared in unbelief at the thing which sat on the floor in the ctll, staring wo at her. It was human. in an inhuman way: alive in an unalive way; and it looked like Will. in an unlikely way: like an emaciated, dried. blue-veined caricature of Will.
"You do look like Will," Miary gasped.
"I am Will," he answered. "Help) me before the thing returns. Hurry, Mary. Open the door."

Mary gripped the doorway. "How do you know my name?" she asked.
"Hurry," he said. "Hurry. Hurry."
"Hurry," echoed the sands. ". . urry . . urry."
"You heard Will mention my name," Mary said. She watched the creature. Starved, she thought. Whatever it is, it's starved. She felt pity for it. It did not appear at all harmful. Will had said it was hypnotic, but, it wasn't doing anything to her.
"Will," he said, drawing himself painfully erect along the steel bars and staring out at her, face pressed between them. "I'm Will."
"You're the last life on Mars," Mary said. She shuddered. His skin was yellow and loose, like that of a person who had dieted and lost weight too rapidly. It hung like blotched wattles.
"You're making a mistake. I'm Will. Let me out before it is too late."
"No." Mary said, shrinking back, "You're some kind of living plant. Will told me. I feel sorry for you. But I can't help you."
"In the name of the Saints, Mary," he said. "Let me out before it's tor late and we're doomed here."
"What do you know about Saints?" she asked, startled.
"St. Anthony, patron saint of spaceshins," he said. "St. Mary, your namesake. Jesus. And God. And the Apostles. Woulid a Martian know these? Hurry, Mary. Hurry."
"You're hypnotic," she said. "Maybe you're a telepath, too. You could have read my mind."
"And maybe I'm Moses," he said. "Open up."

Mary frowned. It was incredible. It looked like Will. It talked like Will. More so, actually, than Will himself lately. There was that old, vibrant impatience in its voice.
"Where were we married?" she asked.
"Niagara Falls," he said. "March 6, 1996. Dinner at the Marigolds. At night we looked at the colored lights. No children. If we don't get away from here, you'll have to play Eve to the last Adam on Mars. A plant Adam. Do you want that?"

Mary gasped. "If you're W'ill, why weren't you killed like Marsten and Halvorsen?"

There was a grinding of teeth. "My God, Mary. Open the door. It'll be back any minute. It's looking for its own kind of food. You only think it eats at home."
"Answer me."
"It's studying me. It need's me so it can probe into my mind and make you think ie's me."
"Who's Tiny?" Mary asked. Tiny was the little beagle they'd left with her folks back
on earth. It had only been a month old. They'd decided it was too weak to withstand the pressures of the world's first space voyage.
"Beagle," he said. "Your mother's taking care of it. For heaven's sake, hurry up. Make up your mind."

She wavered. It was quite impossible for an alien intelligence to know these things. Yet...
"Tell me," she said, "about my cradle." It had been a little joke between them. She had saved it for her own, first born.
"Pink," he said, "with a blue-shell rattle tied to it. It's for our first-born."

MARY went to the panel beside the entrance, pressed a switch and the locks in the brig clicked back. "Will," she said, trembling as he came out and reached for her. "What happened to you? How will we ever get away from here?"
"Mary!" cried a booming voice behind her. "Are you insane. I warned you!"

Will leaped into the brig. She had not heard him return. The creature from the brig
pushed her aside and, with a terrible snarl, hurled itself at Will.

Mary watched them fight, frozen with fear, horrified at what she had done. It was an unequal fight, and she breathed a fervent prayer of thanks for that. The creature was weak. Starvation had reduced it. It was no match for Will. He gripped its arms and pinned them, his lean face black with anger.
"Look!" he cried in a terrible voice, as he held the twisting, writhing thing. "See it once and for all for what it really is."

Mary began to feel sick as the creature she had released changed into a red, humanoid thing with blunt, quivering tentacles which reached and flexed and darted helplessly in that iron grip.
"It's a plant!" she cried.
"No!" the plant cried. "I'm your husband. He is the plant. He has hypnotized you. Help me!"

She shuddered as she stared at the terrible, waving stalks with their screaming, distorted humanoid face.
"...elp ....eee!" echoed "Come on," he said. "What the sands.

Will hurled the creature into the cell and clanged shut the door, automatically re-lecking it. Then he took her by the arm and propelled her into the corridor where he firmly screwed shut the brig hatch.
"I hope you're satisfied, you fool," he said darkly. "If I hadn't returned, there's no telling what would have happened. It might have escaped from here with you."
Mary shuddered. "How?" she asked. "The ship is crippled, you said." She stopped suddenly and stared at him as she became aware of the delicate vibration under foot. The reactor. It was going. Of course, she thought, wondering why he had lied about that, an atomic reactor can be slowed down by metal rods, but not stopped until the fuel gives out. They had enough atomic fuel to run the ship, if necessary, a thousand years.

Her doubts returned again. Was he staying there because of Martian women, after all. They could have hypnetized him, making him want to stay forever.
are you waiting for?"

She followed him uneasily into the exit lock. Behind them shrieked the voice of the thing in the brig.
"Mary! M a r y! Mary! You're wrong, wrong, wrong!"

The outside amplifier hurled the sound across the Martian desert.
"Wrong. . .ong. . . ong!"
"Let this be a lesson not to forget," Will added, as he started down the ladder.

MARY paused in the open airlock. Grey-red Martian morning was beginning to make the darkness eerily luminous. Will looked like a hunched, glowing giant as he clanged down the steel ladder.
"Will," she said, "how do you suppose the creature knew about my cradle?"

He paused and looked up at her. "Hurry up," he said.
"How?"
"He’s a telepath. He could read that in your mind."

Mary nodded. She thought furiously of the cradle. With every bit of concentration she could muster, she thought of black, rejecting the color pink.
black, she thought. Black, black, black.
"How did it know the crade was black, Will?" she arked.
"Like I said," Wiil answered. "When you thought of the cradle, you thought of the color, too. It just read it in your mind. Come now. this is tnough of this foolishness here."
"Yes." said Mary soitly.
For the count of three secands she stood there, staring down at him, her mouih slack with the shock of awareness. Then, like a deer, she turned and leaped into the air lock and slammed the hatch and twisted the locks into place as the thing outside hurled itself against the door and began a futile hammering at it.

$\mathrm{A}^{\mathrm{s}}$
S the Starjumper cut a glowing wake through the black of space, flaming steadily toward a pinpoint a hundred million miles to port of the forward observation screen, Mary brought steaming coffee
to Will in the astrogator's quarters.
"In a way," she said, "I fect sory for that poer thing. All alone on Mars."
"It might have tilied being friendly," Will said.

Mary gave him a sidelong g'änce. "It did."
"I mean with us. Thank God it had no scientific lnowledge. Didn't eien know how to shut off the sound system. By the way, talking of being friendly, Darling, did you know the thing is oriparous. Like a fish. Foure supposed to lay the eggs, and it fertilizes them."

Mary gasped. She felt the color rising in her face.
"Thank God," she whispered fervently.
"What for?"
"For making all the Adam and Eves different on all His worlds."

Will gave her a leok. Then he sipped at his coffee.
"Amen," he said, watching the stars.

THE END

# SCIENCE SHORTS 

## by Edgar P. Straus

Secrets of the universe are unveiled bit by little bit.

The galaxy may be twentyfive percent larger than had been previously thought. This conjecture comes from the Harvard College Observatory, which bases its new figure on an estimate of the distance of the solar system from galactic center. The galaxy is a lensshaped grouping of stars, some hundred billion in number. Our solar system is believed to be just inside one of the galaxy's spiral arms, perhaps as much as four-fifths of the way from galactic center.

Scientists had estimated the solar system to be about 28,000 light years from the center. The new figure places us some 35,000 light years out.

Medical science may soon be diagnosing diseases by dos-
ing the body with fluorescent antibodies. By use of a fluorescent color technique, it is possible to identify many infectious organisms in a matter of minutes instead of weeks or days.
The technique invoives labelling antibodies to specific disease-producing bacteria with fluorescent dies of contrasting colors. An antibody is a substance formed by the body that combines with and can destroy foreign bacteria.

The fluorescent antibodies will be introduced into germladen specimens from the patient. The antibodies are attracted to the specific organisms they tend to fight; examination under ultra-violet light will reveal which bacteria are present in the specimen.

# PRISON PLANET 

## by ROBERT SILVERBERG

NOVELETTE illustrated by BOWMAN

For 200 years this small planet had been the dumping ground for the galaxy's toughest criminals. Then for j00 years it was isolated. What would be the result?

THE planet of Bardin's Fall lay dead ahead in the visiplate, a bluish-purple sphere bigger than Earth, here at the far end of the galaxy. Ridgeley narrowed his eyes and checked the reference points against the master chart tank. Perhaps it was the wrong planet, perhaps his little one-man ship had come out of warpdrive at the wrong spatial determinant, he hoped.

Jerhaps. But a quick check left no doubt. This was Bardin's Fall ahead, the galaxy's one-time dumping-ground for undesirables, and within minutes he was going to make bis landing.

All indecision left him. He had been specially picked for the job, after months of interviews, and he was going to do the job right.

It looks like such a peacejul world, he thought. Even at this distance he could see the great feathery clouds drifting round the world. A pcaccful-looking planet. And a deadly one.

He hunched down in the cradling strands of webfoam that shielded his body against acceleration strain. He was a small man, compactly-built, with wide shoulders and immense vein-corded hands; back on Earth, they had always regarded him as a little of a

freak. Hale Ridgeley, the it'll be disastrous for the enthrowback. Hale Ridgeley, the fire galaxy. man who thinks like an ape.

Well, that wasn't exactly true. Back of his heavy brow ridge was a well-equipped cerebrum, and the officials of Galactic Control realized it. But despite Ridgeley's shrewdness, he had been cursed with an atavistic tendency to argue with his fists instead of with his tongue. It had cost him many a promotion in Space Service ranks--but it had also gained him this job.

The job that he, of all the galaxy's billions, was most uniquely qualified for.

Ridgeley jabbed down on the gleaming enamelled control studs before him, and the ship tossed and pitched like a fine stallion as first the rear jets, then the side stabilizers, came into play. The landing would have to be made with care, under cover oi darkness. The strategy men back at Galaclic Control had dinned that into him until he knew it as well as he did his own name.

Keep your ship hidden. If the ex-cons on Bardin's Fall get possession of your ship,

Ind: You're being sent to Bardin's Fall to block thim from reaching space travel, not to give them a ten-year boost, Ridgeley. Hide your ship uerl!. Destroy it, if necessary. You're expendable.

Ridgeley thought about that as he guided his tiny ship into orbit round the blue loveliness of Bardin's Fall. It really seemed too handsome a world to waste on convicts, he thought. But there had been plenty of worlds to waste, five hundred years ago.

He flicked sweat from the tip of his nose and increased the lateral thrust, grinning as the surge of power from the starboard jets throbbed through the ship and through him. The nameless little vessel began to turn, flipping over into landing position.

He picked what looked like an uninhabited area on the planct's nightside. Then, feeling perfectly calm, Ridgeley punched out a tangential landing orbit, felt the answering roar of the jets, and crouched in his acceleration cradle as the
slip dipped low, blazing a l, ief trail across the nighi sky of liardin's fall.

The world he was going to sabutage.

'rHEI had taken very special care that nothing would go wrong with Ridgeley's milsion. linicue camouflaging equip)mimt had been baked into the cramic hull of the ship thast had carried him across space.

He scanned the land below as his ship descended tailfirst; the flare of his jets lit up the landscape, and he saw dark looming trees surrounding a barrow clearing, with no sign of human habitation. It was irleal. He guided the ship down with pinpoint accuracy, setting it in the midst of the clearing with only a few feet of margin at each side.

He pressed the conversion button.

Instantly, painstakingly-designed electronic circuits went into cperation; he heard a faint hum, and knew that the exterior of the ship was being transformed. Projections were being extruded, plastic vines

Here wrapping themselves about the holi. cobor-changes were being efiected. (ewickly, he gathered up the fow possesions be would bere! an this mistion, snapped durn on the airlock contro! swiacb, andi Aipled throwh the epening, gateway into the waing dat. nos.

It was aten-font ditro in the gremol. Ridgelty : wang rat over the erife of the diap, loo.ed his grasp of the fandhold, and dropped lighly fexing his bnees to take the shock off his ankies.

His first semsation was that of increased gravit. -iractionally heavicr. perliaps 1.1 Earth Norm. not enough to irouble him but enough in let him know his muscles were now carrying eighteen additional pounds.

The air was mild, moist, faintly acrid; his first few breaths made him uncomfortable. but he linew hed soon grow used to the difference. A slightly higher concentration of CO2, perhaps; maybe that was why the planet had been rejected for colonists in the first
place, and set aside as a penal planet.

He looked up at his ship. The darkness was broken only by the uncertain light of a small moon high overhead, but even so he could see that his ship looked anything but like a spaceship now. The landing fins now seemed to be mighty roots, the hull a tree-trunk; a tangle of simulated vines obscured the shape. Certainly no one was likely to suspect the true nature of the strange "tree"-particularly on a world where spaceships were hardly familiar objects.

A shining titanium band round his wrist contained two vital subminiaturized devices. He tested the first of them now: the ship's external control organ. He nudged an almost microscopic projection on the wrist-band with one fingertip, and was pleased to see the airlock hatch swing open up above him. Good; that meant he could get back inside the ship when the time came. If the time came.

The second device was a tiny glowing blob of green light,
contained in a confining globe of plastic. The blob was stretched out into a clearly-defined arrow, pointing to the camouflaged ship. That was his detector: he would need it to iind his way back to the ship.

He touched the cont rol organ again and the lock closed. Once again, the ship was a tree. Ridgeley was satisfied. He checked his blaster to see that the charges were functional. and, turning, headed westward, away from the ship.

So jar, he thought, so good. l.anding had been effected without a snag. But the real work still lay ahead for him. on the planet of Bardin's Fall.

I
T was nearly morning before Ridgeley came across any intelligent life.

He had walked tirelessly, following a west ward course along a road that cut past the forest where he had landed. He had no particular destination in mind. Five hundred years had passed since the peoples of the galaxy had had any contact with the settlers of Bardin's Fall.

Except, of course, for the fleeting moment of contact that had come when a Vegan subradio technician had accidentally tuned in on a wavelength emanating from the half-forgotten planet.
". . . we expect to develop interplanetary flight in the next year or two-and it shouldn't be too long bejore we can rcach the stars again."

That was all-just one fragmentary sentence picked up by chance. But it had been enough to touch off a galaxy-wide wave of panic.

Ridgeley had been a Fifth Officer in Space Service at that time. He remembered the sudden exhumation of ancient history, the frantic poring over old records.

Bardin's Fall had been discovered by scoutships in 2269, in the first great interstellar push outward from Earth. It had gone through the great computer, been processed, and had been rejected for colonization. It was the only inhabitable world of a distant star system; the three other planets in its system were airless balls
of rock. There were enough more desirable planets; Bardin's Fall went into the discardheap.

Then, in 2302, it had bcen rescued again. By act of Ga lactic Control, it had been chosen as the galaxy's penal planet, the dumping-ground for the undesirables of Earth and her fifty colonies. For more than a century they had exported criminals to Bardin's Fall-one hundred fifty-eight million of them, by 2412.

The records showed that the last shipload of convicts had been dropped off there in that year. There was no longer sufficient galactic crime to make trips to Bardin's Fall worth the energy output; development of televector tracking techniques had rendered crime virtually obsolete in the colonized worlds of the galaxy.

After 2412, then, Bardin's Fall had been left to go its own way, with a hundred fifty-eight million convicted criminals its sole population. No budgetdrain for their upkeep; no fear of prison-breaks, for the convicts had few tools, no weap-
ons, no possible way of escape from the isolated prison planet.

In time, the worlds of the galaxy forgot about Bardin's Fall.

Until the 27 th of November, 2841, when a subradio technician accidentally tuned in on Bardin's Fall and learned that the myth-shrouded prison planet was very much in existence, and that after five hundred years of exile the descendants of the original settlers had fought their way back to a technological culture and were on the verge of space travel.

It was a frightening thought. For the galaxy had packed its toughest, most ruthless, most vicious men into Bardin's Fall. They had concentrated a genetic pool there. And, drained of the genetic types prone to murder and to theft, to arson ant to assault, the galaxy at large had become a gentler place.

Too genile.
Dealh could come spilling forth from the erstwhile prison planet, and defense would not be easy. It was simpler to try to check the conflict before it
began, by heading Bardin's Fall off from space travel until defensive measures could be taken.

They found Hale Ridgeley on Earth, and there was nothing gentle about him.

They sent him to Bardin's Fall to do a job.

THE sun was edging over the tips of the jagged distant hills as Ridgeley walked on. He was becoming used to the gravity now, and the alienness of the atmosphere no longer bothered him.

The sun was a faint blue globe, vastly more luminous than the yellow star that was Sol, but immeasurably more distant; Bardin's Fall was well over a billion times from its sun. The first streaks of daylight splotched the sky, and the drifting clouds grew brighter. Ridgeley heard a humming sound behind him.

He turned. A vehicle of some kind was traversing the crest in the road behind him and approaching. Rid,reley tensed and waited for his first contact with an inhabitant of Bardin's Fall.

The vehicle was impossibly
clumby in design-high-shung, as if inviting maximum air re$\therefore$ :-bance, with crude, angular lines, and three awriwarilsplaced headlights on its snotit. Puifs of smoke trailed behind it, and it made a noisy thrumming clatter.

Good Lord, he thought. An intertial-combustion rigsine!' It was like seeing a living fossil.

But he was not too surprieed. The Bardin's Fall men had started from scratch, without equipment, most of them probably without any scientific background. It took time to evolve a technology. It had taken Farth better than three hundred years. The automobile approaching him was nothing to smeer at; better, he knew, to respect it.

The car pulled to a halt next to him.

A face peered through the window-a friendly-looking face, Ridgeley thought. It belonged to a man of perhaps forty, face tanned and weathered like old leather. with pronounced wrinkles around the eyes and the corners of the mouth.
"Can I give you a ride, pala: the man arted in a heasily-accented but still recognifable versiom of Calactic.

Ridgeley bonded. "I'd much appreciate it, iriend. Fie been walking all nisht."
'The door pioded napen and Ridgeicy slid into the seat next to the driver. The interior Was furibised anstoreis, with a minimum of laxtiv: the cars dia hboard was a nightmare of complexity.

Ridgeley watched in amazement as the driver performed a complex series of manual actions to get the car into montion again. Finally. when they were again moving. the other said. "I'm Ben's Carl luyling of Chago. Vou:"
"Hale Ridgeley."
"Whose man are you? Not Ben's; I can tell. Iou aren't from lawk, now?"

Ridgeley grinned. "I guess I should have told fou this immediately. I'm not from anyplace on Bardin's Fall. I'm a spaceman."
"A whot?"
"Out of Farth en route to Vega VII. These things mean
anything to you?"
". A little," said Ben's Carl Nuyling of Chago. "Not too much. Ben ought to see you. Tell me more."
"Not a devil of a lot more to tell," Ridgeley said. "Ship blew up in hyperdrive; generator shorted out and popped us out of warp. We had about ten seconds to get free. I think I was the only survivor. Drifted around in space for a while, finally saw I was near this planet and I made a solo landing. My lifeship was destroyed coming into the atmosphere. I bailed out and came down in my spacesuit. This is Bardin's Fall, isn't it? That's what the lifeship charts said."
"This is Bosfal," the other replied slowly, running the syllables of the planet's name together in a quick elision. "Yeah. Ben ought to see you. I'm glad I picked you up. What's your name againRiley?"
"Ridgeley. Hale Ridgeley."
"Unm." Ben's Carl Nuyling bent low over his steering wheel; the read was rutty and abominably curve-happy. The
car, Ridgeley realized with some astonishment, had a maximum speed of some sixty or seventy miles an hour, no more -but, in view of the road's quality, that was just as well. He shuddered at the thought of what might happen if a cur-rent-model Terran land-cruiser were to try to operate on so crude a road.

After a while he said, "Who's Ben?"
"Ben runs Chago. Biggest boss on the whole damn planet, and best."

Ridgeley frowned. He started to form a picture of a government of, by, and for crime, and wondered how it could possibly work. He said, "You mean. he's the toughest guy around? The one who gets his gun out fastest?"

To his surprise, Nuyling guffawed scornfully. "Ben, tough? He'll get a kick out of that. No, he's not tough. His great-grandfather was, though. That's why Ben runs Chago. You'll see. You'll see the whole setup."

Ridgeley decided to be patient. He leaned back against
the roughly-textured plastic of the seat and waited, watching the alien scenery go by. After some time he saw a house, set in the midst of looming jagleaved trees, with curious heavy-bodied cattle-like beasts grazing in a pasture nearby. The houses started to get closer together-until, soon, he found himeeli in a definitely suburban region, and a city could be seen ahead.

Somehow he had expected more primitive habitations than these. But five hundred years was a long time, and Bardin's Fall seemed to have matured quickly, perhaps too quickly.

THE city of Chago was just that-a city, spreading out as far as Ridgeley could see, with towering skyscrapers and bustling throngs just like cities elsewhere in the galaxy. There was a definite archaic flavor to the architecture, but that was certainly to be expected; Bardin's Fall had been out of touch with the main stream of galactic culture for five centuries. For the same reason, there was a startlingly individ-
ualistic flavor about the city, its inhabitants, and the clothes they wore.

They had hardly entered city limits when Nuyling left the car, entered a nearby store, and returned a few moments later to say, "I just phoned Ben's office. He wants me to bring you to him right away." Nuyling grinned affably and added, "He seemed happy. I oughta get plenty of status out of this. Good thing I decided to make the night ride in from Yawk after all, stead of holding out for morning."

Ridgeley nodded silently. He hadn't hoped to reach a man of influence so quickly; the plan was going well. If only they wouldn't be too suspi-cious-

The car drew up outside an imposing, if odd-looking, office building. "We're here," Nuyling announced. "I'll take you to Ben."

They were met just inside the main door by two frozenfaced men in dark gray skintight uniforms; they looked almost indistinguishable.
"I'm Ben's Carl Nuyling.

This is the man I phoned him about."
"Good," said the lrfi-l.and guard. "We'll take him to Pen. Ben sends his best to you."

Nuyling's face suddenly mirrored acute disaproinment. "That's all?"

The other guard scowied and said, "All. You'll be taken care of if it's deemed necessaiy, Nus.ling."

Shrugging, Nuyling turned away. "That's gratitude for you. Well, so long, Ridgeley."
"Come with us," the first guard said.

They led him through a dark, silent corridor lined with vaguely-glimpsed statuary and dim, dark portraits, toward a great wooden door inlaid with metal ornamenting. Just outside the door the guards signalled that he was to halt, and gave him a rapid frisking.

The blaster at his hip was removed immediately. Ridgeley had expected it, and, under the circumstances, could hardly protest. They surveyed his pockets and finally stood back in approval.
"If Ben approves, the gun
will be returnced to you."
Ridgeley shi"uzgta. "Goed to hear it."
"Just one minute," said one guard suphicioull, and touk Ridgeleg's arm. He pointed to the wrist-band girdling his rigitt arm. "This metal bandit might be a concealed weapon." He stared at the blob of lisht that pointed the direction tuward Ridgeley's concealed ship.

Ridgeley was unable to hide the sudden sweep of tension that crossed his face. "Thatthat's no weapon: It's justjust a device. All spacemen wear them. . . to keep from getting lost."

He kncw it sounded lame. He was not surprised when the guard's grip tightened on his arm, while his companion gingerly unsnapped the wrist-band and pecketed it. Ridgelcy moistened his lips. "Will I get that back if Ben approves?"
"Of course."
"Take good care of it. I'd hate to lose it." His wrist felt naked without the band, and he would be in a bad way if it came to any damage.

But he couldn't let that trouble him, he realized. In the eyes of Calactic Control he was expendable, and he knew he would have to take that attitude toward himseli if the mission were going to be a success. He could worry about getting back later.
"Ben will see you now," the guard announced.
$\mathrm{H}^{\mathrm{E}}$ was a thin-faced, tired little man with lean, almost fleshless lips and deep, searching black eyes. He sat behind an immense desk, slumped slightly forward with his hands interlocked. His fingers were long and delicatelooking, his hands pale. He wore a onc-piecc garment of some iridescent purple cloth, evidently intended to afford him the appearance of majesty, but deapile the trappings he seemed wian and weary and not very resal.
"Come ir." he said, and Ridgeiey sa, where the man's power was. It was in his voice: 2 coḷd, dark, commanding voice wibl the crackling authority of a snapping electrowhip.
"Won't you sit down?" It was not a friendly invitation, but a command, authoritative and unanswerable.

Ridgeley crossed the deep purple carpet and took the indicated seat. He noticed a piece of carved statuary on the other's desk-a representation of an alien beast about to spring, a sort of flat-headed tiger with savagely potent incisors. It was a fine piece of work, intricately detailed, carved from a sturdy white slab of bone or ivory.
"You admire that?" Ben asked flatly.
"It's very well done."
"My own work," Ben said. "My hobby." The bright, hard little eyes focussed piencingly on him. "My man Nuyling says you told him some fantastic story about dropping down from space. Nuyling's a fool, but an honest fool. Who are you, and where did you cone from?"
"I'm Hale Ridgeley, of Earth." Briefly Ridgeley repeated the account of the disaster that supposedly had dumped him on Bardin's Fall.

Ben listened impassively, with hardly a flicker of his eyes or a tightening of the jaw.

When Ridgeley finished the other commented, "Very interesting. And from your clothés and your speech I'm almost ready to believe it. But if this is some trick out of Yawk you won't die slowly, Ridgeley."
"I've told you my story. I don't have any proof. But if you ask your men to bring you the blaster they took away from me outside, you'll see that it isn't the sort of weapon in current use on Bardin's Fall."

Without answering Ben scooped up an oddly-shaped implement from his desk and barked into it, "Kessler, bring me the weapon you took from Ridgeley."

Moments later one of the two indistinguishable gray-clad guards entered, carrying Ridgeley's blaster and the wristband. He laid them quietly on the ruler's desk and backed away, waiting.

Ben fingered the wrist-band and glanced sharply at Ridgeley. "You said nothing about this."
"It isn't a weapon. It's just a directional guide. I don't know why your men took it away from me."

Ben grunted, laid down the wrist-band, and picked up the blaster. He studied its neat lines, examined the chargerack, gently toyed with the trigger. He nodded, after a moment. "It's alien, all right. Unless Yawk went to a lot of trouble to invent it. But I doubt that."

He shoved it across the desk to Ridgeley. "Here. You can have it back."

Blinking away his surprise, Ridgeley said, "And the wristband?"
"We'll save that for further analysis. Here, Kessler-send this to Dr. Herschel and see what he can tell you about it." "Yes, Ben."

RIDGELEY replaced the blaster in its pouch and watched sadly as Kessler and his wristband left the room. He looked at Ben. There was a visible relaxing of the other's manner; he seemed much less stiff and forebearing, now, as if he
were putting aside a tyrant's pori and becoming human once again.
"こo vou're from Earth, Ridgeley? After iive hundred years. Well. I thought the galaxy had forgotten about us entirely."
"Bardin's Fall is still on the starcharts," Ridgeley said.
"Perhapss so. But you're the first outsider to come here in over four hundred years. Well, Ridgeley? Now you're on Bardin's Fall. What do you plan to do?"
"I want to go back to Earth," Ridgeley said evenly. "I have a wiie there. children. I don't want to spend the rest of my life out here."
"I'm airaid you may have to do iust that very thing." "Why?"

Ben frowned sadly, a curtain seeming to veil his dark eyes for an instant. "lou don't know the story of Bardin's Fall?"

Ridgeley assumed an expression of blank-faced innocence, and gravely wagged his head. "Story? No, I guess not."

Ben closed his eyes a mo-
ment. "I.et me give you a history lesson, then. Bardin"s 「all was founded as a penal colony, five hundred-odd years ago. Our ancestors were the dregs of the galaxy. They abandoned them here-without spaceships. We still don't have them."

Ridgeley moistened his lips and said, "There"s no way ofi the planet, then?"
"Not yet. W'ait a couple of decades and maybe we'll develop space travel."
"Dercades?"
"Or centuries. Science has never been our long suit here. It's going to take a while before we reach the other planets of this solar system, let alone build a ship capable of getting you back to Earth. lou better forget about that wife and family of yours. You aren't going to see them ever again. Ridgeley." He chuckled coldly. "Welcome to Bardin's FallBosfal. we say. You're our first new colonist in five centuries."
"Oi all the planets I had to crashland on," Ridgeley began. "It had to be this one: So I'm marooned?"
"It looks that way." Ben
lifted the statuette from his desk and lovingly robuci ans fil.gerips over its sech wale surface. "We ought to sinh somme use for you belt in Cage, though. What diu jun Lu Lack on Earth?

Kicigeley took a dep breath. "I was a space -drive iscinoicali," he said quietly. "I jeered design intersiclian lesstr."

One look at the shocised, started, daz\%ledexprowion that crossed Ben's face told him that he had scored a direct bi, square on target.

TEN minutes later. he had become Ben's Hale Ridgeley of Chago. It was a simple ceremony. Ben called back the guard Kessler and said, "H'e're -wearing this man into fealty. Stand witness."

Glancing at Ridgeley he said, in the now-familiar regal tone, "Fold your arms and repeat after me: I, Ben's Hale Ridgeley...."
"I, Ben's Hale Ridgeley...."
"Do on this day solemnly swear fealty...."
"Do on this rainy solemnly so r ar frailty.
"ग" Bra 1", Joss of Chaco...."
"To Bon r, Boss of Chaco . . . "
". And do likewise serer to uphold. . . ."
" Amd do likewise viator to uphold. . . "
"The lure's of Clingo amd to remain loyal to m. Ross."
"The lows of Chino and to remain lo val to m. Boss."

Ben leaned back. "Okay, that's it. louie now a citizen of Chagos, with all full privileges, and when a stranger asks you your name remember that you're Ben's Hale Rilgeley." A crafty gleam entered Ben's eyes and he added. "There are other Bosses on this planet. They may be interested in you when they find out about you. But remember that an oath of fealty's sacred. We take them very seriously here."

Ridgcley nodded. He had come down to Bardin's Fall with the preconceived notion that herd be entering a world where sheer lawlessness gre-vailed-but he was seeing al-
ready how wring he had been. Well, he thought, it's not beyond unclerstanding. A state of lawle.is anarchy could hardly last for five hundred years; some form of government would have to arise, some code of ethics.
"Don't worry about my loyalty. I'm interested in just one thing: getting back to Earth. And it looks like I can best serve my interests by serving your interests, Ben. I'm with you."

The Boss smiled bleakly. "I think were going to get along well, Ridgeley. And I hope for both our sakes that it won't be long before you get off Bardin's Fall. We want off just as badly as you do." He turned to the guard. "Kessler, take this man out and get him set up somewhere. I want to see him again iomorrow morning at this time. Oh-Ridgeley."
"Yes?"
"I apmeriat" promptness. Please try to oblige."

THEY gave him a room in a tall residential building belonging to the Boss-that was

Ben's only title, Ridgeley soon learned.

The system of government here was an interesting one, he was to discover. In the beginning, of course, there had been anarchy; every raan for him. self, with the strongest-muscled of the castaway criminals gathering a band of followers about him. But such a social pattern is of necessity short-lived. The gangs grew into aggregations, the aggregations into towns, the towns into cities.

As the newcomers continued to arrive from space, they were forced to assimilate into one or the other of the growing cities; there was no chance for new gangs to be formed except within the frameworks of the old, and the city leaders-the bosses-took quick steps to prevent any potential rivals from gaining much power.

After 2412, the cut-off date for deportation of criminals, Bardia's Fall was left to its, own devices. And, over the passing centuries, a well-knit civilization emerged.

There were perhaps a billion people on the planet now,
spread widely over six continents; the largest cities had populations of several millions. Each was ruled by a hereditary Boss, who owed his throne to the conquests of his remote ancestors.

As for crime, there was neither any more nor any less than there was on any other world that lacked the televector tracking techniques. Bardin's Fall was far from a lawless world; crude, perhaps, its people tough-minded and self-seeking, but those were inheritances from the original unwilling settlers.

In five hundred years, a planet having no contact with the outworlds is bound to attain culiural equilibrium, Ridgeley realized.

In those first few days in Chago, Ridgeley was something of a sensation. Travel even between cities was limited and infrequent-there was definite coldness between Chago and its nearest rival, the almost equally large city of Yawk forty miles to the eastand to have a newcomer from
off-planet entirely was un-heard-of.

Ridgeley was surrounded by eager Chagans, from the Boss himself down through the nienbers of the court. More of his preconceptions shattered as he met local psychologists, pocts, artists, athletes. Somehow he had thought of Bardin's Fall solely as a world of gunmen. Perhaps that had been so at the start-but five hundred years is a long time, on the cultural timeclock. Worlds change.

On the fourth day, though, he entered Ben's office-cumthroneroom, and found there, seated at Den's left, the man he had been waiting to seethe man whose work he had come to thwart.
"This is Dr. Herschel," Ben said crisply. "He's our leading spaceflight authority. You and he are going to work together."

Herschel was a tall, spindly man with round greenish eyes and a lopsided, awkward kind of grin. He stood up as Ridgeley approached and said, in a soft voice, "I've heard so much
about you. You're truly a spacedive technician?"
"Truly I am. And very anxious to help you build a ship that will get me back to my wife and children." The lic comes casily to my lips, Ridgeley thought bitterly. The wife and children were as mythical as the spaceship he was going to help build. He glanced at Ben. "I'm ready to begin work immediately. As soon as my wrist-band is restored, that is."

Smiling, the Boss slid open a desk panel and drew out the wrist-band. He handed it to Ridgeley. "Dr. Herschel says this thing doesn't have any concealed weapons in it. He also says he can't figure out what it docs do, though."

Ridgeley casually fastened the wrist-band in place, letting his sigh of relief at having it back remain inward. "I promise I'll show you how this works," he said. "After Herschel and $I$ have built the ship."

LATER that afternoon he accompanied Herschel to a dome-shaped building some
miles further into the city, a building patrolled by gay-ciad guards of Ben's private police force. Handing Ridgeley an identification $t$ ag, Herschel said, "You'll have to wear this any time you want to enter the lab. We have to be very careful."
"Of whom?"
"Yawk. They're working on a spaceship project too. They'd love to steal our model and get there first."

Intcresting, Ridgeley noted silently. So there was rivalry between the city-states over which one was to reach space first? That might be useful information, Ridgeley thought.
"Shall we go in?" he asked.
The building was virtually hollow. The great dome held a winding strip of offices spiralling up to the uppermost level, but the dome's interior was completcly empty-except for the towering hulk of what Ridgeley thought at first was an extremely clumsy one-family dwelling, but which he realized a moment later was actually an attempt at building a spaceship.
"That"s our pilot model," Herschel said. There was uncontrollable prise in his voice. "Not completed yet. of course."

Ridgeley squinted up at the monstrous thing and said, keeping as much of the scorn from his voice as he could, "What happens when it's actually completed? Are you going to lift the top off this dome, or just let the ship blast its way out through the roof?"

Herschel chuckled. "Hardly. This ship you see is only the mock-up. When we're ready to get her off the ground, we'll build an entircly new one outside, at the landing field. We've been constructing the model indoors so we can work all year round--the winters are nightmares here-and to minimize the security aspacts. Besides, until you came we weren't sure how long it would take to build a spacegoing vessel. If we left our pilot model exposed to the elements for decades-"
"Decades?" Een had used that term too. "I thought you were virtually on the verge of space-travel."

Herschel looked at him
strangely. "W'here'd you get that idea? As of this morning I don't foresee it in my lifetinese -though, of course, your coming has changed all that."

Ridgeley realized he had blundered. The secret message that had been intercepted had implied space travel was virtually a jait accompli on Bardin`s Fall-but evidently the official public policy was to deny that, to insist that it was still do\%ens of years away.

Or was that the truth? Looking at the awkward thing in the clearing before him, Ridgeley wondered who was doing the deceiving. Perhaps Herschel was telling the truth; in that case-

He shrugged. One thing at a time. he decided; there was nothing to gain by leapins, wildly to conclusions when the facts were available.
"The best place for us to begin," Ridgeley said. "is for me to know exactly what progress you have made. Then I can make the necessary surgestions that will help you to attain your goal."
"Of course. Suppose we go
to my ofice. I'll show you the sfitcilications there."

HERSCHEL'S office was a custy cubicle high up in the dome, overlooting the snout of the model spacesinp. Ridgeing took a seat in the least filthy corner, and wated while Herschel bustled arotind fathering together sheafs of iblueprints, design charts, and schematics. Finally, he dumped them on a workbench in Eroni of Ridgeley.
"There it is. Our entire space project."

Ridgeley blew dust off the uppermost sheet of paper and bent forward over it. It was a set of hull specifications, painstakingly written out in a nearmicroscopic hand. Squinting. Ridgeley peered down a long column of figures, up the next-
"Basically an aluminum hull," Herschel said.
"Ah-yes. Here." Ridgeley repressed a bewildered cough. Aluininum? W'ere they crazy? An aluminum hull would last about nine seconds at any decent speed, after which time
they'd have a fine supply of aluminum oxide and not much else. Surely they were considering some bonded-molecule loull, in the naminer of the early 'Verran siace pirncers, if not actually some ceramic derivative.
but no. Aluminum, actually.
He glanced ai the schematics for hull design-ihe lovinglydrawn, ntterly uselecs atmospheric tanes that had been rendicred in all their clumsy bulk on the giani model ouiside. The flaring wings: the stubby snout.

He looked further-at the impossible fuel mixture, the tangled maze of feed lines that was theoretically expected to deliver fuel to the jets under no-grav conditions, the gimbals for imparting spin to the ship -they lacked governors, and were iust as likely to send the ship into a ten-g longitudinal whirl as the one-g spin that was intended-and at the million other cockeyed off-base specifications that Jleruchel and tis assistants had strung trugether in hopes of geting a ship into spaze.

Finally Ridgeley looked up. Herschel was beaming proudly down at his handiwork. This is too much, Ridgeley though!. With maximum restraint he said, "Have you tested any of these things?"

Sadly Herschel shook his head. "Some. Not all. We've had very little success, you know. But we're getting there. It's only a decade or two since we developed internal-combustion engines, you know."

In that case, Ridgeley thought, a hodgepodge like this was more understandable. It represented simple trial-anderror enginecring, with little understanding of basic theory; given an ample supply of cash, an army of skilled engineers, a flock of suicide volunteer pilots, and about fifty years of patient tinkering. Herschel would probably succeed in getting a ship off the ground. But it would be a wobbly job that would barcly reach escape velocity, and it might or might not get as far as the dim little moon and back.

If these charts were any representative specimens of the
current state of Bardin's Fall scientiiic advancement, Ridgeley thought, then the galaxy was in little danger for a goodly while to come.

But still, that intercepted message - "...w"e expect to develop interplanetary flight in the next year or two-and it shouldn't be too long before we can reach the stars again."

Hoax? Or were they hoaxing him now, letting him believe they were incompetent in order to lull the galaxy into a false sense of security?
"W'ell?" Herschel asked, practically simpering. "What do you think of the setup?"

Ridgeley forced a strained smile. "Some of these things-ah-show a great deal of promise. But-if this is the closest you've come to developing a functional space-craft. then I'm airaid it may be a couple of years more before you're ready to enter space."

Department of understatements, Ridgeley added silently.

Herschel looked mildly wounded. "Of course," he said. "We-we're aware of our
shortcomings. Naturally you'll be able to help us out, making suggestions for improvement in those few places where we most need help."

Thosc jew places? Ridgeley struggled to keep from telling Herschel the truth, that there were so many places in need of improvement that he wouldn't know where to begin.

Instead, he said, "I'll do my best. Mind if I studied these specs in a little greater detail, first? I'll prepare a schedule of suggestions when I've gone over the entire project."

ALONE, he paced up and down in the room that had been allotted to him, trying to think things through. Back at Galactic Control, they had impressed on him the fact that he would have little time for making decisions on this mission. He would have to think clearly, but he would have to think fast.

He had spent five hours with Herschel. That was enough time to convince anyone that Herschel had only a rudimentary grasp of spaceflight theory.

A series of agonizingly devious questions had got him nowhere. Ridgeley had tried to discover if any other spaceflight research were under way in Chago, but the only way he could interpret Herschel's replies was negative.

That left two paths. Either Ben had divined the nature of his mission and was using Herschel as a blind to conceal the actual spaceflight research being carried on in Chago, or else Herschel actually represented the best Chago had to offer in the way of engineering skill.

Ridgeley walked to the window and stared out over the busy city, at the faintly bluetinted moon hanging like a bright splinter above. He had forgotten all about the extra grav-drag and about the atmosphere's acrid taste by now. He stood for a moment with his hands gripping the balcony rail. The metal felt cold and unfriendly.

He reached his first conclusion: " $I$ 'm wasting my time in Chago. I'd better get moving.

Swiftly his mind marshalled
reasons to back un the conclusion:

If Herschel's the best they've got, then I'd better move on to some other city. Maybe Yawk sent that message. Maybe they're ahead of Chago in spaceflight research.

And if Ben is carrying on secret research somewhere and knows he has to protect its nature from me, then I can't stay here and snoop for it; they'll be on guard all the time. Better move on.

Where to?
Maybe Yawk sent the message picked up on Vega. Yawk lay forty miles to the east. Yawk was Chago's major rival.

I'll go to Yazek, Ridgeley decided.

When?
Tonight. Time's wasting.
And suppose Yawk is no further arkaned toward spaceflight than Chago?

Thera I try some ather city. $I$ hawe da ussime the messuge reasn't a hionr.

He turned away from the balcony winlow, slamming it shut with a fitful motion. All the decisions had been made,
now. He would go to Yawls.
But I ought tc cover my trackis here. An oath of fealiy was a sacred thing, Ben had said. It wouldn't be wise simply to abscond to Yawk. A fake kidnapping was in order, Ridgeley decided.

IT took just a few minutes to wreck the apartment, to dump the bed over, upset the nightstand, pull down the lightglobe. He ripped the building communicator bodily from the wall, grinning at the flickering display of electricity that shot forth as the line broke.

He tore some strips from the bedclothes and stuffed them in his pocket; that would make it seem that he had been bound. He scribbled a hasty note: Help, they're breaking down the door! I think they're from-

He ended the note at that tantalizing point, crumpled the sinect into a ball, tossed it in the corner where the "kitnappers" would be likely to overlook it. He glanced around the apartment; it was properly demolished. He had put up a good fight, even in a losing cause.

Finally he stepped eat i,wo the hall, making sure no rine was watching. He locked his itumt door, then smashed it in whih three jarring blows of his: -ioulder. It was sto:t woust, Lut it gave readily cnough.

So much for the kidaps.and. Now for lawk.

He dashed down the hatl toward the rear drophait. ciamkered in, and plunged down eleven stories to ground lewel. There, he sprinted through at lack exit. The street was diark: ineffectual streetlamps--incandiescent bulbs in them-qave little light, nor did the pale moson illuminate the scene inoreefficiently. Few were out, and those few would not notice him.

He crossed the street and found a parked car. It was locked, of course, bui a quick hammerlike blow with the side of his hand caved in one window; he paused a moment, letting the stinging pain recede. then unhooked the windowcatch and let himself in.

It wasn't difficult to short the ignition of the crudelybuilt vehicle. The car started jerkily, spurting ahead ten feet before Ridgeley got it under
jull control. He lonked back, say no purvers, and siarted off toward the main road out of Chago, engine thunciering, clouds oi smoke billowing from the exhaust.

Fie had little troable guiding the vehicle, tlmugh driving it gase hon a cheicus sensation o. abacitaman: on Earib, in-rernil-combustion rethicles were musem piaces. Put this one Feved well enough; he pushed the velacity up to fiity miles an hour, after some confusion w.er the gearshift, and kept the sofed there as he rode on out of the cily:

The highway was virtually deserted: at rare intervals a car would come hurtling toward hin from the opposite direction, but for long stretches he saw no ore.

Once a huge swaybacked beast ambled across the roadway, pausing deliberately in Ridgeley's path to stare at him out of dull red-pupilled eyes.

Cursing, Ridgeley swerved the car around the unmoving creature, running five feet up on the road shoulder before returning to the highway.

It was forty miles from Chago to Yawk. Ridgeley drove carefully, never letting the speed exceed fifty on the tricky, poorly-paved road.

After nearly an hour, the first outlying districts of lawk lay before him.


THE Boss of Yawk was a tall, powerfully-built man in his late fifties, balding, fleshy-faced, but with a deep well of strength evident that belied the pink pudginess of his jowels. He dressed ornate$l y$, in satin robes of green and violet hue, topped with a tiara of semi-precious stones. His office had none of the simplicity of Ben's; rather, it was majestically furnished, with clinging draperies and shining mirrorsurfaces.

Without his blaster-the wrist-band, this time, had been unnoticed or ignored by the Boss' guards- Ridgeley stood before Dyke VII, Boss of Yawk.
"Ben's Hale Ridgeley of Chago, eh?" Dyke repeated. His voice was deep and dry, unresonant but still command-
ing. He toyed with the row of studded jewels embedded in the stiff violet cuff of his left sleeve, glancing up at Ridgeley now and then. "You told me you took on oath to Ben. Why'd you break it?"
"I told you that too. I want to get back home to Earth as quick as I can. I know how to build spaceships. But I saw Chago was going about it the wrong way."
"And how did you know that Yawk was going about it the right way?"
"I didn't," Ridgeley said. "But you couldn't possibly be wronger than Chago. The thing they're building won't be off the ground in less than a century. I don't have that much time."
"So you came to us. Well, well, well." It was impossible to tell whether Dyke was being friendly or threatening. Ridgeley waited patiently. At length Dyke said, "It eases my mind to know that Chago's doing so poorly, in the eyes of an expert. Well, I suppose we can use you here, Ridgeley. I can't swear you to fealty, though."
"Why not?"
"You took an oath. You're Ben's man, and you stay Ben's man forever."

Honor among thieves, Ridgeley thought. No matter whose side he was on, the formalities had to be respected.
"All right," he said. "I'm still Ben's Hale Ridgeley. But I'll build a ship for you, because I want to get off this world in a hurry. I don't give a damn which city I build it for. I just want to get home."

Dyke sighed heavily. "Well enough. I don't see any reason why I should distrust you. Bu't you'll die fast enough if I find reasons. I'll show you what we've done; finish the job for us, if you can."

- E met the Yawk engincers. There were two of them in charge, and a greater pair of opposites Ridgeley would have been hard put to imagine.

Bruun seemed to be the head man. He was about six feet nine, at a conservative estimate, a mountain of a man with a vast brooding head set atop craggy shoulders too wide
to fit through normal doors. Ridgeley was impressed by him: he was the first man who had ever succeeded in getting the best of him in a handshake.

The other man was Weller, who barely topped five feet in height-a tiny insect of a man, all pointed teeth and bright gleaming eyes, set in a minute triangular face. Bruun's ancestors might have been hired mercenaries; Weller's, undoubtcdly, pickpockets.

The pair of them conducted him to an claborately-furnished experimental lab near the outskirts of Yawk. There were no crude wobbly model spaceships enclosed in domes here, no wild melange of improbable constructions. They did have charts, though.
"We've been toying with a plastic-extrusion hull," Bruun said. The big man's voice was an incredibly low rumbling thing. "We ran some flametube tests on metal shells. They just don't stand up to the atmospheric passage."

Weller nodded. "Send a metal ship up and it'll be a cinder in an instant. What do
your ships use?"
"Ceramic overlays," Ridgeley said thoughtfully. "But plastic might do it. I doubt that you have the technology for ceramics now anyway."

There was no harm in telling them things like that, he thought.
"How about the Chago people?" Weller asked.
"They were using an aluminum hull. I guess they hawn't icsted it yet," Ridgeley said.

He thumbed through the rest of the plans. The lawhans had dicsigned their ship--a $: \lim$, at-tractive-louking jou, with retractable vancs and landing fins for atmosphere operation. According to their speciiications, the ship would carry twenty men and could stack fuel enough for a billion-mile journey.
"It's an ion-conversion drive," Weller pointed out. "It cught to yield pretty close to $3 / 4 \mathrm{C}$ velocity at maximum thrust."
"We figure that should get us to the next system in about two years. Not bad, except that we can't store enough fuel on
board to last the whole trip." Bruun's massive face looked terribly sad-if it could be said that so vast a face could have any expression.

Ridgeley moistened his lips. So far as he could tell from rough scrutiny of these plans, the Yawkans were infinitely closer to space travel than the Chagans. Obviously, these had been the ones who had sent the message.

The specifications before him were those of an ultimately workable ship. They lat! solved the theory; their drive-principle was sound, and whichever of these two had engineered tha: blast chamber, he had done a shrewd jois of it. All that remained was to solve the problem of a sufficiently heat-resistant hull-a few months' experimentation, no more-and then to build the actual ship.

As it stood now, they could send a ship to their moon and back immediately, or almost so. The neighboring solar system was out of reach temporarily, but six words from Ridgeley could give them the clue that they would need to
remedy that. Or, even without his help, it would be no more than a year or a year and a hali before they solved the problem in the classic manner, by developing a reciprocatingcycle fuel converter that would assure them of an infinite supply of reaction mass.

A year, a year and a half and they'd have interstellar travel. Slow travel-three-quarters of lisht velocity, no morebut they'd have it.

Bardin's Fall would once again have access to the galaxy. These men of unstoppable drive and ambition would come pouring forth after five hundred years of isolation, ready to take vengeance on the galaxy that imprisoned their ancestors.

How long would it be, Ridgeley wondered, before these men discovered the faster-than-light warp drive? Or stole it?

Whoever these two geniuses were, this Bruun and this Weller, they had given Yawk and Bardin's Fall the key to space. The week Ridgeley had spent at Chago had been a waste of efifort; while Herschel and his
fellow bunglers toyed with aluminum hull, and fantastically complex iuel-injection processes, these two at Yawk had brought space travel virtually to tomorrow's doorstep.

And Ridgeley could stop it. Right now.

Not much time remained.
He looked up at Bruun and Weller, "This is fine stuff. Youre on the right track, definitely. Oi course, there are a rew fundamental bloopers-"
"Could you point them out?" Weller asiked. Eagerly.
"I'll need a day or so to study these specs." Ridgeley grinned warmly. "There won't be much work for me to do, though. You've done a fine job."

And I'm going to do my best to ruin it, he tacked on in silent parentheses.

MIDNIGHT. And the end of the mission approaching for Ridgeley.

The lab area was silent, deserted; the normally dim moon was waning, and gave just the tiniest beam of light.

A watchman paced boredly
back and forth before the lab entrance. Crouching in a diadowed corner, Ridgeley watched his mechanical mutions, biding his time, waiting. Iis muscles tensed, ready for action.

A car was parked nearby the watchman's, probably, and so not locked. Good, Ridgeley thought. He would need to move quickly. He had a tight schedule to follow.

First, break into the lab. Destroy everything-the models, the notes, the blueprints. Set a fire that would take care of everything else, and incidentally keep the local authorities busy a while.

Next, grab that parked car and get moving. He had the addresses of Weller and Bruun. Two quick blaster shots and Yawk's chances of reaching space in the decade to come would fade like dying firework bursts. It was too bad, of course, that brilliant men of the order of those two would have to die-but it was two deaths against the potential deaths of billions, and a pair of murders more or less were unnoticeable on such a scale.

After that, thought Ridgeley, back to the car again. Follow the wrist-indicator to the hidden lecation of the spaceship. Climb in. Blast off. Return to Galactic Control, let them know that Bardin's Fall had been temporarily kept from reaching space, and inform them that they'd better shore up the galaxy's soggy war-making machine if they wanted to prevent future trouble with Bardin's Fall.

End of mission, he thought.

He emerged from his crouch slowly. He had it timed properly: a hundred thirty-two minutes should suffice for the whole thing. Two hours and twelve minutes from now, if all went well, he'd be on his way back to Earth, heading for Galactic Control to file his report.

He broke into a run.

THE watchman never saw him coming. He was a big man, with a rifle slung over one shoulder, but he obviously had been on the job a long time without ever encountering
trouble. He had grown complacent.

Ridgeley caught up with him about ten feet before the point where he would turn and head back. He reached up, grabbed the muzzle of the rifle, and yanked down, hearing a satisfying clunk as the rifle's stock crashed against the man's clavicle.

The astonished guard spun and, rifleless, moved toward his smaller foe. But Ridgeley was ready. He swung the rifle up in a wide arc. It connected with the side of the man's skull, felling him instantly. Blood began to trickle from the guard's ear.

Ridgeley knelt, saw that the guard still breathed, and briefly debated killing him. He decided against it; the fellow wasn't going to wake up too soon, and even though his carelessness merited him death, Ridgeley was willing to let him live.

He dragged the man into the deepest shadows, bound him quickly, and stood up. The first part of the night's work had gone swiftly enough. The
lab lay ready for him.
He vaulted the restraining barrier, clambered frantically up through the network of outer fences, and swung himself lightly in through a secondstory window. The man who thinks like an ape, Ridgeley thought, remembering the label they had branded him with in his Academy days. And zelho climbs like one, he added now.

He dropped easily to the floor.

Ridgeley had always had a good directional memory; now, he found his way through the darkened laboratory to the room he had been in with Weller and Bruun earlier that day; there, the most vital of the plans were, and those he would destroy first.

En route, he passed a large workshop. He peered in. A scale model of a spaceship drive generator sat on a workbench, incomplete but carefully constructed and recognizable. Drawing his blaster, Ridgeley destroyed it with a quick spurt of energy.

Onward. He reached the engineers' office. Charts and
blueprints were within, behind the drafting-desk, in the gray metal cabinet. He blasted the lock apart and shoved the door open.

A siren screamed.
At first, he thought it might be some kind of burglar-alarm that he had sprung by breaking into the office. But he reali\%ed that was unlikely: if the 1ab) were wired, he would have sprung the alarm the noment he entered.
Ne. The siren was outide.
He sprang to the window and looked down into the courtyard. An official-looking car hat pulled up: men were ruching into the lab. Ridgeley beman to sweat. Somowhere along the way, he had commitied a fatal blunder: he had been detocted. Scowling, he realized his entire mission hung by the and of a steadily weakening thread now. He would have to complete his job here. elude those below, and still reach Weller and Bruun this evenine. else he would have failed.

He blasted open the blueprint cabinet and asheil its contents. A bound volume of ap-
proved schematics went next. He watched flame starting to spread; the lab was probably well fireproofed, but a determined arsonist could always overcome that.

Ranging up and down the office, he tossed whatever he could into the growing blaze. Even if he failed to reach the engineering pair, he would still have done enough damage to set Yawk back six months to a year in the spaceiflight program.

The flame mounted higher now; he saw he had accomplished most of his task, and ducked out of the office. The coast seemed clear, for the moment.

If I can only find some woy out of here that isnt being guarded.

He heard footsteps.
Whirling, he saw two figures mounting a catwalk sume fifty feet away; by the flickering light of the flame he could see they held blasters, and were obviously searching for him. Their backs were turned.

Hostages, he thought.
"All right, you two over
there." he called. "Let your guns drop. Turn around slowly."

Two blasters dropped to the floor. The men turned to face him. Ridgeley's eyes widened when he saw who his hostages were.

The taller of the two was Dyke VII, Boss of Sawk. His companion was Ben V, ruler of Chago.
${ }^{66}$ W F. came too late." Ben said. There was little anger in his voice, only a strange sadness. "He ruined everything. If only I had called earlier-"
"Or if I hadn't trusted him," added Dyke ruefully. "But I suspected. I traced him. But too late, too late-"
"And so Bardin's Fall remains in solitude," Ben said.

Ridgeley nodded. "Your conquest of the galaxy will have to be postponed, I'm afraid."
"Conquest—what—?"
Dyke shook his head. "What did you say?"

Ridgeley repeated it.
"Is that what Earth believes? That we want to con-
quer the galaxy? Really?"
Ridgeley suddenly began to sweat, not altogether because of the fire crackling in the lab behind him. What were they saying. he wondered?
"All we wanted was a chance to return to the community of worlds," Ben said quietly. "To atone for the things our ancestors did. To take our place in socicty. And you, you destructive idiot, with your lies and trickery-:" He was unable to go on.

Ridgeley chewed his lip; the hand that held the blaster on the two bosses shook. To cross half of space and carry out a secret mission for this-
"Let's get out of here," he said hoarsely. "Start walking toward the stairs. I'm perfectly willing to kill the two of you if I don't get out of here alive. If you see any of your men ahead of you, tell them what the score is."

They began to walk. Behind them, the fire flared, growing ever brighter. A blaze of heat lit their way as they wound down the spiral staircase. Five guardsmen stood in the court-
yard, hands in the air, as Ridgeley emerged with his gun thained on their rular.

Fire danced through the lab. It would be entirely destroyed. But-

He felt dizzy. "Why were you so anxious to build spaceships?" he asked.

Len said, "To see what other people were like. 'To show them we had learned to live in peace. But of course you don't believe that. You live by trickery, and you expect everyone else to try to trick you in turn."
"He's telling the truth," Dyke said. "Your talk of a conquest is fantastic. What could one werld do against an entire galaxy?"

You don't know, Ridgeley thought. You don't know how soft the galaxy's becomir, how cffete, how spineless. Without crime, with the toughest, most ruthless of its population sent to rot on a forgotten planet someplace-

Agulf seemed to be opening in front of him. All his life he had followed orders, carried out one mission or an-
other unque:tioningly. Tut-
Stippose these men were sincere. Simprose they wated contact with the galaxy, nothing more? Should the sins of the fathers be visited unon the tenth and twentieth generation? Should these people be quarantined forcver?
"Who are you?" Dyke asked finally.
"Hale Ridgelcy... of Earth ...of Space Service." And he thought suddenly, What do I care about Earth?

He had never been comfortable there, with his physical strength and his shrewdness and toughness; they were qualities the galaxy had little of, and they had not loved him for it. The ruthless spirit of mankind had been cast off, the free spirits hurled into exile on Bardin's Fall. And mankind was paying the price.

But if he let Bardin's Fall go ahead with his project-if these tough, hard men came sprawling out over the galaxy, interbreeding once again, mixing their five-hundred-yearisolated strain with the effete blood of the civilized galaxy-

He glanced up at the waiting Bosses. "If I were to let you go--if I showed you how to build spaceships-dammit, if I showed you whare my own spaceship is hidden!-would you let me stay on Bardin's Fall?"
"Is this another trick?" Ben asked suspiciously.
"Look at his face," whispered Dyke.
"Would you?" Ridgeley repeated.

There was a long moment of silence. Suddenly Ben said, "I don't know what your game is, Ridgeley. But let's say maybe."
"Maybe's good enough," Ridgeley said. He tossed his blaster to the ground. Immediately one of Dyke's men leaped forward and snatched it up; a moment later, he found five blasters trained on him.
"You don't need those," he said. He held out his wrist. "Remember this, Ben? That green arrow points to a spaceship. It's hidden in the woods
halfway between Yawk and Chago. I'll help you duplicate it." He felt sudden terrible relief; his hands began to quiver, and he dropped them to his sides.

Soon, he thought, ships of Bardin's Fall would streak skyward. He looked up and felt a chill of wonder at the star-spattered sky as they bound his wrists. They were taking no chances now, and he hardly blamed them.

You don't trust someone who's hurt you once. The galaxy had never ceased to distrust Bardin's Fall and its criminal colonists; these two Bosses might never fully trust him. But they would make up their minds again when he led them to his hidden ship; and, perhaps, the galaxy would have reason to change its opinion of Bardin's Fall.
"Come on," he said, in a voice that tried to sound tough but had a catch in it. "I'll show you where my ship is."

The mission was over.
THE END

## THE HAPPY SLEEPERS

by CALVIN M. KNOX

illustrated by EOWMAN


#### Abstract

The world was falling aslaxp. One hy one, its people were dozing off. But in this odd sleep what kind nf dream caused the strange smile on a slecper's face?


DR. Richard Meddows gloomily observed the row on row of cataleptics in the ward. The thing was spreading like the Black Plague. he thought. If it kept up this way, he'd soon be the only sane man in the world.

Morbid thought. He brushed it away. A nurse tugged at his slecve and said, "I)r. Meddows, the ambulance just arrived with three more cases. That makes eighteen this morning alone. Where should I put them all, Doctor?"
"Have the orderlies move each bed six inches closer to its neighbor," he said. The ward was a hundred feet long. That ought to make room for the newcomers; the sleepers
weuld never object to the crowding. "If there are no more beds upstairs, requisition some. The Government's footing the bill for this hospital. We'll manage, somehow."

Somehow. Brooding, Meddows glanced down at the nearest sleeper. The chart at the foot oi the bed said Deever $F$. Ar llhone, 41. Deever F. McIlhone had been asleep for thirteen consecutive days and nights, now, in total coma. He was being fed intravenously. He was smiling in his sleepsmugly, almost complacently, as if he pitied those so unfortunate as still to be awake.

Some of the others had been asleep as much as three weeks. They all had that damnable

smug smile about them, too. Meddows wondered how many people living alone, widowers in cheap hotels and bright-eyed poets in garrets and crusty recluses in the hills, had gone to sleep and remained that way; with no one to feed them, they would starve slowly to death, probably still wearing the same enigmatic smile.

Suddenly he was tired of smiling faces. He turned, left the ward, stepped into an open elevator. He pressed 8.

The phone was ringing as Meddows entered his office. He debated letting it ring, but conscience won out. He accepted the call.

A nurse's face appeared on the screen. She said, "Dr. Meddows, three more ambulances just arrived. What should I do?"

He was tempted to tell her, in specific detail; a second time, conscience triumphed. He said wearily, "Make room someway. Stack them in the broom-closets. And tell Dr. Mathieson to get hold of someone in Washington and have them shut off the faucet."
"Sir?"
"I mean, have Mathieson request them to commandeer some other hospital. We're overloaded now, but good."

Brusquely he snapped contact. When he looked around, he saw that Dr. Helmet, his coadjutor, had entered the office.

Simeon Helmut was a small slim man, poised, reserved almost to the point of aloofness at times. He contrasted sharply with Meddows, who was tall and hippy, thick-fingered for a psychosurgeon, and easily irritated. Together, they formed a fine team.

Helmut said, "Nurse Brooks told me you left the ward floor in a snit. Things getting you down?"

Meddows forced a grin. "It's the damned overcrowding, Sim. I'm having Mathieson request a shut-off from Washington; we can't store any more sleepies here. We have enough problems without worrying about space."
"That's significant," Helmut said.
"What is?"
"The phrase you used: worrying about space. Subliminal upvocalization of conscious problem, hcin? You're trying to document your theory, that this rash of cataleptic attacks has something to do with the development of space travel, and-"
"Come off it, Helmut," Meddows said, grinning. "You can read the damndest things into what people say."
"I'm just searching for an answer," said Helmut defensively. He looked wounded.

THE trouble was, Meddows thought, that there werc no answers. At least none he, as a competent psychosurgeon, could buy.

The Plague-for so he was beginning to think of it-had begun somewhere on or about July 17, 1987. And the Mars rocket had been fired on July 17, 1987. On that juxtaposition of data Meddows had hung what little theoretical framework he had.
"I still think there's a connection," he said earnestly to Helmut. "People started oversleeping just arcund the day
the Mars rocket went off. With all the crazy hysterical mumbling, all the talk that the expleration of other worlds deficid the laws of God and man, I'm sure there was some strong phychic cifect. Pcople retreated from rulity, recessed into a somnolent state, and stayed there. Hell, it makes sense, doesn't it?"

Helmut shrugged. "A little," he admitted. "But it's a tenuous peg to nail down a mass psychosis with. You can't explain away umpteen thousand sudden catalepsies on a rocket to Mars."
"Okay," Meddows said. "You explain it, then. I tried."
"Suppose it's what Lurton claims it is. Suppose those people, instead of suddenly going to sleep, have suddenly awakened. Suppose-"

Meddows stared at Helmut as if his colleague had unexpectedly sprouted a third eye. "Helmut!"
"I'm just conjecturing. You asked me to try to explain it, didn't you?"

For the first time Meddows was aware of the deep lines of
strain on Helmut's face. He said, "Yes. But I wanted you to stay within the bounds of science---or at least the confines of reason."
"And how do you explain the EEG results? Are they scientific? Are the y reasonable?"

Meddows recoiled. He didn't like being hit in the face with data that contradicted all thinking. Leaning forward heavily in his chair, he said, "Okay. I know, we've run electroencephalograph tests on all those people out there, and for all I know every single one of the thirteen thousand catalepts showed the same set of waves. What of it?"
"What? I'll tell you, what. We know what the normal wave-rhythm of a cataleptic sleeper ought to be. A sleeper ought to be low on alpha rhythms, high on theta, with big, deep, sleepy delta waves dominating the pattern. But our sleepers don't look that way. Oh, no: their EEGS come out perfectly normal-for people who are wide awakc. Explain that, will you!"

Meddows noticed a glassy
glitter in Helmut's eyes. That was the trouble with these reserved cerebrotonic types: they broke under strain too easily. Meddows rose, walked to the window, whirled suddenly and said, "I can't explain the crazy EFG response, I admit. All right. Just to get off the subject for now, I'll accept Lurton's hypothesis, if it'll make you any happier. The sleepers are awake, in some other world, carrying on normal lives. Furthermore, they're all smirking at us poor suckers who persist in staying 'asleep' here. Does that satisfy you?" he asked tiredly.
"No more than your spaceneurosis theory does," Helmut said. "But I'm getting to the point where I'll believe anything. Anything."

A
LONE, in the ward, Meddows brooded over his sleeping charges. Helmut had left early, pleading headache; Mathieson, the third doctor in the unit, had succeeded in getting the avalanche of new cases diverted to Walter Reed Hospital, and then he had left. The shadow-crew of night
nurses and orderlies drifted through the hospital. The sleepers didn't need much care; only a token force was on duty.

It was the EEG response that úug Meddows harder than anything else, he told himself. Thirteen thousand catalepts develop practically overnight, and $g \in i$ shoveled into a hospital to we cured. The Government finds two or threc competent psychosurgeons and says, "Heal these sufferers." So the psychosurgeons run an electrocncephal.ograph test, which is simply a routine check like a dentist's X-Ray, and come up with a totally impossible result.

Postulate: the sleepers are in retreat from everyday pressures, a situation catalyed by the blasting-off of the Miars rocket.

Alternate postulate: the sleepers are wide awake, on some other plane of existence.

He snorted contemptuously. Neurotic fantasy. Wishful:illment instead of hypothesis.

But the hypothesis had come from Lurton, and Lurton
was a top EEG man at Johns Hopkins. Much as Meddows would like to think Lurton was nothing but an idle crackpot, it was hard to argue away the man's real qualifications and abilities.

Moonlight flickered through the slotted windows. I pale beam splashed on Deever F. Mcllhone's face, highlighting the sardonic smirk. Nellhone setmed to be saying, What are you doing up on your flat ject like that, sucker? Why don't you come to bed, anel be happy like us?
"Don't be foolish," Meddows said stubbornly, aloud. "You can't get me to be-licue-"

And then he realized he was talking to no one. Foolishly he listened to the echoes his voice made in the silent ward, and after a moment decided it was time to go home and get some rest.

It was a long, wearying, unpleasant night. Along toward three in the morning, he found himself envying the plague victims. At least they slept, though too soundly; he
couldn't seem to sleep at all.
A note on his desk when he arrived the next morning said, Call Dr. Chasin at Johns Hopkins. Shrugging, Meddows put through the call.

Chasin was youngish, with close-set eyes and bushy. brows. He needed a shave. He smiled apologetically and said, "Hello, Dr. Meddows. I called a little while ago, but you hadn't arrived yet. Something about the young man's voice twanged painfully on his auditory nerves.
"It's Dr. Lurton, sir. You know Dr. Lurton, of course?"
"Yes, yes! What's happened? Don't tell me he's vindicated that theory of his!"
"I-don't know, sir. You see, Dr. Lurton turned up among this morning's cases."
"What!"
"That's right, Dr. Meddows. His wife called and said he hadn't answered the alarm bell this morning, and she wanted someone to have a look at him. Classic catalepsy, all right."
"You run an EEG on him?"
"Yes, sir. The usual waking pattern."
"I see," Meddows said numbly. "Anything else?"
"It's his face, Dr. Meddows. He has the usual smile, of course-but with a difference. It's a smile of triumph, of victory. He looks terribly happy, Dr. Meddows."

Suddenly Meddlows felt no further desire to talk to young Dr. Chasin. "Thanksverymuch," he mumbled. "Keep in touch. 'Bye."
He hung up and peered unsmilingly at his fingernails, trying to picture the blissful countenance of Dr. Lurton. Finally he picked un the phone again.
"Get me Dr. Helmut's office, please."
"Certainly, Dr. Meddows." Hum of activity for a moment, usual buzzes and clicks on the switchbuard. Then the hospital operator said, "I'm sorry, sir. Dr. Helmut has not arrived at the hospital yet this morning."
"Call his home, then. Maybe he hasn't left yet."

More buzzing. Noni Helmut appeared on the screen. Meddows thought she looked unkempt and oddly incomplete without her veneer of makeup.
"Thank God you called, Dick! There's something wrong with Sim-"

Meddows took a deep breath. "Don't tell me," he said very quietly. "Let me guess. He hasn't gotten out of bed yet. He won't wake up. Is that it?"

LURTON, Helmut...it was starting to strike the Profession, now. Contagious? Maybe. Impossible.

Simeon Helmut lay on a cot in Meddows' office. His eyes were closed; his chest rose and fell methodically. The results of his EEG littered Meddows' desk. They showed that Helmut's mind was awake and functioning. . .somewhere.

Helmut was smiling. Noni Helmut said she had never seen Sim smile in his sleep before.

Meddows bent over the sleeping Helmut, gently touched a closed eyelid, peeled it open. Helmut's blue eye stared upward at him. Meddows waggled a stubby finger past the open eye; no response. He jabbed the finger viciously down toward the eyeball, pausing half an inch from its sur-
face. Still no response. He released Helmut's eyelid, and it slapped shut again.
"Sim? Where are you, Sim?" Meddows knecled and whispered urgently in Helmut's ear. "Tell me about it. Wake up and tell me where you are. You'll get the Nobel Prize for it, Sim. The Nobel!"

He might just as well have offered him the rings of Saturn. Helmut didn't stir.

Meddows tried adrenalin shock, radiothermy, cortex stimulation. He had never dared to try these techniques on the same patient successively, but Helmut was different; Helmut was not only patient but healer. Sim would approve.

None of the therapies produced the slightest effect. The cataleptic trance was deep, so deep that there was no penetrating it.

Meddows rang for an orderly and had him wheel the sleeping Helmut down to the ward. The phone buzzed, and his secretary's voice said, "There's a reporter here to see you, Dr. Meddows."
"I can't see anyone. Ask him
what he wants."
"He'd like to talk to you, sir. Should I put him on?"

Meddows sighed. "Go ahead."
"I'm from the Globe, Doctor," the reporter said. "I'd like a quote from you about the proposed Hennigan - Darnley Law, if it's possible."
"The which?"
"Hennigan-Darnley. Haven't you followed the papers?"
"I've been too busy. Fill me it.,"
"It's an act now before Congress which would deciare the sleopers legally dead if they remained in coma for a period of one year. How do you feel about that, Doctor?"

Meddows thought about it. Hennigan-Darnley, now. Legally dead. He said, "We're working on possible ways to awaken the slcepers up here. We ought to solve it. I think they'll all be out of trance before that year's up."
"You think the law's unnecessary, then? May I quote you?"
"Sure," Meddows said. "Say anything you like."

WHEN the line was clear he told his secretary, "I don't want any more calls sent to me today, until further notice. And I don't care how big an emergency it is. Got that?"

He drcpped the receiver back into its cradle and sat on the edge of the cot that had held Helmut. He thought: maybe Lurion zuas right. Maybe there is another fibrld somewehere, and the dreamers tave suddenly broken thirough into it-urith the Mais rocket serving as a sort of mitental focal point, maybe.

A lesson he bad learned years ago and not always remembered came lack: Don't be dogmatic about anything. There are second-order phenomena that look cockeyed until we have a first-order handle to hold them with, but don't completely deny they exist because of that.

Grimly, he sat down and began to wrestle with the logical implications of the Lurion hypothesis.
(Logic: All green creatures are reptiles; my dog is green. Ergo, my dog is a reptile.

Louty on the level of cognitive meaning, but impeccably good deductive form.)

All right, he thought. Let's loek at I.urton's hypothesis.

He says there's another plane of existence somewhere, and that the dreamers are awake there while they sleep her. Thirteen-no, fifteen thousand, by now-had crossed the gulf into the new plane, including Lurton and Helmu t.

Perhaps, Meddows thought, it might be possible to make a temporary crossing-to pass the threshold and return. If so. it devolved on him to make the attempt. He owed it to himself, in the spirit of scientific rigor.

He began to set up instruments. The electroencephalograph would keep watch over him; the alarms and detectors would be ready, to yank him back as soon as he began to slip into the cataleptic trance —maybe.

He climbed on the cot. He adjusted the electrodes.

He waited for sleep.

IT came to his fatigued mind, aiter a while. And, to his
own astonishment, he had conscious control of purpose. He began to glide downward into darker depths-

Until he awakened, pale and shaking, drenched with sweat, with the ringing sound of the gong beating his ears and the brightness of a 300-watt flash blinding his cyes.

He shut down the gadgetry and shoved it all away. He sat on the edge of the cot, numb, remembering what he had seen in his brief peek at there.

Helmut. Lurton. Awake, and clucking sympathetically over a slumbering cataleptic in a hospital bed. They were trying every known method of awakening him. And the patient they were trying to awaken-

Was Richard Meddows.

Reality? Who knew which world was real, and which the dream? One thing, and only one, was deadly clear. The bridge had opened, somehow, three weeks ago. The people of here were travelling there. Fifteen thousand in three weeks, and how many billions yet to go? Soon, the world he thought
of as horc would be a world of sleevers.

Exccept, he thought, for the one !aunt man who was doumed io rove, awake, among the stepers, unable to cross over because he would be a hopoless cataleptic in that othor world. To him would fall the trot. of fuarding the sleepers; periaps. it had been arranged that way.

Tine iwo worlds were mirror images, Medlows saw gloomily. All but one man asleep here, all but one awake there. And he was the one.

His body there lay rigidly cataleptic. To make the cross-
ing would be to doom himself to eternal sleep, while to remain behind meant cternal loneliness in a world of sleepers. Whatever strange thing had happened to the world would leave him behind. lihether he crossed or not, he would be alone.

Mirror images. And here he was sane. The only one.

Sunc, he thought. The Plague would pass him by. He bleakly rose and went downstairs to observe the row on row of smiling cataleptics in the ward, thinking, Sane! Sane, dammit!

THE END

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## THE OLD TIMER

## by RICHARD R. SMII'H

Shakish was the last of his kind. If the insיlting Farthmen had only bothered to find out why he was a rare being they would have lived a whole lot longer

SHAKISH waited patiently on the wharf and watched the low crumbling buildings of Dankor. Although he had seen the spectacle all his life, it never ceased to fascinate him: the twin moons cast double shadows from every object and jars of bright fireflies on roof tops cast a weird, pulsating glow that made the angular structures seem alive and mobile.

Watching the flickering city made him feel old, even older than he was because he could remember Dankor when it had majestic towers and streets lined with trees. But even more painful than the memory or the pain in his flesh was the thought of the Earthmen. They seemed everywhere these days; seemed anxious to trod over his already dying civilization.
"Here's one!" It was the voice of an Earthman and peering through the shadows, he saw two dim figures as they advanced toward him.

When they reached him, he recoiled from the sharp odor of what they called whisky. The larger of the two swayed from side to side and inquired, "You take us other side?"
"Yesh," Shakish replicd. "Cost five sarkol."

The Earthmen prociuced the required coins, handed then to the Martian and cimusel into the boat. Taking his position at the stern, Shakish untied the ropes that held the skiff to the wharf and shoved off.

After they had traveled several yards, he wet his finger and held it above his head. Much to his regret, he found that there was no brecze. The
sail would be useless and he would have to push the skiff across the canal with the gornak.

Standing up, he reluctantly took the long pole and thrust it into the water. It has too bad there was no breeze: he knew how impatient the aliens could get.
"Want some more, Nelson?" One of them had produce: a bottle and was offering it 10 the other. He felt cheered: if they had something to drink, perhaps the long trip would not irritate them so much.

Nelson drank noisily and groaned to indiciate lis satisfaction.
"You know why wére coing to the other side, Marty:" he asised.

Shakish whispered something almost inaudible that was taken as a negative answer.
"WVe heard the girls over there are cuter. That is-" He laugled and poked the other in the ribs with his elbow. "-if you don't mind webbed feet." He paused to take another generous gulp from the bottle and seeing that it was empty, tossed it into the canal. "We heard there's Marty dancing girls on the other side that
don't look like frogs!
"You know any places over there where they got good.... dancing girls?"

Shakish did not reply.
After a few minutes, he repeated, "I said, do you--"
"Lay off, Nelson. He probably don't even know what you're talking about."

Nitison leaned back and lit a cigarette. As he smolied, he costentatiously fliclied the ashes over the side of the shiff as if the canal was an ashtray placed there for his convenience

When the whi:ky in his head subsided, he noticed that the boat was almost crepping across the muddy water. "Hey! Can't you make this thing go faster? It'll take us all night to get there at this rate!"
"Me old mian," Shakich apejlogized. "No can go faster. Sorry."

NELSON moved closer for a better look at the ferryman. Back at the wharf, he hadn't seen him clearly because of the shadows. Now he saw that tattered rags concealed a wizened, emaciated Martian. "Boy, we really picked one, Carl! The guy's so old he can hardly stand up!"

Shakish stiffened at the insult but kept his eyes on the faint lights from the other side of the canal and pretended he hadn't heard.

His antagonist started to sit down again but hesitated when he noticed something twinkling in the moonlight. "What's that around your waist?"
"Medal," Shakish replied politely. "Many people give me. Token high esteem."
"That so?" Nelson leaned forward and although he was afraid the old Martian might have germs. he couldn't resist touching the belt gingerly. "Are they diamonds?"

## "Yesh."

Nelson whistled softly as he crawled back to his seat. "High esteem? What kind of high esteem made a bunch of Marties give you a diamondstudded belt?"

Shakish's head rose with pride as he explained, "Give medal cause me old man. Me oldest now. .io more like me."
"Hear that, Carl?" Nelson laughed raucously. "We'll have to stick around here. When you get old, they give you diamonds!"
Shakish stiffened with anger and tried to push the little boat faster: The sooner he
was rid of his passengers, the better he'd like it. Let the dancing girls with the tinkling bells on their ankles have them: Filth deserved filth!

The Earthmen whispered occasionally as the skifi continued on its journey but, suspecting it was more insults, Shakish paid no attention. He listened instead to the canal water as it gurgled softly on its way to the farmlands in the south. The once great farmlands were almost gone now, but it was still a pleasant sound. Although it was a feeble whisper. it was a sound that meant there was still life in Mars.

He awoke from his reverie with a start when he realized his two passengers were crawling toward him, and his body tensed. Shakish was not stupid: he had seen men move with steel-spring tension before. Instinctively, be raised the gornak and swung.

But, odds were against him. The pole was too long and unwieldly, and his muscles were too old and tired. They were suddenly upon him, the unfamiliar odor of whisky burning his nostrils as their strong arms pulled him down and hẹld him still.

He cried out as the belt was torn from his waist but knew they were too far from either shore for anyone to hear.
"You don't need this," Nelson whispered fiercely. "We can put it to better use!"

With little effort they forced him to the side of the boat and held his head underwater. He kicked frantically, but their strong hands held relentlessly.
"Die you old \{ossil!"
The kicking sudsided, then stopped altogether.

AFTER ten minutes, they released their grip. "That'll do it. Not even a Marty can hold his breath for ten minutes!"

They shoved the still form into the water.

Nelson picked up the gormak and used it to turn the skiff around.
"Where you going?"
"To hell with the dancing girls. We're going back to Marsport. This belt must be worth fifty thousand. We can take the next ship back to Earth, sell it and live on easy street. We came to Mars to get rich didn't we? Well, we got a little faster than we expected, that's all."

He was not accustomed to
poling a boat and therefore held the gornak looser than he should have.

It was suddenly jerked from his hands.
"What happened?"
"Must have got stuck in the mud." He leaned over and peered at the murky water. The pole had disappeared. "How could it sink? It's lighter than-" He was interrupted by an odd splashing sound. Whirling around, he saw that a hole had appeared in the floor boards.
"Cheap goddam orange crates!" He cursed vehemently in three languages and tried to stop the flow of water.

By clamping both hands over the opening, he succeeded but by that time, another hole had appeared at the other end of the boat.

Muddy water rose around their waists and gathered momentum.
"I can't swim!" Carl managed to scream before his head sank from sight.

Nelson treaded water and waited for his companion to reappear.

After what seemed an eternity, Carl's head came above the surface. "Helpl Something's pulling me dozon/"

Nelson started toward the spot but then changed his mind: it was at least four miles to Dankor and he knew he'd never make it in the fresh water pulling a man behind him.

He turned and began the long swim.

Before he went two yards, he felt a rope twist around his foot. He kicked but instead of freeing himse!f, it tightened and pulled him beneath the suiface.

Surrounded by the suffocating darkness, he realized it was the one that had been in the boat and that the other end was tied to the prow. He would have to free himself or else the weight of the boat would hold him underwater until he drowned. Bending his body, he grabbed the rope and tried to slide it off his foot...

It was too tight to pass by his ankles.

He would have to untie the knot...

Numbly his fingers went over the coils and he recognized the intricate pattern that be had seen men work on for hours without untying: a Martian slip-knot!

WHEN the struggling form was finally still, Shakish swam to it and recevered his bedt.

Pesides being a personal powesson, it was valuable becalse it was a concise record of Martian history.

The inscriptions described how the Martians had ived unierwater in the beginning when there were great oceans on Mars...how they became amphibians when the occans gradually disappeared...how as they lived on the land, each generation became less efficient with the gills and with each generation there were fewer born with the organs until, at present, there were no more than a dozen Martians who possessed the internal gills and only one very old one who could use them expertly.

In bold letters, the inscription read: To the last great one.

Proudly fastening the belt around his waist, Shakish began the four mile journey to Dankor.

He swam underwater all the way.

# TIME TRAVEL INC. 

## by ROBERT F. YOUNG

illustrated by ORBAN


#### Abstract

Reddinger and Held wanted to witness the Crucifixion. This could be arranged by Time Travel Inc. But there were certain conditions - as well as certain dangers


THE TT official in charge of briefing was being anything but brief. Reddinger shifted irritably in his seat, glanced sideways at Held. Held, judging from his expression, was impatient to get started too. Not that a thousand dollars would break either man-far from it. But it wasn't the bet per se that mattered: it was the nagging need to know whether you were right or wrong, whether your own particular credo was based on fact or falsehood.

The TT official was very young-a factor that contributed considerably to his listener's attitude. Middle-aged men of Reddinger's and Held's fi-
nancial and social stature could hardly be expected to be amenable to the pedagogic discourse oi a downy-cheeked college boy.
"The only reason we are able to return to the past at all," he was saying, "is because the means for doing so isand always has been-an innate ability of the human mind. Time Travel, Inc., merely discovered this latent quality and constructed the necessary equipment to take full advantage of it.
"However, this ability is severely limited by two basic laws, which can be stated as follows: (1) Nothing that has not already happened, or that

is not going to happen, can happen, and (2) all time-iden. tifications must be in character. The first law eliminates all paradoxes. The second eliminates, for all practical purposes, wish-fulfillment: that is, none of us can return to the Napoleonic age, for instance, and identify with Na -poleon-unless his character is essentially the same as Napoleon's. In other words, no matter what period we return to, we will bacome basically what we are now."
"But what if there's no one living in the particular year Held and I choose whose character fits either of us?" Reddinger interrupted. "What happens then?"
"In that case, the transition would not occur. But such an eventuality is highly improb-able-unless you select a prehistoric date. According to our calculations, the thousand odd basic character types were pretty well established by 4000 B.C., so if both of you name a temporal destination within the last 7,000 years, in a reasonably well-populated locale, neither of you needs to worry much about finding a body."
"Let me get this straight now," Reddinger said. "About bodies, I mean. I'm a successful automobile dealer, and Held here is a successful real estate man. So the chances are, if we choose to returi, say, to the year 1877 and retain our present location, I'll inhabit the body of someone like me who's engaged in a business similar to mine-maybe the carriage trade-and who's as well-fixed financially as I am. And the same would hold true with Held. Is that what you're trying to tell us?"

The TT official looked em-barrassed-and a little exasperated. "I'm afraid you're oversimplifying the matter, Mr. Reddinger," he said. "A rich man, in this age, wou!dn't necessarily have been a rich man in a preceding age, even given the same character traits. The same holds true for a poor man, and, if you will, to take the analogy one step further, a beggar man. So many factors enter into the situation that it's impossible to say exactly what one's status would be."
"Just the same-" it was Held who interrupted this time- "the odds have it that
our present economic and social position is pretty likely to be duplicated, no matter what age we choose. Ycu don't deny that, do you?"
"No, I don't deny it," the TT of ficial said. "But I must qualify it. You see, your char-acter-- counterparts in a past age may not have had the same opportunities which you have bad in this age. Then, too, we have to consider the different thought-world in which they lived. Certainly your charactercounterparts, regardless of the age you choose, will have reacted essentially the same to their societies as you have reacted to yours--but not necessarily with the same results."
"Nevertheless," Reddinger said, "we still stand a pretty good chance of identifying with a couple of reasonably well-off merchants. Right?"

The TT official sighed. "Let's put it this way," he said wearily: "Your chances of identifying with a rich man are certainly better than your chances of identifying with a poor man. There has always been opportunism in the world and I suspect there always will be. So if reassurance is what
you're seeking, Mr. Reddinger, I can give you that nuch-but no more. Now, if neither of you objects, I'll get on with the rest of my lecture and you can be on your way to wherever you're going.
"As you know, we've done everything possible here at Time Travel, Inc. to insure the safety of our customers. But there is one hazard which we cannot cope with and which you will have to regard as a calculated risk.
"The length of time you remain in the past is up to you. You merely tell the Time-tech the number of hours, days, or weeks, and he sets the temporal pattern accordingly. But, once set, the pattern is inalterable. Therefore, if your charactercounterparts should die during the period of time you are indentifying with them, you too will die. We cannot revert to to the moment before your death and bring you back.
"However, I don't think either of you has much to worry about. The character-counterparts you will identify with will probably be your physical as well as your mental equals, and since both of you are big
robust men, there is little likelihood of either you or your counterparts dying during any reasonable period of idenitiication. Nevertheless, there is a risk, and I must request your signatures on these two waivers."

Reddinger and Held read the documents the TT official handed them. There was a long silence broken only by the occasional crackling of expensive parchment. Then: "Oh hell!" Reddinger said, and signed his name. Held followed suit.
"Thank you, gentlemen," the TT official said. "If you'll follow me, please-"

THE Time Terminal was a disappointment. Reddinger, who was partial to B-movies, had expected to see banks of colorful equipment lining the walls, crimson fluid gurgling through networks of glass tubing, and blue flames arcing continuously between brightly polished terminals. Instead, he saw a row of couches, reminiscent of hospital beds, each with a crystal canopy suspended several feet above it. Then he no-
ticed the footboards, and his faith in his civilization was restored: each of them boasted a control panel almost, but not quite, as lavish as the dashboard of the new 1977 Road Queen he had just put on display in his uptown showroom.

The TT ofificial introduced Reddinger and Held to the Time-tech, and left. The Timetech, another annoyingly young man, escorled them to two adjacent couches. "Lie down, gentlemen," he said. "On your backs, please."

Both men complied. Reddinger felt foolish-and a little frightened. He turned his head, caught Held's eyes. "Still think she'll be there?" he asked.
"Absolutely," Held said.
"Want to double the bet?"
"All right. Make it two thousand."
"Two thousand it is, then. I say she won't be there, you say she will be."

The Time-tech stepped between the couches. "What year do you wish to return to, gentlemen?"
"29 A.D.," Reddinger said.
"Oh... The Crucifixion. You want to witness it, of course-"
"Oi course," Reddinger said.
"Youic quite fortunate. We've onity iecently been able to cetermine the exact day. You'll have to allow 24 hours leeway, though."
"We figured on 24 hours," Reddinger said.
"Fine!... Now, if you'll lie back and relax and look up into the time-screens above your beds, I'll set your temporal patterns."
"Joseph of Arimaihrea was a rich man, wasn't he?" Reddinger asked dreamily.
"Yes, I believe he was," the Time-tech said.
"And a merchant, too-"
"Probably. Now no more conversation, please. Look straight up into your screens."

The screens, Reddinger discovered, comprised the underside of the crystal canopieswere, in fact, the crystal canopies. As he looked up into his, it began to glow. Presently it became a mirror in which he saw himself lying on a
couch looking up into a mirror in which he saw himself lying on a couch looking up into a mirror, ad infinitum...

There was a sudden, painful jolt, followed by a tearing sensation-

HIS right shoulder was a mass of screaming agony and the weight upon it bent his burly body halfway to the cobbled pavement. There was shouting all around him, and oaths, and the stench of sweat and dung.

Behind him he could hear the clanking of the accouterments of the Roman soldiers. To his right he glimpsed the faces of the crowd. On his far left-on the opposite side of the procession-he saw his companion, Held, weighed down with a burden similar to his own. Between them, another walked-a thin, haggard man wearing a plaited crown of thorns. A volunteer from the crowd walked in his wake, bearing the third burden...

The Via Doloroso, Reddinger thought. Only he wasn't Reddinger any more. He was

Dysmas. And Held-Held wasn't Held any more, either. He was Gestas.

Dysmas and Gestas-the two thieves!

The horror of his predicament was so enormous that for some time Dysmas-Reddinger could not accept it. Then, when the procession reached the gate of the city and he saw the green hill rising gently into the
blue sky, the horror descended on him, heavier even than the cross he bore, and he knew that whether Mary, Mother of Jesus, was present at the Crucifixion, or miles away in Galilee, neither he nor Held would be around to collect any bets on the morrow-

Or ever.

THE END

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