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1962

HOW TO NAME A HEAVENLY BODY
BY WILLY LEY

Galaxy®

MAGAZINE

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On The Wall
of The
Lodge

By James and
Virginia Blish



For Love

By
Algis Budrys



The Seed of
Earth

By Robert
Silverberg



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CONTENTS

COMPLETE SHORT NOVEL

- THE SEED OF EARTH 105
by Robert Silverberg

NOVELETES

- FOR LOVE 9
by Algis Budrys

- ON THE WALL OF THE LODGE 52
by James and Virginia Blish

SHORT STORIES

- THE LAMPS OF THE ANGELS 27
by Richard Sabia

- DAWNINGSBURGH 76
by Wallace West

- DREAMWORLD 98
by R. A. Lafferty

ARTICLE

- ORIGINS OF GALACTIC PHILOSOPHY 85
by Edward Wellen

SCIENCE DEPARTMENT

- FOR YOUR INFORMATION 38
by Willy Ley

FEATURES

- EDITOR'S PAGE 5

- FORECAST 75

- GALAXY'S FIVE STAR SHELF 191
by Floyd C. Gale

Cover by TREMBATH illustrating The Lamps of the Angels
Next issue (August) on sale June 7th.



M-31 in Andromeda. 2,000,000 light-years away, this galaxy, nearly identical to our own, is the farthest object visible to the naked eye. It appears as a faint smudge of light south of Cassiopeia.

ROBERT M. GUINN
Publisher

FREDERIK POHL
Managing Editor

WILLY LEY
Science Editor

SAM RUVIDICH
Art Director

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THE DEADLY MISSION OF PHINEAS SNODGRASS

THIS is the story of Phineas Snodgrass, inventor. He built a time machine.

He built a time machine and in it he went back some two thousand years, to about the time of the birth of Christ. He made himself known to the Emperor Augustus, his Lady Livia and other rich and powerful Romans of the day and, quickly making friends, secured their cooperation in bringing about a rapid transformation

of Year One living habits. (He stole the idea from a science-fiction novel by L. Sprague de Camp, called *Lest Darkness Fall*.)

His time machine wasn't very big, but his heart was, so Snodgrass selected his cargo with the plan of providing the maximum immediate help for the world's people. The principal features of ancient Rome were dirt and disease, pain and death. Snodgrass decided to make the Roman

world healthy and to keep its people alive through 20th century medicine. Everything else could take care of itself, once the human race was free of its terrible plagues and early deaths.

Snodgrass introduced penicillin and aureomycin and painless dentistry. He ground lenses for spectacles and explained the surgical techniques for removing cataracts. He taught anesthesia and the germ theory of disease, and showed how to purify drinking water. He built Kleenex factories and taught the Romans to cover their mouths when they coughed. He demanded, and got, covers for the open Roman sewers, and he pioneered the practice of the balanced diet.

Snodgrass brought health to the ancient world, and kept his own health, too. He lived to more than a hundred years. He died, in fact, in the year 100 A.D., a very contented man.

When Snodgrass arrived in Augustus's great palace on the Palatine Hill, there were some 250,000,000 human beings alive in the world. He persuaded the principate to share his blessings with all the world, benefiting not only the hundred million subjects of the Empire, but the other hundred millions in Asia and the tens of millions in Africa, the Western Hemisphere and all the Pacific islands.

Everybody got healthy.

Infant mortality dropped at once, from ninety deaths in a hundred to fewer than two. Life expectancies doubled immediately. Everyone was well, and demonstrated their health by having more children, who grew in health to maturity and had more.

It is a feeble population that cannot double itself every generation if it tries.

These Romans, Goths and Mongols were tough. Every thirty years the population of the world increased by a factor of two. In the year 30 A.D. the world population was a half billion. In 60 A.D. it was a full billion. By the time Snodgrass passed away, a happy man, it was as large as it is today.

IT IS too bad that Snodgrass did not have room in his time machine for the blueprints of cargo ships, the texts on metallurgy to build the tools that would make the reapers that would harvest the fields — for the triple-expansion steam turbines that would generate the electricity that would power the machines that would run the cities — for all the technology that two thousand subsequent years had brought about.

But he didn't.

Consequently by the time of his death conditions were no long-

er quite perfect. A good many people were hungry. A great many were badly housed.

On the whole, Snodgrass was pleased, for all these things could surely take care of themselves. With a healthy world population, the increase of numbers would be a mere spur to research. Boundless nature, once its ways were studied, would surely provide for any number of human beings.

Indeed it did. Steam engines on the Newcomen design were lifting water to irrigate fields to grow food long before his death. The Nile was dammed at Aswan in the year 55. Battery-powered street cars replaced oxcarts in Rome and Alexandria before 75 A.D., and the galley slaves were freed by huge, clumsy Diesel outboards that drove the food ships across the Mediterranean a few years later.

In the year 200 A.D. the world had now something over twenty billion souls, and technology was running neck-and-neck with expansion. Nuclear-driven plows had cleared the Teutoburg Wald, where Varus's bones were still moldering, and fertilizer made from ion-exchange mining of the sea produced fantastic crops of hybrid grains. In 300 A.D. the world population stood at a quarter of a trillion. Hydrogen fusion produced fabulous quantities of energy from the sea; atomic

transmutation converted any matter into food. This was necessary, because there was no longer any room for farms. The Earth was getting crowded. By the middle of the 6th century the 60,000,000 square miles of land surface on the Earth was so well covered that no human being standing anywhere on dry land could stretch out his arms in any direction without touching another human being standing beside him.

But everyone was healthy, and science marched on. The seas were drained, which immediately tripled the available land area. (In fifty years the sea bottoms were also full.) Energy which had come from the fusion of marine hydrogen now came by the tapping of the full energy output of the Sun, through gigantic "mirrors" composed of pure force. The other planets froze, of course; but this no longer mattered, since in the decades that followed they were disintegrated for the sake of the energy at their cores. So was the Sun. Maintaining life on Earth on such artificial standards was prodigal of energy consumption; in time every star in the Galaxy was transmitting its total power output to the Earth, and plans were afoot to tap Andromeda, which would care for all necessary expansion for — thirty years.

At this point a calculation was made.

Taking the weight of the average man at about a hundred and thirty pounds — in round numbers, 6×10^4 grams — and allowing for a continued doubling of population every thirty years (although there was no such thing as a "year" any more, since the Sun had been disintegrated; now a lonely Earth floated aimlessly toward Vega), it was discovered that by the year 1962 the total mass of human flesh, bone and blood would be 6×10^{27} grams.

This presented a problem. The total mass of the Earth itself was only 5.98×10^{27} grams. Already humanity lived in burrows penetrating crust and basalt and quarrying into the congealed nickel-iron core; by 1962 all the core itself would have been transmuted into living men and women, and their galleries would have to be tunneled through masses of their own bodies, a writhing, squeezed ball of living corpses drifting through space.

Moreover simple arithmetic showed that this was not the end. In finite time the mass of human beings would equal the total mass

of the Galaxy; and in some further time it would equal and exceed the total mass of *all* galaxies everywhere.

This state of affairs could no longer be tolerated, and so a project was launched.

With some difficulty resources were diverted to permit the construction of a small but important device. It was a time machine. With one volunteer aboard (selected from the 900 trillion who applied) it went back to the year 1. Its cargo was only a hunting rifle with one cartridge, and with that cartridge the volunteer assassinated Snodgrass as he trudged up the Palatine.

To the great (if only potential) joy of some quintillions of never-to-be-born persons, Darkness blessedly fell.

WELL, it isn't exactly a true story.

Not from this end, anyway. But . . . a population doubling every thirty years is close to the average of "new" nations; even the United States does it in fifty . . . so come back two thousand years from now and let's see!

— THE EDITOR

INDEX TO GALAXY MAGAZINE AVAILABLE

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The aliens gave Earth's might the supreme humiliation — they ignored it — and humanity replied with blazing, unconquerable hatred. For men will do miracles for revenge . . . or

FOR LOVE

By **ALGIS BUDRYS**

Illustrated by **WEST**

MALACHI Runner didn't like to look at General Compton. Compton the lean, keen, slash-gesturing semi-demagogue of a few years ago had been much easier to live with than Compton as he was now, and Runner had never had much stomach for him even then. So Runner kept his eyes firmly fixed on the device he was showing.

Keeping his eyes where they were was not as easy as it might have been. The speckled, bulbous

distortion in front of him was what Headquarters, several hundred miles away under The Great Salt Lake, was pleased to refer to as an Invisible Weapons Carrier. It was hard to see — because it was designed to be hard to see.

But Malachi Runner was going to have to take this thing up across several hundred miles of terrain, and he was standing too close to it not to see it. The Invisible Weapons Carrier was, in fact, a half-tone of reality. It was

large enough inside to contain a man and a fusion bomb, together with the power supply for its engine and its light amplifiers. It bristled with a stiff mat of flexible-plastic light-conducting rods, whose stub ends, clustered together in a tight mosaic pointing outward in every conceivable direction, contrived to bend light around its bulk. It was presently conducting, toward Runner, a picture of the carved rock directly behind it.

The rock, here in this chamber cut under the eastern face of the Medicine Bow Mountains, was reasonably featureless; and the light-amplifiers carefully controlled the intensity of the picture. So the illusion was marred by only two things: the improbable angle of the pictured floor it was also showing him, and the fact that for every rod conducting light from the wall, another rod was conducting light from Runner's direction, so that to his eyes the ends of half the rods were dead black.

"Invisibility," Compton said scornfully from behind and to one side of Runner. Or, rather, he whispered and an amplifier took up the strain in raising his voice to a normal level. "But it's not bad camouflage. You might make it, Colonel."

"I have orders to try." Runner would not give Compton the satis-

faction of knowing that his impatience was with the means provided, not with the opportunity. The war could not possibly be permitted to continue the thirty years more given to it by Compton's schedule. Compton himself was proof of that.

Not that proof required Compton. He was only one. There were many.

RUNNER glanced aside at the cadet officer who had guided him from the tramway stop to this chamber here, in one of the side passages of the siege bore that was being driven under the Medicine Bows in the direction of the alien spaceship that had dominated the world for fifty years. The boy — none of these underofficers were older than seventeen — had a face that looked as if it had been made from wet paper and then baked dry. His eyesockets were black pits from which his red eyes stared, and his hands were like chicken's feet. His bloated stomach pushed against the wide white plastic of his sidearm belt.

He looked, in short, like most of the other people Runner had seen here since getting off the tram. As he was only seventeen, he had probably been born underground, somewhere along the advancing bore, and had never so much as seen sunlight, much

less eaten anything grown under it. He had been bred and educated—or mis-educated; show him something not printed in Military Alphabet and you showed him the Mayan Codex — trained and assigned to duty in a tunnel in the rock; and never in his life had he been away from the sound of the biting drills.

"You're not eager to go, Colonel?" Compton's amplified whisper said. "You're Special Division, so of course this isn't quite your line of work. I know your ideals, you Special Division men. Find some way to keep the race from dehumanizing itself." And now he chose to make a laugh, remembering to whisper it. "One way to do that would be to end the war before another generation goes by."

Runner wondered, not for the first time, if Compton would find some way to stop him without actually disobeying the Headquarters directive ordering him to cooperate. Runner wondered, too, what Compton would say if he knew just how eager he was for the mission — and why. Runner could answer the questions for himself by getting to know Compton better, of course. There was the rub.

Runner did not think he could ever have felt particularly civilized toward anyone who had married his fiancée. That was un-

derstandable. It was even welcome. Runner perversely cherished his failings. Not too perversely, at that — Runner consciously cherished every human thing remaining to the race.

Runner could understand why a woman would choose to marry the famous Corps of Engineers general who had already chivvied and bullied the Army — the organizing force of the world—into devoting its major resources to this project he had fostered. There was no difficulty in seeing why Norma Brand might turn away from Malachi Runner in favor of a man who was not only the picture of efficiency and successful intellect but was thought likely to be the savior of Humanity.

But Compton several years later was —

Runner turned and looked; he couldn't spend the rest of the day avoiding it. Compton, several years later, was precisely what a man of his time could become if he was engaged in pushing a three hundred mile tunnel through the rock of a mountain chain, never knowing how much his enemy might know about it, and if he proposed to continue that excavation to its end, thirty years from now, whether the flesh was willing to meet his schedules or not.

Compton's leonine head pro-

truded from what was very like a steam cabinet on wheels. In that cabinet were devices to assist his silicotic lungs, his sclerotic blood vessels, and a nervous system so badly deranged that even several years ago Runner had detected the great man in fits of spastic trembling. And God knew what else might be going wrong with Compton's body that Compton's will would not admit.

COMPTON grinned at him. Almost simultaneously, a bell chimed softly in the control panel on the back of the cabinet. The cadet aide sprang forward, read the warning in some dial or other and made an adjustment in the settings of the control knobs. Compton craned his neck in its collar of loose gray plastic sheeting and extended his grin to the boy. "Thank you, Cadet. I thought I was starting to feel a little dizzy."

"Yes, sir." The aide went back to his rest position.

"All right, Colonel," Compton said to Runner as though nothing had happened. "I've been curious to see this gimmick of yours in operation ever since it was delivered here. Thank you. You can turn it off now. And after that, I'll show you something you've never seen."

Runner frowned for a moment. Then he nodded to himself. He

crawled under the weapons carrier. From that close it was no longer "invisible," only vaguely dizzying to the eye. He opened the hatch and turned off the main switch.

Compton could only have meant he was going to show him the ship.

Of course, he had seen films of it often enough. Who had not? The Army had managed to keep spy-drones flying above the Mississippi plain. The ship ignored them unless they took on aggressive trajectories.

Presumably there was some limit to the power the ship felt able to expend. Or perhaps the ship simply did not care what Earthmen might learn from watching it; perhaps it underestimated them.

This latest in the long chain of Compton's command bunkers, creeping mole-like toward the ship, was lighted a sickly orange-yellow. Runner seemed to recall a minor scandal in the Quartermaster Corps. Something about a contractor who had bribed or cozened a Corps officer into believing that yellow light duplicated natural sunlight. Contractor and misled officer were no doubt long dead in one of the labor battalions at the bore face, but some use for the useless lights had had to be found. And so here they were, casting their pall, just as

if two lives and two careers had not already gone toward settling the account.

But, of course, nothing settles an account as derelict as Earth's was.

In that light, Compton's cabin rolled forward to the bank of hooded television screens jury-rigged against a somewhat water-proofed wall. A row of technicians perched on stools watched what the drones were showing them.

"Lights," Compton said, and the aide made the room dark. "Here, Colonel — try this one." He pointed his chin toward a particular screen, and Runner stepped closer. For the first time in his life, he saw something only a few hundred people of his time had seen in an undelayed picture; he saw the ship. It was two hundred miles away from his present location, and two hundred fifty miles high.

II

FIFTY years ago, the alien ship landed butt-down in the northwest quadrant of the central plain of the United States. Stern-first, she had put one of her four landing jacks straight down to bedrock through the town of Scott's Bluff, Nebraska, and the diagonally opposite leg seventy-five miles away near Julesburg,

Colorado. Her shadow swept fifty thousand square miles.

A tower of pitted dull green and brown-gold metal, her forepeak narrowing in perspective into a needle raking unseen through the thinnest last margins of the atmosphere, she had neither parleyed nor even communicated with anything on or of Earth. No one had ever seen anything of what her crew might look like. To this day, she still neither spoke to Earth nor listened to whatever Terrestrials might want to say to her. She was neither an embassy nor an invader.

For fifty years she had been broadcasting the same code group into space, hour after hour, but she had neither made nor received any beam transmissions along any portion of the electromagnetic spectrum. The presumption was she had a distress beacon out on general principles, but had no hope of communicating with a particular source of rescue.

She had come down a little erratically; there was some suggestion of jury-rigging in the plates over an apparently buckled section of the hull shrouding her stern tubes; there seemed to be some abnormal erosion at one segment of the lip around the main jet. Over the years, Headquarters Intelligence had reached the decision that she was down on Earth for a self-refit.

Landing, she had immediately put out surface parties and air patrols — there were turret-mounted weapons all along her flanks; she was clearly a warship of some kind — in a display of resources that badly upset the Terrestrial military forces observing her. The surface parties were squat-profiled, tracked, armored amphibious machines with sixteen-foot bogeys and a track-to-turtledeck height of seventy-five feet. They had fanned out over the surrounding states and, without regard to road, river, fence or farmhouse, had foraged for minerals. It had finally been concluded that the vehicles, equipped with power shovels, claws, drills, ore buckets and whatever other mining tools were necessary, were remote-controlled from the ship on the basis of local topography but not with any reference to the works of Man. Or to the presence of Man. The undeviating tracks made as much of a hayrick as they did of a company of anti-tank infantry or a battalion of what the Army in those days was pleased to call "armor."

Whatever had hurt her, there was no point in Earthmen speculating on it. No missile could reach her. She had antimissile missiles and barrage patterns that, in operation, had made the Mississippi plain uninhabitable. An attempt was made to strike her

foraging parties, with some immediate success. She then extended her air cover to the entire civilized world, and began methodically smashing down every military installation and every industrial complex capable of supporting one.

It was a tribute to the energy and perseverance of Twentieth Century Man. And it was the cause of Twenty-First Century man's finding himself broken into isolated enclaves, almost all of them either underground or so geographically remote as to be valueless, and each also nearly incapable of physical communication with any other.

It did not take a great deal of Terrestrial surface activity to attract one of the ship's nearly invulnerable aircraft. Runner's journey between Salt Lake and the tunnel pit head had been long, complicated by the need to establish no beaten path, and anxious. Only the broken terrain, full of hiding places, had made it possible at all.

But the balance between birth and death rates was once more favorable, and things were no longer going all the ship's way — whether the ship knew it or not. Still, it would be another thirty years before this siege bore Compton was driving could reach, undermine and finally topple the ship.

THIRTY years from now, Runner and the other members of Special Division knew, the biped, spindling, red-eyed creatures emerging from the ground to loot that broken ship and repay themselves for this nightmare campaign would be only externally human — some of them. Some would be far less. Special Division's hope — its prospects were not good enough to call it a task — was to attempt to shorten that time while Humanity was still human.

And if the human race did not topple the ship, or if the ship completed its refit and left before they could reach it, then all this fifty years of incalculable material and psychic expenditure was irretrievably lost. Humanity would be bankrupt. They were all living now on the physical and emotional credit embodied in that tower of alien resources. From it, they could strip a technology to make the world new again — nothing less could accomplish that; in its conquest, there was a triumph to renew the most exhausted heart. Or almost any such heart. Runner could only speculate on how many of the victors would, like Compton, be unable to dance upon the broken corpse.

If anyone on Earth doubted, no one dared to dwell aloud on the enfeebling thought.

They had to have the ship.

"She's got some kind of force-field running over her structure," Compton remarked, looking at the image on the screen. "We know that much. Something that keeps the crystals in her metal from deforming and sliding. She'd collapse. If we had something like that field, we could build to her size, too."

"Is there that much metal in the world?"

Compton looked sideward at Runner. "A damned sight more. But if we had her, we wouldn't need it."

Yes, Runner thought, keeping himself from looking at the screen now as faithfully as he had prevented himself from looking at Compton earlier. Yes, if we had the ship we wouldn't need this, and we wouldn't need that, or the other thing. We could even engineer such wonderful cabinets like the one in which Compton dwelt that none of us would have to fear a stop to our ambitions, and we could roll along on the wonderfully smooth corridor floors we could carve away from the places where storms and lightning strike.

For how could you live, Compton, out there where I have to go tomorrow?

Compton, looking up at him, shrewdly said: "Do you know I approve of the Special Division? I think you people serve a very

necessary function. I need the pressure of rivals."

Runner thought: You are ugly.

"I HAVE to go to sleep," he had said and left Compton to his screens and schedules. But he did not take the lift down to the Bachelor Officers' Quarters where he had been given an accommodation — a two-man cubicle for himself alone; the aide, never having experienced solitude, as Runner had, had been envious. Instead, he puzzled his way through another of the branching temporary passageways that were crudely chopped out for living space near the advancing bore.

He searched until he found the proper door. The letter Norma had sent him did not contain the most exact directions. It had spoken in local terms: "Follow the first parallel until you reach the fourth gallery," and so forth.

He knocked, and the gas-tight door opened.

"I heard you would be here today," Norma said in a choked voice, and there was much for him to read in the waxiness of her skin and the deep wrinkles that ran from the corners of her nose to the corners of her bloodless mouth.

He took the hands she offered, and stepped inside.

There was one large room; that is, a room large enough for a free-

standing single cot, rather than a bunk, and a cleared area, faintly marked by black rubber wheel-marks, large enough for a cabinet to turn around in. A Compton-sized cabinet.

"How are you, Norma?" he said as if he could not guess, and she did not trouble to answer him. She shut the door and leaned against it as if they had both just fled in here.

"Are you going out in the morning?"

Runner nodded. It seemed to him he had time at least to say a few conventional things to the girl who had been his fiancée, and then Compton's wife. But she apparently thought otherwise.

"Are you going to make it?"

"I don't know. It's a gamble."

"Do you think you'll make it?"

"No."

It had never seemed reasonable that he would. In the Technical Section of the Special Division there were men—fully his equals — who were convinced he could succeed. They said they had calculated the ship's weaknesses, and he believed they had figures and evaluations, right enough. He in his own turn believed there were things a man had to be willing to do whether they seemed reasonable or not, simply because they seemed necessary. So neither fact nor opinion could modify his taking the weapons carrier out

against the ship tomorrow. "But I hope I'll make it," he said.

"YOU hope you'll make it," Norma said tonelessly. She reached out quickly and took his hands again. "What a forlorn thing to tell me! You know I won't be able to stand it down here much longer. How do we know the ship doesn't have seismic detectors? How do we know it isn't just letting us concentrate ourselves here so it can smash us before we become dangerous?"

"Well, we don't know, but it seems unlikely. They have geological probes, of course. The gamble is that they're only probes and not detectors."

"If they don't smash us, there's only one reason — they know they'll be finished and gone before we can reach them!"

This was all wrong; he could not talk to her about anything important before he had calmed her. He said, searching for some way to reach her: "But we have to go on as if they won't. Nothing else we've tried has worked. At least Compton's project hasn't failed."

"Now you're on his side! You!"

She was nothing like the way she had been with him. She would never have been like this. The way she was now, she and Malachi Runner could not meet. He understood, now, that in the years

since she had left Headquarters with Compton she had come to think back on Malachi Runner not as a man but as an embodiment of that safe life. It was not him she was shouting out to. It was to all those days gone forever.

And so I must be those days of life in a place where shafts lead to the wine-rich air of the surface, and there is no sound of metal twisting in the rock. I am not Malachi Runner now. I hoped I could be. I should have read that letter as it was, not as I hoped it was. Good-by, Runner, you aren't needed here.

"No, I'm not on his side. But I wouldn't dare stop him if I could. I wouldn't dare shut off any hope that things will end and the world can go back to living."

"End? Where can they end? He goes on; he can't move an arm or a finger, but he goes on. He doesn't need anything but that box that keeps him alive and this tunnel and that ship. Where can I touch him?"

THEY stood separated by their outstretched hands, and Runner watched her as intently as though he had been ordered to make a report on her.

"I thought I could help him, but now he's in that box!"

Yes, Runner thought, now he's in that box. He will not let death rob him of seeing the end of his

plans. And you love him, but he's gone where you can't follow. Can you?

He considered what he saw in her now, and he knew she was lost. But he thought that if the war would only end, there would be ways to reach her. He could not reach her now; nothing could reach her. He knew insanity was incurable, but he thought that perhaps she was not yet insane; if he could at least keep her within this world's bounds, there might be time, and ways, to bring her back. If not to him, then at least to the remembered days of Headquarters.

"Normal!" he said, driven by what he foresaw and feared. He pulled her close and caught her eyes in his own. "Norma, you have got to promise me that no matter what happens, you won't get into another one of those boxes so you can be with him."

The thought was entirely new to her. Her voice was much lower. She frowned as if to see him better and said: "Get into one of those boxes? Oh, no — no, I'm not sick, yet. I only have to have shots for my nerves. A corpsman comes and gives them to me. He'll be here soon. It's only if you can't not-care; I mean, if you have to stay involved, like he does, that you need the interrupter circuits instead of the tranquilizer shots. You don't get into

one of those boxes just for fear," she said.

He had forgotten that; he had more than forgotten it — there were apparently things in the world that had made him be sure, for a moment, that it really was fear.

He did not like hallucinating. He did not have any way of depending on himself if he had lapses like that.

"Norma, how do I look to you?" he said rapidly.

She was still frowning at him in that way. "You look about the same as always," she said.

He left her quickly — he had never thought, in conniving for this assignment with the letter crackling in his pocket, that he would leave her so quickly. And he went to his accommodation, crossing the raw, still untracked and unsheathed echoing shaft of the tunnel this near the face, with the labor battalion squads filing back and forth and the rubble carts rumbling. And in the morning he set out. He crawled into the weapons carrier, and was lifted up to a hidden opening that had been made for it during the night. He started the engine and, lying flat on his stomach in the tiny cockpit, peering through the cat's-eye viewports, he slid out onto the surface of the mountain and so became the first of his generation to advance into this

territory that did not any more belong to Man.

III

THE interior of the weapons carrier was padded to protect him from the inevitable jounces and collisions. So it was hot. And the controls were crude; the carrier moved from one foot to another, like a turtle, and there were levers for each of his hands and feet to control. He sweated and panted for breath.

No other machine could possibly have climbed down the face of that mountain and then begun its heaving, staggering progress toward the spaceship's nearest leg. It could not afford to leave tracks. And it would, when it had covered the long miles of open country that separated it from its first destination, have to begin another inching, creeping journey of fifty-five miles, diagonally up the broadening, extensible pillar of the leg.

It tumbled forward on pseudo-pods — enormous hollow pads of tough, transparent plastic, molded full of stress-channels that curled them to fit the terrain, when they were stiffened in turn by compressed colorless fluid. Shifting its weight from one of these to another, the carrier duck-walked from one shadow to another as Runner, writhing with muscle

cramps, guided it at approximately the pace of a drunken man.

But it moved forward.

After the first day Runner was ready to believe that the ship's radar systems were not designed to track something that moved so close to the ground and so slowly. The optical detection system — which Intelligence respected far more than it did radar; there were dozens of countered radar-proof missiles to confirm them—also did not seem to have picked him up.

He began to feel he might see Norma again. Thinking of that babbling stranger in Compton's accommodation, he began to feel he might someday see *Norma* again.

When he was three days out, he passed within a hundred yards of a cluster of mining-machines. They paid him no attention, and he laughed, cackling inside his egg. He knew that if he had safely come so close to an extension of the ship — an extension that could have stepped over and crushed him with almost no extra expenditure — then his chances were very good. He knew he cackled. But he knew the Army's drones were watching, unobtrusively, for signs of his extinction or breakdown. Not finding them, they were therefore giving Compton and Headquarters the nega-

tive good news that he had not yet failed. At Headquarters, other Special Division personnel would be beginning to hope. They had been the minority party in the conflicts there for as long as they had been in existence at all.

But it did not matter, he thought as he lay up that night and sipped warm water from the carrier's tank. It didn't matter what party was winning. Surely even Compton would not be infuriated by a premature end to the war. And there were plenty of people at Headquarters who had fought for Compton not because they were convinced his was the only way, but only because his was a way that seemed sure. If slow. Or as sure as any way could be.

It came to Runner, for the first time in his life, that any race, in whatever straits, willing to expend so much of its resources on what was really not a surety at all, must be desperate beyond all reason.

He cackled again. He knew he cackled. He smiled at himself for it.

THE ship's leg was sunken through the ground down to its anchorage among the deep rock layers sloping away from the mountains. It was, at ground level, so far across that he could not see past it. It was a wall of

streaked and overgrown metal curving away from him, and only by shifting to one of the side viewports could he make out its apparent limits from where he now was.

Looking overhead, he saw it rise away from him, an inverted pylon thrust into the ground at an angle, and far, far above him, in the air toward which that angle pointed, something large and vague rested on that pylon. Obscured by mist and cloud, distorted by the curvature of the tiny lens through which he was forced to look at it, it was nothing meaningful. He reasoned the pylon led up to the ship. He could not see the ship; he concentrated on the pylon.

Gingerly, he extended a pseudopod. It touched the metal of the ship, through which the stabilizing field ran. There was an unknown danger here, but it hadn't seemed likely to Intelligence that the field would affect non-metallic substances.

It didn't. The pseudopod touched the metal of the ship, and nothing upward happened. He drew it back, and cycled an entirely new fluid through the pseudopods. Hairline excretory channels opened on their soles, blown clean by the pressure. The pads flattened and increased in area. He moved forward toward the pylon again, and this time he

began to climb it, held by air pressure on the pads and the surface tension on their wet soles. He began, then, at the end of a week's journey, to climb upon the ship no other aggression of Man's had ever reached. By the time he was a thousand feet up, he dared look only through the fore ports.

Now he moved in a universe of sound. The leg thrummed and quivered, so gently that he doubted anyone in the ship could feel it. But he was not in the ship; he was where the thrumming was. It invaded his gritted teeth and put an intolerable itching deep into his ears. This fifty-five miles had to be made without stop for rest; he could not, in fact, take his hands from the controls. He was not sure but what he shouldn't be grateful — he would have gouged his ears with his nails, surely, if he had been free to work at them.

He was past laughter of any kind now — but exultation sustained him even when, near the very peak of his climb, he came to the rat guard.

HE had studied this problem with a model. No one had tried to tell him what it might be like to solve it at this altitude, with the wind and mist upon him.

The rat guard was a collar of metal, cone-shaped and inverted downward, circling the leg. The

leg here was several miles in diameter; the rat guard was a canopy several yards thick and several hundred feet wide from its joining at the leg to its lip. It was designed to prevent exactly what was happening — the attempted entry of a pest.

Runner extended the carrier's pseudopoda as far and wide as they would go. He pumped more coagulant into the fluid that leaked almost imperceptibly out of their soles, and began to make his way, head-downward, along the descending slope of the rat guard's outer face. The carrier swayed and stretched at the plastic membranes. He neutralized the coagulant in each foot in turn, slid it forward, fastened it again, and proceeded. After three hours he was at the lip, and dangling by the carrier's forelegs until he had succeeded in billowing one of rear pads onto the lip as well.

And when he had, by this patient trial and error, scrambled successfully onto the rat guard's welcome upward face, he found that he was not past laughing after all. He shouted it; the carrier's interior frothed with it, and even the itching in his ears was lost. Then he began to move upward again.

Not too far away, the leg entered the ship's hull. There was a opening at least as large as the carrier needed. It was only a well;



up here, the gleaming pistons that controlled the extension of the leg hung burnished in the gloom, but there was no entry to the ship itself. Nor did he need or want it.

He had reasoned long ago that whatever inhabited this ship must be as tired, as anxious, as beset as any human being. He needed no new miseries to borrow. He wanted only to find a good place to attach his bomb, set the fuse and go. Before the leg, its muscles cut, collapsed upon the aliens' hope of ever returning to whatever peace they dreamed of.

When he climbed out of the carrier, as he had to, to attach the bomb, he heard one noise that was not wind-thrum or the throb of internal machinery. It was a persistent, nerve-torn ululation, faint but clear, deep inside the ship and with a chilling quality of endurance.

He hurried back down the leg; he had only four days to get clear — that is, to have a hope of getting clear — and he hurried too much. At the rat guard's lip, he had to hang by his heels and cast the fore pads under. He thought he had a grip, but he had only half a one. The carrier slipped, jerked and hung dangling by one pad. It began to slide back down the short distance to the lip of the guard, rippling and twisting as parts of its sole lost contact and

other parts had to take up the sudden drag.

HE poured coagulant into the pad, and stopped the awful series of sticks and slips. He slapped the other pads up into place and levered forward, forgetting how firmly that one pad had been set in his panic. He felt resistance, and then remembered, but by then the pull of the other three pads had torn the carrier forward and there was a long rip through which stress fluid and coagulant dripped in a turgid stream.

He came down the last ten miles of the leg like a runaway toboggan on a poorly surfaced slide, the almost flaccid pads turning brown and burnt, their plastic soft as jelly. He left behind him a long, slowly evaporating smear of fluid and, since no one had thought to put individual shut-offs in the cross-valving system between the pads, he came down with no hope of ever using the carrier to get back to the mountains.

It was worse than that. In the end, he crashed into the indented ground at the base of the leg and, for all the interior padding, the drive levers bludgeoned him and broke bones for him. He lay in the wreck with only a faint awareness of anything but his pain. He could not even know whether the

carrier, with its silent power supply, still as much as half hid him or whether that had broken, too.

It hadn't broken, but he was still there when the bomb exploded; it was only a few hours afterward that he came out of his latest delirium and found that the ground had been stirred and the carrier was lying in a new position.

He pried open the hatch — not easily or painlessly — and looked out.

The ship hadn't fallen. The leg had twitched in the ground — it was displaced by several hundred yards, and raw earth clung to it far overhead. It had changed its angle several degrees toward vertical and was much less deeply sunken into the ground. But the ship had not fallen.

He fell back into the carrier and cried because the ship hadn't come down and crushed him.

IV

THE carrier had to be abandoned. Even if the pads had been usable, it was three-quarters buried in the upheaval the leg had made when it stirred. The machine, Runner thought contemptuously, had failed, while a man could be holed and broken and heal himself nevertheless.

He had very good proof of that, creeping back toward the mountains. Broken badly enough, a

man might not heal himself into what he had been. But he would heal into something.

For a time he had to be very wary of the mining machines, for there had been a frenzied increase in their activity. And there was the problem of food and water. But he was in well-watered country. The comings and goings of the machines had churned the banks of the Platte River into a series of sinks and swamps without making it impossible for a thirsty, crawling man to drink. And he had his rations from the carrier while the worst of the healing took place. After that, when he could already scuttle on his hands and one knee, he was able to range about. In crawling, he had discovered the great variety of burrowing^g animals that live beneath the eye of ordinary man; once he had learned which ones made bolt-holes and which could be scooped out of the traps of their own burrows he began to supply himself with a fair amount of protein.

The ship, and its extensions, did him no harm. Some of this was luck, when he was in the zones traversed by the machines as they went to and from the ship. But after he had taken up a systematic trek back along the North Platte, and presumably ought to have stopped being registered in the ship's detectors as

an aimless animal, he was apparently protected by his coloration, which was that of the ground, and again by his slow speed and ability to hug the terrain. Even without pseudopods and a fusion bomb to carry, his speed was no better than that.

When several months had passed he was able to move in a half-upright walk that was an unrelenting parody of a skip and a jump, and he was making fair time. But by then he was well up into the beginnings of the Medicine Bows.

He thought that even though the ship still stood, if he could reach Norma soon enough she might still not be too lost.

Not only the ship but the Army drones had missed him, until he was almost back to the now refilled exit from which he and the carrier had launched themselves. The passages were hurriedly unblocked — every cubic yard of rubble that did not have to be dispersed and camouflaged at the pithead represented an enormous saving of expenditure — and he was hauled back into the company of his fellow creatures.

HIS rescue was nearly unendurable. He lay on a bed in the Aid Station and listened to Compton's delight.

"They went wild when I told them at Headquarters, Colonel.

You'd already been given a posthumous Medal of Honor. I don't know what they'll do now you're available for parades. And you certainly deserve them. I had never had such a moment in my life as when I saw what you'd done to the ship."

And while Compton talked, Norma — Norma with no attention to spare for Runner; a Norma bent forward, peering at the dials of Compton's cabinet, one hand continually twitching toward the controls—that Norma reached with her free hand, took a photograph out of a file folder clipped to the side of the cabinet and held the picture, unseeing, for Runner to look at while she continued her stewardship of Compton's dials. The cadet had been replaced. The wife was homemaking in the only way she could.

The ship no longer pointed directly away from the ground, nor was she equally balanced on the quadruped of her landing jacks. The bombed leg dangled useless, its end trailing in the ground, and the ship leaned away from it.

"When the bomb went off," Compton was explaining, "she did the only thing she could to save herself for the time being. She partially retracted the opposite leg to balance herself."

Norma reached out and ad-

justed one of the controls. The flush paled out of Compton's face, and his voice sank toward the toneless whisper Runner remembered.

"I was always afraid she would do that. But the way she is now, I know — I *know* that when I undermine another leg, she'll fall! And she can't get away from me. She'll never take off with that leg dragging. I never had a moment in my life like the moment I had when I saw her tilt. Now I know there's an end in sight. All of us here know there's an end in sight, don't you, Norma? The ship'll puzzle out how you did it, Runner, and she'll defend against another such attempt, but she can't defend against the ground opening up under her. We'll run the tunnel right through the rock layers she rests on, get underneath, mine out a pit for the leg to stumble into and blow the rock — she'll go down like a tree in the wind, Runner. Thirty years — well, possibly forty, now that we've got to reach a farther leg — and we'll have her! We'll swallow her up, Runner!"

Runner was watching Norma. Her eyes darted over the dials and not once, though most of the gestures were abortive, did her hands stop their twitching toward the controls. When she did touch

them, her hands were sure; she seemed quite practiced; Runner could calculate that she had probably displaced the cadet very soon after he had bombed the ship.

"You were right, General," he said. "I never got the proper perspective to see all that. It was acute of you to bring me that drone's photograph. I never knew what an effect I'd produced until I got back here."

"Yes!" Compton laughed into Runner's eyes, and Norma tenderly adjusted the controls to keep the laugh from killing him forty years too soon. "It's all a matter of perspective!"

RUNNER comforted himself with the thought that the aliens in the ship had also gone mad. And he thought it was a very human thing to do — he thought, with some pride, that it was perhaps the last human thing — for him to refuse the doctors who offered to give him artificial replacements for the hopelessly twisted legs he had come back with.

"You will *not*!" he snapped, while up in the bunker, all unimaginable to him, Norma kissed Compton's face and said: "You *will* get her — you *will*!"

—ALGIS BUDRYS

THE LAMPS OF THE ANGELS

By **RICHARD SABIA**

Illustrated by **DICK FRANCIS**

*The golden guardians denied
mankind the stars.*

*They were irresistible
in their might . . . and
they were something more!*

“WHY did you come creeping into the house last night like a thief?” Mrs. Sanchez asked her son.

Lithe, dark Roberto set down his breakfast coffee and smiled up at her. “Ah, Mama, you are the owl. I was certain I moved quiet as moonlight.”

“I always hear the sounds of my children. Even the little one when he stirs in his grave. It is the way of a mother.” She drew a cup of coffee and sat with them at the table in the small kitchen patio.

“The hour was late,” Roberto said, “and I did not wish to disturb you with greetings that would keep until morning. You sleep little enough as it is. Though the hard days are gone, the sun still rises after you.”

Roberto's father looked up from his newspaper. “She will always be full of the old ways,” he said with fond gruffness. “For her there is no change. Our children have grown proud and fine and freed us from bondage to the soil. Yet she still behaves as a peon. To her we still toil in the fields of the patron, bent with exhausting consoles, struggling to control the many field machines. She bakes her own bread. The market vegetables do not please her so she chafes her hands with the buttons and switches of a garden.

And a robot to scrub the floors she will not hear of. Perhaps she thinks it would be prettier than she and I might run off with it to Mexico City."

"Foolish old man," Mrs. Sanchez said with mock severity, "you have lost even the memory of what it is to run."

"Mama," Roberto said, "I have a present for you."

Something of an eager little girl looked out of the wise eyes.

"I have no need of a present," she said but her eyes searched the leafy little patio. "All I ask as a gift is for you to come out of the sky for a little while and marry."

Roberto smiled. "Have not my brothers and sisters given you grandchildren enough? And what woman will marry the captain of a space vessel? With my journeys to Jupiter and Saturn and outermost Nyx I would forever be a stranger to my children and an occasional guest to my wife." From under his napkin he drew forth a small silvery box. "Mama, your present."

She gasped with delight when she opened it. In a black velvet womb nested a strange glittering jewel suspended on a delicate, spider-strand, silver chain. "Roberto!" she exclaimed with a feeble remonstrance.

"Like the others I have brought it is not expensive," Roberto said. "The stone is a common one on

Nyx. But it is very beautiful and when I found it I thought of you."

A BELL-LIGHT flashed on the kitchen console. Mrs. Sanchez went to it as a shallow dish slid from the oven. She set it, sizzling softly, on the table. "And a present for you," she said. "Your favorite, quinquañes. Fresh from Venus yesterday, or so the vendor tells me." She shrugged dubiously. "In this sinful age even the machines lie."

"But, Mama, the money I send is not to be wasted on me! These are so expensive."

"And small," Mrs. Sanchez said. "Why is there not a garden manufactured that can be programmed for quinquañes so that I might grow my own?"

"Because five fortunes could not pay for it," Mr. Sanchez said. "Try as they might, such delicacies come only through the grace of God and not General Electric." He set aside his newspaper and accepted another coffee. "Does this not complete your collection?" he asked his wife. "Roberto has brought for you a stone from every planet he has touched. Even the moon and the grand asteroids."

"I know not how many worlds there are in the sun's family. But if it is done, then it is done." She tried to make her words unconcerned but there was a shadow of

regret across them. "The stones are beautiful. But they are frivolous and the end to them is not to be mourned."

"Ha!" Mr. Sanchez snorted. "She pretends, the sly one, she does not care. But I know how she delights in them, these gifts from her son. I have seen her in a stolen moment open the box and gaze with pleasure upon them. And when we go to the opera in Mexico City it is one of your single-stoned necklaces which adorns her simple black dress. She will have no other ornament."

"I no longer have a husband in this house," Mrs. Sanchez said, "only an old woman whose mouth talks away the day."

"Old woman, eh?" Mr. Sanchez leered and playfully slapped his wife on her backside.

She pretended to be shocked. "In front of the child! But what can one expect from an evil old lecher?"

The three of them laughed and basked in the warmth of their blood bonds. Mr. Sanchez resumed his coffee. "Is it really done, Roberto? Have you taken cargoes from all twelve planets?"

"Yes."

"Even the one just beyond Pluto? Is it Oceanus or Atlas? I can never remember which it is . . . but for a long while you were missing one of them."

"I have them all. I am still a

young man and yet I have taken my ship to all the planets in many voyages. But of course that is not unusual," he lectured, for he knew that was what they wanted, "for in the thousand years since man first stepped forth on the moon the solar commerce has so increased that there are hardly enough suitable men for the ships that bridge the now familiar worlds. So familiar, I could fly to the rings of Saturn or to dark Nyx in my slumber."

"Then you also must also feel a sadness because there will be no more stones to pluck from a new planet," Mr. Sanchez said. "Perhaps there is a thirteenth yet to be found."

"No, Papa. It is certain. There are no more children of our sun. But I am not sad. The stones are not finished. Mama shall have other pretty baubles to be caged in fine silver or gold and hung about her neck."

MRS. Sanchez was programming a day of cooking and baking on the autochef. At her son's words her hands poised in mid-flight over the console. She did not quite comprehend but an intuitive wisp of alarm darkened her face.

She turned to her husband, as if for some reassurance that her dread was of no substance.

Mr. Sanchez said in perplexity,

"I do not understand, Roberto. If there are no more planets—"

"In this system!" Roberto said.

Neither of his parents said a word. They stared at him and waited.

"In a few days it will be officially announced," Roberto said. "With the perfection of the new Korenyik propulsion, a starship will be built. A starship! And I have been selected to take it through the other space to Alpha Centauri."

Mr. Sanchez embraced his son. "Roberto, I am so proud." He turned to his wife. "Is it not a great—" He stopped at the look of her.

"This Alpha Centauri," she said, pronouncing it badly, "it is a planet?"

"It is a star, Mama. Like our sun. It may have a family of planets. It will be exciting to discover them."

"Why?" she asked with a mother's quiet challenge.

The word echoed in Roberto's mind—*why*? The very core of his being strained to shout out why. Space was why! Each blazing star was a compelling, beckoning finger. Every constellation a covenant with his heart. And somewhere out in the majestic, wheeling Galaxy his soul wandered, waiting for him to come.

"Mama, I will show you why," he replied as quietly. "As I prom-

ised Papa the last time, I have borrowed from the company a star projector. This time you must put aside the household and watch and listen and learn something about the universe out of which my life and my dreams are made. Of all your children I am the only stranger to you. And before I go out to the stars I want you to know something of that which fills my heart."

He went to his room and returned with a foot-square case which he set on a table in the living area. He pressed a stud. A transparent globe inflated over it to a four foot diameter. He dimmed the lights, manipulated the controls and a tiny sun burned in the center of the globe. Another adjustment brought into view the solar planets orbiting around it. The device was an educational tool; it projected as desired, within the envelope of gas, three-dimensional mockups of the solar system, star clusters and galaxies that moved almost as incandescently beautiful as the originals.

Mrs. Sanchez was delighted with the views of the solar system and the surface scenes of the various planets. She had as much general knowledge of the planets as she had of India or France — which had all come to her through the distorting medium of television dramas. The moon had ob-



servatories and mad scientists; India had elephants and sinister maharajas; Mars had deserts and fragile ghost people; Venus had quinquañes and swamp dragons; and France was overflowing with sin.

Roberto did not utilize the projector narrative. He explained with his own intense words as he took his parents across the gulf to the constellations. He skipped about the Galaxy, astounding them with the sheer billions of stars. He insinuated the possibility of millions of inhabited planets and then he flung them across the abyss of space to view the Local Group of the Milky Way, its sister Andromeda and the satellite galaxies. Then he plunged them into infinity for a time-lost glimpse of the billion other galaxies thus far discovered.

THE globe deflated, the lights went on and Roberto leaned toward his mother. "Does not the thought of all this catch at your heart a little?"

There was an uncertainty in her voice that Roberto missed because he was so intent upon her answer. "All those stars," she said. "Something like that I saw once on the television—about strange people who lived on those stars. I did not like it very much. Perhaps because it is not true."

"Not true?" Roberto echoed.

"Yesterday, yes. Today, not quite. Tomorrow . . . your own son is going to the stars!"

"It is beyond my understanding why men cannot be content to remain where they were meant to be."

"But the stars were meant for us. They are our destiny!" Roberto realized he was speaking too loudly.

Mrs. Sanchez looked squarely at her son. Her words were measured and solemn like some solitary, tolling bell. "If God meant us to be on those stars he would have put us there. Roberto, take care. Listen to the word of your mother. I have not the cleverness of my children but I know things here." She touched her hand over her heart. "It may be as you say, all the millions of great stars. But they are God's high places and I tell you, my son, whoever dares violate them will be struck down."

"But, Mama! In ancient times, when man first took to the air, there were those who proclaimed man presumed too much and would be punished. And a thousand years ago there were people who spoke as you do when man first went into space. They too said God gave us the earth and to covet the moon and the planets was a grievous sin."

Mrs. Sanchez shrugged. "There are always the fanatics. Your mama is not one of them. God

gave men the sun and the moon and the planets and set them apart from the stars for him to work out his salvation. It is natural and right."

"And he did not give us the stars also?"

"In the sky He put them as a testament to His glory. You have shaken my poor head with the measure of their distance. But it serves to show that they would not have been placed out of reach if they were intended for us to have."

"But Mama, soon they will no longer be out of reach. Your own son will go to the first one in a great new ship."

Mrs. Sanchez turned troubled eyes on her son. "I will pray for you." She averted her face and would no longer look directly at him.

Roberto angrily snatched up the star projector and went to his room.

His father followed. "You must understand," he said, "your mother is a simple woman. She would rather think of the stars as the lamps of the angels than the huge blazing spheres that they are."

"I do understand," Roberto said bitterly. "I have heard her words a thousand times from as many mouths. They have sounded through history and are chains meant to bind man to his few

worlds. It is the eternal voice of the heavy, peasant mind which tries to shout down every soaring dream of mankind."

"Your words are too hard," his father said.

Roberto's lips curled to say something cruel but he refrained, not wanting to hurt this fine, little man whose blood was his own.

"Yes," Roberto said, softening, "for after all there are always the minds which struggle free and lift us up. They have carried us to the threshold of the stars. And the time will come, a thousand years perhaps, when we will be ready to try for our sister Galaxy, Andromeda," Roberto smiled. "Of course it is certain we will still have our simple folk who will warn us and tell us to beware; that it is not the will of the Almighty that we leave the Milky Way; that we presume too much and we will be struck down. And—" Roberto stopped in mild surprise. He saw in his father's expression the reflection of his mother's apprehension.

Roberto turned away sadly and began to pack away the star projector.

Someday, he thought, in spite of the little minds, we will have one of these that will show the other space as commonly as our own. And all their phantom angels and devils shall not bar man from the universe.

TIME passed.

The ship was launched.

Six long years, Roberto thought. Long years of preparation, testing and training. Hard, bone-wearying hours of familiarization and shakedown with nerve-straining, experimental jumps into the other space. Now at last they were in that other space—that strange, blazing white elsewhere that Korenyik had given to mankind as the trail to the stars—the Horse-head Nebula clear before them.

Six years of frantic activity . . . and now he was launched and there was nothing to do in transit but wait. Six years since he had been to the little sun-faded stone house near Mexico City and felt the warm blood-tug of his parents. Papa now dead and Mama with her dark forebodings of angels and God.

He gazed at the dark screens in the starship and wondered what he might see if they were on.

In the intense, brilliant region under the vault of heaven the two great creatures, their golden coruscating substance flung across the white space, sensed their coming. My-Ky-El limned the ship with a golden halo and knew the creatures within. He linked with Ra-Fa-El and they communed in soaring crystal carillions of thought.

—they are come from the

Black Space, Hell, the brood of Satan has broken its bonds and penetrated the barrier!

—how is it so? the Fallen were shrivelled of substance and energy; shorn of motion and thrust down into the Black Space with no memory of their origin

—nevertheless they are here in a devious shape and White Space is once again threatened

—they must be annulled NOW!

!!! A-ROORRR-UH !!! A-ROO-RRR-UH!!!

The Klaxon howled out the alarm. The control board erupted into a swiftly spreading plague of red warning lights, indicating the Korenyik Matrix Units were being subjected to incredible strain.

Roberto punched a row of screen tabs. The normal-space view screens showed nothing. He punched in the E-screens. He gasped at the sight, struck with an awful dread. Great golden mists were clustering, bursting, swirling and spiralling in the blinding whiteness. They wreathed the ship, and the KM units sobbed as they strained against the rending golden energies. Roberto fought against odd, thick fear that tried to prostrate him on the deck and make him grovel in utter, abject terror. *This icy dread that freezes my blood is not of my making*, Roberto thought. With a desperate effort of will he hurled his

leaden fingers at the keys and punched in the Omega beams. Eyes burning, he saw ashen whorls spin through the golden mists and crystal screams seemed to splinter in his mind.

For a fragment of time the KM units ceased their belabored sobbing and the fear drained from Roberto. In the instant he slammed the jump bar and they were in their own Black Space.

"We'll never get home this way," the navigator said. He was trembling with shock.

Roberto struggled to keep his own body from quivering. "I will take us home. We will dodge in and out of the two spaces. The danger seems unable to follow. Can you navigate such a course?"

THE navigator was trembling violently and he began to sob. "What were they? So ma—magnificent . . . and . . . terrifying . . . like great golden angels . . ."

"SHUT UP! SHUT UP!" Roberto screamed, his control shattering. He leaned to the limit of his pad straps and struck once and again at the navigator. Roberto pulled his hands back and crowded his anger and fear to the back of his mind. "Can you skip us home?" he again demanded of the navigator.

The man's voice was steadier. "I'll need three minutes in black each time to compute position

and plot the next jump. But, yes, I can do it."

"I make you a gift of three hours right now." *And perhaps more we will need, Roberto thought, to recover the courage for venturing again into the White Space. And my navigator spoke of angels but where were the faces and wings? And why did I also think of angels almost as if I felt a nebulous ancient memory of them? And do the others feel as my navigator and I?*

They did! Roberto had gone around the ship carefully questioning his men. No matter how delicately he inquired, whenever he touched upon what they might have seen on the E-screen the fear would come into their eyes. Some spoke directly of heavenly creatures, others embarrassedly admitted such impressions and a few averted their eyes and denied such thoughts. But the words of them all were edged with terror and awe.

Roberto and his shaken crew were slowly regaining confidence. They had made a jump into the White Space and remained there for some hours before being frightened back into the Black by a vague alarm. Nothing more than a quivering needle and a lighter patch on an E-screen; but they had remained hidden in Black for many hours and now they were ready to make another jump.

Roberto pressed the jump bar, throwing them into White Space . . . and the golden fury struck! **!!! A-ROORRR-UH!!! A ROORRR-UH!!!** The board blazed red. There were screams on the intercom. There was heat and savage bucking with a crashing and screeching tear of ultra-steel. The E-screens flared with a terrible molten dancing of golden fire. Roberto punched in the Omega beams in a shell pattern, cut them and snapped on the force shield in full crackling power. It flared greenly against the golden furies. The reactive thrust slammed hard against the hull and the ship went hurtling end over end. Roberto slapped the jump bar but the ship remained trapped in the White Space. Blue energy licked along the heaving bulkheads and decks. There were more cries and an odor of scorched flesh, and the corpse of his first officer went spinning limply through the control cabin. Something wrenched loose and crunched heavily on Roberto's leg before bouncing away. *Too much red!* Roberto cried within, looking from his crimsoning leg to the carmine lights of the board. He pounded his fists on the unresponsive jump bar. "*Mama,*" he whispered in agony, and suddenly something connected, and the tortured ship tumbled shudderingly into Black Space.

MRS. SANCHEZ sat in the twilight with the darkened house at her back and unmovingly faced the mountains. She heard the jet whine of the taxi helicopter but could not see it because it landed in front of the house. She listened as the whine faded. And in the silence she heard an odd step that she could not recognize. "Mama."

The voice was different. There was no longer a smile under it. But it was Roberto's.

She did not answer, but as she stood the noise of her chair brought him limping toward her. She started to move to him but he stopped abruptly and she suddenly felt a new bitter distance between them that mere steps could never cross. In the dusk she stared at his twisted leg.

"Roberto," she whispered sadly.

"Call me Jacob," he said harshly. "I have wrestled with angels." He thrust out his crippled leg. ". . . and behold a *man* wrestled with him till morning. And when he saw that he could not overcome him he touched the sinew of his thigh and forthwith it shrank!"

With no triumph, but only a mother's distressed remonstrance, Mrs. Sanchez softly wailed, "O Roberto, Roberto, I warned you. I told you."

"Yes, Mama, you told me," he said. "But you did not tell me the thing most important. You did

not tell me that we are devils!"

She stared at him, uncomprehending.

"Yes, my fine, good Mama! With all your thoughts of heaven, we are a world of devils. How or why or from whence I do not yet know. But I am going back to the White Space to seek and I only come now to see you once more and say good-by . . . and . . ." Roberto faltered and leaned toward her as if straining to see her face in the evening gloom that had almost deepened into night. ". . . and . . . ask your blessing." The words were hardly more than a whisper.

"Going back?" she said incredulously.

"I must."

Anger was in her voice as she pointed to his leg. "Even with the mark of wrath you carry? You dare make more sacrilege?"

She turned to go into the house. Roberto limped a few steps after her. "Mama, as you love me, your blessing! For your son."

She turned in the doorway, her face hard. "I can only pray for you."

Roberto watched her go inside. No light appeared and he knew she would be kneeling before the shelf of holy things in the small flickering light of the votive candle. He made his way to the front of the house to the waiting heli-taxi. He looked back at the house.

This is no longer my home, he thought. And then, a moment later: Was it ever?

He looked up at the stars and thought of the pure brilliance of White Space and the magnificent golden creatures. *Why the sweet anguish in the depths of my being when I think of them and the white place? Why in spite of my fear am I drawn to it more than I am to this house which is my home? Home?*

Roberto climbed into the machine and it moved upward a little closer to the stars before turning south.

— RICHARD SABIA

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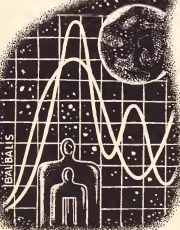
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By WILLY LEY

NAMES IN THE SKY

THE story I have in mind is probably being told in Los Angeles with the Griffith Observatory as its locale, in Chicago with reference to the Adler Planetarium and in any other city with reference to visitor's night at the nearby astronomical observatory. I heard it for the first time at the Treptow Observatory east of Berlin. It goes like this: the visitor looks through the telescope at the moon, then at Jupiter. Then two or three well known stars are



picked out to prove that a true star, even when seen through a telescope, still shows just as a pinpoint of light. The astronomer may say that Mars, unfortunately, can't be observed right now but will reappear in a suitable location in the sky next November. And then the visitor says to another visitor: "I think I can understand how they measure the distance to Jupiter and how they find out how big it is. I can imagine how they make calculations telling them when a planet will be visible. What I don't understand is how they find out their names!"

If you change the joke to the serious question of how a name is established you not only have a legitimate question but you also have a problem. The answer is, of course, that somebody, at some time, gave a name to a star or to something more local, like a crater on the moon. But the names sometimes took hold and sometimes did not. There are even a few cases where everybody would be quite willing to go along with the name favored by the discoverer, provided we could be sure that we know which astronomical object he had in mind. Conversely, with some star names of Arab origin we know which star is meant but we cannot interpret the name.

The names in the sky fall into

two main categories: traditional names like those for the constellations, for a number of conspicuous stars and for the naked-eye planets; and names which have been bestowed more recently by their discoverers, the names of a few planets, the names of the asteroids and the names of visible features on the moon and on Mars.

But even with the recent names some confusion is possible . . . and therefore exists.

Let us begin with the simplest case, the names of comets.

A good number of them do not have a "real" name at all. The "Comet of 1577" is just that; no name was given to it. If they do have names it is that of the discoverer. Biela's comet is Biela's comet because it was first observed by Wilhelm von Biela back in 1772. There is just one comet which has a name other than that of its discoverer and it happens to be the most famous of all of them: Halley's comet. Dr. Edmond Halley did not discover it. He had compared the orbits of earlier comets, arrived at the conclusion that several observations seemed to refer to the same comet and he predicted its return.

While big comets are rare — we haven't had a good one since the last passage of Halley's comet in 1910 — comets of smaller size are not. Since several of them ap-

pear every year a special system was devised for them. At first they are listed as 1962a, 1962b, 1962c and so forth, in order of their discovery. Early in the following year the list is then rearranged to read 1962 I, 1962 II, 1962 III, etc., in order of their perihelion passages. Of course the name of the discoverer is attached too, and since one astronomer may discover more than one comet you might have a designation like Whipple IV, which means that it was the fourth comet discovered by Fred L. Whipple.

(Actually he discovered seven, last time I checked.)

There is also a system for the naming of asteroids, the planet fragments which normally orbit the sun between the orbits of Mars and Jupiter. The first of them had been discovered during the New Year's Night 1800-1801 by Father Giuseppe Piazzi, S.J. He first thought it was a comet; it turned out to be a small planet in what up to that time had been considered a "gap" in the solar system. In fact, some two hundred years earlier Johannes Kepler had been so annoyed by the gap, which ruined his mathematical explanations, that he wrote *Inter Jovem et Martem planetam interposui*, "between Jupiter and Mars I put a planet". Now it had been found by Piazzi and was

named Ceres. As will be explained later, astronomers had reasons to use names of the highest classical purity.

The sequel to the story was that Ceres was lost for a while, but the observed positions enabled Carl Friedrich Gauss to calculate (by means of a new method which he invented for the purpose) an ephemeris for the new planet. With the aid of the position predicted by Gauss, Heinrich Wilhelm Olbers, M. D., in Bremen, re-discovered Ceres during the New Year's Night from 1801 to 1802! Soon after Olbers discovered another small planet in the same former gap which was named Pallas. Two years later Karl Harding came up with a third one, which was named Juno, and in 1807 Olbers followed up with a fourth, to be named Vesta.

By then the pattern was established. Asteroids received classical female names.

This would have been most satisfactory as a system if there had been not more than, say, five dozen asteroids. At first Greek and Latin classical names were easy. Number 7 became Iris, number 27 was still Euterpe and number 57 Mnemosyne. But soon both Homer's *Odyssey* and Pliny's *Historia naturalis* were exhausted. Oh, well, the Saga of Gudrun and the Nibelungenlied

could be considered classical, too. Names like Gudrun and Kriemhild began to invade the area populated by Leukothea and Klytemnastra and Polyhymnia. Right now there is probably an actual need for female names, even though all common modern names in all languages, from Anna via Gertrud to Marlene and Natasha have been used. If a philologist would prove tomorrow that there was a Carthaginian goddess Ilu, her name would be attached to an asteroid the day after tomorrow.

There was some slight relief in 1898 when it was found that a newly discovered asteroid orbited partly inside the orbit of Mars. It was named Eros, a male name, to indicate that it differed from those in the by then very crowded "gap," and it quickly became customary to name all asteroids which crossed the orbits of either Mars or Jupiter, or orbited outside the orbit of Jupiter or inside the orbit of Mars, after males. In that sub-section of asteroid names all names are still strictly classical. There is a large supply of classical male names still available.

THE names of the satellites of our solar system are now rather orderly but it wasn't always thus. Classical times, of course, knew only one satellite, that of Earth: Selene to the

Greeks, Luna to the Romans. (The latter is the name for the moon in quite of a number of modern languages, including Russian.) Our word moon is from the Anglo-Saxon *mona* (hence: month, in German *Monat*) and the other Germanic languages derive their names from the same root, e.g. *Maan* in Dutch and *Mond* in German. When Galileo Galilei discovered the four large moons of Jupiter two problems came up simultaneously. In the first place, since there was now not only *the* moon but *moons*, a general term for "moons" was desirable. Johannes Kepler supplied this by coining the word "satellite" (from *satellos*, which means attendant.) But, Galilei felt, the moons of Jupiter should also have individual names.

He wrote to Cosmo de Medici, Fourth Grand Duke of Tuscany, that they should be called the *Medicea Sidera*, the Medicean Stars, and suggested the specific names of members of the Medici family for them. To astronomers who were not Italians the name Medici simply did not have the exalted ring it had to Galilei and they kept silent on the proposal — except Herr Mayr in Kulmbach who called himself Simon Marius and who, being court astronomer to the Margrave of Brandenburg, suggested *Sidera Brandenburgica*. Marius, who

claimed to have seen the moons of Jupiter earlier than Galilei — and who *did* discover the Great Nebula in Andromeda — realized after a discussion with Kepler that classical names were at least neutral, if not superior, and suggested naming the four major moons after four love affairs of Jove: Io, Europa, Ganymed and Callisto. With a long delay his suggestion was accepted even though, to this day, astronomers prefer to write J-I, J-II, J-III and J-IV. Galilei had started that by writing J., J., J.. and J ::.

The system began to get into some trouble when E. E. Barnard, in 1892, discovered a fifth satellite of Jupiter which happened to orbit inside the four Galileian satellites. Barnard stuck to the designation J-V even though many names were proposed. Camille Flammarion in France suggested Amalthea (Jupiter's nursemaid in mythology) which is slowly coming into use, but usually with the parenthetical remark that it is "not official." (Because it was suggested by somebody other than the discoverer and not accepted by the discoverer.) Barnard's insistence on the designation J-V did have the result that the additional moons of Jupiter were not given any names but are referred to as J-VI, J-VII and so forth up to J-XII.

The outcome is that any list of

Jupiter's satellites looks wrong. If you arrange it in the numerical order, which is the order of discovery, the satellites form no pattern as regard to distance from the planet. If you arrange them in order of distance from the planet, the numerals are out of sequence.

AS FOR the moons of Saturn the confusion became such that finally names had to be called in. The first of them to be discovered, by Christiaan Huyghens in 1655, was Titan, but its discoverer simply called it *Luna Saturni*, Saturn's Moon. But then Giovanni Domenico Cassini discovered four more moons of Saturn. Collectively he wanted them to be known as the *Sydera Lodoicea* (the stars of Louis XIV) but individually he numbered them, in the order of distance from the planet. This made Huyghen's moon S-4. The end of discoveries, however, was not yet. William Herschel discovered two more, both closer to Saturn than the known ones. How to number now? Call them S-6 and S-7, as Herschel suggested (with S-7 being incongruously the closest to the planet) or should everything be re-numbered? And if that were done, who could guarantee that any additional discoveries would kindly orbit Saturn at a greater distance than those already numbered? It was Sir William Her-

schel's son, Sir John Herschel, who suggested to use the names of the mythological sisters and brothers of Saturn. This is the list — Mimas, Enceladus, Tethys, Dione, Rhea, Titan, Hyperion and Japetus — which is now generally used.

In 1898 Professor William H. Pickering added another moon and another sister of Saturn to the list: Phoebe.

Sir John Herschel also named the satellites of Uranus. His father had thought that he had discovered six satellites of Uranus. Four of them turned out to be mistakes, but two were real. William Lassell, in 1851, added two more so that four satellites were known. Sir John Herschel's proposed names Ariel, Umbriel, Titania, and Oberon were accepted largely because Lassell, who had discovered two of them, accepted the names. (Oberon and Titania are, of course, the king and queen of the fairies in Shakespeare's *Midsummer Night's Dream*; Ariel is a spirit in *The Tempest* while Umbriel is a gnome and Ariel a sylph in Pope's *Rape of the Lock*.)

Still, it is interesting that a full dozen satellite names originated with a man who had not discovered a single one of them. When Gerard P. Kuiper discovered a fifth satellite of Uranus (closer to it than any of the

others) he called it Miranda to stay within the mythology.

Neptune's major satellite was also discovered by William Lassell (in 1846) and Camille Flammarion suggested "Triton," Neptune's companion, as a name. Like Amalthea it is "not official" and for the same reason. But it is in use now, largely because Kuiper, when discovering a second satellite of Neptune in 1949, named it "Nereid" which he, as the discoverer, had the right to do.

The two moons of Mars, discovered by Asaph Hall in 1877, are, of course, Phobos and Deimos (Fear and Terror,) the attendants of Mars in the ninth book of the *Iliad*.

The names of the five naked-eye planets are fairly easy. Still, it may be useful to mention first that the word "planet" comes from the Greek *planetes* (the wanderers) because they do not stand still in the sky like the "fixed" stars. The word "comet", incidentally, comes from the Latin word *coma* ("head of hair") and not from the Greek word which sounds the same (and should be spelled "koma") and which means "deep sleep."

Now Mercury, the innermost of the planets, is the fastest moving, in reality as well as to the naked eye. Hence it became, in Greek, Hermes (properly Hermeias) the swift-moving messenger of the

gods. The Latin name Mercurius also bears the connotation of swift movement but is derived from *mercis*, which means "wares." Hence Mercurius became the god of the traders and merchants but also the god of the thieves — for which latter fact one may harbor two different opinions; one is unflattering to merchants, the other merely points out that a thief has to move even faster than a trader. The names for Mercury in the eastern languages usually are the word for "arrow," or a name derived from that word.

VENUS, bright and beautiful, became female with all nations except in India. The Chinese called Venus *Tai-pe*, "the beautiful white one." to the Germanic tribes the planet was Frigga; to the Babylonians Ishtar; to the Romans Venus. Venus was originally the Spring Goddess and only later the goddess of love, equivalent to the Greek Aphrodite. Since Venus can appear either as morning or as evening star, the Greeks originally had two names for the planet, Hesperos and Phosphoros. Pythagoras of Samos is credited with having identified them as the same planet.

As unanimously as white Venus became a beautiful woman, red Mars became a warrior. The Persians called Mars Pahlavani Siph-

ir, the Celestial Warrior. To the Chaldeans he was Nergal, the god of battle, to the Greeks Ares, also the god of war, regardless of whether the name is derived from *áro* (to kill) or from *ará* (disaster.) The Germans also identified the planet with their god of war, and Roman Mars is, of course, the god of war too.

As for Jupiter it probably was given the name of the chief deity of the Romans — the name is stated to be derived from *Iovis pater* — because of its steady light, being the brightest of the planets except Venus. Of course Jupiter is the equivalent of Zeus. And it is also quite possible that the naming went the other way round, that the god was given the name of the serenely shining planet, for when you said in Latin *sub Iove* it meant "under the open sky."

Saturn, in Latin Saturnus, was, mythologically speaking, the god of agriculture and the husband of Ops, the goddess of wealth. The name is related to the verb *serere*, "to sow". The Greek equivalent was Kronos. Why the name of the god of agriculture was bestowed upon the planet is something that I would have considered a mystery until about three months ago, when I found an interesting reference in a very modern book on the planet Saturn by the British astronomer A. F. O'D. Alexander.

He states that the name most often used for Saturn by the Assyrians was *lubadsagush* which, since *lubad* meant "old sheep," has to be translated as "the oldest of the old sheep," another agricultural comparison. Alexander thinks that the name was due to the fact that Saturn moves so slowly among the stars. Possibly Saturn's slow movement accounts for its Latin name too, reminding the skywatchers of the slow gait of ploughing oxen.

For the remaining three planets there is no mystery about their names. When William Herschel discovered Uranus he first proposed the name of *Georgium Sidus* in honor of George III. Outside of Great Britain nobody was pleased with this suggestion, which revived what Galilei and then Cassini had tried to do. Joseph Jérôme Lalande in Paris suggested that the newly discovered planet should be known as Herschel's Planet, in the same manner in which one speaks of Halley's Comet.

But there was no enthusiasm for this innovation. Other astronomers felt that it was enough to be able to attach one's name to a comet (or to have a lunar crater named after one—posthumously, that is) and when Johann Elert Bode, the director of the Berlin observatory, suggested Uranus most astronomers agreed rapidly.

It was actually the offshoot of the Herschel-Lalande-Bode controversy which produced the severely classical names for the first asteroids some dozen years later. The word Uranus is just the Latin version of the Greek Ouranos which means heaven or sky.

THE pattern repeated sixty-five years later when Galle in Berlin discovered Neptune close to the point where Leverrier in Paris had said it should be located. Leverrier had calculated its existence and position from the perturbations of the orbit of Uranus. The French scientist Francois Arago — who had a political in addition to a scientific career and was, among other things, responsible for the abolition of slavery in the French colonies — revived the suggestion to name Uranus "Herschel's Planet" so that the new one could become "Leverrier's Planet." It did not go very far, for the French *Bureau des Longitudes* decided that Neptune was a fine name for a far distant greenish planet and Leverrier himself agreed. The name Neptunus is that of the Latin god of the seas, equivalent to the Greek Poseidon, but neither Romans nor classical Greeks ever had an opportunity to attach it to a planet.

Pluto, discovered by Clyde Tombaugh in 1930, was named

for what might be called a personal reason. Just as Leverrier, and also John Couch Adams in England, had calculated Neptune's existence from irregularities in the motions of Uranus, Percival Lowell had tried to calculate the existence and position of one more planet from the same source. He had called it Planet X but after the discovery of a planet which is (for about two thirds of its orbit) farther from the sun than Neptune, it became obvious that that name could not be used permanently. But the discovery had been made at Lowell's observatory, though long after his death, and since the name Pluto begins with P-L it was chosen. It was correct mythologically too, for Pluto, the lord of the infernal region, was a brother of both Zeus (Jupiter) and Poseidon (Neptune.)

Before going on to the names of stars the names of two sets of features must be mentioned. It has already been said that an astronomer's name might be selected posthumously for a crater on the moon. Two people are responsible for this custom: Langrenus of Brussels and Riccioli of Bologna. Langrenus made the suggestion of naming lunar features after famous people, especially astronomers, around 1640. Johannes Hevelius of Danzig, five years later, opposed it and transferred

terrestrial geographical names to the moon, which is the reason why we speak of the Lunar Alps, the Lunar Caucasus, etc. But Giovanni Batista Riccioli, five years after Hevelius's lunar map with terrestrial names, accepted Langrenus's suggestion. He even had a kind of a system. He named a large crater Plato, then attached the names of Eudoxus, Aristotle, Thales, Strabo, etc., to craters not far from Plato. Riccioli admired Tycho Brahe; therefore the most conspicuous crater was named Tycho. Since Copernicus did not agree with Tycho Brahe, the lunar crater Copernicus is far away from the crater Tycho. But since Kepler agreed with Copernicus, the crater Kepler is near the crater Copernicus.

THE visible features of the planet Mars went through a number of linguistic transformations. It was only just about a century ago that telescopes became powerful enough to show surface features on Mars and, logically, observers in different countries began making drawings of Mars. And they started naming things, in their own tongues. Thus a map of Mars drawn by Richard Anthony Proctor in 1867, following Riccioli's practice, is full of names of astronomers. There is a Herschel I Continent, a Herschel II Strait, Fontana Land. Laplace

Land, Tycho Sea and so forth, all in English, of course. On a map drawn by Camille Flammarion some of the names are the same, like the Herschel I Continent, but others are changed. What Proctor had called the Kaiser Sea (after the Dutch astronomer Kaiser) appeared on Flammarion's map as *Mer du Sablier*. What Proctor had called Dawes Continent (after the Rev. William Dawes) became the *Continent Beer* (after the German Beer, the brother of the composer Meyerbeer.) What Proctor had named Maedler Land, after a German astronomer, became, on Flammarion's map *Terre de Laplace*; he named something else after Maedler. Of course, the whole map was in French.

Well, the third to draw a map was Giovanni Virginio Schiaparelli in Italy. What Flammarion had called *Mer Terby* appeared on Schiaparelli's map as *Solis Lacus*; what had been the Kaiser Sea or the *Mer du Sablier*, respectively, appeared as *Syrtis Major*. The light area around Lacus Solis, *Terre de Kepler* on Flammarion's map, became *Thaumasia*. The *Mer de Fontana* became *Elysium* and the *Mer Oudemann* became *Trivium Charontis*. By the grace of God Schiaparelli's system won out in all countries, and most of his names are still in use. By being Latin they are the

same in all languages, because they are nobody's language.

We now come to the names of constellations and of some conspicuous stars, but for practical reasons the evolution of the current system has to be discussed first.

Hipparch's star catalogue, as preserved for us in the *Almagest*, listed a total of 1022 stars which, of course, are all naked-eye stars, leaving out a number of faint ones and, naturally, neglecting the southern hemisphere almost completely. (At a later date the French astronomer Houzeau stated that a man with perfect vision, if he first counted from a rather northern latitude and then continued from a southern latitude, would reach a total of 5719 stars.) Now all stars were sorted into six classes according to their apparent brightness. The brightest ones were in the first class (later called the first magnitude) and the just visible ones formed the sixth class.

So far there was no special problem, but this soon ceased to be the case if a specific star was to be picked out. The invention of the constellations helped. A total of forty-eight are listed in the *Almagest*: the twelve signs of the zodiac, twenty-one constellations north of the zodiac and fifteen to the south of the zodiac. (The names of almost all of them

are still in use.) A constellation was useful for stating which star one had in mind, in that it limited the area of the sky. In fact, this is the main reason why the names of constellations are still used, and at the Astronomical Congress at Leyden (The Netherlands) in 1928 the limits of the constellations were carefully established. Modern star charts have the eighty-eight constellations agreed upon during that congress.

But to go back to the Greek astronomers. The star he had in mind (Aldebaran) was in the constellation Taurus and had to be described as "the bright star in the southern eye of the bull." Or another star (Rigel) had to be designated as "the bright star in Orion's left foot."

One wonders why the Greeks did not think of the simple device of just numbering the stars in a constellation after they had once been carefully described in the elaborate manner just quoted. But they didn't.

Alessandro Piccolomini, in 1568, took the first step in that direction. He omitted the usually rather elaborate mythological pictures, also all the faint stars, but he gave a map showing the positions of the larger stars and labeled them with the Latin alphabet. A German lawyer who was an ardent astronomer, Johannes Bayer, did what we do

now. He labeled the stars in each constellation with Greek letters, switching to the Latin alphabet only when there were more stars in a constellation than the Greek alphabet has letters. In his book, the *Uranometria*, which appeared for the first time in 1603, he said that it was his system to call the brightest star of each constellation *alpha*, the next brightest *beta*, the third brightest *gamma*, the fourth *delta* and so on. Of course, he made a number of mistakes. His *alpha* is not always the brightest star; but that his idea was good is proved by the simple fact that we still use it. Thus we say that the first photographs of Pluto were found on a plate centered on *delta Geminorum*, the fourth brightest star in the constellation Gemini. Bayer's system is such a space-saving device; Aldebaran becomes *alpha Tauri*, Capella *alpha Aurigae*, Castor and Pollux *alpha* and *beta Geminorum* and Sirius *alpha Canis majoris*. (If you have the Greek letters and enter them in a chart of the constellation so that its name does not need to be repeated there is a real time and space saver.)

TO tell the story of the names of the constellations and how they were devised would take this whole issue of *Galaxy*. It would take more than the whole issue if we knew in all cases how the



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name came about. Most of them we don't know.

But I do want to mention that in the course of time stars at the border of one constellation have often been shifted into the neighboring constellation, sometimes deliberately, more often by mistake. Even the famous zodiac did not remain unaffected. The Greeks had only eleven zodiacal signs for several centuries. *Libra*, in that zodiac, had turned into the pincers of the neighboring constellation *Scorpio*. Tracing the shifts of this type is a whole sub-branch of the history of astronomy which has the special name of Astrogno-sis. This is the area where astronomy and archeology (plus "ordinary history") touch and overlap.

Many of the individual names of stars are Arabic but they are not always "pure." In addition to truly old Arabic names there are many which are pseudo-Arabic, being Arabic adaptations of names from other languages. And later on many of them went through another transformation, usually Latinization, to make them pronounceable for European tongues. Aldebaran is a case in point. The Arabic form *ad-dabaran* was produced by translating a Greek sentence. An expert on Arabic astronomy, Dr. Paul Kunitzsch, a German living in Cairo, says that Arab scholars

themselves are uncertain what the word really means but think the root word is *dbr* which means "to be behind something" or "to follow something." The meaning, astrognostically speaking, would then be "the star which follows the Hyades."

What name could sound more "Arabic" than Algol? Well, it is Arabic all right, but not originally so. The star Algol, *beta Persei* on charts, was the Gorgon's head. This designation, in Arabic, became *ra's al-gul*, the head of the Gul, a demon in Arabic mythology. As for Deneb, *alpha Cygni*, the current name is an abbreviation. The Arabic original is *danab ad-dagaga*, "tail of the chicken."

I have mentioned earlier that the star *beta Orionis* was described by the Greeks as the "bright star in Orion's left foot". The Arabic version was *rigl al-yusra*, "Orion's foot," and the star is called Rigel to this day — though nobody is quite certain how it should be pronounced.

While it is interesting to find out why a number of bright stars bears the names they do, individual star names are slowly coming out of use. Which, considering everything, is probably a logical development. As distinct from the names of the constellations, which are useful as area designations, there is little need for individual star names.

— WILLY LEY

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ON THE WALL OF THE LODGE

Illustrated by DYAS

By JAMES & VIRGINIA BLISH

IT had been John Brest's custom to hike long distances every Sunday as far back as he could remember. This Sunday was like any other.

By stages, Brest had walked all the patterned superhighways that crisscross the state, enjoying the fecal odor of marsh gas and the arsenical exhalations of the coke plants. At dusk, before the mosquitoes rose, he entered any town that offered itself and bussed it back to the larger city where he made his living. There was no one to make anything of his entrances and exits, no one to bother him with *Where are you going?* and *Why?*

He hovered this Sunday before the wings of an intersection intricate beyond anything encountered before. There was an unfamiliar city on the horizon with a towering smokestack that poured clouds of white smoke into the humid air—not in a steady stream, but in unlikely pulses. He knew he had never seen it before. After so long, he was lost.

He trudged down the cement incline and began to follow, dutifully, the frozen dance-figure of the intricate cloverleaf. It was growing dark by the time he reached the bottommost level, with layers of bridges and ramps

He was innocent — tragically innocent — in a place where only the guilty were secure!

piled above. The disused tunnel before which he was standing carried no traffic; but he had come to terms with the meadows for the day. He must risk traversing this deserted tube, without knowing whether it led him to the unknown city or nowhere.

He was heartened at once by an enthusiastically obscene suggestion crayoned in red on the near wall. Someone had been there before him, breathing exhaust and methane and hydrogen sulfide and thinking of his private pleasures.

In the exhaust-filled air breathing was becoming difficult, when there was a sudden meowing of rubber on concrete, right over the tunnel's mouth. Here was his chance to get directions. Brest ran.

The car had swerved to a stop on the sloping overpass to Brest's right. Its nose pointed directly at him. He had the uneasy conviction that he had faced it before, and that it meant to plunge through the guard-rails if he made a wrong move.

He backed off, still staring at the car, which seemed to stare in return. Its high headlamps winked on for a moment, blinding him but reassuring him. It had never been like that. In none of his Sunday hikes had he traversed this tunnel before, nor had he ever seen this low-slung, foreign-looking car that

menaced him from behind the rails of the overpass.

Never turning his back to it, he went sideways along the chute, scrambling over two railings where they were level with each other, until his feet touched the higher roadbed. An ominous thrumming came from the odd car, but there was nobody at the wheel.

Brest went to the near railing. He was now high enough out of the pit to see a little way over the meadows again. The smoke-stack pulsed on the horizon. He caught a movement, or the after-ripple in the air of a movement, down among the twists and turns he had just scaled.

"Hey! Hi! Come back!" cried Brest.

The squat figure, only its rotund torso visible and that decked out in some outlandish sporting costume, mostly red, stumbled when he called; flung out one arm as if to wave, or keep its balance; leaped behind a pillar and disappeared.

Brest ran a little way, peering fruitlessly.

The man couldn't have been going for gas; the car was still running. What then? "*Clown!*"

He turned back to the strange car and circled it warily. It had no license plates, nor any mounting brackets. There were dials on the dashboard, but with mounting

irritation he found he could not read them. He opened the right-hand door where the wheel was and slid tentatively onto the cushion. His elbow touched the horn button. The car responded with a five-note call so wild that he spread-eagled against the plush.

BUT nobody came. The car continued to throb, quite gently, now he was inside it. He fiddled with the levers and pedals, thinking he just might point the car in a safer direction. The moment his foot touched the gas, the whole car purred like a cheetah, and the big meter that said RPM ran itself up into the high thousands. If he was stymied, the car was ready.

Cautiously he shifted it into reverse and let the clutch up. It backed so smoothly away from the railing that he hardly had time to turn it to face the right way.

Or was it the right way?

For him, perhaps it was. Throngs of mosquitoes had risen on the flats by now. He could simply drive the car to the strange city and turn it over to the police, since the owner was so obstinately missing.

The suspicion of stealing touched him. He hesitated.

He looked through the car for some hint of identity. There was nothing but a crumpled pink

blanket in the back seat. He knelt and reached over for it, feeling something roll free as he pulled.

There was an amazing amount of the fabric. It filled the floorwell right up to seat level by the time he had got it all off. The object left behind on the seat was a red thermos.

That was hardly a clue. It would be a break, though, if the thing contained hot coffee . . . but it did not. It contained only a sticky, sweet odor, compounded of violets, alcohol and something that rankly suggested beef blood. He tossed it over the rim of the window without having meant to, and heard it shatter with a gratitude all the more intense for its senselessness.

The overcast sky between the loops of the cloverleaf was losing its dun rose to the night-city's skyglare, faintly lurid and anonymously red. The car hummed, waiting for him to decide. He shrugged convulsively, released the brake and stepped on the gas.

The overpass did not go down, after all. The foreign car, thrumming like a plague of grasshoppers, carried Brest through dips and darknesses as breathtaking as a rollercoaster and then began to climb again.

He was pleased to see the light patterns of traffic. With misgivings he realized that it was all below him now. He was so high

in the air he grew alarmed. The car bored on over the high hump and began to descend, its mushroom-like radiator cap singing abstractedly just under his nose. It went faster and faster, although he let up on the gas pedal at every faint relaxation of the endless curve. Screaming over onto two wheels, the car took the tight bind of a ramp and hurtled onto a narrow pitted road.

Light poles blossomed, for it was full dark suddenly, and they brought everything into relief like toys. The great knot of the intersection, pricked out in yellow, dwindled and tightened in the rear-view mirror.

It was beginning to rain.

Inside the car it was hot, and the windshield fogged. He decided he must wriggle out of his shirt to wipe it clear. The car did not waver or weave; it seemed almost to be driving itself as he pulled his cuff-buttons loose and freed his back and belt of the soggy cloth. The car's obedience to his no-hands control made him smile.

After a while he became aware that the smile had fixed itself and he sucked his cheeks back into place. The rain fell harder and there really seemed to be nothing to smile about. For one thing, he was driving without lights. The first button lit a tiny rectangle which turned out to be a radio;

there was a cozy, unintelligible murmuring in the car from the little speaker.

That was all right, but he was frantic for his brights. Finally he felt a cold dot at his fingertip, pushed it and saw the dimpled road come lemon-alive, squirming with rain. Safe? No, but a collision now wouldn't be his fault. He turned up the volume on the radio and settled back to listen as he drove.

The voice was his. He froze on the wheel and began to sweat again.

"**I** WAS making about sixty," his own voice said. "It was raining, and I was in a hurry. It didn't seem like much of a speed — the car was old, and —"

"Much of a speed!" The new voice was as pleasant and as cold as enamel. A man's voice, but not one he had ever heard before. "Sixty's a fair speed, I'd say. And those Daimlers can be cranked up to a hundred without much difficulty."

There was a glare of lightning, and the radio chuckled and strangled the next words. The rain hammered the car's top. When Brest could hear again, the glazed voice was saying, "... so decrepit to me. You could talk as if it had been about to fall apart under you. How could you be so familiar with a stolen car, anyhow?" A

studio organ played an ominous gliss.

This was too much. Better to walk in the torrent — there wouldn't be any mosquitoes in this rain anyhow. He put his foot hard on the brake pedal and it went all the way to the floor without any compression. He yanked at the handle of the emergency brake. It came up so easily he knew it was connected to no cable any more.

The radio would not click off. He could only turn the volume back down to that muted insect hum he had found so cheering initially.

He took his foot off the gas. The car bored purposefully on through the rain. He was afraid to let go of the wheel. It would be the final admission that the car had run away with him.

Suddenly he said to himself, *I'm dreaming*, and the words were so great a tension that he felt his head swimming.

With a gasp, he let go of the wheel and put his clammy shirt back on. Let the damned car drive itself if it liked. It would probably plunge him over a cliff or something like that at any moment and let him back into his bed at the rooming house. He conceived a cunning plan for cheating the dream. He knelt up on the seat to crawl over and go to sleep in the back; sleep within

sleep, and the crumpled pink blanket to comfort him. Let the car go to hell, then, unwatched.

The car pitched around a corner and braked, throwing Brest's head sharply against the wheel, and that klaxon began to sound its wild call over and over. The hard tires screamed, and then there was a hollow denting noise and the fragmenting of glass. His head was so full of pain that he did not realize for a while after he sat up again that the car had stopped.

Outside, in the whisper of rain, there was a sucking sound of footsteps coming toward him.

"Hey, you."

Brest took his ringing head out of his hands.

II

THE FACE which looked in at him through the near window was male, young and beautiful. It regarded him out of black eyes as shining and smoky as prize marbles. Then there were two such faces, both topped by black hair combed, neatly, straight back.

"Get out."

"Did I hit you?" he said. "Anybody hurt? I'm damned sorry if I did. It was accidental. This hack ran away with me."

"Yeah," one of the young men

said. "Get out of there before we come in and beat the living kek out of you."

"Now wait a minute," Brest said, beginning to tremble. "I'm trying to be decent about this. I've got insurance —" He realized suddenly that he had, in effect, stolen the foreign car. "What I mean is, there's no sense in picking a fight. I'm willing to pay for any damage. I lost control of m-my car, and I was lost, anyhow. By the way, what city is this?"

One of the young men took the car door by the handle and tore it open with a wailing of metal. He had actually pulled one hinge loose. Brest goggled. When they began to slide onto the seat he grappled for the other door. The young man on the seat reached out a deliberate hand and took him by the wrist. His fingers were supple and hot, but hard.

"Now?" he said. "He's just asking for it."

"No, let him go."

"I don't want to."

"Let him go, I said. Can't you see the car isn't his? He has a long run ahead if it isn't. Or would you like a dose of the law yourself?"

The other voice seemed eager. The flat fingers released Brest's wrist. He sat in acute tetany for an instant, and then tumbled out the other side of the car into the mud. Inside the foreign car, the two young men argued with each

other in low, precise voices. One of them said, "You're such a child. If you kill them on sight . . ."

Cautiously, sprawling, Brest wriggled away. The other voice said: ". . . of chasing. Someday you'll learn love better. A fine day that'll be, too. Full of screams."

"Yours, I warn you."

"Yes, mine. For joy, you . . ."

There was silence. Brest got to his hands and knees, his belly already as wet as if he had been sprayed. From that position he saw the machine his own car had wrecked. It was a slabsided sedan at least thirty years old, which had simply fallen apart on contact. The four wheels stood firmly on cobbles, but the frame was askew and canted above them, and all the high rusty fenders had fallen off. The car had been fit only for a circus stunt in the first place; the owner of the foreign car could claim far more expensive damages than the total wreck of this caricature had involved. But the continuing argument did not move him to stay around and press claims.

He crawled quietly to the wooden pavement. It was getting brighter still. He got around the corner of a windowless concrete building without incident, and had just noticed that here the street was in much better condition, when there was a cata-mountain scream behind him.

DESPITE himself, he stopped to listen, but nothing came through except a sort of yowling. Then one of the voices said, very high and clear: "Now you'll behave."

There was another moan.

"Yes, you will. You're in a minority, sweetheart, that I promise you; you'll learn. You can't take one of them where you find them. You have to whip up a chase, and have the stupes chasing with you. Even then you have to show innocence, if you can. But the stupes will always chase with you, and when you catch one, then he's yours. If you take them where you find them —"

"Rrr," the other voice said, almost inaudible. "I'll find yours, damn you, I swear I will."

"But that's for jail, believe me," the first voice said. "We'll have no one but each other when the last pinch comes. Don't think it won't be fun, darling; I have plans for you. Right now we've got every jam that keeps on the white line. It won't last, but it's worth prolonging. Don't you know a good thing when you've got it? Hell, of course you don't. What a sweetheart! You should live where *they* make the laws. But this one won't last; it's a shorty. You've got to chase for it, or the stupes will catch on. That'll be a hassel, believe me."

There was a feeble sound of

applause. Brest listened, wondering.

"All right," said the young man who had screamed. "Where'd he get to, anyhow? You and your plays to the gallery!"

"Around the corner flapping his ears, or I miss my guess. He's a sturdy boy. Let's go."

Sweating ice, Brest ran.

Despite the uncertainty of his knees, he ran with fair confidence. His walking had settled him a little, but it had kept up his wind and his patience. Besides, he knew that he was in a hurry and did not put more energy into bouncing up and down than into going forward. He ran on his toes and for stride.

But when he looked over his shoulder, he saw the young men — there were four of them now, three of them absolutely alike, the fourth chubby and comical — flying down the broad, deserted street with huge zigzag bounds that covered at least ten feet each. Brest had once seen a deer or some such animal run like that, but never a human being. He estimated that he was making about a nine-foot stride and the advantage the young men had was partly lost through the eccentricity of their leaps. His stride-rate was a fraction faster than theirs. He looked back again.

The chubby young man took the lead, striking cement and

sailing with an effortlessness that was not grace, but something to which grace was irrelevant, like the skipping of a flat stone on water. Ahead, the street gleamed with the merciless clarity of early dawn. Several of the flat-faced white buildings had thin gutters of sunlight along their parapets. Brest found himself wondering why the sun should be rising on the right, not the left. He realized that he had no idea which way was East anyhow. Also, it was too soon; the ride in the runaway car had lasted forever, but not all night.

No people on the street, no fronts to the shops — if they were shops — no cross-streets or alleyways. Could it be that the roadway itself, despite its broadness, was really an alley and that the buildings had their backs to him? Still, most buildings have back entrances. These had none. One white concrete façade had a small window in it, two or three stories up. As he drew abreast of it, he opened his mouth to shout, though he had no idea what he would say — "Help!", perhaps — for the window had a figure in it, a woman leaning on her palms looking blindly out into the sun.

Before he could make a sound, however, the woman's right hand dropped away from her chin and dipped below the level of the sill. It came up again with some small

object, which it hurled with blurring speed squarely at Brest's head. He ducked, and it missed him, but he heard it singing as it went by. He was sure that it would have brained him, and had been intended for nothing else.

YET THE WOMAN, a young woman in a dun-colored, no-style robe, had never looked at him. It had been as if the hand had sought and flung its missile automatically — as if, and this to a man unused to being stoned by young women was possible, it were the law in this city that a running man must be stoned.

But a message, now? He twisted to look back, but the object had been a stone and nothing else. At the same time Brest saw that his pursuers had halved the interval. Now he could see their expressions: they were all smiling, quietly, the kind of smile that young noblemen wear in noble old oil-paintings, and they did not seem to be breathing. Brest's own lungs were twin sacs of acid. He faced front desperately.

The street began to curve gradually. As he went around the broad sweep, the buildings were discontinued without notice. He saw, across an impressive and treeless public square, the chimney of the power plant. It was so close at hand that he was afraid to look up; he would surely have

fallen down. He turned toward it and ran harder. It seemed hardly likely that there was any safety in the place, but it was at least familiar, he had seen it before. His guess that it was a power plant gave it a meaning where all other meaning was lacking.

It was hard to tell how close he was, because he had no idea of how high the chimney actually was. For all he knew, it was big enough to be like a mountain, which looks changelessly near for a long time before it is ready to fall upon the traveler. No, it was not so distant; he could see the bricks in its base.

Immediately behind his back, he could head the light impacts of his hunters' feet as they bounded in his spoor. While he listened, the sound changed to an even lighter trotting, and one by one all four of the young men pulled up alongside him, moving easily, matching his own steps. They did not speak to him, nor attempt to seize him.

All five sped abreast. With difficulty, because he had already resigned himself to running forever, he slowed down, scuffing his soles against the flags, and stopped. In the silence his lungs whooped raucously, r ling for rest and air. The four young men scattered and came back, posting themselves at the compass-points, and looked at him. They were all

smiling beneficently still, but their eyes were smoke.

Brest waited until he was breathing at a reasonable rate, realizing that he could do nothing about his heart. Then he said, "I don't know what your game is. You won't tell me. But the first one of you that takes a step my way —"

He stopped; he had no reserves left. But at once a fresh wave of terror passed through his guts, and left him something he could use. It was black, bare and cruel: a knowledge of teeth and fingernails, and of the vulnerability of these men's pretty faces. The epiphany made him smile, and the feeling of his mouth-muscles drawing out his lips was pleasantly nauseating.

The four young men seemed to see it. They stopped smiling their own smiles and moved, each one taking one step backward. They said nothing. Brest kept his head swiveling gently, in order to see all of them. The chimney towered. He said: "What do you want?" The buildings bounding the square echoed every word solemnly.

There was no answer. They watched him. They had the advantage, as they surely knew. An attack of his own was being forced upon him — but he had done nothing to provoke their enmity, except for the collision,

which had not been his fault. That semblance of guiltlessness was worth defending.

"Are you going to stand there forever?" he said hoarsely. "If you want something, open up and say so. I've done no harm!"

One of the slender young men smiled again and Brest jerked toward him, every cell quivering with alertness. During the same motion the young man at the next compass-point stepped and drop-kicked, with superb control, directly into Brest's groin. The public square exploded, he fell, fighting only to scream, and eight knees pinned him neatly to the flagstones.

III

THE four young men stood on the left side of the room, with the chubby one at the end of the line, and Brest stood on the right, the sweat stinging his eyes and his kidneys burning. At the big scarred desk between them there was a man who looked with tired hatred on all of them and wiped a bald head.

After a while he said, in a dry, almost soundless voice like finger-taps on cork: "The claim."

"Theft, sir," one of the young men said.

"What of?"

"A car, sir," the young man said silkily. The judge turned to look

at Brest again with bored, disinterested eyes.

"Did you steal a car?"

"No," Brest said, with a forcefulness he could hardly have anticipated even had he not felt sick and full of pain.

"No, what?"

"No, I didn't steal a car," Brest said, his indignation growing with every breath. "If you want me to say 'sir' to you, you'll have to tell me why. I don't know who you are, or where I am, or by what right these nances drag me in here. I'm a citizen and I'm —"

There had been a stir among the young men; the judge stared at them and then back at Brest.

"Be quiet," he said. "You have no rights here; you're reported to me as a thief. You say you didn't steal the car."

"No, I didn't."

"Is the car your car?"

"No," Brest admitted readily enough. "The people who own it abandoned it, and I couldn't find them. I thought I'd drive it to the nearest city and turn it over to the police."

"At way over the limit," the chubby man said pleasantly. "He hit our car and knocked it to bits."

"I'll ask you to testify when I need you," the judge said, without turning. "Were you, in fact, speeding, Mr. —"

"Brest," Brest said. "John Brest. I was making about sixty. It was

raining and I was in a hurry. It didn't seem like much of a speed — the car was old, and —"

"Much of a speed!" the chubby man said. "Sixty's a fair speed, I'd say. And those Daimlers can be cranked up to a hundred without much difficulty."

The judge looked at Brest, as if waiting. "I wasn't making anything like a hundred," he responded stiffly. "The car couldn't have taken it."

The judge opened his dry mouth, but Brest never heard what came from between the shrunken colorless lips. In the bright morning light there was a long burst of thunder, with a sharp edge to it, more like an artillery bombardment than a storm. As the sound finally died, Brest heard the chubby man's enameled voice:

"— so decrepit to me. You talk as if it had been about to fall apart under you. How could you be so familiar with a stolen car, anyhow?"

Somewhere an electric organ played an ominous gliss. The judge cried out like a demented hen; "CUT! CUT! CUT! CUT!"

THE chubby man stepped out of line and struck an attitude and waved his nancy fingers, "Oh, you're a thin figure of a thief!"

There was a confused hubbub among the four young men, and

the judge rose to his feet, his mouth making a vicious square for a moment. Brest could not hear what the judge was saying. He could not hear what anyone was saying. The sense of having lived through these moments before had gripped him in a new paralysis, worse than his first sight of the foreign car.

His hearing returned.

The judge was saying: "Take it from ' . . . anything to say, Mr. Brest?' "

Brest started and swallowed. "I didn't steal the car," he said. "I can see that nobody here is going to believe a word I say. I was taking the car to the police, so its owners could be located. I got lost. The car was hard to control, and I hit somebody before I even saw them . . . That's all."

The judge sighed, and at the sound, the four young men leaned forward slightly. "Ignorance of the law . . ." the judge said, looking up at the ceiling. "Do you press the claim?"

"Certainly," snapped one of the slim young men. "He's as guilty an innocent as I've ever defended."

"Perhaps so. This time, nevertheless, I'm not going to free the man."

"I object," the chubby young man said coldly. "For the record."

"When was anything ever said

off the record? Take Mr. Brest to the Policy Chambers. Maybe they'll give him over to you there. It's a foregone conclusion, I suppose; but I won't. Clear out."

Brest said, astonished, "Is this what you call a fair trial?"

"Trial?" the judge said. "Who said you were on trial? You're fair game here, Mr. Brest; you're lucky that you broke a law at all, or you'd have been condemned quite a while back. Your runaway car saved you, for a while, anyhow. These gentlemen here have made a good case for you. They've shown, insofar as it can be shown, that you have a real status as a criminal — though actually they meant to show nothing more than that you're suspect, which is something else again. That status, thanks to my ruling, will keep you unharmed much longer than mere innocence. If Policy takes any interest in you, you may even be jailed. You'll learn to pray for that, I promise you."

"I'd rather go home," Brest said.

The judge smiled as if he were about to throw up and said, "Will you get out?"

"We'll see," the chubby man said. "We'll see. Come along, you."

It took Brest a moment to understand that the order was meant for him. The four young men took him gently, tenderly, by

the elbows and shoulders. The judge continued to stare at the far high corner of the room, as if he had been turned to marble in the white sunlight some time back.

IV

THE place where the young men marched him was so obviously a broadcasting station that there was no connecting it with any governmental function. Past every open door were banks of tubes and control boards, or little knots of actors raving silently under glass. There had also been a theater, with fans of light from baby spots, all amber, and people screaming, screaming; during the next leg of his journey his head had whooped with that sound. The sign on the stage had said:

LAUGHTER

The young men did not speak to him, but they did not forbid him his hasty glances into the studios and equipment-nests. He stopped a moment where there was a multitude of beautiful women, all expensively clothed with high fashion figures beneath the drapes, and the faces of bisque china dolls. Their glass

eyes met his without recognition that they were alive, even that he was alive.

"Baloney," said Brest.

Two of the young men hit him simultaneously, one fist per ear. He stumbled and the other two yanked him erect. He was willing to regret the comment, but he still did not feel intimidated; he would say what he damn pleased, and once he saw someone in authority they'd hear him talk, plenty.

They arrived at lavishly furnished rooms studded with television screens. Here the air was especially mild and grateful to Brest's grime-ground skin. The women were more expensive, lovely and repellent than ever, the couches and carpets deeper, the modulations of polite talk around him gentler and emptier. And the fright more intense.

No one really looked at the screens. The little human figures went through motions like some subdued form of dancing, or as if some one had just set the clockwork going again after a long stasis.

The four young men slowed in indecision, and muttered among themselves. Their voices rose almost to the point where Brest could hear what they were saying. They thrust him at once into a blue velvet armchair and turned their backs. Shivering, he looked

with cynical hopelessness for an out.

He saw, several, all marked EXIT in illuminated smoky red. The four young men turned and looked at him.

Then they turned away again.

It took nothing more to convince Brest that he was not going to run, that running was the last thing he wanted to do. So they wanted him to run, did they? All right then, hell would freeze over before he'd take a step.

One of the expensive women came up quietly from behind the chair and sat down upon its arm. When Brest looked up, she bent, smiling, and touched his shirt pocket, with two fingertips which burned like dry ice. He wanted to throw the hand off, but he was afraid to touch it. He tried to shrink into the farthest corner of the cushions.

The woman smiled again and took her hand away to adjust her skirt. When he made no further move, she arose and went away, walking with the profound grace of murder for its own sake, like a half-grown leopard.

Brest cradled his frozen ribs in both hands and watched her go. Nothing in his experience could match that stab of demanding coldness.

The young men went on arguing. Brest's frozen breast warmed gradually and painfully, and after

a while he noticed that there was a thin rill of cold moving over his chest, as if the damaged breast were secreting a milk, or bleeding. He touched his shirt tentatively. It was damp, but he was afraid to explore further — any noticeable movement would surely be rewarded.

BUT nothing happened. The young men's argument went on and on like the life stories of drunks. Cupping his frost-bitten heart with newly automatic caution, Brest put his head back against the velvet and gave the nearest screen his attention.

A psychologist was interviewing a child novelist. The child looked as though it had been costumed for a Dickens film, and the psychologist was as bearded as the experts who testify for mouthwash ads.

They were exploring the situation which might have led to the writing of the novel. Something called a "lodge" played a big part in the story, and it seemed that the child, in order to help himself visualize the place, had built with his own hands a full-sized replica of the "lodge." It seemed an unlikely proposition, for the child did not look to be more than nine years old.

The screen was showing, now, what the model lodge looked like. It was a low, disorderly

structure, set in a patently fake forest.

"And the High Hunter?" the psychologist's voice was saying, while the camera prowled about the lodge, exposing wings set on at random, and the crude-hewn ends of logs. "I would suggest that your father-image may have religious significance as well; do you agree?"

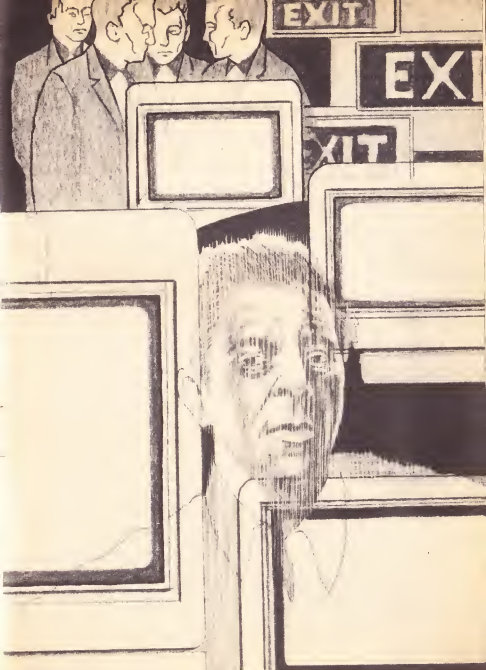
"I think it does," the child's voice said. "I saw the High Hunter as a — a spirit that kept an eye on everything that happened, and was sometimes cruel without wanting to be or not wanting to. An opposite for the Clown, who is cruel just to be cruel."

While they spoke, two figures walked across the screen: one a gigantic stony man bound in leaves; the other a squat, red-nosed creature, dressed in red, who reminded Brest simultaneously of — was it St. Nick and W. C. Fields? Of the two, he rather preferred the Clown — whom he knew he had seen somewhere before.

The apocryphal stalkers faded and the child and the psychologist faced each other again.

"Ah, the Clown. You will excuse me —" a fatherly smile — "if I say that the Clown seems out of true with the rest of the book. Cruel to be cruel, you say. A symbol of evil, then?"

The child stirred and showed



its first sign of discomfiture. "No, sir, that's not what I meant. It's — well, the High Hunter isn't human. The Clown is."

"He is? Even with his magics and all the rest?"

"Don't forget he's the only human in the book, so naturally he has magics. I don't think — well, look. The High Hunter is cruel because he *has* to be —"

"Out of principle?"

"Yes, sir. That's right. And the Clown is only cruel because he enjoys it. You know that about the Clown; you expect it. You understand that that's the way he is, and he's not a bad fellow in most other ways. But with the High Hunter, you never know. He's cruel out of principle, that's just it —"

THE child was obviously warming up to his subject. "For one thing," he said, "he has thousands of wards, and he has to take care of them all, all the time. One of the Hunted — the Mouse, say — may have to be killed by the Owl so that the Trout can escape the Otter. How would the Mouse know that? And would he like it any better if he *did* know it? He's more important to himself than the Trout. You can't ever know the kind of good the High Hunter is after. And so he's the only one who can be satisfied with it. The Hunted who have been good will

have their skins nailed on the walls of the Lodge. The Hunted who haven't been good will have their skins nailed on the walls of the Lodge. There *is* a difference, but how can the Hunted see it?"

"But what about the Clown?"

"Well, the Clown is cruel for pleasure. He would like all the Hunted to survive the Hunt, so they can be hunted again. He magics and does favors and tries to be a good fellow because he himself isn't ever hunted, which makes him look like he *must* be a Hunter. The Clown does hunt, of course, but he hunts only a certain kind of pain. He doesn't kill, and he doesn't create, either. In that way, he's human. But the High Hunter —"

And a lot more. Brest cupped his aching heart, and began to be aware how tired he was, and hungry. And guilty; away out on the edges of his failing consciousness, he felt that he should be doing something before something happened for which he would be blamed. He was almost asleep when a sharp finger made a glissando over his collapsed ribcage.

"Hey, sissy!"

The four young men, unsmiling, stood over him, waiting tensely for his response to be delayed further, perhaps long enough to herd him with a blow.

"Get up, sweetheart."

Brest got up, dizzily. The sound

of the young men's voices filled him with sick fury. He said, "In your eye, Junior."

The fight was short, but he loved every second of it. He felt each blow as a compliment and a vindication, and he fouled with aseptic joy. All four of them tumbled with him in a stunning hailstorm of knuckles and shoes on the yielding, bristly carpet. Brest caught one throat against the heel of his hand, and when the rest hauled him battered and twitching away, he saw the body remain, with darkening arterial foam soaking into the nap, silent, motionless and beautiful.

While his muscles shivered and his stomach buckled inside his belly, the opposite walls of his skull rang with killing. That clapper could not be tied. Brest had killed; he had given an account of himself.

It seemed undignified that his own aching body should be dragging its feet.

V

THE young men released his arms with abrupt unanimity and he staggered, bringing up against the Lodge itself, startlingly erected in the center of the square before the chimney. No trees; just as he had thought, the background had been faked. Or this Lodge was a copy. Either

way, it was useless to question — but could he somehow flail his way into the rheumless glance of the camera and scream to the unknown audience for help?

A kind of cloud where his memory had been kept him from it, not any fear of the young men: this huge solid station had never broadcast so much as a racetrack bulletin in the world where he had lived up to now. There was no way of knowing if the broadcasts had an audience at all, really.

The Lodge door opened, as a bank of lights flared amber at the base of the tower. It was toward the lights his pursuers and captors were staring. Brest staggered forward and through the opening. The door closed silently behind him.

There was a giant fireplace — impossible to believe the ring-letted child had lifted or laid that fieldstone! — and piled helter-skelter a miscellany of items easily ascribed to a nine-year-old's collecting instinct. Bags, boxes, a tandem bicycle, broken toys and carpenter's tools, and food. Brest palmed a nibbled cinnamon bun and dispatched it in two bites. There was a sink, too, its faucet dripping steadily on an open and remarkably complete chemistry set. Brest put out a trembling hand to extract a small beaker from the soggy box. He

filled it with water and sipped it thirstily, so fast that a dribble ran down his chin and wetted his front.

There was a polite knock. "Hey, sissy!"

Brest snatched up the nearest item in the rubble — an open, three-quarters full sack of flour. Enough had spilled so that there was slack at the neck of the bag and he could swing it like a black-jack. He put one hand on the doorknob and faltered, "What? What do you want?"

"If you're quite done, doll, *Hosmin's* ready. Let's get it rolling, shall we?" The speaker shoved the door open and reached in, his foot braced on the doorsill as if he dared not cross it. He caught Brest by the shoulder and yanked him into the square again.

There was a desk now between him and the huge smokestack, but it seemed to Brest that the sets were becoming more and more makeshift. No walls, no bookshelves, not even a clothes-tree; just a desk, and a man sitting behind it. The three young men shoved Brest to within respectful distance, and stood back.

Even close to, the man named Hosmin was small. His hair was gray, with a richly silver grayness, obviously a premature defection of heredity; and his face, too, suggested youth of a kind. It was narrow, womanishly delicate, with

straight lips, high cheekbones and a nose as straight as that of a Pharaoh. It had, however, no expression. The eyes — wonderful dark eyes, except for this—stared as if sightless; nor did they blink, ever. The hands upon the desk were off-white as linen, and bore uselessly long, thin fingers which danced constantly on the glass.

"This is John Brest," said the voice of the chubby young man. "Judge Trafaling remanded him to Policy, Mr. Hosmin."

"How do you do," Hosmin said. His voice was soft, almost blurry, as if he were trying not to think about something else. The mask-like stare did not shift. Making an aborted gesture with the flour sack which still hung from his clenched hand, Brest said. "How do you do," although he had meant to say something explosive and self-righteous.

"I'm surprised to see you. Have you committed a crime?"

BREST remembered Trafaling's warning that his offenses, accidental, imaginary or deliberate, might be his only protection. Even so, he could not admit to having 'committed' anything. The verb implied retribution. He said, "Everybody seems to think so. But I don't even know where I am."

"You're trembling. Sit down." Hosmin warped his gaze beyond

the chubby one. "Is this only a request for a ruling? You are not expected to bring the game here. You've mistreated him?"

"No and yes. He wrecked our car and resisted arrest. We had to manhandle him a little. Later he attacked us and we think he's killed one of us. Naturally we had to act accordingly."

"Naturally," Hosmin said. He lit a cigarette and pulled its coal down nearly to his lips in a single concentrated drag that made Brest's own lungs ache. As Hosmin laid it in a brimming and smoldering ashtray, Brest now saw that the man was dusty with flocculent gray powder which made even his skin look granular. "But," said Hosmin, "you have not answered me."

There was a brief silence. Finally the young man said, "No."

Hosmin swiveled so that his attention was focused near Brest. "We have been unwilling to listen very closely to your story, Mr. Brest. I can see that you are disturbed. We have a difficult situation here, kept only delicately in balance, and our methods are arbitrary most of the time because we have no choice. Now tell me all about it."

The blurry, eminently reasonable voice commanded him absolutely. Numbly, Brest told everything, extruding the scalding words one and two at a time. Be-

hind him, the three young men sat on a curb, bunched, their backs turned, transferring a word syllable by syllable in muffled voices that only Brest could hear:

Tat. Tle. Tale . . . Tat. Tle. Tale.

"I think I did kill the tall one,"

Brest added. "I was trying to, anyhow. I don't know what kind of operation you've got here — I can see that you make your own laws — but by my lights I was treated unjustly for something that wasn't my fault. That makes us even. All I want to do is go home. If I'm in your way here, all you have to do is show me how to get out of it."

"Well, Mr. Brest," Hosmin said, "you are not in our way, as you put it. And as a matter of fact you are not our first visitor. These violent people arrive, now and then it cannot be helped, they bring with them their own kinds of self-righteousness. Privately, Mr. Brest, privately I commend your killing. I had not thought it possible; I am interested that it is, but the wages of sin — with luck; do you understand me? — are written down in double columns here, too. To release you is unthinkable, there is no precedent for that."

BREST had had no hope to lose, but he said stubbornly, "Why?"

"Because you would suffer in-

credibly," Hosmin said. "Judge Trafling remanded you because you have status. Were I to turn you loose, or were you to attempt to escape, that status would then vanish, and you would become the object of what we call a chase sequence, a live doll to be filmed and dubbed later into some program which we may or may not broadcast. It would never end. We never stop chases, it is not economical. The subjects are chosen by lot when they reach technical obsolescence in the kind of operation we conduct here. To sentence a human being to a chase would be unthinkable."

"I don't understand what the hell you're talking about," Brest said. "Look. You seem to be the big boss here. Is that right?"

"Well," said Hosmin, "no. Or do you mean within this area? Of course, my orders are final within this operation, which is, indeed, quite extensive. But this is only a communications enterprise, and does not make overall policy. That comes down from, ah, upstairs. We transmit in accordance with the decisions of others, which establish beforehand what should and should not be transmitted. About that I have no say whatsoever."

"That's not what I mean. You run this part of it. Why can't you just order me back to where I came from? I live in —"

"I know where you live," Hosmin said. "You do not. You know nothing but a name. Would you be able to tell me how you would find where you lived if you were freed — and freed also of the penalties we have for freedom — at this moment?"

"Naturally I can't answer that. Are you pretending that you can't?"

"No," Hosmin said. "We have card files, of course, on that kind of information. My point is that the information concerns fictions. You cannot go back. You are now years away from your set, in any event. Every second takes you farther, every step many years farther away. I can do nothing for you now but order that you die. In your case it will be a little premature and nothing more. To preserve your life from this point on would be an impossible cruelty."

Brest hunched down into the chair. He had given up understanding long ago. He said, with a bitter stubbornness, "I want to live. I want to go home."

"You cannot," Hosmin said in a low colorless voice. "You have left your home. It was an illusion, which, somehow, you saw through; we cannot now return you to it. It is impossible. Not illegal, or unsuitable, or immoral: physically impossible. As for living, I could not be so unjust. I

must proceed as inevitably I proceed, without consent or indeed any request for your consent."

A faint buzzing interrupted Hosmin. The mask remained as if by necessity rigid and unsurprised. Only Brest was startled when Hosmin said, "Hosmin here."

The air quivered. There was no other voice; only a sort of itchy electricity.

When it stopped, Hosmin said, "I am often wrong. It appears that you will live. Don't sit forward, Mr. Brest. I have tried to tell you that the life you have requested is an eternity in boiling oil. Now that I have been told, in effect, who you are — my dear and only friend —"

"I don't —"

BREST stopped. The suddenly beautiful voice had spoken that phrase with so sudden a warmth and unmistakable bottomless shallow cardiac-respiratory shuddering happiness that Brest's own diaphragm leaped and stopped. The masked eyes made coals; what was it, what was happening? He saw the trembling fingers snub the cigarette, and was unable to move or feel. What? He felt intolerably lonely. He had been condemned, and yet was suddenly the object of some intimate and unmistakable king-making which made him tremble.

"Yes?"

"I —"

"Wait. I was speaking. I repeat nothing. But escape is, after all, possible. I ask you to request death."

"Instead?"

Hosmin sat, motionless except for the slight never-ending telegraphy of his hands, while behind him on a sudden monitor colored shadows went through their subdued ritual. The entire set was silent. Brest, convinced that the world had been cut adrift upon his question, was too frozen even to tremble. But then there was unmistakably boots-and-over-shoes music, a long-drawn sigh of many distant people and the sliding of many hurried feet. Slurred steps came up behind Brest and died ostentatiously, as if waiting to be buried. Hosmin raised the burden of his hooded eyes to Brest's.

"Sir," someone behind Brest urgently said. "There's something wrong; a scramble in the tapes, or bad editing: something's being dubbed in under the board."

Hosmin turned in his chair, which turned with him, and the thing squealed with a long and unbearable torture. The whole hollow square squealed back, unalive and protesting. Hosmin was looking at the screen, and Brest tried to look too.

It was the chimney, and it was

pulsing too fast. It looked as though it were demented.

"We're trying to kill it," that breathless voice said.

Hosmin snapped, "You can't kill it, from here or anywhere else. Send down for a new script."

The pressure of someone-behind-Brest let up without an identifiable sound, and the remote camera which was scanning the chimney soared until the public square had become included; the chimney, steaming away into a corner of the screen, was now in the foreground and not the center of interest. It could be seen that it was built of yellow bricks and had staples driven into it. A man came running —

ACROSS the empty square the man came running.

He ran too fast. There was a river of black figures pouring out after him. Far behind Brest there was a composite sigh: "A chase!" The blurred man darted across the square, his legs twinkling, while the black river divided into wavefronts and made to surround him. The man twisted, darted, dodged into the inevitable cul-de-sac, and the crowd surged in after him.

"Sound!" Hosmin cried.

Immediately it came through, high and shrill and terrifying. Brest, like a bubble, having fought its oily way to the surface, had

had enough, and popped through the tension holding him, freeing himself into flight.

He crossed the square, not hearing any pursuit, not looking to see if it by now was him they flowed upon, and hurled himself at the yellow brick wall, straight up, lunging staple by staple toward the smoky mouthpiece. There was a crowd shout behind him: "An escape!"

Tall on its flared rim, swaying in the smoke, he risked looking down, peering awkwardly past the flour sack still clutched in his hand. He heard the mob roar, thin and eerie as the high whooping of terns, and saw the first figures swarming up the base of the chimney. He sobbed once, "Coming, Mother," and flung the sack over the lip and into the pulsing chimney. He flung his arms wide, shouted his defiant acquiescence to the High Hunter, and fell headlong toward the peopled square.

Inside, the stack temperature licked the wrapping off the floury powder as he fell and fell, and he heard the beginnings of the explosion so that it was no surprise when the great chimney erupted and fell with him. It crumbled at the base and came down quite majestically, remaining almost at the vertical throughout. The last third toppled and hit the ground all at once. Bang and bang. Brest bounced to his or

somebody's feet, nodding and smiling, although the brick dust obscured every thing and every body. The band played *Billboard*. Amid first and last things he could hear the Machine, thrumming, thrumming, and reached out blindly and painfully to open the door.

In the clearer air inside, he saw the Clown at the wheel, but as he slid onto the yielding cushion there was no one there but himself. He locked the door, the secret and sacramental door. He reached behind him for the blanket, which was there, and shook it out, grabbing for the thermos. The cap was loose this time and screwed off, easy in his fingers. He smelled the bitter milky odor, shook out two white drops, and laid it deeply safe back in the blanket. He released the brake, clutching and shifting this time with practiced ease.

His crowd seethed beyond the door, and through the windows he could just make out the smiling flower-faces of girls, applauding his aplomb, admiring his —

Escape.

He smoothed his red trousers over his stocky muscled legs, settled the red jacket over his heavied torso, explored his face with one sure hand for the surely putty nose. The other skin, already in the obliquity of justice, was on the Lodge again, all shed tatters until another time.

All the lights turned green.

The giggling girls waved a promise and withdrew, and Brest, knowing the car could take it, started off in second with a roar. Music. It would be his custom as far as he could foresee to ride long distances every Funday, and this Funday was unlike any other. Applause.

— JAMES & VIRGINIA BLISH

★ ★ ★ ★ ★
FORECAST

In August we have another complete short novel, and one of the finest science-fiction stories that has lately crossed our desk. The time is the far future; the place a star cluster, very far from Earth; the people Earthmen . . . and others. The author is Jack Vance, and the name of the story is **THE DRAGON MASTERS**.

By WALLACE WEST Illustrated by RUVIDICH


DAWNINGSBURGH

A lean wind wails through the age-old
avenues of Dawningsburgh.

Mornings, it brings sand from surrounding hills and scrubs
at fresh paint, neon signs endlessly
proclaiming the city's synthetic name and street markers
in seven languages.

At sunrise it prepares the dunes for footprints of
scurrying guided tourists.

When icy night clamps down and the intruders
scamper to their hotels,
the wind howls as it flings after them a day's collection
of paper cups,
bottle caps and other picnic offal.



VACATION AT STORIED DAWNINGSBURGH

*The Cradle
of Martian Civilization*

RESTORED!
REPOPULATED!

TOUR SCARLET DESERTS
DINE ON EXOTIC FOODS
DANCE

COCKTAILS FREE

MAKE NEW FRIENDS

FARE ONLY \$5,000 UP
A FULL YEAR TO PAY

SEE YOUR TRAVEL AGENT OR YOUR
NEAREST TRANS-PLANETARY OFFICE NOW!

"LIARS! Cheats!" whimpered Betsy O'Reilly as she tossed on the lumpy bed of her third class room and recalled the sky poster that had hypnotized her.

Now, Betsy was disappointed and bored. Slim, pretty, freckled and pert, but ten years older than she wished, she had mortgaged her secretarial salary to engage once more in *The Eternal Quest*. And, as always, the quest was proving futile. Eligible bachelors shunned *Dawningsburgh* as they did other expensive tourist traps. The "new friends" she had made were either loudmouthed, hairy miners en route to or from the orichalcum diggings, or middle-aged couples on tragic second honeymoons, or self-styled emigre artists and novelists intent on cadging free meals and any other favors that lonely females might grant.

But maybe, Betsy tried to console herself, there was something real here; something glamorous that she could find and cling to during the long months back in New York when she would have to subsist on soups and salads in order to pay her debt to *Trans-Plan*. Mars had been great, the guides insisted. Once, they said, it had even colonized Atlantis. Perhaps, under the sham and away from those awful conducted tours, something was still left that

could make her feel a trifle less forlorn.

Betsy jumped out of bed and rummaged in a closet. There it was! A heated emergency garment equipped with plastic helmet, air pack and a searchlight. Required by law but seldom used, since tourists were told to stay off the 60° below zero streets at night.

Wriggling into the clumsy thing, she tested valves and switches as she had been instructed. Then she tiptoed out of her cubbyhole, down a corridor and into the hotel lobby.

The room clerk did not greet her with its usual trill. A robot, built on Earth as a "stand-in" for one of the vanished Martians, it had turned itself off when the last tourists left the dining room for their beds. But how lifelike it still looked, balancing on a perch behind the ornate plastic desk. And how human too, despite the obviously avian ancestry of the race it mimicked. What was it the guides had said about the way in which all intelligent life-forms so far discovered closely resembled one another? Why, even artificial Martians made the average human look drab and clumsy.

Betsy circled the overdecorated room like a shadow and pushed against the street door. Escaping air whistled through the crack.

"Miss!" squawked the clerk, triggered alive by the noise. "Don't . . ."

She was outside by then and running through the crazy half-light thrown by Mars's nearer and farther moons. Wind howled and tugged at her. Cold turned the breath from her helmet vent into snow.

WHEN no pursuit developed she stopped, gasping, before one of the open-air shops she had toured that afternoon. Five "Martians" bent stiffly over lathes and other machines, just where they had stopped after the last visitor departed. Hoarfrost mottled their leather harness, their downy red skins and the scars on their shoulders where atrophied wings had supposedly been amputated. No breath came from their nostrils. How cold and small they looked!

On impulse, she approached briskly.

"Yes, Miss?" The robot proprietor uninked as its automatic relays turned it on. It came forward with a grimace meant to represent a smile. "You're out very late. What may I show you?" Its voice was like a rusted bird song.

"Tell me," said she, "what the Martians really made here."

"Why, we design jewelry, Miss. I have some nice . . ."

"No, no!" she interrupted. "What did the real Martians make here? Surely not junk jewelry for tasteless tourists. Something beautiful, it must have been. Wind bells? Dreams? Snowflakes? Please tell me."

The robot twittered and flinched like a badly made toy.

"I d-do not understand," it ventured at last. "I am not programmed to answer such questions. Perhaps the guides can do so. Now may I show you . . ."

"Thank you, no." She touched the thing's cold, six-fingered hand with quick compassion. "But I'll ask the guides. Good night."

Back in the street, she began to retrace her tour of the afternoon. Here was what the guide had called a "typical home." This time she did not disturb the mother, father and one furry child with budding wings who clustered about what experts thought must have been a telepathic amplifier. It did not work any longer — none but the coarsest Martian machines did — yet the frost-rimed robots sat stiffly enchanted before it, as they would do until the sun rose and tourists resumed their endless tramp. (The day's last, she noted, had left an empty pop bottle in the mother's lap.)

Farther on she met a "policeman", resplendent in metal harness, leaning forlornly against an anachronistic lamppost. Some

late-prowling jokester had stuck a cigarette between its still lips.

Surely not policemen here? She looked up at the fairy towers that laced the stars. Surely not in this grave place. It must be one of those human touches introduced by Trans-Planetary to make tourists smile and feel superior. Nevertheless, she removed the cigarette and ground it under her heel.

After walking half a mile through the sand-whipped night, Betsy paused before a structure of translucent spires and flying buttresses where a library had once been housed. No robots were on duty there and no serious attempt had been made at restoration. No Champollion had appeared in the early days of exploration to decipher some Martian Rosetta stone, and by now the historical record had been hopelessly scrambled by souvenir hunters.

But that didn't matter really, they said. Outside of the tourist trade the only really valuable things on the dying planet were extensive deposits of orichalcum, an ore rich in pure radium. Thanks to the impartial mining monopoly established by Trans-Planetary twenty years ago, orichalcum supplied the nations of Earth with sinews of war which they had not yet dared use, and fuel for ships that were questing

greedily farther and farther out into the darkness of space.

So metal-paged books had long vanished from the library's stacks and its sand-strewn halls were littered with broken rolls of tape. How long would it be, she wondered as she passed on with a sigh, before the guides realized that even those mute tapes could be sold as souvenirs?

PHOBOS had set by now. She turned on the searchlight, checked her air tank — the gauge showed enough reserve for another hour—and defiantly opened the face plate of her helmet. The atmosphere was cold; cold as a naked blade. It had a heady tang and she stood taking in great gulps of it until a warning dizziness forced her to close the plate. The guides were wrong again! A human could learn to breathe this air!

Leaving the gutted library, Betsy breasted the wind as she ploughed through shifting dunes toward a structure shimmering on the other side of the plaza. This, the guides pattered, was a cathedral. When the place now called Dawningsburgh had been alive, they said, its inhabitants gathered at the shrine each evening to sip one ceremonial drink of precious water, shed two ceremonial tears for the days when Mars had been young and worship a flock of ata-

vistic winged princesses who performed ceremonial flights under a pressurized, transparent dome in the rays of the setting sun.

This showplace had, of course, been restored right down to its last perch, and had been equipped with a full complement of "worshippers." At the climax of each day's final guided tour, visitors jammed themselves into the nave, sipped cocktails, "ohed", "ahed" and even shed tears along with the robots as they gawked at mannequins flying above them on invisible wires in the best Peter Pan tradition.

Ducking under the electric eye that would have started a performance, Betsy tiptoed into the structure. It was quieter than any grave. Several hundred robots huddled there on their perches, drinks in hand, ready to go into their act. At the far end of the transept a soaring mural, gleaming phosphorescently, hinted at the lakes, seas and forests of Mars's prehistory. Under the dome a single flyer dangled, its plumes trailing.

For long minutes Betsy stood in the dimness, seeking to capture the mystery and wonder of this place. In ruins, it would have swept her with ecstasy, as had her moonlit view of the Parthenon. Restored and "repopulated," it made her sick and ashamed of her race . . . no, not of her race,

exactly, but of the few hucksters who debased its thirst for knowledge and beauty.

Then a bird started to sing!

A bird? On Mars? This must be a tape, triggered on somehow despite her care in avoiding the electric eye. Any moment now, the robots would begin their mindless worship.

She shuddered and turned to escape. But something held her. She crept instead, step by soundless step, toward the source of that exquisite music.

An almost naked male robot had materialized before the mural. It was singing, far better than any nightingale, its strange hands outstretched to the radiance.

Such notes could not . . . should not . . . spring from the throat of a machine. Heart in mouth, Betsy advanced with infinite care. By the mural's light she saw that the newcomer had no hoarfrost coating. And the moisture of its breath condensed and fell to the floor like a blessing. She reached out a small hand to touch its scarred shoulder, then jerked back.

The shoulder was warm!

"GREETINGS, girl," Betsy's brain whispered to her. "You're out late. Just let me finish this thing and we'll have a chat."

The music soared, uninterrupted, to a climax sparkling with

grace notes and glittering with chromatic trills.

"Now," fluted the creature, turning and fixing her with golden, freewheeling eyes, "what brings a tourist" (the word was a curse) "here at this hour?"

"L-love," she gulped, hardly knowing what she said. "I-I mean, I wanted to find out if anything real was left. And, well, I ran away from the hotel. They'll be coming after me, I suppose."

"Don't fret. Martians can play tricks with time. I'll return you to your room well before they get here."

"You — you're not just another, fancier, robot?"

"I'm alive enough." He bowed with a sweep that seemed to invest him with wings. "Pitaret Mura, at your service. A prince-ling of sorts. An iconoclast. And an atavist like you."

"There are others here?" Her eyes grew round.

"Most of the others have finished with this outgrown eyrie and are away on larger affairs. Only I return with a few friends once each year to sing of past glories and weep over present desecrations."

"Two ceremonial tears?" she asked with a return of bitterness. There was something in his attitude that she found disquieting.

"Many more than two. But . . ." he shrugged angrily, "I grow tired

of weeping. On this visit I plan to wipe out you little humans who foul the nest of my ancestors."

"How?" She gripped his arm, fear racing through her.

"Tomorrow all this junk —" he nodded his handsome head at the robots—"will have been replaced by real Martians . . . youngsters out for a lark with me. We'll tend shop, make jewelry and all that until I give a signal. Perhaps this shrine would be the best place. When it's crowded, just at sunset. Then we pounce!"

Mura ruffled himself up and sprang at her so convincingly that she shrieked.

"How juvenile!" she managed to laugh shakily.

"What did you say, human?" The Pitaret was taken aback by this unexpected thrust.

"I said your plan is childish!" She stamped her foot. "So you cut the throats of a few stupid people. Then Earth sends up cobalt bombs and blows this cradle of Martian civilization to smithereens. The others won't like that, even if they are occupied with larger affairs. You would be in real trouble."

"Hmmm!" He looked at her with new respect and a faint tinge of uncertainty. "But some punishment is justified. Even you can see that."

"Yes," she admitted, wrinkling her nose at him, now that the

worst was over. "This place is a horror. And we tourists are horrors too, for having let ourselves be taken in by it. But death isn't punishment, just an ending."

"I hadn't thought of it that way." Mura slipped an arm around her shoulders and looked down at her impishly. "You suggest a fitting punishment then."

HERE was the final test. If she could keep the hold that she had somehow gained over this immature superman, horrible things might be averted. Her thoughts raced in circles.

"Martians can play tricks with time?" she asked at last.

"Oh, yes. Time is like this mural. Let me show you: Aim your light at the left-hand corner of the picture. See the sun and its planets forming out of cosmic dust? Now move the beam toward the right. Slowly . . . Slowly! Notice how Martian oceans form and living things crawl out of them.

"Now continue. There you see the winged Martians with their cities that long have crumbled to dust. Next, water grows scarce and canals are built. Here all but a few of us have lost our wings.

"Here we colonize Earth . . . to our eternal regret. Finally, you see us abandon Mars rather than risk another test of strength with you pushing troglodytes."

"I-I don't understand," she whispered, strangely moved.

"That searchlight beam represents the living present. Where it shines, life pulses briefly on a vast mural that is painted across time, from its beginning to its end. Martians manipulate the light of the present as we please, living when we please, so long as we please."

"How dreadful . . . Wonderful, I mean." She gazed at him worshipfully. "And you can do this for humans too?"

"For short periods, yes. But stop fluttering your lovely eyelashes at me. Punished you are going to be. If you can suggest nothing better than my plan, I'll go back to it and take the consequences. Otherwise I'll be the laughing stock of my friends."

"And you couldn't stand that, could you, poor boy?" She patted his hand before he snatched it away. "How is this, then, for an alternative? Tonight, when I couldn't sleep, I got to thinking that there could be no more fitting punishment for tourists than to be forced to live, for years and years, in a plush hotel at Atlantic City, Las Vegas . . . or Dawningsburgh. Think how miserable they would become if they had to take the same tours over and over with the same guides; stuff themselves on the same meals; dance to the same orchestras with the same new friends. Can you hold your

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time spotlight still here for, say, ten years?"

"Of course," Mura crowed as he swept her into his downy arms and danced her about among the robot perches. "A wonderful idea. You're a genius. Even the others may come back, now, to watch humans squirm, yawn — and perhaps learn to respect their elders. How can I repay you?"

"LET ME GO back to New York," she said, feeling like a traitor.

"That wouldn't be fair. You're a tourist. You came here to prove to yourself that, as your Bible puts it, 'a living dog is better than a dead lion.' You must learn your lessons along with others."

"I suppose you're right." She felt cleaner now, even though the prospect of a decade at Dawningsburgh, with The Quest unfinished, appalled her. To be forty-one and still single when she returned to Earth! Two tears trickled down her freckled nose.

"That's better," the Pitaret sang happily. "You're already beginning to understand the meaning of our ancient ceremonial. Give me ten years and I'll make a real Martian of you!"

Outside, the lean wind echoed his glee as it tossed a hatful of Good Humor sticks and sand-coated lollipops against the cathedral wall. — WALLACE WEST

**We plumb again the Origins
of Almost Everything — and
meet the great philosopher
who first learned Nothing!**

By EDWARD WELLEN

ORIGINS OF GALACTIC PHILOSOPHY

ON 300 day, 4004 U.E., the Radiation Disposal Corporation spacetug *Oebouk*, Sirius I registry, was in deep space jettisoning radioactive wastes. It was engaging in the questionable practice of dumping the stuff in packets at meaningful intervals, Captain Goshall Rovwymu — as he tells us in his unblushing memoirs *My Nine Lives* — having accepted an under-the-table proposition.

Illustrated by IVIE



These faint chalkings on the blackboard of nothingness were to spell out in dots of computer morse a subliminal message urging prospects to buy Shuvh Transmutating Metal Polish. "I wouldn't give a plugged dysaub for a shipload of Shuvh," the captain tells us. But this was his first dealing with the mighty Ad Astra Agency, which handled the Shuvh account, and he meant to turn in a neat job.

The craft was parsecs out in reaches where the pull of stars would not blur the message. But when Goshall took off his captain cap and put on his astro-gator cap he spotted at once that the line of message was bellying out of true. He traced the influence to an asteroid where no asteroid should be. He put on his captain cap and ordered the launch out to investigate.

The launch sniffed around and determined that under the encrusting and pitting the object was no asteroid but a vast ship. The launch matched the spin of the ship, clanged airlock to airlock, and knocked. The tapping evoked no response. Sensing Captain Goshall on remote breathing down its eye, the launch forced the spaceship's lock.

It poked its scanner down a dusty passage. It found no sign of sentient life, but found in its sampling of hydroponics-fed air

no danger to life. Capt. Goshall thought salvage and his mind teemed with astronomical figures. He recalled the launch, put on his boarding party cap, strapped on his freezer and sent himself to the derelict.

The air seemed moldy but he let his chest inflate. Now and again he had to back through a creeping of hydroponics jungle but deck after deck was jammed full of perfectly sound equipment. Out-of-date, of course, but there were a myriad primitive planets to unload it on. After a particularly ferocious snarl of jungle he was glad to come on a smile of clearing. A park, he guessed, for beside a bench-rimmed, dust-covered pool stood what he saw as a surrealistic statue. He laughed. "I wonder what you stand for," he said, and switched on his non-wipe timestream tape to record his claim to the ship.

He froze.

He thought he had heard a voice saying, "I stand for the purpose of greeting you. That and nothing more."

The statue was moving squeakily. Not a statue but a robot.

GOSHALL'S hand shot casually to his freezer. If he had heard aright the robot knew lingua galactica. "Hello, there. I am—"

"Yes. I see you, therefore you are."

Capt. Goshall didn't like this talk from robots. "Where's your master?"

"Determinism is all about us."

Goshall glanced uneasily around. He looked more closely at the robot. There was no expression to read but the left eye seemed remarkably real. With a chill of insight Capt. Goshall had a vision of a knight in armor. "You mean there's someone inside you? I mean, you're inside that?"

The robot tapped itself, had a spell of coughing, then said, "In a material sense, this is me. I'm Lutil. I came into being — flesh-and-blood being — on Atik I. I'm one of the last surviving members of the SMP detachment."

Capt. Goshall introduced himself, then said, "What happened to the others?"

"Time. Come, I'll show you."

Lutil started down a spongy path. Capt. Goshall followed down a companionway.

Lutil indicated cubicles. "Observe. Here, in what we liked to term our 'logic-tight compartments,' we lived and contemplated, separately concentrating." He stopped suddenly; Capt. Goshall stopped and looked around, hand on freezer. "Or should I say 'concentrating separately?'" He got under way again. "We're

coming to the premises for female aides."

Capt. Goshall reached for his boarding party cap, to give it an elbow-brushing, and discovered that in his initial excitement, back aboard the *Oebouk*, he had forgotten to remove his astro-gator and captain caps. But they were moving past tenantless rooms. Another companionway brought them to a compartment containing a bulkhead-to-bulkhead computer.

"Observe."

They stood watching its crystals pulse feebly.

"Very nice," Capt. Goshall said at last, "but where are the other survivors?"

Lutil patted the computer. "This is the other survivor."

The crystals brightened. "Hello, Lutil. Say, I've hit on four identical bars in Verdi's *Otello*, a Dwenolhep commercial, and Gounod's *Romeo et Juliette*."

Lutil patted the computer. "Fine, fine." He touched Capt. Goshall's arm. When they were out of photoelectric shot Lutil said, "Poor thing. We tried musical therapy. Now all it does is that sort of business."

"Oh?"

"Yes, we asked too much of it. But it was no more than we asked of ourselves. To you it may seem vanity, but our aim was nothing less than to grasp the

universe whole. Is this my compartment?" They had returned to the cubicles and Lutil ushered Goshall into one and gestured him to a chair. "It makes no difference now. I was saying, we philosophers of the various worlds agreed on one thing — that different points of view led to different images of the structure of reality. We sought a unifying vision, hoping to obtain a functional view of reality. To accomplish collectively what we could not attain individually in the turbulence of life, we planned a Symposium on Metagalactic Philosophy. With backing from foundations we bought and equipped this spaceship and hired maintenance personnel. This was to be our ivory tower, a place where, away from violence and corruption, we could placidly deliberate. Beginning circa 2000 U. E., the SMP ship planet-hopped, gathering savants. I myself came aboard in 2085."

Lutil was pacing. Capt. Goshall saw that over the centuries Lutil had paced grooves of thought in the flooring. The span of years — 2085 to 4004 — suddenly struck him.

"How do you account for your senior-citizenship?"

"By the fact that it is not quite my own."

"You've lost me."

"I see you, albeit blurredly, so

I take that to be an idiom expressing perplexity."

"Yeah."

"Well, then, the others of the contingent knew me to be the last surviving adherent of the Observationist school. I maintained nothing can exist unless there's an observer to observe it. In spite of their disbelief, everyone was most kind to me. They did their utmost to prolong my existence, giving me first draw on the SMP's mechanatological prosthetics bank. As you see, I'm largely patchwork. I believe it was for my sake — to strengthen my belief — rather than as a self-preservative measure on their part that they did this. If so, it's sufficient reason to feel grateful that they haven't lived to learn I've grown zealproof, doctrine-proof, and ultimately almost—" he curtailed a cynical laugh — "proof-proof. Inwardly, captain, I am smiling bitterly."

"You were saying—"

"OH, yes. About the ingathering. It was not without misadventure. I am in mind of Ojuras, the renowned promulgator of Upspiraling Awareness. The SMP ship put in at Svâti I to pick up Ojuras. The registrar at first thought Ojuras was a no-show. She got no response when she called Ojuras's home. On an off-chance, she searched the ship

itself. In the hold, atop a heap of Ojuras's effects, a portly svâtii sat — amid the clangor and turmoil of servicing, loading and refueling — with eyes closed as in deep meditation. Smiling, the registrar trundled him bodily to the assigned cubicle.

"Falirj awakened from a dream of repast. Through the port he saw stars. He sprang to his feet. The door opened and a serving tray wheeled itself in and arranged itself temptingly. A lesser being, without stopping to think, might have opened his mouth to shout his identity; it should not be too late to shoot him home. Falirj opened his mouth to devour the meal. The registrar followed, hastily informed Falirj she wasn't the dessert, and asked if he were comfortable. Falirj was already nodding off. Pleased, the registrar tiptoed out and left the savant to his meditating.

"When next Falirj awakened a welcoming delegation was waiting on him. Falirj looked about at a wisp of beards — a field day for Occam's razor — and his heart failed him. He started to tell them he was not the person they thought him. Their head silenced him. Sat. Rang. A banquet table entered. Falirj found it useless — with his mouth full — to protest. They thought he was being modest. They pre-

sented him with the SMP insignia — glasses to wear pushed up on the brow. Speeches. When next he awakened he found himself alone.

"He shuddered to think what the effect would be on their feelings when they learned he wasn't the great Ojuras. His serving tray wheeled in. So it went. Now and again a savant had the wish to consult him on finer points of his forte. But the others looked daggers of the mind at any who would disturb the great Ojuras. And so, save for his own profound snoring, an almost tangible hush insulated Falirj.

"Some thought they saw what the great Ojuras was getting at. Ultimate Awareness. His very example was a teaching that sleep, instead of being a mere means of restoring vitality to the individual, was an end. 'Dreams' were the 'real' life. Whereas most mortals compromise their 'dreams' in order to meet the 'realities,' the indomitable Ojuras compromised 'reality' in order to meet his 'dream.' His strict observance of his discipline won many philosophers over to his doctrine, though none could excel him, by the time the ship stationed itself hereabouts.

"And when in fullness of time he went to his eternal dream his name carried glory, even after it came out that he was Falirj, a

porter. As it did when the ship received a plaintive message from the true Ojuras, who — concentrating on being aware, on being aware of being aware, on being aware of being aware of being aware . . . — had been unaware till too late that the ship had long since arrived and departed."

CAPT. Goshall stood up. Now that he knew the ship was not a derelict, ending all hope of salvage, there seemed no percentage in remaining aboard. "Speaking of going—"

"Ah, yes, captain. Dear old Falirj was not the first to go. That was the distinguished philosopher Oxnovomri, Intensional Entropist of Alcyone IV. How often I saw this parrotoid run screaming through the ship, terrified by the ultimate annihilation of space-time. At length it collapsed of exhaustion. But Oxnovomri did not die of exhaustion. While the parrotoid was recuperating the medical officer found a throbbing cyst on its person. The medical officer prepared to excise it. The cyst grew strangely calm, as though watching with detached interest its own impending doom. After the operation, the parrotoid resumed its running about with all its old vigor. It screamed the same warning, but it was not the same. And

then we learned philosopher Oxnovomri had been the cyst. It came of a parasitic line, each being essentially a wen on and using the vocal apparatus of its host parrotoid."

Capt. Goshall edged away.

Lutil took his arm. "Shall we stretch our legs? No, not that way, I don't want to set the poor computer off again. Oh, forgive me, you're no doubt impatient to hear what set it off in the first place. It's gestalt-oriented, you know, trained to discover similarities, analogies in masses of data, to correlate cycles, and the like. With its help we hoped to achieve our unifying vision.

"Each of us philosophers reduced his theory to holes punched in tape. The computer swallowed all this. We then fed it the basis theorem and the decomposition theorem for ideals of a cumulative field with ascending chain condition. We crowded around, watching the pulsing. Chill of anticipation. We knew the computer should be able to comprehend the universe as a single coherent function. We stared. We knew it had the answer. We asked it to tell us. It moved to answer. Then we saw it was mad, quite mad.

"After that, most of us resigned ourselves to the reality that in the last analysis the real is unrealizable. Oh, but not Czomec.

“CZOMEK of Anonymous I was the father of Fixed-Introspectionism. I can see him now, discoursing, turning his eye patches on his hearers. ‘Finite mind can’t cope with infinite universe? Can.’ Czomek believed the world of perception, the internal world of the mind, was not simply a correlate of the external world but was part of the external world. He believed any sampling of the universe would give insight into the essential nature of the whole. He believed it followed that his mind would reflect not merely subjectively but also objectively the reality of nature.

“And so Czomek turned his mind’s eye in upon itself. At last in fear and trembling he announced he could see the universe steady and see it whole. He would map it for us. We crowded around Czomek and watched while he traced his inner vision on 3D paper. Finally he let his pen drop and fell back faint.

“We stared, amazed. Was that what the continuum came to in the end? It had a spongy look. One likened it to moss. A closer look showed it to be replete with folds — seeming to give substance to ancient conjectures of time and/or space warps. Then one diffidently mentioned the thought it had much the aspect of a nerve-ganglion. And at that we

saw it steady and saw it whole. We saw it as the concatenation of Czomek’s own brain cells.”

“Whether or not it was in reaction to this, many turned to the quest of unreality. Camestres of Sol II loudly demanded that we condense the ship’s atmosphere to thick fog to give an air of unreality to the place. Wiser lungs prevailed.

“The problem remained. ‘Where does Truth lie?’ The cold light of reason should have helped to determine that. But, as the computer and Czomek both had shown, the cold light of reason was as the light of a dead star. My adherence to Observationism began to weaken. If the universe began to take on a new look at about that time perhaps it was not simply because I was seeing it with a new eye.

“At many a get-together over our cups we sought the solution, the animating principle, with such good fellowship and such careful and precise talk that we often thought we had found the answer. It would be later, when we listened soberly to the play-back of our discussion, that we would realize what we had taken for meaningful universals were drunken maunderings.”

LUTIL turned away, but not before Capt. Goshall saw the start of a tear at the right eye.



"Now I am not sure that we were not closer to the True Spirit. But at the time I agreed with the majority that reason must prevail. Among the measures we took to minimize the possibility of irrational thinking was that of putting up a shield against cosmic rays. This because of the assumption that their bombarding touched off random thoughts and actions. This had to overcome fierce opposition from Dwal Eglan of Beid I.

"Dwal nominally held to the meaningful maxim of the Ambiguist school. 'Nothing is meaningless.' None of the Ambiguists would or could give a straight answer as to its meaning. To me, it implies that any meaningless noise is potentially meaningful — just as weeds are plants whose virtues have not yet been discovered. I'm not sure whether Dwal himself took it as stating the rationality of the absurd or, contrariwise, the absurdity of the rational. At any rate, he appeared to believe that in an infinity of universes there must be a universe without purpose. And he seemed to have concluded that from an empirical point of view this was it. Ever since I had known Dwal, which was ever since he had come aboard, he had deliberately spoken gibberish. I inferred that he aimed at all costs to avoid meaning, that he hoped thereby

to come nearer apprehending this absurd bit of space-time.

"At first mention of the proposal to screen out the bombarding rays Dwal went around muttering his usual deliberate nonsense with extra emphasis. 'Uv-uzl-uzl!' As the proposal gained in favor his nonsense gained in fervor. 'Za-zeq-zeq! Ij-inz-inz!' You will forgive possible distortions in my rendering? As he strove never to repeat himself his was no mean feat. He must have known better than we the danger he ran of finding himself out of nonsense. But he muttered bravely, 'Tu-tyk-tyk! De-diu-diu!' And some of us wavered. The staunchest of us looked desperately for signs that Dwal was nearing the end, signs of logical rigor. But he had nonsense in reserve. 'Op-otf-otf!' It was his last trumpet-call. It was clear that if he spoke he would have to speak meaningfully. Frustration struck him speechless and his nay-saying had to manifest itself in glaring. That no doubt hastened his end. I'm sure it would've pleased him that owing to some malfunctioning of thrust the coffin-rocket headed his corpse toward an anti-matter galaxy."

THE clearing. They had come full circle. Goshall with a sigh forbore to protest as Lutil seated him beside the pool. Lutil

bent to pluck a butterwort, then had compunction and straightened stiffly.

"Oh, vanity, vanity. With your sigh, captain, you have expressed it admirably, beyond the power of words." He gazed into the pool. "Ah, yes. By this pool the Psychosocial philosopher Gurngev of Dhalim I spent years meditating on the best way of conducting one's life. For the better part of those years he never lost sight of his objective. He kept his thoughts moving in a virtuous circle. Then unrest beset him. Although he kept brushing the thought away it came back, nagging him that he had forgotten something vital that he should have remembered.

"One ship's day, for the exercise, he made for the stock room instead of dialing his want. Pigeonholes. Reigning categorists and dogmatists. Titanic Teutonic piling up of reference materials. He was lost. Then he saw Raie, the supply clerk, moving supply toward him through the stacks. He told her he was looking for categorical imperatives. Vivaciously Raie set about helping him hunt. After a vigorous but vain while he said, 'You do know what I mean?' Raie said, 'To be honest, I don't.' And she laughed gaily. 'Let's be honest, after all, shall we?' Shaken by he knew not what wind of emotion Gurngev grabbed

a microvolume at random, smiled his thanks, and returned here.

"He sat down to meditate. His thoughts strayed and he brought them back to the fold with difficulty. Abstractedly he smoothed his elliptical mustache. He found himself gazing into the pool. He saw with a shock how gray his hair had grown. That evening he proposed to Raie and she, loving impulsiveness, accepted. And so they affaired.

"They had seven charming girls. Indeed, all offspring aboard ship were females. When it was too late to test, the theory occurred to us that screening out cosmic rays might have engendered this state of affairs. In any case, this factor and the prevalence of platonic love were the major reasons for the dying out of SMP.

"Of course all was not platonic love. Of course all was not harmony. Of course there were disputes. I am smiling inwardly, captain, as one such comes to mind. In this corner was the Jimnosophist, Fresion of Chara III. His method of philosophizing was to contort his face and furrow his brow in imitation of thinking, on James's principle that emotion follows bodily change. In the other corner was the Biliarist, Dsulrul of Gomeisa II. Her method of philosophizing was to furrow her brow and contort her

face in outward expression of inward struggle.

"They clashed not on the issue of whether thought was a mode of emotional disturbance but on which came first, appearance or reality. When I attempted to bring this to their attention both turned on me and I desisted. Though their confrontations appeared extremely fierce the discussion between them never grew heated. Indeed, on the principle that hate is akin to love they set up housekeeping together.

"FROM Tegmine IX came another couple, though whether loving or hating I never knew, Uain and his mate Yemr. Projective Stoics, each watched to see if the other was failing to bear up under pain or pleasure. But never once did either's face give anything away. At the banquet celebrating their 59th matting anniversary each extolled the other in measured terms, for nothing had moved either — not fear, rage, jealousy, lust, revenge, love, hatred.

"It was a moving occasion but neither showed signs of emotion — till, proud of having stifled her feelings for so long, Yemr involuntarily gave a groan of pleasure. She clapped her hands to her mouth and her face teetered on the fulcrum of nose, disclosing that she wore a mask.

In putting his hands protectively over his face Uain unmasked himself. Having lost face, neither could bear to meet the other again.

"Now I am frowning sadly, captain, for I call to mind another contretemps which had truly serious consequences. A shocking event, terrible at the time and disturbing even to recall —"

"If you'd rather not—"

"It involved on the one hand Fwyslanwushstadalq of Pollux I. Owing to the pervasive luminosity of his home planet all substance there was without shadow. This gave rise to a sense of unsubstantiality. Fwyslanwushstadalq's Interstitch philosophy epitomized this world-view, I can sum up his philosophy by saying that he held all nets are as much complexes of nots as of knots. His doctrine called for at once countering a positive statement with its negative.

"And on the other hand it involved Radu of Nodus Secundus IX. At first meeting and for some time thereafter, old Fwyslanwushstadalq thought Radu was of a mind with him. The excessive libration of Radu's home planet induced a permanent wobbling in the inhabitants — not noticeable till they left the planet. When Radu came aboard, his way of shaking no and saying yes, and vice versa, at once

warmed Fwyslanwushstadalq to him.

"But this wobbling couldn't have been more misleading. Radu couldn't stand ambiguity; he was partial to the all-inclusive. Fwyslanwushstadalq would say, 'The obsolete absolute presupposes a fixed indeterminacy' — or something to that effect — and that would cause Radu to catch him up, saying, 'But now you're contradicting yourself.' And Fwyslanwushstadalq, thinking Radu was nodding approvingly, would say, 'I thank you.' And if Radu had not been wobbling he would have been trembling with fury.

"But once the venerable Fwyslanwushstadalq learned that every nod was part of an all-inclusive repudiating the fury was all his. The sage mustered his strength, took up a bust of Plato and, wielding it as a mace, came at Radu. Radu's wobbling frustrated Fwyslanwushstadalq, who sought to pepper Radu with blows but landed not one. Further hampering Fwyslanwushstadalq was the fact that his SMP insignia slipped down his brow and covered his eyes.

"**T**HE assault flailed on, but Radu was safe so long as he made no move. But when, through failure of nerve or through seeking to get in a gin-

gerly lick of his own, he made a move, the backswing of a blow Fwyslanwushstadalq had aimed at his own shadow clove Radu's skull. It quickly proved the end for both. As Fwyslanwushstadalq bent mourning over his dead foe, he too received a fatal blow. Radu had lashed out in tricky rigor mortis."

Lutil tenoned Capt. Goshall with an eye. "There's an important issue here. You're not to confuse Fwyslanwushstadalq's doctrine with the 180°-ism of Zvypalz, the pre-eminent Vectorist of Wasat III. Zvypalz, knowing his disciples would distort his teachings, taught the opposite of what he actually believed and wanted."

"No. I mean yes."

"Looking back, captain, I feel much as Spage must have felt. He was the supreme exponent of Retrogradism, you know. As he would say, 'A fly in amber can't.' That was his way of declaring that to comprehend the present, which in his view was a synthesis of past and future, it was necessary to wait till it was past.

"Retrogradism itself was an outgrowth of Quotidianism. As an antidote to giving way to a sense of crisis and foreboding the Quotidianists read the paper daily — but it was the paper of that day of a preceding year, all the crises of the year before hav-

ing resolved themselves one way or the other.

"Spage came aboard with microfiles of Dhalim I newspapers spanning the past ten years and with a mind blank to the happenings of those years. He began his studies. He rigidly refrained from peeking ahead. To back his won'tpower the tamperproof viewer would not advance faster than the regulation issue per day. So it went. Then tragedy threatened. You no doubt recall the disaster that befell Spage's home planet?"

"Uh—"

"So naturally no new issues would be forthcoming. We shrank from thought of telling Spage and equally from thought of letting him learn abruptly. Meanwhile the microfiles were running out, nearing the issue of the day Spage left home for the SMP ship. The supplement to bring him up to antedate did not and would not arrive.

"**W**HILE we were wondering what to do, the viewer, with its built-in dread of idleness, took it on itself to splice the end of the last issue to the beginning of the first. Those of us in the know held our breath, hoping Spage wouldn't jump on encountering the abrupt transition. He did jump — but for joy. The return of the good old days

confirmed his second-guessing that history ran in cycles.

"Oh, to think we dreamed of becoming the Platonic essence of Philosophy, the eternal Philosophy in heaven! Vanity." Lutil squeaked to an edge of the clearing and several steps through underbrush. He swept growth aside to uncover a port. He stared out, gazing thoughtfully at space-time and at his own image faintly imposed on it.

Capt. Goshall started. Not only no salvage here, but he now saw he had wastefully left the precious nonwipe timestream tape — on which he had meant to stake his claim to the derelict — running all along. He would have hurled his caps down and jumped on them, his way of taking it philosophically, if Lutil's thoughtful stance had not shamed him. Later Capt. Goshall was to splice this interview in his memoirs and so give our present-day philosophers to think. But at the moment his only thought was to make up for lost space-time. "Nice talking to you, but I've got to go." He made as if to return to the *Oebouk*.

Lutil coughed. "Er —" He rubbed a discolored metallic jaw awkwardly.

Capt. Goshall stopped. "Yes?"
"I wonder if you know where I can get some Shuvh."

—EDWARD WELLEN

By R. A. LAFFERTY

Illustrated by GAUGHAN

DREAM



HE was a morning type, so it was unusual that he should feel depressed in the morning. He tried to account for it, and could not.

He was a healthy man, so he ate a healthy breakfast. He was not too depressed for that. And he listened unconsciously to the dark girl with the musical voice. Often

she ate at Cahill's in the mornings with her girl friend.

Grape juice, pineapple juice, orange juice, apple juice . . . why did people look at him suspiciously just because he took four or five sorts of juice for breakfast?

"Agnes, it was ghastly. I was built like a sack. A sackful of

WORLD

*It was the awfulest dream
in the world, no doubt about
it. In fact, it seemed to
be the only dream there was!*



skunk cabbage, I swear. And I was a green-brown color and had hair like a latrine mop. Agnes, I was sick with misery. It just isn't possible for anybody to feel so low. I can't shake it at all. And the whole world was like the underside of a log. It wasn't that, though. It wasn't just one bunch of things. It was everything. It

was a world where things just weren't worth living. I can't come out of it. . . ."

"Teresa, it was only a dream."

Sausage, only four little links for an order. Did people think he was a glutton because he had four orders of sausage? It didn't seem like very much.

"My mother was a monster. She was a wart-hoggish animal. And yet she was still recognizable. How could my mother look like a wart-hog and still look like my mother? Mama's pretty!"

"Teresa, it was only a dream. Forget it."

The stares a man must suffer just to get a dozen pancakes on his plate! What was the matter with people who called four pancakes a tall stack? And what was odd about ordering a quarter of a pound of butter? It was better than having twenty of those little pats each on its coaster.

"Agnes, we all of us had eyes that bugged out. And we stank! We were bloated, and all the time it rained a dirty green rain that smelled like a four letter word. Good grief, girl! We had hair all over us where we weren't warts. And we talked like cracked crows. We had crawlers. I itch just from thinking about it. And the dirty parts of the dream I won't even tell you. I've never felt so blue in my life. I just don't know how I'll make the day through."

"Teresa, doll, how could a dream upset you so much?"

THERE isn't a thing wrong with ordering three eggs sunny-side up, and three over easy, and three poached ever so soft, and

six of them scrambled. What law says a man should have all of his eggs fixed alike? Nor is there anything wrong with ordering five cups of coffee. That way the girl doesn't have to keep running over with refills.

Bascomb Swicegood liked to have bacon and waffles after the egg interlude and the earlier courses. But he was nearly at the end of his breakfast when he jumped up.

"What did she say?"

He was surprised at the violence of his own voice.

"What did who say, Mr. Swicegood?"

"The girl that was just here, that just left with the other girl."

"That was Teresa, and the other girl was Agnes. Or else that was Agnes and the other girl was Teresa. It depends on which girl you mean. I don't know what either of them said."

Bascomb ran out into the street.

"Girl, the girl who said it rained dirty green all the time, what's your name?"

"My name is Teresa. You've met me four times. Every morning you look like you never saw me before."

"I'm Agnes," said Agnes.

"What did you mean it rained dirty green all the time? Tell me all about it."

"I will not, Mr. Swicegood. I

was just telling a dream I had to Agnes. It isn't any of your business."

"Well, I have to hear all of it. Tell me everything you dreamed."

"I will not. It was a dirty dream. It isn't any of your business. If you weren't a friend of my Uncle Ed Kelly, I'd call a policeman for your bothering me."

"Did you have things like live rats in your stomach to digest for you? Did they —"

"Oh! How did you know? Get away from me. I *will* call a policeman. Mr. McCarty, this man is annoying me."

"The devil he is, Miss Ananias. Old Bascomb just doesn't have it in him any more. There's no more harm in him than a lamp post."

"Did the lamp posts have hair on them, Miss Teresa? Did they pant and swell and smell green—"

"Oh! You couldn't know! You awful man!"

"I'm Agnes," said Agnes; but Teresa dragged Agnes away with her.

"What is the lamp-post jag, Bascomb?" asked Officer Mossback McCarty.

"Ah—I know what it is like to be in hell, Mossback. I dreamed of it last night."

"And well you should, a man who neglects his Easter duty year after year. But the lamp-post jag? If it concerns anything on my beat, I have to know about it."

"It seems that I had the same depressing dream as the young lady, identical in every detail."

NOT knowing what dreams are (and we do not know) we should not find it strange that two people might have the same dream. There may not be enough of them to go around, and most dreams are forgotten in the morning.

Bascomb Swicegood had forgotten his dismal dream. He could not account for his state of depression until he heard Teresa Ananias telling pieces of her own dream to Agnes Schoenapfel. Even then it came back to him slowly at first, but afterwards with a rush.

The oddity wasn't that two people should have the same dream, but that they should discover the coincidence, what with the thousands of people running around and most of the dreams forgotten.

Yet, if it were a coincidence, it was a multiplex one. On the night when it was first made manifest it must have been dreamed by quite a number of people in one medium-large city. There was a small piece in an afternoon paper. One doctor had five different worried patients who had had dreams of rats in their stomachs, and hair growing on the insides of their mouths. This was the first publica-

tion of the shared-dream phenomenon.

The squib did not mention the foul-green-rain background, but later investigation uncovered that this and other details were common to the dreams.

But it was a reporter named Willy Wagoner who really put the town on the map. Until he did the job, the incidents and notices had been isolated. Doctor Herome Judas had been putting together some notes on the Green-Rain Syndrome. Doctor Florenz Appian had been working up his evidence on the Surex Ventriculus Trauma, and Professor Gideon Greathouse had come to some learned conclusions on the inner meaning of warts. But it was Willy Wagoner who went to the people for it, and then gave his conclusions back to the people.

Willy said that he had interviewed a thousand people at random. (He hadn't really; he had talked to about twenty. It takes longer than you might think to interview a thousand people.) He reported that slightly more than sixty-seven per cent had had a dream of the same repulsive world. He reported that more than forty-four per cent had had the dream more than once, thirty-two per cent more than twice, twenty-seven per cent more than three times. Many had had it every damned night. And many

refused frostily to answer questions on the subject at all.

This was ten days after Bascomb Swicegood had heard Teresa Ananias tell her dream to Agnes.

Willy published the opinions of the three learned gentlemen above, and the theories and comments of many more. He also appended a hatful of answers he had received that were sheer levity.

But the phenomenon was not local. Wagoner's article was the first comprehensive (or at least wordy) treatment of it, but only by hours. Similar things were in other papers that very afternoon, and the next day.

It was more than a fad. Those who called it a fad fell silent after they themselves experienced the dream. The suicide index arose around the country and the world. The thing was now international. The cacaphonous ditty *Green Rain* was on all the jukes, as was *The Wart-Hog Song*. People began to loathe themselves and each other. Women feared that they would give birth to monsters. There were new perversions committed in the name of the thing, and several orgiastic societies were formed with the stomach rat as a symbol. All entertainment was forgotten, and this was the only topic.

Nervous disorders took a fearful rise as people tried to stay

awake to avoid the abomination, and as they slept in spite of themselves and suffered the degradation.

IT is no joke to experience the same loathsome dream all night every night. It had actually come to that. *All* the people were dreaming it *all* night every night. It had passed from being a joke to being a universal menace. Even the sudden new millionaires who rushed their cures to the market were not happy. They also suffered whenever they slept, and they knew that their cures were not cures.

There were large amounts posted for anyone who could cure the populace of the wart-hog-people dreams. There was presidential edict and dictator decree, and military teams attacked the thing as a military problem, but they were not able to subdue it.

Then one night a nervous lady heard a voice in her noisome dream. It was one of the repulsive cracked wart-hog voices. "You are not dreaming" said the voice. "This is the real world. But when you wake you will be dreaming. That barefaced world is not a world at all. It is only a dream. This is the real world." The lady awoke howling. And she had not howled before, for she was a demure lady.

Nor was she the only one who

awoke howling. There were hundreds, then thousands, then millions. The voice spoke to all and engendered a doubt. Which was the real world? Almost equal time was now spent in each, for the people had come to need more sleep and most of them had arrived at spending a full twelve hours or more in the nightmarish world.

"It could be" was the title of a headlined article on the subject by the same Progressor Great-house mentioned above. It could be, he said, that the world on which the green rain fell incessantly was the real world. It could be that the wart-hogs were real and the people a dream. It could be that rats in the stomach were normal, and other methods of digestion were chimerical.

And then a very great man went on the air in worldwide broadcast with a speech that was a ringing call for collective sanity. It was the hour of decision, he said. The decision would be made. Things were at an exact balance, and the balance would be tipped.

"But we can decide. One way or the other, we *will* decide. I implore you all in the name of sanity that you decide right. One world or the other will be the world of tomorrow. One of them is real and one of them is a dream. Both are with us now, and the favor can go to either. But listen

to me here: whichever one wins, the other *will have always been* a dream, a momentary madness soon forgotten. I urge you to the sanity which in a measure I have lost myself. Yet in our darkened dilemma I feel that we yet have a choice. Choose!"

And perhaps that was the turning point.

The mad dream disappeared as suddenly as it had appeared. The world came back to normal with an embarrassed laugh. It was all over. It had lasted from its inception six weeks.

BASCOMB SWICEGOOD, a morning type, felt excellent this morning. He breakfasted at Cahill's, and he ordered heavily as always. And he listened with half an ear to the conversation of two girls at the table next to his.

"But I should know you," he said.

"Of course, I'm Teresa."

"I'm Agnes," said Agnes.

"Mr. Swicegood, how could you forget? It was when the dreams first came, and you overheard me telling mine to Agnes. Then you ran after us in the street because you had had the same dream, and I wanted to have you arrested. Weren't they horrible dreams? And have they ever found out what caused them?"

"They were horrible, and they have not found out. They ascribe

it to group mania, which is meaningless. And now there are those who say that the dreams never came at all, and soon they will be nearly forgotten. But the horror of them! The loneliness!"

"Yes, we hadn't even pediculi to curry our body hair. We almost hadn't any body hair."

Teresa was an attractive girl. She had a cute trick of popping the smallest rat out of her mouth so it could see what was coming into her stomach. She was bulbous and beautiful. "Like a sackful of skunk cabbage," Bascomb murmured admiringly in his head, and then flushed green at his forwardness of phrase.

Teresa had protuberances upon protuberances and warts on warts, and hair all over her where she wasn't warts and bumps. "Like a latrine mop!" sighed Bascomb with true admiration. The cracked clang of Teresa's voice was music in the early morning.

All was right with the earth again. Gone the hideous nightmare world when people had stood barefaced and lonely, without bodily friends or dependents. Gone that ghastly world of the sick blue sky and the near-absence of entrancing odor.

Bascomb attacked manfully his plate of prime carrion. And outside the pungent green rain fell incessantly.

— R. A. LAFFERTY

*They were Earth's castoffs, doomed to live
and die on a planet of Vega — spreading
humanity, even at the cost of their own!*

THE SEED OF EARTH

By **ROBERT SILVERBERG** Illustrated by **MACK**

THE day was warm, bright, sky blue, thermometer in the high sixties: a completely perfect October day in New York, needing no modification by the Weather Control Bureau. At the Weather Station in Scarsdale, glum-faced weather-adjustment men were piling into their planes and taking off for Wisconsin, where a cold front was barreling in from Canada, and where their expert services *would* be needed. Twenty thousand miles above Fond du Lac, the orbiting Weather Control Satellite beamed messages down. In Australia, technicians were completing the countdown on a starship about to

blast off for a distant world with a cargo of one hundred reluctant colonists. In Chicago, where the morning mail had just arrived, a wealthy playboy stared at a blue slip of paper with wide-eyed horror. In London, where the mail had arrived several hours before, a shopgirl's face was pale with fear; she, too, had received her notice from the Colonization Bureau.

Around the world, it was an ordinary day, the ninth of October, 2116 A.D. Nothing unusual was happening. Nothing but the usual round of birth, death . . . and, occasionally, Selection.

And in New York, on that per-

fect October day, District Chairman David Mulholland of the Colonization Bureau reached his office at 0900 sharp, ready if not precisely eager to perform his routine functions.

Before he left his office at 1400 hours, he knew, he would have authorized the uprooting of one hundred lives. He tried not to think of it that way. He focused his mind on the slogan emblazoned on blue-and-yellow bunting wherever you looked, the slogan of the Colonization Bureau *Do Your Share for Mankind's Destiny*.

But the trouble was, as Mulholland could never forget, that mankind's destiny was of only trifling interest to the vast mass of men.

He entered his office, drawing warm smiles from the clerks and typists and secretaries as he passed their cubicles. In the office, everyone treated Chairman Mulholland with exaggerated affection. Most of the Bureau employees were sufficiently naive to believe that Chairman Mulholland, if he felt so inclined, could arrange their exemption from the world-wide lottery.

THEY were wrong, of course. No one who met the qualifications was exempt. If you were between the ages of nineteen and forty, had a Health Rating of

Plus Five or better, could pass a Feldman fertility test, and were not disqualified by one of the various social regulations, you went when you were called, in the name of Mankind's Destiny. There was no way to wriggle off the hook once you were caught — unless, of course, you could prove that you were disqualified by some technicality that the Computer had overlooked. The remaining child in a family which had lost four or more children to Selection was exempt. Mothers of children under two years of age were exempt. Even mothers of children under ten years of age were exempt, if their husbands had been Selected and if they had not remarried. A man whose wife was pregnant was entitled to a single ten-month delay in departure. There were half a dozen more such technicalities. But, whatever the situation, sixty ships, six thousand people, left Earth every day in the week. Someone had to be aboard those ships. Somewhat more than two million Earthmen headed starward each year.

Two million out of seven billion. The chance that the dark finger would fall upon *your* shoulder was inconceivably remote. Even with the figure winnowed down to the mere three and a half billion eligibles, the percentage taken each year was

slight: one out of every 1800 persons.

Do Your Share for Mankind's Destiny, said the blue-and-yellow sign that hung behind Chairman Mulholland's desk. He looked at it unseeingly and sat down. Papers had already begun to accumulate. Another day was under way.

His so-efficient secretary had already adjusted his calendar, dusted his desk, tidied his papers. Mulholland was not fooled. Miss Thorne was trying to make herself indispensable to the Chairman, as a hedge against the always-to-be-dreaded day when the Computer's beam lingered over her number. In moments of cruelty he thought idly of telling her that no mortal, not even a District Chairman, had enough pull with fate to assure an exemption. It was entirely in the hands of Clotho, Lachesis and Atropos.

Clotho put your number in the Computer. Lachesis riffled the cards. Atropos selected, and selected inflexibly. The Fates could not be swayed.

Mulholland lifted the top sheet from the stack on his desk. It was the daily Requisition Form. Five of the sixty starships that left Earth each day were manned by Americans, and one of the five American ships each day was stocked with Selectees drawn by Mulholland's office. He read the

Requisition Form for the next assignment with care.

REF. 11ab762-31, File Seven.

10 October 2116, notices to be sent.

Assignment: starship GEGENSCHEIN, blasting 17 October 2116, from Bangor Starfield.

Required: fifty couples selected by Board One.

The form differed only in detail from hundreds of forms that Mulholland had found on his desk at the beginnings of hundreds of days past. He tried not to let himself think of days past. He had been Chairman for three years, now. It was of the essence that the high-ranking members of a Selection Board should not themselves be subject to Selection, and Mulholland had received his present job a few weeks after his reaching the age of forty had removed his name from the rolls of eligibility.

HE was a political appointee. According to the pollsters, his party was due to succumb to a Conservative uprising in the elections next month. Mulholland faced his party's debacle with remarkably little apprehension. Come January, he thought, President Dawson would be back in St. Louis practicing law, and a few thousand loyal Liberal party

hacks throughout the country would lose their jobs, being replaced by a few thousand loyal Conservative party hacks.

Which meant, Mulholland thought, that come January someone from the other side of the fence could sit in this chair handing out Selection warrants, while David Mulholland could slip back into the obscurity of academic life and give his conscience a well-needed rest. It was a mere seventy days to the end of President Dawson's term. Mulholland shut his eyes tiredly. Barring a political upset at the polls, he would only have to pass sentence on seven thousand more human beings.

He buzzed for his secretary. She came at a gallop: a bony, horse-faced woman of thirty who ran the office with formidable energy and who never tired of quoting the Bureau slogan to visitors. She probably believed the gospel of Mankind's Destiny implicitly, Mulholland thought. Which didn't give her much comfort when she pondered the ten years that lay between her and freedom from Selection.

"Good morning, Mr. Mulholland."

"Morning, Jessie. Type out an Authorization."

"Certainly, Mr. Mulholland."

Her agile fingers clattered over the machine. In a moment or two she placed the document on

his desk. It was strict formality for him to request and for her to type the paper; mechanically, Mulholland scanned it. This had to go to the Computer, and any typing error would result in loud and unpleasant repercussions.

As Chairman of the District One Board of Selection of the Colonization Bureau, I hereby authorize the selection of one hundred ten names from the roll of those eligible, on this ninth day of October, 2116, in order to fulfil a departure quota of one hundred for the starship GEGENSCHWEIN, blasting 17 October 2116. David Mulholland, Chairman District Board One.

Mulholland nodded; it was in order. He signed it in the space indicated, then provided cross-check by pressing his thumb down against the photosensitive spot in the lower right-hand corner. The Authorization was complete.

He handed the form to Jessie Thorne, who deftly rolled it and stuffed it into a pneumatic tube. Mulholland took the tube from her, affixed his personal seal, and popped it in the open pneumotube vent under his desk. The little morning ritual was over.

He buzzed Miss Thorne again. "I've got the cards, Jessie. Do we have any Volunteers today?"

"One." She gave him the card. Noonan, Cyril F. Age thirty, unmarried. Mulholland read through the rest of the data, nodded, tossed Noonan's card in a basket on the right side of his desk, and made a sharp downstroke on a blank tally sheet in front of him. Now there were only forty-nine men to pick for the voyage of the *Gegenschein*. Volunteers were rare, but they did turn up from time to time.

MULHOLLAND ran through the men first. He picked out his forty-nine without any trouble, and stacked the six left-over cards in his reserve basket. Those six names would be held aside until it was determined whether or not the other forty-nine were still eligible. If Mulholland could fill his quota without recourse to the reserve basket, the six men would automatically become first on the next day's Selection list. Mulholland had no one left over from the day before, as it happened; there had been some trouble filling the October 9 quota, and he had used up his reserves completely yesterday.

With the men's half at least tentatively finished, he skimmed through the fifty female names. Here, occasionally, the computer tripped up. Mulholland winnowed one name out immediately: Mrs.

Mary Jensen, 31, mother of four children ages one to nine. She had as much business being in the list of eligibles as the President's grandmother. Mulholland initialed her card and buzzed for Miss Thorne again.

"Have her name pulled from the list," he ordered crisply. "She's got a child born in 2115."

Fate had been kind to Mrs. Jensen.

Mulholland prepared the rest of the list. Fifty men, fifty women, with a reserve list of six men and four women. In the afternoon, the notices would go out. They would be received tomorrow morning, and by nightfall, he knew, the useless appeals would come flooding in. None of the appeals ever reached Mulholland's office. They were screened off by underlings, who were trained in the art of giving gentle Nos. Mulholland himself had held such a job until getting his promotion to the top.

He looked down the list he had compiled. A college student from Cincinnati, an office worker in San Francisco, a lawyer from Los Angeles. A girl who gave her occupation as "entertainer," from New York.

It was a cross-section. Mulholland privately felt that this was a flaw in the Selection system, because very often a group was sent out without a medical man, without any kind of religious

counsellor, without any expert engineer or scientist. But there was no helping it. For one thing, it would be grossly unfair to see to it that the Computer picked one doctor for each hundred colonists. Generally it worked out that way, but not always.

It was a sink-or-swim proposition. Millions upon millions of stars waited in the infinite heavens. The stellar colonization was a far-sighted enterprise, and, like most far-sighted enterprises, was cruel in the short run. But, centuries hence, a far-flung galaxy would shine with the worlds of man. It was the only way. Even though the ships existed to take man to the stars, only a handful of people would consider uprooting themselves to go out into the dark. If the colonization of the stars had been left on a volunteer basis, barely a dozen worlds would be settled now, instead of the thousands that already bore man's imprint. They were small colonies, to be sure; but they grew. Only a handful out of the thousands had failed to take root.

And, thought Mulholland, a week from tomorrow the starship *Gegenschein* would take ninety-nine conscripts and a lone Volunteer to the stars. He looked through his cards. *Herrick, Carol. Dawes, Michael. Haas, Philip. Matthews, David.* And eight dozen others. Tonight they

laughed, played, sang, made love. Tomorrow they would no longer belong to Earth. The inflexible sword of Colonization would cut them loose.

Mulholland shrugged. He was making his old mistake, thinking of the conscripts as people instead of as names on green cards. That way lay crackup. He had to remember that he was only doing a job, that if he didn't take care of it someone else would. And it was for Mankind's Destiny.

But he was weary of wielding the sword. It was less than a month till Election Day, and he prayed devoutly that his party would be turned out of office. It was no way for a loyal party hack to be thinking, but Mulholland didn't care. It would be an admission of weakness to resign. An electoral defeat would get him out of the job much more gracefully.

II

THERE had been rain over Ohio during the night. For once, it had been natural rain. The Weather Control people engineered the weather with great care during the summer, when thirsty fields cried out for rain, and in the winter, when unchecked snow might throttle civilization. But in October the fields lay empty. There was no need for

artificial rain. The rain that fell in the early hours of morning over Central Ohio was God's rain, not man's, sent by the cold front sweeping southward out of Canada.

In his furnished room just off 11th Avenue, not very far from the University, Mike Dawes pulled the covers up over his head, retreating symbolically to the womb in hope of finding warmth and security. But it was no good. He was half awake, awake enough to realize he was awake, but still too drowsy to want to get out of bed. He could hear the pattering of the rain. It was a dark morning.

The lumo-dial of his clock read 0800 hours. He knew it was time to get out of bed. This was Wednesday, his busiest day of the academic week. At 0900 there was old Shepperd's Zoology lecture, and German at 1000 hours. *And I forgot to review those verbs*, Mike Dawes thought in irritation. *If Klaus calls on me, I'm sunk.*

He thought about getting out of bed for a few minutes; finally, he rationed himself to sixty more seconds of warmth. Counting off *a-thousand-one*, *a-thousand-two*, he sprang out of bed faithfully on the count of *a-thousand-sixty*, and shivered in the bleak morning coldness.

Routine took hold of him. He

stripped off his pajamas and tossed them onto the bed; he groped for a towel and his robe, found them, and made his way down the hall to the shower. He spent three minutes under the cold spray. When he returned to his room, the clock said 0813 hours. Dawes smiled. He was right on schedule. If only he hadn't forgotten about those verbs! But it was too late to fret about that. He'd have to hope for the best.

It looked as though this semester was going to be one long dreary grind, he thought as he pulled clothes from the rickety old dresser and started to climb into them. He was twenty; this was his third year at Ohio State. If all went well, he would graduate the following year and move on to medical school for four years.

If all went well.

At 0821 hours he was ready to leave: teeth brushed, hair combed, shirt buttoned, shoelaces tied. The books he would need for his morning classes were waiting on the edge of the dresser. He would have time for some orange juice, toast, and coffee at the Student's Union. The probability of a surprise Zoo quiz was too great to allow for skipping breakfast; he needed all the energy he could muster. He was skinny, in the first place, stretching 150 pounds out for six feet and an inch. In

the second place, he liked to have breakfast.

Dawes started downstairs. It was still raining slightly, but not hard enough to be troublesome. Anyway, it was only a four-block walk from the rooming house where he lived to the Union.

First, though, came one morning ritual. He stopped downstairs in the hallway, where the mailboxes were. His hand quivered a little as he pressed his thumb against the opener-plate. The scanner recorded his print and obediently opened the mailbox. He took out the letter.

IT WAS a blue envelope, longer than usual, with an official penalty-for-private-use imprint where the stamp was supposed to be. Dawes' eyes travelled over the return address almost casually. *Colonization Bureau, District Board Number One, New York.*

His stomach felt queasy as he ripped the envelope hastily open.

It was addressed to him, all right. The letter, typed neatly in dark red on the standard blue paper, came quickly to the point.

You have been selected to be a member of the colonizing expedition departing on 17 October from Bangor, Maine, aboard the starship GEGENSCHNEID. You must report at once to your near-

est Colonization Bureau registry center. You are now subject to the provisions of the Interstellar Colonization Act of 2099, and any violation of these provisions will meet with severe punishment.

By order of D. L. Mulholland, District Chairman.

Mike Dawes read the contents of the slip of blue paper four times, one after another, and with each reading the numbness grew in him. He was finding it hard to believe that he had really been called. After all, the chance was one in thousands, he thought. Why, in all his life he had only known two or three people to be called. There had been Mr. Cutley, who ran the grocery store, and Teddy Nathan, who lived on the next block. And Judy Wellington also, Dawes thought.

And now me.

"Dammit, it isn't fair!" he muttered.

"What isn't?" a casual voice asked behind him.

Dawes turned. He saw Lon Rybeck there — a senior who lived on the first floor. Rybeck still wore a dressing gown; he had no early classes, but came out to look at the mail anyway.

Mutely Dawes held up the blue slip. Rybeck's eyes narrowed and his tongue flicked briefly across his lips. "They picked you?" he asked hoarsely.

Dawes nodded. "It just came. I have to report to the nearest registry center right away."

"That's a lousy break, Dawes!"

"Damn right it is! Why'd they have to grab me? I'm only twenty! I haven't even finished college! I —"

He quit, realizing that he sounded foolish. Rybeck was trying to look sympathetic, but behind the expression of concern was a deeper amusement — and relief. Probability dictated that the invisible hand would not reach into this house a second time; Dawes' Selection meant Rybeck could breathe more freely.

"It's rough," Rybeck said gently. "The morning mail comes and all your plans explode like bubbles. Where are they sending you, do you know?"

Dawes shook his head. "It just says I'll be leaving next Wednesday from the Bangor starfield. Doesn't give the destination."

TWENTY years ago, they had decided that mankind's destiny was in the stars. Mike Dawes had been a gurgling baby when the decision was made that, twenty years hence, would rip him from the fabric of existence on Earth. Get out to the stars, that was the cry that swept newly-united Earth. Settle other worlds. Spread Earthmen through the universe. It had been a noble aim,

Dawes thought. Except that nobody seemed very anxious to go. Let the other guy colonize the stars. Me, I'll stay here and read about it.

So there was a conscription. And now, Dawes thought, I've been caught.

. . . . report at once to your nearest Colonization Bureau registry center

When they said "at once," they meant it, Dawes knew. They meant get there within the hour. And woe betide if they discovered he had done anything to himself to make himself ineligible. There had been cases of women slashing at their ovaries with knitting-needles to disqualify themselves; naturally, only fertile colonists were wanted. But the penalty for intentional self-sterilization was a lifetime at hard labor. It wasn't worth it.

Twice he reached for the phone, to call his parents in Cincinnati and let them know. Twice, he drew back. They would have to be told sooner or later, he knew. But he steered away from bringing the bad news himself. Then he pictured how it would be if he remained silent and let the Bureau send them its official notice. He picked up the phone again.

His father answered. Mike felt a pang of regret as he heard the voice of his father, the newsstand proprietor who had scraped for

years so his favorite boy could study to be a doctor.

"Yes? Who is this?"

"Dad, this is Mike."

"Is everything all right?" said the immediately suspicious voice. "You got our letter? You didn't run out of money so soon, did you?"

"No, Dad. I — they've —"

"Speak up, Mike. We must have a bad connection. I can hardly hear you."

"I've been Selected, Dad!"

THERE was a pause, a sharp indrawing of breath. Dawes heard indistinct muttering; no doubt his father had his hand over the mouthpiece and was telling his mother about it. Dawes was grateful, for the first time, that he had never been able to afford a visual attachment for the phone. Right now he did not want to see their faces.

"When did you get the notice, boy?"

"J-just now. I have to report to the registry center right away. I leave next Wednesday."

"Next Wednesday," his father repeated musingly.

Dawes heard his mother sobbing in the background. She cried out suddenly, "We won't let them take him! We won't!"

"There's no helping it, Ethel," said his father quietly. "Boy, can you hear me?"

"Yes, Dad."

"Report where you're supposed to. Don't do anything wrong, do you hear?"

"I won't, Dad."

"Will we see you again?"

"I — I suppose so. At least they ought to let us say goodbye."

"And there isn't any way you can get out of this? I mean, once they call you, you can't appeal?"

"No, Dad. Nobody can appeal."

"Oh. I see."

There was another long pause. Dawes waited, not knowing what to say. He felt strangely guilty, as if he were at fault somehow for having brought this sorrow upon his parents.

His father said finally, "So long, boy. Take care of yourself. And let us know, soon as you know anything about where you're going."

"Sure, Dad. Tell Mom not to worry. So long."

He hung up the phone. After a moment, he walked to the window. The rain had stopped; it was nearly nine, and the slackers were hustling to get to classes on time. Out there on campus, life was going on as usual. The football coach was sweating out tactics for Saturday's game, Shepherd was clearing his throat and stepping forward to deliver his Zoology lecture, Klaus was belaboring hapless freshmen over irregular German verbs. Life went

on. The world revolved serenely around the sun. But, a week from now, Mike Dawes would be no longer part of this world.

He felt a quiet, seething anger at the injustice of it. He hadn't asked to be part of Mankind's Destiny. He had no itch to conquer other worlds. He wanted to stay on Earth, marry some reasonably pretty Ohio girl, raise some reasonably normal Ohio children.

WELL, that dream was over.

There was nothing left for him to do now but to walk down to the registry center and hand himself in, like a wanted criminal.

He locked his room, wondering if he would ever come back here to collect his few belongings, and trotted downstairs and into the street. It seemed to him that everyone on the street turned to look at him, as if they could see the words written in scarlet on his forehead: *MIKE DAWES HAS BEEN SELECTED.*

The registry center was in a loft over the movie theater. Only four days ago he had taken a girl to a movie there. They had cuddled in the balcony, ignoring the film on the tridim screen, and he had groped haphazardly for tempting areas of her body and wondered about those aspects of life that were still mysteries to him.

When you were Selected, he

thought, you also get a wife. They send out fifty men, fifty women. If you happen to be married already but have no children, you can accompany your spouse as a Volunteer. If you're married and do have children, and your mate is Selected, you stay behind to take care of the children. Unless you and your wife go to space together, you are given one of the other colonists as a mate, and any Earthside relationship you may have had was considered terminated. So he would be married soon — to someone.

He took the stairs leading to the registry center two at a time. A few boys were waiting on a bench along the wall; they peered curiously at him as he came in. They had just turned nineteen, and were waiting to register.

Dawes had registered here just a year ago. Everyone had to register at the age of nineteen; if you failed to register, you were automatically Selected. So he had come in and filled out the forms, and they had put him through the diagnosing machines and then given him the quick and efficient and somewhat embarrassing fertility test. And, a few weeks later, he had received a card telling him that he had passed. He had shrugged and put the card in his wallet, thinking that Selection was something that happened to other people.

But it had happened to him. Now.

He put his blue slip down on the reception desk and the clerk looked at it, nodding. Behind him, Dawes heard the waiting boys muttering. As a Selectee, he had a certain new notoriety.

"Come this way, please," she said solemnly to him, giving him a you-are-doing-your-share-for-mankind's-destiny look. She led him into an inner office, where a tall, balding man in his late forties sat initialing some papers.

"Mr. Brewer, this is Michael Dawes, who was Selected by the New York board today."

Brewer rose and extended a hand. "Congratulations, Dawes. Maybe you can't see it right now, but you're about to take part in mankind's greatest adventure. Thank you, Miss Donaldson."

MISS Donaldson left. Brewer sat down again, gesturing Dawes toward a comfortable pneumochair.

"Well?" Brewer asked. "You're sore as hell, aren't you?"

"Am I supposed to be happy?"

Brewer shrugged. "If you *wanted* to go to the stars, you'd have volunteered. It's a rough break, youngster. How old are you?"

"Twenty."

"You're still young enough to adjust. Some mornings I have

men in their thirties come in, men with families. You'd be surprised how many of them want to blow me up. You aren't married, are you?"

"No, sir."

"Parents?"

"They live in Cincinnati. I've phoned them already."

"You don't figure you have any grounds for disqualification, then."

Dawes shook his head. In a quiet voice he said, "I can't get out of it. I'm resigned to going. But that isn't going to make me like it."

"We assume that," Brewer said. "But we also assume that you won't spend all your time sulking when you ought to be colonizing. You don't sulk for long on an alien world and stay alive." He shook his head. "If you think you've got troubles, think about the last man Selected in this district. Father of three children. Age thirty-nine years, eleven months, three weeks. One week to go and he'd be ineligible, but the Computer picked him. He said it was a frame-up. But he went, he did."

"Is that supposed to make me feel better?" Dawes asked.

"I don't know," said Brewer, sighing. "They tell me misery loves company. You probably feel awfully sorry for yourself, and I don't blame you."

"Will I be allowed to see my parents again?"

"You can fly to Cincy this afternoon, if you like. For the next week you'll be accompanied by a Bureau guard. As a precaution, you understand. Naturally, he'll give you as much privacy as you want — in case there may be a young lady you would like to pay a farewell visit to, or —"

"Just my parents," Dawes said.

"All right. Whatever. You have seven days. Make the most of them. You'll get a full physical next door right now. Maybe you're no longer eligible."

"Small chance of that!"

"We can always hope, eh, Mike?"

"Why do that? What do you care whether I go or not? Do you know what it's like to be ripped up and tossed out into space? You're over age; you're safe."

Brewer smiled sadly. "I don't have a good heart; I never was eligible. But that doesn't mean I don't know what you're going through now. My wife was Selected ten years ago. Come with me, Mike. The doctor will have a look at you."

III

CHERRY Thomas came awake all at once. In automatic need she reached out to her left, but the place next to her in bed was empty, still faintly warm; Charlie was gone. She could see

a crisp ten-dollar bill wedged into the corner of her mirror.

Rising, she unhooked the bill and slipped it into her dresser drawer. The apartment was a mess. Two empty bottles sat on the floor near the bed; cigarette ashes were sprinkled everywhere. Charlie had brought last night's newspaper in with him, probably to study the racing news, and now the pages were scattered all over the place. Well, it had been a pleasant night. Thank goodness for small blessings. In these tough times, it was good to know that somebody enjoyed your company, Cherry thought.

She lugged the Cleanall out of the closet, plugged it in, and set it to work gobbling up the scattered ashes while she herself showered. The gentle cleansing spray felt good as it peeled away the night's grime. After ten minutes under the water she stepped out, stretched, yawned, did her calisthenics. Musn't let the middle start to sag, dearie. You're only as good as your body is.

Morning duties over, Cherry flipped the switch on the radio; music streamed into the apartment. She jabbed down on the window-opaquer and the polarity of the glass shifted, letting in the morning sunlight. It looked as if New York would have another perfect day. The wall clock said 1123 hours, 10 October 2116.

She knew there wasn't much time. At 1300 she was due downtown for an audition; one of the big sensie-theaters needed usherettes. It was cheap work for a girl who had once stripped in the best establishments of three continents, but time moved along; she was thirty-three, no longer in the first golden bloom of youth, and these days the strip managers seemed to have a cradle-fetish: the younger the better. Next year, Cherry thought sourly, somebody would come up with the ultimate in that line — the ten-year-old stripper.

She punched out breakfast on the autocook. Cherry's apartment was automatic in almost every respect. She had always dreamed of living surrounded by the latest gadgets, and, one year when she'd really been taking in the cash, she had bought herself all the gadgets there were. An automatic back-scratcher that came out of the bed's headboard when she wanted it; an autocook; automatically opaquing windows; light-dimmers; a Cleanall. Her apartment was a nest for electronic wizardry of all kinds. In these latter days, when to fill out a skimpy income she had taken to bringing men up for an evening, there were plenty of wise remarks about the wealth of gadgetry in the place. It got so she could practically anticipate the gags.

CHERRY ate without interest. Breakfast was just something that had to be eaten, not any source of pleasure. She was tense about the audition at 1300. An usherette had to prance up and down the aisles in nothing more than a bit of hip-length translucent fluff. She was sure she still had the figure for the job, but her confidence was low. In the past year she had been gaining weight, slowly, inexorably, unstoppably.

It wasn't like this when Dan was here, she thought.

Dan had been the world to her: manager, trainer, coach, father-confessor, agent. Dan had found her when she was a pickup girl in Philadelphia, and before Dan had finished with her she was the toast of Las Vegas, Paris, Bucharest. Dan had slimmed her down, taught her poise, forced her to fight the temptations of food and sex, found her the best jobs and compelled her to turn down everything but the very best.

But Dan was gone. They had Selected him, four years ago. And nothing had been the same since.

And the worst of it was, Cherry thought, rubbing the old wound with salt for the millionth time, that she could have gone with him, if she had wanted to. "You can always become a Volunteer," Dan had told her as she wept hysterically that morning. "You

can come with me wherever I'm going, if it means that much to you." And he had knotted his hands in his thick dark hair and waited for her answer, and she had refused to say anything.

Well, what the hell would YOU do? she demanded fiercely of nobody in particular. She had been twenty-nine, rolling in money, the toast of the entertainment world. He was ten years older than she. Sure, she had thought she loved him, but how can anyone be sure of that? It seemed like so much to ask, for her to give up her limousine and her apartment and her pet ocelot and her cozy, luxurious, pampered life to follow him out to the stars.

So she had finally said No, she would stay here, and Dan had shrugged calmly, telling her that it was better that way, that she was probably not fitted for the rugged frontier life anyway. And he had gone, leaving her behind. And then the anguish began for her in earnest.

She had sold the fancy cars and given away the ocelot; she still had the apartment, but very little else. She had lost her cozy, luxurious life, and she had lost Dan. There had been the quick, crazy, bad marriage the year after Dan was taken, a marriage that lasted only a couple of months, and after that the long, slow, gentle slide downward. The slide hadn't

ended yet. Every morning she realized that more clearly.

But I was selfish. I stayed behind. And what did I get for it?

CHEERRY shook her head sadly, put her coffee cup into the autowash, and took a Cheeriup pill from the medicine cabinet. The pill took effect practically at once: a fine, false buoyant feeling of optimism and good cheer replaced the introspective mood of gloom. She punched the dial three more times and three more little yellow pills popped out. One every four hours would see her through the day without a moment of depression; maybe the good mood was phony, but it was better than brooding about Dan all day.

One last check in the mirror: makeup was okay, hair well groomed, face scrubbed. Thanks to the Cheeriup, she looked happy, enthusiastic, eager. The auditioners would never be able to see the core of misery deep beneath the surface.

"Good morning, Miss Thomas," said the elevator's voice as she stepped in. A photoscanner in the elevator's roof was rigged to recognize all of the building's tenants and give them a personal greeting.

"Good morning," she said. "Nice day."

There was no reply. The ele-

vator's brain-center was programmed only for one sentence. But she believed in returning the greeting, anyway. It was the least she could do.

The elevator deposited her in the glittering chrome-and-green-glass lobby. She started to break the photobeam that controlled the front door; then, as an afterthought, she decided to see if there had been any mail for her.

That was when she found the Selection notice from the Colonization Bureau.

Her Mirror-bright fingernails slashed the blue envelope open. She read the message carefully, slowly; reading had never been one of her strong points. When she had gone through the brief notice the first time, she doubled back and read it again.

Yes; no doubt of it. It was a Selection notice.

"Well, I'll be a — So they got me too!"

You have been selected to be a member of the colonizing expedition departing on 17 October from Bangor, Maine, aboard the starship GEGENSCHNEID. You must report at once to your nearest Colonization Bureau registry center. You are now subject to the provisions of the Interstellar Colonization Act of 2099, and any violation of these provisions will meet with severe punishment.

*By order of D. L. Mulholland,
District Chairman.*

Her first reaction was an outraged one: Who the hell are *they* that they can grab hold of Cherry Thomas and say that she has to go out and go to the stars? They can't push *me* around like that!

But after the first wild flare of defiance came a quieter, more sobering thought: Maybe it won't be so bad. I could use a change of air. I'm not going anyplace here on Earth. In ten years I'll be a two-bit floozie. So why not go where they want me to go?

And then came the last thought, the clincher: Maybe you can pick the place where you're going! Maybe I can find Dan!

She hurried upstairs. According to the notice, she had to report to the nearest registry center at once. The phone directory told her that there was a center ten blocks away. To blazes with that audition! For the first time in years she felt genuine enthusiasm.

SHE took a cab to the registry center — no need to worry about economizing now. She practically ran up the stairs and into the big office. A receptionist blinked at her and Cherry shoved the blue slip forward.

"Here. I just got this. I've been Selected. Where do I go?"

"I'll take you to the Director."

The Director was a blank-faced man in his fifties who turned on a smile when Cherry entered. She said at once, "I'm Cherry Thomas. I just got Selected."

"Won't you have a seat? I'm Mr. Stewart. I realize this day is an unhappy one for you, but may I assure you —"

She cut him off. "Look, Mr. Stewart, I want you to do me a favor. I don't mind getting Selected, I suppose. But I want you to send me to the same planet where they sent Dan Cirillo in 2112. I don't know the name of the planet, but you ought to be able to look it up somewhere for me, and —"

Mr. Stewart's blank moon-face was furrowed by a frown. "You don't seem to understand, Miss Thomas. You're not being sent to a planet that's already been colonized. You'll be going to a completely untamed world, a virgin planet."

"But I want to be near Dan! Listen, he was everything to me, we were practically getting married, and then you came along and Selected him. So he went out there. Well, now it's my turn, and I want to go to him! Can't you see how important it is? Damn it, don't you have any heart?"

Mr. Stewart shrugged gently. "I'm afraid it's utterly impossible for you to follow him now. For one thing, don't you see that he's

been married up there for four years?"

"Dan — married?" Cherry shook her head. *Stupid of me not to think of that! Of course, when they sent you up there you had to be coupled off!* Slowly her fluttering nervous system calmed. "I — hadn't figured on that," she said in a soft voice. "Sure. He got married up there." She felt a lump sprouting at the base of her throat.

Mr. Stewart leaned forward, smiling now. "So you see, we couldn't send you to him. Not now."

"But I could have gone four years ago! All I had to do was come here and say the word, and you would have sent me! And I'd be up there with him now! I'd be his wife!" Her voice reached a pitch of near hysteria. She burst into sudden tears and put her head in her hands.

The peak of emotion passed in a moment or two. When she looked up, she saw Mr. Stewart watching her calmly, as if he went through this sort of thing every day.

"So I'm going to some other planet?" she asked quietly. "Which one?"

"Only the higher authorities know that, Miss Thomas. Does it really matter?"

"No — no, I suppose it doesn't." He fussed uncomfortably with

papers on his desk. "I've sent for your records, but it'll take a little while. You didn't register at this office."

"I registered in Philadelphia," she said. "Fourteen years ago." It seemed like an eternity. And now, at last, her number had come up. In her mind's eye she pictured the Cherry Thomas of 2104, timidly filling out the registry form. Just a scared kid of nineteen, then. A lot had happened in fourteen years.

Mr. Stewart said, "I take it you're not currently married, Miss Thomas?"

"NO. I was — three years ago. Not now."

"I see. And — and there isn't anyone who might possibly care to volunteer to accompany you?"

Cherry thought down the list of the men she knew. No, none of them had the stuff of a Volunteer in them. She shook her head silently.

"May I ask your profession?" Mr. Stewart said.

"I'm — an entertainer."

Mr. Stewart moistened his thin, pale lips. "Do you plan to appeal your Selection?"

"What good would that do?"

"With your psychological background, you might stand a chance of getting out."

"What does that mean?"

"If you can prove a history of

nymphomania, say." Mr. Stewart reddened uncomfortably. "It isn't generally known, but compulsive promiscuity can get you disqualified from eligibility. You can see that an uncontrolled woman could do great harm in the small community that an interstellar colony is at the beginning."

Cherry peered at him gravely. "You mean I could get turned down because I like — because I was —"

"It's a possibility, I say. The ideal colonial woman is one who can adjust to marriage, take whatever man she happens to be mated with and live with him happily, raising as many children as her constitution can manage. Do you think you're psychologically suited for that sort of life?"

Cherry frowned uncertainly. Once, so far back she had trouble remembering it, she had been like other girls, wanting a home, a man, children. Somewhere along the way those desires had got lost in the shuffle.

She smiled ironically. Ever since they had taken Dan away, she had started every day by cursing Selection and the men who ran it. But now that she herself was meshed in the net, she saw that Selection was the thing she had waited for without knowing. It offered escape — escape from the harsh tinsel world she lived in, escape from the jeering

men who grudgingly paid her price now and who in a few years would bargain and haggle with her, escape from the enclosing wall of loneliness and fear.

A new world; a husband; children.

Her eyes felt misty with unaccustomed moisture. "Look," she said. "I ain't appealing. You see they don't turn me down, hear?"

IV

PEOPLE generally stepped to one side when they saw Ky Noonan coming toward them down the street. It was not only on account of his size; there are big men whose very size serves only to emphasize their essential innocuousness. But about Noonan there was that intangible air of authority, of quiet self-confidence, that silently admonished other people: *Better watch out and get out of my way. Ky Noonan is coming through!*

At thirty, he was just ripening into his physical prime. He was flamboyantly big, six feet four, a two hundred pounder who carried no fat. His jet-black hair swept backward in an untamed but somehow orderly mass that added seeming inches to his already impressive height. He had a voice to match his height, a heavy growling rumble that could be heard blocks away when he

troubled to project it. His shoulders were broad, his legs long and sturdy, his skin tanned until it looked like fine cordovan or expensive morocco leather.

He had come to an important decision today. The decision had been a couple of years in the bud, years that he had spent hauling freight in Jamaica and policing the troubled frontier of South Africa. His police term had expired more than a month ago, and he had not put in an application for re-enlistment. He was restless on Earth. He had matured early, left an unmourned home at fourteen, held a hundred jobs in twenty countries since then.

Earth hemmed him in. The prison of the blue sky irked him. He wanted to leave.

They had let him have a tour of duty under the Venus dome in 2111, but that was not what he wanted, either. No place in the Solar System suited him. In the System, a man either lived on Earth or he lived under a dome. Venus, Mars, Ganymede, Callisto, Titan, Pluto — six human settlements, plus one on Luna. But man was bound there, bound by the glimmering wall of duroplast that held away the encroaching poison from outside. He had spent his year on Venus gloweringly performing routine activities under the dome, while staring with undisguised anger at the red and

green and blue and violet world outside, the world of formaldehyde and foul gases and weird waxen plants, the world where no man dared go without a breathing-suit and full shielding.

He did not need to visit the other Solar System settlements to know that it would be the same. On Mars you looked out on dead red desert; on Ganymede you squinted past eye-searing white fields of snow to the giant unapproachable glory of Jupiter swelling in the sky. What good was it if, bound as you were to the need for oxygen and water, you left Earth only to be penned beneath a plastic dome?

No. The only world of the Solar System that allowed a man to range freely over its surface unencumbered by apparatus for survival was Earth, and Earth no longer held any fascination for Ky Noonan. He longed for the stars.

LIKE everyone else, he registered for Selection when he turned nineteen. At nineteen he was belligerent, bellicose, loudly warning the terrified technicians that they had better find him ineligible for Selection, or else. But they had ignored his threats and passed him as being fit and fertile, and for a day or two he had stormed and raged at the intolerable invasion of his private rights that Selection constituted.

And now he stood on a dingy, deteriorated street in Old Baltimore on a mild October afternoon, outside an office on whose door was inscribed in golden letters, COLONIZATION BUREAU, DISTRICT ONE, LOCAL BOARD OF REGISTRY #212. A few simple words and he would place his private rights forever out of his own reach.

At the moment of decision he hung back, an act not characteristic of him. But he hesitated only a handful of moments. He had come this far; he realized that there could be no turning back now.

The office door was the old-fashioned kind, manually operated. He grasped the handle and pulled it open. He stepped inside.

A dozen teenagers, boys and girls, stood at a table to the left of the door, frowning busily over the registry questionnaire. To the right, several others stood on line, waiting to be admitted to the medical office for their physical examinations. All of them looked scared. Noonan smiled inwardly, knowing that by his action today he was permitting some frightened, reluctant little person to spend twenty-four extra hours on Earth.

He strode to the reception desk and said, clearly, so that everyone in the room could hear him, "My name is Noonan. I want to

volunteer for Selection — the sooner the better."

A dozen heads swivelled round to peer at him. There was a silence in the room. The receptionist muttered something automatic and conducted him inside, to an office whose door bore the label *Mr. Harness*.

Mr. Harness was a timorous-looking, clerkish, dried-out little man with a pretentiously solemn manner. He offered Noonan a chair and said, "Do I understand that you wish to volunteer for Selection?"

"You understand right."

Mr. Harness steepled his fingers in a thoughtful way. "We don't get many Volunteers these days, as you can imagine. You're the first in more than a month."

Noonan shrugged. "Do I get a medal?"

Mr. Harness looked uncomfortable. "Not exactly. But you do get certain privileges that the ordinary conscripts won't be entitled to. You're aware of that, aren't you?"

"I know that Volunteers get their first pick of the women," Noonan said bluntly. "Maybe they get better food on the starship going out, too. But the women angle is the only privilege I'm interested in."

"Ah — yes. Of course, Mr. — Mr. —"

"Noonan. Ky Noonan."

THE Bureau man reached for a data blank and a pen. "We might as well get the details down, Mr. Noonan. Would you spell that first name, please?"

Noonan's lips twitched with sudden annoyance. "Cyril. C-Y-R-I-L. Cyril Franklin Noonan. I call myself Ky." The effete first name had been his mother's idea; he detested it, but all his official records bore that name, and he was too proud a man to apply for an authorized legal name-change. He called himself Ky, and let it go at that.

"Date of birth?"

"4 January 2086."

"Making you — ah — thirty. Your occupation, please?"

"Most recently, I was a policeman. A lot of other things before that."

"Any special training? Medicine, the law, science, engineering?"

"I know how to use these —" Noonan held out his big hands — "and I know how to use this." He touched his forehead. "But no professional training, no."

Harness looked up. "May I ask why you're volunteering, Mr. Noonan? You're not required to answer, of course, but for my own personal curiosity —"

Noonan smiled. A Volunteer had certain special privileges, and reticence was one of them. So long as he was deemed psycho-

logically and physiologically fit for colonization, and so long as he was not rendered ineligible by the existence of young children who would be orphaned by his volunteering, and so long as he had not committed any serious crime, he was not required to explain. But old-maidish men like Harness wanted to know all the gossip, Noonan thought.

He said, "For your own personal curiosity, I'm volunteering because I'm tired of staying on Earth and want to try someplace else. I'm not in debt and I haven't ruined any innocent wenches lately and I'm not volunteering to escape from a dominating mother. I'm just signing up because I want to see what it's like out there."

Harness seemed terrified by the booming outburst. He shrank back in his chair and said, "Yes, yes, of course, Mr. Noonan. I wasn't implying — now, if you'll simply fill out the rest of this data blank —"

Noonan filled it out. When it came to the section that asked, *How much time will you need to settle your affairs?*, he wrote in impressive capitals, **NONE**. Signing the sheet, he handed it back to Harness, who skimmed through it and lifted his eyebrows prissily when he came to the final entry.

"You're willing to leave immediately, Mr. Noonan?"

"Why not? My affairs are in order. I don't have much property and I don't have much money, and I don't have anybody to give it to. So I'll just hand over everything I own to charity. I won't be needing money where I'm going."

"Very well," Harness said crisply. "Today is October 8. Will you report back here in three days?"

"Three days? Why?"

"According to law, you have three days to reconsider your decision. If you still want to volunteer at the end of the week, come back here and we'll finish processing your application."

Noonan shook his head. "I ain't gonna do any reconsidering. I made my mind up before I came in here."

V

"DO I really have to go next week?" Carol Herrick asked hopefully. She sat tensely rigid, back straight, knees pressed tightly together, staring across the wide uncluttered desk at the elderly man who seemed, at the moment, to have absolute control over her destiny. "I mean, isn't there some way I can get excused from having to go?"

The Colonization Bureau man shook his head solemnly from side to side.

"None?" Carol asked.

"If you qualify, you have to go. That's the law, and there's no way around it."

Even delivered as gently as they were, they were stern words. Carol fought desperately to hold back the tears. She wanted to let go, to throw herself at this man's feet, to soak his knees with her tears. How could they send her to some other world? It wasn't right, she thought. She belonged here in San Francisco, with the fog and the bridges and the Sunday afternoon strolls in Golden Gate Park, not out on some strange alien planet.

She said in a soft, confused voice, "But — why send *me*? I don't know anything about space — about the stars. I can't even cook very well. I'm not the sort of person they want up there."

"They want all kinds of people, child. You'll learn how to cook, to sew, to skin wild animals. Space will turn you into a regular pioneer wife."

The redness came back into her face. "That's another thing. They are going to make me get married, aren't they? All the colonists have to marry."

"Of course. And to bear children. We start each world with only fifty couples — but for the colony to survive, it has to multiply. Don't you want to get married, Carol? And have children?"

"Yes, I do, certainly. But —"

"But what?"

"I was waiting — waiting so long for the right one to come along. Turning down fellows, waiting to see what the next one would be like. And now it's too late, isn't it? I could have been married, maybe had a baby by now, and then I wouldn't have to go — *out there*."

"I'm sorry. I'm supposed to give you the standard speeches about mankind's destiny, Miss Herrick — Carol — but I suppose you wouldn't appreciate them. All I can say is, I'm sorry — but you'll have to accept your lot."

She stared dreamily past the man behind the desk, past the banner with its meaningless slogan, past the wall itself into a gray void. She said half to herself, "I waited so long — and now they'll marry me to the first one who comes along. Won't they?"

"There's a certain amount of choice, Carol. You're not required to accept if you don't like the man who selects you, you know. You can say no."

"But I'll have to marry one of them. I can't say no to all of them."

"Yes. You'll have to marry one of them."

DUMBLY, Carol let herself be put through the examination, unprotestingly, understanding lit-

tle, filled with a vague regret and with the mild resentment that was the only anger she was really capable of.

Carol Herrick had never really given much thought to the entire immense question of Selection. Three years ago, on her nineteenth birthday, she had gone downtown to this registry center, because the law required her to. She had given her name, and the doctors had examined her and a week or so later she had received the little card telling her that she had qualified, that her name was on file with the big Computer and that she was subject to Selection until she turned forty.

She had figured out on a scrap of paper that she would not be forty until 2034, and that was so ridiculously far in the future that she could hardly visualize the stretch of years that lay between. So, because her mind could deal neither with the concept of Selection nor with an interval of twenty years, she simply forgot the entire matter. She was subject to Selection, she knew. Well, what of it?

Only the little blue slip in the mailbox had finished all that.

VI

AFTER completing his list of one hundred ten names for the 17 October blasting of the

Gegenschein, District Chairman Mulholland turned his attention to the next item on his daily routine: finalization, as they so barbarously called it in Scheduling, of the previous day's list.

The October 16 ship was the *Skyrover*, departing from the Cape Canaveral base. Mulholland had prepared the usual quota of names; during the early hours of the morning, while he had been assembling the *Gegenschein* list, word was coming in from the local boards on the previous day's Selections. Mulholland scanned the long yellow sheets. The *Skyrover* list would present no difficulties, he saw. There were fifty-one eligible males, fifty-two eligible women.

He deleted the three surplus names, entered them on the proper form, and gave the deletion list to Miss Thorne. During the day three people somewhere in the United States would learn that they had received a minute reprieve: instead of departing as they had been told on the October 16 ship, they would be held over until October 17, and, if not needed to fill vacancies on the *Gegenschein* list, would certainly be included on the list of whatever ship was scheduled for departure on the 18th.

His job, Mulholland thought, was like a kind of cosmic jigsaw puzzle: a puzzle in which he used

human pieces, scooping up a hundred at a time, discarding those which might be bent or broken and unsuitable for the pattern, fitting the rest into place. Each day another pattern had to be created; sometimes there were too many pieces, and some were put aside for another day.

He completed the *Skyrover* list and sent it down the pneumotube to Brevoort, twenty stories below. Brevoort would phone Cape Canaveral and advise them verbally of the completion of the list; the list itself would be sent to Florida by fax at the same time. With the *Skyrover* under control, Mulholland was finished for the day. The time was 1400 hours. At the Bangor starfield that moment, the *Enterprise Three* was blasting off, with one hundred colonists aboard, people who had been Selected a week before.

It went on constantly, day and night — people registering for Selection, people being Selected, people reporting for blastoff, ships departing. Five ships leaving a day from the United States alone, sixty from the world, four hundred twenty ships a week. And, so immense were the heavens, it would be untold centuries before the last habitable planet had been colonized by men of Earth.

1400 hours. The end of the day. Mulholland tidied his desk and

said his goodbyes — most of the clerical workers had two hours more before their day ended — and left. As he stepped outside, into the bracing October wind, he tried to shrug off his day's labor like an otter coming to shore and shaking itself dry. Once 1400 hours came, he could stop being District Chairman Mulholland, wielder of the sacred staff; he could go back to being plain Dave Mulholland of White Plains, a short, reddish-haired, sadly stoutening man of 43, who twelve years ago had left his post of Assistant Professor of Political Science at C.C.N.Y. to go into the practice of Liberal Party politics, and who as his reward for loyal service to the Cause was entitled to condemn one hundred people a day to Selection, so long as his party happened to remain in power.

AT 0900 the next morning, Mulholland was at his office. The Requisition Form was waiting for him, as always; fifty couples were needed for the starship *Aaron Burr*, leaving Canaveral on the 18th of October. He went through the standard morning routine, authorizing the selection of one hundred ten names for the *Aaron Burr*.

Two hours later, the first replies began to come in from the local boards on the *Gegenschein*

Selectees. Mulholland put each form in the "Hold" basket and forgot about them until it was time to get back to the *Gegenschein* list. He had already forgotten about the *Skyrover*; now that its list was complete, it faded into the long blur of unremembered ships whose passengers Mulholland had authorized.

After lunch — a tense affair as always; he never digested well on a working day — he turned his attention to the *Gegenschein*. His notes told him that one slot had already been filled: Noonan, the Volunteer sent through from Baltimore Board #212. Mulholland needed forty-nine men, fifty women to make up the complement.

Most of the East Coast and Midwest reports had come in already. The western people, naturally, would take longer; in most cases the mail was just being delivered now, out on the Coast. But there were enough early returns to begin working with. Mulholland began to sort through them, checking them off against his master file.

Columbus, Ohio Board #156: We have examined registrant Michael Dawes and find him acceptable for Selection . . .

New York Board #11: We have examined registrant Cherry Thomas and find her acceptable for Selection . . .

Philadelphia Board #72: We have examined registrant Lawrence T. Fowler and find him acceptable for Selection . . .

And, mixed with the rest, a red slip that signified a turnaround: *Atlanta Board #243: We have examined registrant Louetta Johnson and find her not acceptable for Selection for the reasons detailed below . . .*

Mulholland paused, turned the red slip over, and read it. Louetta Johnson had been found after due medical examination to be in her twelfth week of pregnancy, this fact being unknown to Miss Johnson, who therefore had not notified the registry center of this change in her status. Mulholland managed a wan smile. Louetta Johnson's lamentable lapse of virtue had saved her from Selection, whatever other consequences it might have for her in the future.

He put her slip aside and crossed her name from his list. Within the next hour, he lost two more of his possibles: the '93rd Board, in Troy, New York, reported that Elgin MacNamara had been the victim of a fatal auto accident the very day of his Selection; the 114th Board, in Elizabethtown, Kentucky, regretfully informed the District Chairman that registrant Thomas Buckley had been taken into custody after allegedly shooting

his wife and another man, and would not be eligible for a berth on the *Gegenschein*.

BUT, despite these minor setbacks, the list slowly filled. By 1320 hours, Mulholland's tally showed forty-three men and thirty-nine women assigned to the *Gegenschein*, with five of his original hundred and ten disqualified and twenty-three yet to be heard from. Not long after that, the first reports began to come in from the Far West:

San Francisco Board #326: We have examined registrant Carol Herrick and find her acceptable for Selection . . .

Los Angeles Board #406: We have examined registrant Philip Haas and find him acceptable for Selection . . .

A red slip from Seattle Board #360: Registrant Ethel Pines declared ineligible on medical grounds; registrant Pines has cancer. Mulholland removed the name of Ethel Pines from his list.

By 1340 hours, he was nearing completion. A quick check indicated that he had forty-eight men, forty-six women. Ten of his original hundred and ten were scratched, ineligible. One Volunteer. Seven reports were yet to come in.

Ten minutes later, they were in: five acceptables, two rejects. Mulholland drew a line under the

column of male names quickly counted upward: fifty names in all, headed by Cyril Noonan, Volunteer. He was short one woman.

Now he reached into his replacement basket and drew out the three cards that had been left over from the *Skyrover* quota. One man, two women. Mulholland put the man's card aside. He flipped the other two cards into the air. One landed face up; he snatched at it — the card of a woman named Marya Brannick.

Marya Brannick's name was entered in the fiftieth slot on the distaff side of the *Gegenschein* list. Carefully putting the completed *Gegenschein* list to one side, Mulholland took tomorrow's *Aaron Burr* list from its pigeon-hole and inscribed the names of Irwin Halsey and Maribeth Jansen at the heads of the two columns.

He buzzed for Miss Thorne.

"Jessie, I've assigned the three leftovers from the *Skyrover* list. Brannick goes into the *Gegenschein*, Halsey and Jansen are being held over till tomorrow for the *Aaron Burr*."

Miss Thorne nodded efficiently. "I'll see that the notification goes out to the local boards. Anything else, Mr. Mulholland?"

"I don't think so. Everything's under control."

She gave him a toothy smile and scuttled back to her adjoin-

ing cubicle. Sighing, Mulholland checked the clock. 1358 hours. Astonishing how smoothly the Selection mechanism works, he thought. The list gets filled as if by clockwork.

AND it *had* been clockwork, he realized, with himself doing nothing that a robot was unable to do. He wondered what a film of himself at work on a typical day would look like, speeded up a little. Even more ridiculous than the ancient fast-camera films, no doubt. He would emerge on the screen as an inane fat little bureaucrat, busily pulling lists in and out of pigeonholes, inscribing names, juggling surpluses, carrying forth extra Selectees until they were needed, signing documents, self-importantly buzzing for his secretary —

It was an unflattering picture. Mulholland tried to blank it out, but the image refused to quit his mind. Thank God it was quitting time, he thought!

He studied the completed *Gegenschein* list again. It looked all right: the hundred names, fifty in each column, each on its appointed line. He skimmed down the men's list: *Noonan, Cyril. Dawes, Michael. Fowler, Lawrence. Matthews, David.* And right along to the names at the bottom: *Nolan, Sidney. Sander- son, Edward.*

He checked out the women's column next. *Thomas, Cherry. Martino, Louise. Goldstein, Erna.* And down to the last, the ink not yet dry on her name: *Brannick, Marya.*

Mulholland nodded. Fifty here, fifty there. The list was okay. He scrawled his signature in the proper place. Another day, another shipload, he thought. Another cargo for his conscience.

The long list of names wavered, blurred; he closed his tired eyes. But that was a mistake. His imagination responded by conjuring up images of people; names took on flesh, faces hovered accusingly in the air. Edward Sanderson, he thought — and pictured, for no particular reason, a short, slim, narrow-shouldered man with thinning brown hair. Erna Goldstein—she might be a dark-haired girl with large eyes, who majored in dramatics in college and had hopes of writing a play, someday. Sidney Nolan —

Mulholland shook his head to clear it. He had managed to keep this from happening all day, this sudden taking on of flesh on the part of the names on his list. So long as he thought of them simply as names, as strings of syllables, everything was all right. But once they began asserting their humanity, he crumbled beneath the assault.

Hastily he pressed his thumb

against the sensitized spot, rolled up the sheet, stuffed it in its little cylinder, and sent it rocketing down the pneumotube to the waiting Brevoort. The *Gegenschein* had her cargo, barring accidents and possible suicides between now and the seventeenth of the month.

The clock said 1400 hours. The day was over. Mulholland rose, sticky with sweat, eyes aching, mind numb. He was free to go home.

At least you only get Selected once, he thought. I have to go through this every day.

VII

BANGOR Starfield, from which three ships of colonists departed every week, covered sixteen square miles of what had once been virgin forest in northern Maine. The lofty firs were gone, now; the area had been cleared and levelled and surrounded by a fence labelled at thousand-yard intervals, **NO ADMITTANCE EXCEPT TO CLASSIFIED PERSONNEL, by order of Colonization Bureau.**

Within the fenced-off area there was surprisingly little in the way of construction. Since the starfield was for government use only, not commercial, there was no need for the usual array of terminals, passenger buildings,

waiting rooms, and concessions that cluttered every commercial spaceport. The buildings at the Bangor field were few: a moderately elaborate barracks for the permanent staff, a more sketchily constructed housing unit for transients, a couple of staff amusement centers, and a small administration building. All these were huddled together in a compact group in the center of the cleared area. Fanning off in three directions were the blastoff fields themselves, kept widely separated because a starship likes a mile or two of headroom when it can get it.

On the morning of 17 October, 2116, two of Bangor Starfield's three blastoff areas were occupied. On Field One stood the *Andrew Johnson*, solemnly alone with a mile of heat-fused sterile brown earth on each side: a tall steel-blue needle that towered erect on its landing-jacks and retractile atmospheric fins. The *Andrew Johnson* was scheduled for departure on the 20th of the month; tomorrow the service crews would swarm out to Field One to begin the three-day countdown that prefaced every departure of a starship.

At present the service technicians were busily running the final tests on the *Gegenschein*, which stood in the center of Field Three, slim and straight, glinting golden

in the morning sunlight. The *Gegenschein* was due for blastoff at 1600 hours that afternoon, and with the countdown in its final six hours the service crews scuttled like busy insects through the ship, making certain that everything was in perfect order. Only once, twelve years before, had there been a major starship accident, but it was hoped that there would never be another.

Field Two remained empty. A returning starship, the *Wanderer*, was due back late that evening, and Field Two was being held open for it. A small service crew was on duty at the Field Two blockhouse, running final checks on the guidance system that would monitor the *Wanderer* into its landing orbit later in the day. Nothing could be left to chance, not with a hundred-million-dollar starship.

From the upper floor of the housing unit for transients, looking out past the squat yellow-brick edifice that served as the permanent staff residence barracks, both the *Andrew Johnson* and the *Gegenschein* could be seen, one at the western end of the field, the other far to the east. Mike Dawes, who had arrived at the Bangor starfield at 0945 hours after an early-morning flight from New York, peered out the window of the small room to which he had been assigned, looking first

at the distant blue-tinted *Andrew Johnson*, then, turning eastward, at the much closer *Gegenschein*.

“WHICH one am I going on?” he asked.

“The gold-colored one,” said the uniformed Colonization Bureau guard who had shown him to his temporary room. “It’s on Field Three, over there.”

Dawes nodded. “Yes. I see it.”

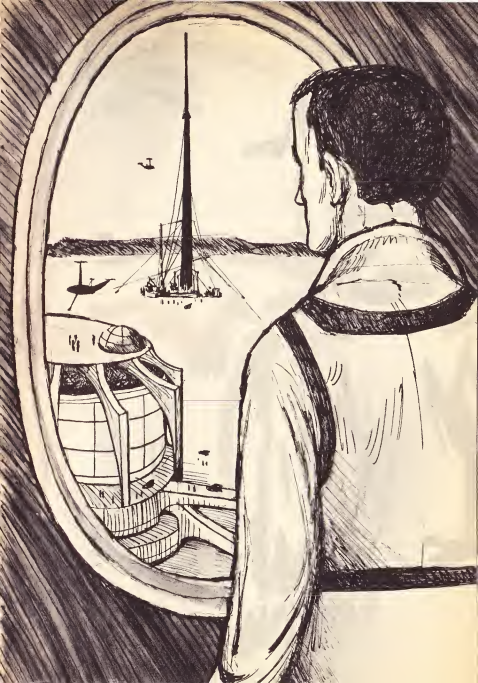
“You’ve got an hour or so to rest here and relax. At 1100 hours there’s a preliminary briefing session downstairs in the central hall. You won’t be able to miss it, just turn to your left when you leave the elevator. The briefing lasts about an hour. Then you’ll be given lunch.”

“I’m not going to be very hungry,” Dawes said.

The guard smiled. “Most of them never are. But the meal is always a good one.”

At 1100 hours Dawes followed the flickering neon signs down the hall to the elevator, and from there to Room 101. Room 101 was a huge auditorium in the center of the compound; several men in blue-and-yellow uniforms bustled about on a dais, adjusting a microphone, while pale, tense-faced civilians filtered in and took seats as far away from each other as possible.

Dawes slipped into an empty row near the back and looked



around, seeing his fellow Selectees for the first time. One hundred people were spread thinly about in an auditorium big enough for ten times that number. He managed an ironic smile at the way each Selectee had managed to place himself on a little island, insulated by five or six empty seats on each side from his nearest neighbor, as if afraid of impinging on the final hours of anyone's privacy. They seemed to be ordinary people; Dawes noticed that most of them appeared to be in their late twenties or early thirties, and a few were older than that. He wondered whether the colonies were portioned out strictly at random, or whether perhaps some degree of external control was exerted. It was perfectly within the range of probability for the Computer to select fifty men of twenty and fifty women of forty to comprise a colony, but it seemed unlikely that such a group would ever be allowed to go out.

Behind him, the auditorium doors closed. An officer with an array of ribbons and medals on his uniform front stepped up to the dais, frowned at the microphone, raised it a fraction of an inch, and said, "Welcome to Bangor Starfield. I'm Commander Leswick, and your welfare will be my responsibility until you blast off at 1600 hours. I know this has

been a trying week for you, perhaps virtually a tragic week for some, and I don't intend to repeat the catch-phrases and slogans that you've been handed for the past seven days. You've been Selected; you're going to leave Earth, and you'll never return. I put it bluntly like this because it's too late for illusion and self-deception and consolation. You've been picked for the most important job in the history of humanity, and I'm not going to pretend that you're going out on an easy assignment. You're not. You're faced with the tremendous challenge of planting a colony on an alien world trillions of miles from here. I know, right now you feel frightened and lonely and wretched. But never forget this: each and every one of you is an *Earthman*. You're a representative of the highest form of life in the known galaxy. You've got a reputation to live up to, out there. And you'll be building a world. To the future generations on that world, you'll be the George Washingtons and Thomas Jeffersons and John Hancocks.

"The planet you're going to is the ninth out of sixteen planets revolving around the star Vega. Vega is one of the brightest stars in the sky, and also one of the closest to Earth — 23 light-years away. You're lucky in one respect: there are two colonizable planets in the Vega system, your

world and the eighth planet, which is not yet settled. That means you'll eventually have a planetary neighbor, unlike most other colonies which are situated on the only habitable world in their system. The name of your planet, by the way, is Osiris, from Egyptian mythology — but you can call it anything you like, once you get there.

“THE trip will take about four weeks, even by Einstein drive. That'll allow you plenty of time to get to know each other before you reach your new planet. Captain McKenzie and his crew have made several dozen successful interstellar flights, and I can assure you you'll be in the best possible hands.

“The name of your ship, as you know, is the *Gegenschein*. We draw the names of our ships from three sources: astronomical terms, historical figures, and traditional ship names. *Gegenschein* is an astronomical term referring to the faint luminosity extending along the plane of the ecliptic in the direction diametrically opposite to the sun — the sun's reflection, actually, bouncing back from an immense cloud of stellar debris.

“I think that covers all the essential points you'll need to know at the outset. We're going to adjourn to the mess hall now for a most significant occasion: the last

meal you're ever going to eat on the planet Earth, and also the first meal you will eat with each other. I hope you all have good appetites, because the meal is a special one.

“Before we go in, though, I'm going to call the roll. When you hear your name, I want you to stand up and make a complete three hundred sixty-degree revolution, letting everyone get a look at you. This is as good a time as any to start getting to know each other.”

He picked up a list. “Cyril Noonan.”

A rangy, powerful-looking man in a front row rose and said, in a booming voice that filled the auditorium easily, “The name I use is Ky Noonan.”

Commander Leswick smiled. “Ky Noonan, then. Incidentally, Ky Noonan happens to be a Volunteer.”

Noonan sat down. Commander Leswick said, “Michael Dawes.”

Dawes rose, blushing unaccountably, and stood awkwardly at attention. Since he was at the back of the auditorium, there was no need for him to turn around. A hundred heads craned backward to see him, and he sat.

“Lawrence Fowler.”

A chunky man in the middle of the auditorium came to his feet, spun round, smiled nervously, and sat down. Leswick called the next

name, and the next, until all fifty men had been called.

He began on the women after that. Dawes watched closely as the woman rose. Most of them, he saw, were eight to ten years older than he. But he paid careful attention. There was one girl named Herrick who interested him. She was young and looked attractive, in a wide-eyed, innocent way. Carol Herrick, he thought. He wondered what she was like.

VIII

IT was probably an excellent meal. Dawes did not appreciate it, though. He ate listlessly, picking at his food, unable to enjoy the white, tender turkey, the dressing and trimmings, the cold white wine. Although he had overcome his initial bitterness over Selection, a lingering tension remained. He had no appetite. It was an inconvenience shared by most of his fellow Selectees, evidently, judging by the way they toyed with their food.

The Selectees had been distributed at ten tables. Dawes was dismayed to find, when he took his seat, that he could not recall the names of any of the other nine Selectees at his table. But his embarrassment was short-lived. A round-faced, balding man to his left said, "I'll confess I didn't catch too many names during roll-

call. Maybe we ought to introduce ourselves all over again. I'm Ed Sanderson from Milwaukee. I used to be an accountant."

It went around the table. "Mary Elliot, St. Louis," said a plump woman with streaks of gray in her hair. "Just a housewife before my number came up."

"Phil Haas, from Los Angeles," said a lean-faced man in his late thirties. "I was a lawyer."

"Louise Martino, Brooklyn," said a dark-haired girl of twenty-five or twenty-six, in a faltering, husky voice. "I was a salesgirl at Macy's."

"Mike Dawes, Cincinnati, Junior at Ohio State, pre-med student."

"Rina Morris, from Denver," said a good-looking redhead. "Department-store buyer."

"Howard Stoker, Kansas City," rumbled a heavy-set man with a stubbled chin and thick, dirty fingers. "Construction worker."

"Claire Lubetkin, Pittsfield, Massachusetts." She was a bland-faced blonde with a nervous tic under her left eye. "Clerk in a video shop."

"Sid Nolan, Tulsa. Electrical engineer." He was a thin, dark-haired, fidgety man who toyed constantly with his silverware.

"Helen Chambers, Detroit," said a tired-looking woman in her thirties, with dark rings under her eyes. "Housewife."

Ed Sanderson chuckled uncomfortably. "Well, now we know everyone else, I hope. Housewives, engineer, college student, lawyer —"

"How come there ain't any rich people Selected?" Howard Stoker demanded suddenly. "They just take guys like us. The rich ones buy themselves off."

"That isn't so," Phil Haas objected. "It just happens that most of the wealthy executives and industrialists don't get to be wealthy until they're past the age of Selection. But don't you remember a couple of months ago, when they Selected that oilman from Texas —"

"Sure," Sid Nolan broke in. "Dick Morrison. And none of his father's millions could get him out."

STOKER growled something unintelligible and subsided. Conversation seemed to die away. Dawes looked down at his plate, still largely untouched. He had nothing to say to these people with whom he had been thrown by the random hand of Selection. They were just people. Strangers. Some of them were fifteen years older than he was. He had only just stopped thinking of himself as a boy a few years before, and now he was expected to live among them as an equal, as an adult. *I didn't want to grow up*

so soon, he thought. *But now I don't have any choice, I guess.*

The meal dragged on to its finish around 1330 hours. Commander Leswick appeared to announce a ninety-minute rest and recreation period. Boarding of the ship would commence at 1500 hours, sixty minutes before actual blastoff time.

They filed out of the mess hall — a hundred miscellaneous people, each carrying his own burden of fear and regret and resentment. Dawes walked along silently beside Phil Haas, the lawyer from Los Angeles. As they reached the door, Haas smiled and said, "Did you leave a girl friend behind, Mike?"

Dawes was startled by the sudden intrusion on his reverie. "Oh — ah — no, I guess not. There wasn't anybody special. I figured I couldn't afford to get very deeply involved, not with four years of medical school ahead of me. Not to mention interning and all the rest."

"I know what you mean. I got married during my senior year at U.C.L.A. We had a hard time of it while I was going to law school."

"You — were married?"

Haas nodded. They stepped out into the open air. There was no lawn, just bare brown earth running to the borders of the starport. "I have — had — two chil-

dren," he said. "The boy's going to be seven, the girl five."

"At least now your wife's not eligible for Selection herself," Dawes said.

"Only if she doesn't remarry. And I asked her to remarry, you see. She's not the sort of woman who can get along without a man around." A momentary cloud passed over Haas' bony face. "Another two years and I would have been safe. Well, that's the way it goes, I guess. Take it easy, Mike. I suppose I'll see you at 1500 hours." Haas clapped Dawes genially on the shoulder and strode away.

At 1500 hours, the gong in the hall rang again. The crisp voice out of the speaker said, "Attention. Attention. All Selectees are to report to the front of the barracks for boarding ship. All Selectees are to report to the front of the barracks for boarding ship, at once."

IN THE hall, Dawes met Mary Elliot; the older woman smiled at him, and he returned the smile tensely. Several Selectees whom Dawes did not know joined them at the elevator, and they rode down together.

"Well, this is it," Mary Elliot said. "Goodbye to Earth. I thought this week would never end!"

"So did I!" exclaimed a willowy thirtyish brunette behind Dawes.

"But it ended all right. So — so long to Earth."

Three motor-coaches waited outside the barracks. Guards in blue-and-yellow uniforms efficiently herded the Selectees into the first coach until it was full, then began channelling people toward the second. Dawes boarded the third coach; by that time, the first one was halfway across the immense spacefield. The uniformed men did their job with a calm impersonality that seemed faintly inhuman to Dawes. But, he reflected, they had to do this three times a week. All over the world, now, people were being herded into starships. By nightfall six thousand Earthmen would be on their way to an uncertain destination.

Close up, the *Gegenschein* seemed immense. Standing upright on its tail, it reared two hundred feet above the bare brown soil. Its hull was plated with a molecule-thick sheath of gold, by way of ornament; each of the starships had its own distinctive color. The hatch was sixty feet above the ground. To gain entry, you had to ride up a gantry lift that held five people at a time. A catwalk was available for those who wanted to climb.

Dawes was in no hurry. He waited in line for his turn to enter the lift. Turning, he took his last look at Earth, sucked in

his last planetside breath of Earth's air.

It was mid-afternoon. In the quiet isolation of the starfield the air had a clear, transparent quality. There was a tangy nip in it; it smelled of distant fir and spruce. The sun was low in the October sky, and a brisk breeze swept in from the north.

Now, at the moment of ship-boarding, Dawes began to think of all he would never see again. Never another sunset on Earth, never the moon full and pale in the sky, never the familiar constellations. Never again the glory of autumn-tinted maples, never the sight of football players racing down a field, never again a hot dog or a hamburger or a vanilla sundae. Little things; but little things added up to a world, and it was a world he was leaving forever behind.

"Next five," came the guard's voice.

Dawes shuffled forward and onto the metal platform. The lift rose with a groaning of winches. Now that he was close to the ship's skin, he could see the tiny pittings and indentations that told of previous service. The *Gegenschein* looked newly-minted at a distance, but at close range the appearance was far different.

The lift halted at the lip of the entry hatch. Hands gathered them in, and behind Dawes the

lift began to descend for its next load. Within, fluorescent lights cast their cold beams on a circular room which opened onto a spiral companionway at either end.

"Men go up, women down," chanted a space-tanned young man in starman's uniform. "Men to the fore compartment, women aft."

DAWES clambered up the ladder that lined the companionway at the top of the circular room. He realized that, in flight, gyroscopic balancers would keep the ship forever upright — but it was difficult to visualize the way the compartments would be oriented.

At the top of the ladder another crewman waited. "Men's dorm is straight ahead," he was told.

Dawes found himself in a compartment large enough for twenty-five persons. There was nothing luxurious about the compartment: no money had been expended on plush carpeting, mosaic tile walls, or the other trimmings customary in commercial spacecraft. The walls were bare metal, unpainted, unornamented.

Dawes recognized Sid Nolan, the engineer from Tulsa, already sprawled out in one of the acceleration cradles. Dawes nodded hello and said, "What are we sup-

posed to do, now that we're here?"

"Just pick out a cradle and sit down. Once everybody's aboard they'll tell us what happens next."

"Mind if I take this one?"

Dawes asked, indicating the cradle that adjoined Nolan's.

"Why should I mind? Suit yourself."

Dawes lowered himself into the cradle. It was like an oversize lounge chair, suspended on shock-proof cables. At right and left there dangled safety straps to be buckled before blastoff.

The chamber filled quickly. Dawes recognized Ky Noonan, the husky Volunteer, who entered, picked out a cradle, and immediately strapped himself in with an expert hand. Ed Sanderson, the accountant from Milwaukee, was three cradles to Dawes' left.

Dawes' watch said 1520 hours when the chamber was filled. A loudspeaker overhead crackled into life.

"Settlers of the planet Osiris, welcome aboard the starship *Gegenschein*," a deep, pleasantly resonant voice said. "I'm Captain McKenzie, and for the next four weeks I'll be in command of your ship. The compartments you now are in will be your residences for the entire journey — but you won't be as cooped up as it may seem now. There are two lounges, one fore and one aft, and a galley where you'll take your meals.

"The *Gegenschein* carries a crew of nine, and you'll meet them all soon enough. But I'll have to point out now that this isn't exactly a luxury liner. My crewmen have their own jobs to do, such as navigating, controlling the fuel flow, servicing the ship in flight. You'll be responsible for the tidiness of your own cabins, and each day ten of you will serve with the crew to help prepare meals and clean the ship.

"Blastoff will take place, as you know, at 1600 hours. We will travel on rocket drive for eighty-three minutes. At 1723 hours the rocket drive will cease to be operative, and we will make the Einsteinian conversion to nospace at 1730 hours. At 1800 hours dinner will be served in the galley.

"We'll continue on Einstein drive for the next four weeks. In case any of you intend to get a last look at Earth as we blast off, please be informed now that there are no vision outlets or pickups anywhere in the ship but in the main control cabin. The reason for this is simple: any kind of porthole constitutes a structural weakness in the hull, and since better than 99% of the trip is going to be spent in nospace, where there's nothing to see anyway, the designing engineers have eliminated the visual outlets.

"Let me ask you now simply to relax, lie back, and get to know

your neighbor. Blastoff time is thirty-five minutes from now. Thank you."

The speaker clicked off.

Minutes ticked away. Dawes tried to freeze in his mind the image of the moon full in the night sky, the Big Dipper, the belt of Orion. Less than ten minutes remained now.

He tried to picture the layout of the ship. At the very top, at the rounded nose, the control cabin and crew quarters were probably located. Then, he thought, below that were the two male dormitories, one on each side of the ship. Then the central lounge, and below that the two female dorms. In the rear, the other lounge, and the galley. And behind them, the rocket combustion chambers and the mysterious compartment housing the Einstein Drive.

He knew very little about the Einstein Drive. Only that its core was a thermonuclear generator that, by establishing a controlled field of greater than solar intensity, created a stress-pattern in the fabric of space. And that the ship would nose through the stress-pattern like a seal gliding through a cleft in the Arctic ice, and the ship would enter the realm termed *nospace*.

And then? Somehow, travelling faster than the normal universe's limiting velocity, that of light, the

Gegenschein would breast the gulf of light-years and emerge from *nospace* in the vicinity of Vega, to make a landing on Osiris by conventional chemical-rocket propulsion.

Far beneath him, Dawes sensed the rumbling of the giant rocket engines. There was a thunderous roar; a massive fist pushed down, against his chest, as the ship lifted. His heart pounded furiously under the strain of acceleration. He closed his eyes.

He felt the pang of separation. His last bond with Earth, the bond of gravity, had been severed.

IX

DAWES had never known four weeks could move so slowly.

The novelty of being spaceborne wore off almost at the beginning. In *nospace*, there was no sense of motion, no rocket vibration, no feeling of acceleration. The ship hung motionless. And the hundred passengers, crammed mercilessly into their tiny vessel, began to feel like prisoners in a large cell.

As "day" dragged into "day" and week into week, Dawes found himself going stale with the monotony and constant discomfort. He counted days, then hours, until landing. He slept as much as he could, sometimes fifteen and sixteen hours a day,

until he could manage to sleep no more.

Little cliques were forming aboard the ship as the weeks passed. Groups of six or eight took shape: people from the same geographical area, or people of the same general age and intelligence groups, who saw something to share in their common misfortune. Dawes joined none of these groups. He was the youngest member of the colony, at twenty — by some fluke of the Computer, none of the other men was less than twenty-five, and most were in their early thirties — and he stood to one side, unable to mingle at ease with the older people. Many of them had lost wives, families, homes that had been built and furnished with care and expense, jobs that had cost them outlay of energy and vigorous exertion. He felt guilty, in a way, that he had lost nothing more serious than his education and his chosen profession. Conscious that the other Selectees were adults and he himself something less than that, though more than a boy, Dawes established and observed the gulf between them, and made few friends.

In the third week an election was held; Phil Haas was chosen Colony Director, running unopposed. He announced that he would serve for one year and then would hold new elections.

The colonists assembled granted him the right to rule by decree until a constitution could be adopted, and some sort of colonial council established.

Dawes wondered about the unanimity of the election. Certainly there were other men among the fifty who yearned for power. Why had they kept politely silent while Haas was being acclaimed? Men like Dave Matthews, Lee Donaldson: strong men, capable men, outspoken men. Perhaps they were just biding their time, Devers thought. Waiting, letting Haas handle the difficult task of getting the colony in motion, then making their bids.

Dawes shrugged. *He* had no interest in playing politics. He kept to himself, intending to do his job as a colonist as best he could, without looking for trouble. Let others fight among themselves for responsibilities; he was content to drift passively along. After all, he thought, he hadn't asked to be sent here. Nor was he going to ask for any great share in the responsibilities.

AT the end of the fourth week, finally — it seemed like the fourth century since blasting off from Earth — a shipwide announcement sent the Osiris colonists scuttling back to their protective cradles.

"The time is 1443 hours, ship time. In exactly twelve minutes, at 1455, we're going to make a transition out of nospace and back to rocket drive. We'll enter the atmosphere of Osiris at 1600 hours and take three hours to complete our landing orbit. We'll touch down on the day-side of Osiris at 1900 hours, which will be exactly noonday down below. Everybody strap down now."

Dawes' fingers quivered nervously as he lashed himself into the acceleration cradle. This was it! Landing in less than five hours!

He wondered about Osiris. The Colonization Bureau had prepared a couple of mimeographed sheets about the planet for distribution to the colonists, but the information on them was scanty. He knew that the planet was roughly Earthsize — 8100 miles in diameter — and that the soil was arable; that the air was like the air of Earth, only with a trifle less oxygen, a trifle more nitrogen, not enough of a difference to matter; that the planet had seven continents, of which two were polar and thus uninhabitable. Survey team reports were never tremendously reliable: the survey teams moved with desperate haste, often scouting an entire solar system in a day or two, and once they found a world to be reasonably suitable they rarely bothered to look for drawbacks.

According to the survey team report, there was no intelligent life on Osiris, at least not on the temperate northern continent that had been chosen for the colony. It was an easy statement to make; so far intelligent life had been discovered nowhere else in the universe. Many planets had species no more than a hundred thousand years away from intelligence, but nowhere but on Earth was there a culture, a civilization, as much as a language. Or so the findings had been so far.

At 1455 hours came the shock of transition. The Einstein generator lashed out, smashing a gap in the fabric of nospace, and the *Gegenschein* slipped through the aperture and back into the universe of real things. Instantly the rocket engines came into play, guiding the ship into orbit round the planet below. In a series of ever-narrowing spirals the *Gegenschein* would glide downward, matching velocities with Osiris, until its path grazed the skin of the planet and the ship came to rest at last.

Lying pinioned in his acceleration cradle, Mike Dawes clenched his teeth against the pounding of the rockets. The *Gegenschein* was not insulated very well against engine vibration; it was strictly functional, a tube designed to transport people from

one world to another, without pre-tensions to comfort.

He regretted the lack of a vision screen. It might have been inspiring to see Osiris growing steadily ahead as the *Gegenschein* landed. Much more inspiring than lying on your back in a badly ventilated compartment, Dawes thought, lying in the half-darkness. Somewhere ahead in the night was Osiris, Vega IX, four billion miles from the fourth brightest star in Earth's sky. Would Sol be visible in Osiris' night sky? Probably — as an insignificant white dot of negligible magnitude.

NO ONE spoke as the *Gegenschein* plunged planetward. Each man in the compartment was alone with his dreams and memories now. The minutes passed; at 1600 hours Captain McKenzie announced that the ship had entered Osiris' atmosphere at last. The actual landing was still three hours away, as the ship swung round the planet, coming closer and closer to the surface —

1900 hours. Within his cradle Mike Dawes struggled to keep his stomach under control. The last hour had been a bumpy, bouncing ride downward through thickening layers of atmosphere. Atmospheric eddies jounced the golden ship; a storm layer buf-

feted it. But the journey was ending. The *Gegenschein* hung low over Osiris' northern temperate continent, dropping, dropping — Landing.

The impact shuddered through the ship. The *Gegenschein* wobbled only an instant before the landing-jacks took effect, digging into the ground.

Captain McKenzie said, "We've landed right on the nose. Welcome to Osiris, ladies and gentlemen."

We're here, Dawes thought.

He longed to burrow through the ship's wall and see the new planet. But an hour more passed before the colonists could leave the ship. First, the routine atmospheric tests ("as if they'll take us all back home if they discover that the air's pure helium," Sid Nolan grumbled). Then, the cooling-off period of fifteen minutes while nozzles beneath the ship's belly sluiced decontaminating fluids onto the landing area to deal with the radiation products and chemical poisons of the rocket exhaust.

After that, the opening of the hatch, the lowering of the catwalk. No gantry lift waiting for them; descent from the ship would be by ladder only. Phil Haas and Mary Elliot were the first people out; after them came the others, filing in slow shuffle along the companionway until

they reached the passenger exit hatch.

Dawes was the twentieth to leave the ship. He stepped out onto the lip of the hatch.

Osiris lay before him. The ship had landed in a clearing at the shore of a glittering blue lake. Beyond the expanse of pinkish-red sand, the soil became more fertile; not far away loomed a dark, ominous-looking forest, and high beyond rose arching black cliffs.

Gray clouds lay heavily in the dark-blue sky like greasy puffs of wool. High overhead burned giant Vega, with its disc the apparent size of the sun of Earth, even at a distance of four billion miles. The air smelled subtly different — thin, with a salt tang to it that was nothing like the tang of the open ocean. And it was cold. The temperature was about fifty, but an icy wind came sleeting down out of the forest, cutting into him as he stood staring sixty feet above the ground.

HE hadn't expected it to be this cold. For no specific reason he had anticipated tropic heat. But Osiris, at least this continent at this time of year, seemed bleak, inhospitable, uninviting.

"Come on, kid," someone said behind him. "Don't stand there all day. Get down the ladder."

Dawes reddened and scram-

bled hastily down the catwalk. The others were waiting below. The pinkish sand crunched underfoot. Feeling for the first time, Dawes thought with awe and wonder, the touch of a human foot.

Chill winds swept down on him as he stood huddling into himself for warmth, waiting for Haas to organize things, to take charge. As the colonists filed out of the ship, they wandered about aimlessly on the beach, moving without direction or purpose or words, all of them struggling to minimize the shock of concrete realization that they were alone on an alien planet, never to see Earth again.

At last all hundred had disembarked, as well as Captain McKenzie and his crew.

Haas had obtained a whistle from somewhere. He blew it now.

"Attention! Attention, everybody!"

The wanderers returned to the group. Silence fell. The wind hooted through the distant forest.

Haas said, "Captain McKenzie tells me that he intends to blast off for Earth as soon as possible. Our first job, then, is to unload the ship. We'll do it in bucket-brigade fashion. Noonan, pick a team of five men and go with Captain McKenzie: you'll be the ones to get the crates out of the ship. Sanderson, choose three and arrange yourselves near the ship

to take the crates as they come out. We'll pass them along until they've been placed over there, at the end of the beach, beyond the five hundred yard safety zone the *Gegenschein* is going to need." Haas paused. "Matthews, take four colonists and go scouting around the area. Look around for any lurking wildlife, and yell if you see anything. The rest of you just stay in the area; no wandering off."

Dawes was passed over by the heads of the teams; he shrugged, thrust his hands in his pockets, and stood to one side. The cargo hatch in the belly of the ship was lowered open, and Noonan and his team entered, while the *Gegenschein* crew clambered back up the catwalk to ready their ship for departure. In a few minutes, crates began appearing, heavy wire-bound wooden crates that contained all of Earth that there had been room to bring along.

OTHERS lugged the crates across the clearing, out of the way of the ship's rocket-blast area. The job took nearly an hour. Haas inventoried each crate as it appeared, checking it off against a master list. When half had appeared, he whistled again and rotated the teams, letting the tired men rest and putting fresh ones to work. Dawes took his place in the second team, hauling

the crates away from the ship and over to the supply dump.

The cargo hold was nearly empty when Dave Matthews came trotting out of the forest, shouting for Haas.

The Colony Director turned. "What is it, Dave?"

Matthews raced up, panting. Dawes and a few others stopped work to listen to him.

Matthews gasped, "Aliens! I saw aliens!"

Haas frowned. "What?"

"Skulking around in the edge of the forest. Dark shadowy things. They looked like men, or apes, or something."

A twinge of fear went through Dawes. But Haas smiled. "Are you sure, Dave?"

"How can I be sure? They ran away as soon as I went toward them."

"Did anyone else in your team see them?" Haas asked, looking at the other four members of the scouting patrol.

"Not me," Sid Nolan said.

"Me neither," Paul Wilson agreed. "We came running when Matthews shouted, but we didn't see anything."

"And the survey team said there was no intelligent life on Osiris," Nolan pointed out.

Haas shrugged the matter off. "We'll check later. You might have been mistaken, Dave."

"I hope so. But I wasn't."

The affair was allowed to drop there. At the moment, it was more urgent to empty out the *Gegenschein*.

The work made Dawes perspire, and then he felt colder when a gust of wind came. But he enjoyed the mere activity of moving around, of using his muscles after four weeks of dreary confinement.

At last the ship was unloaded. An assortment of packing-crates and smaller cases sat in disorder five hundred yards from the ship. The crewmen bustled busily about, checking off items on a vastly accelerated count-down. It took two days to prepare a ship for blastoff when it was laden with colonists and cargo; empty, it could be readied in only a few hours.

While the crewmen worked, the hundred colonists boarded the ship for the last time, to prepare a meal in the galley. It would be their third meal of the day. But it was only midday on Osiris, and Haas had ordered that work would continue until sundown, six or seven hours hence, so they would be adjusted to the new time-schedule from the very start. Dawes was on the cleanup crew after the meal. When he emerged from the ship, finally, he saw Haas and Captain McKenzie in conference. Haas was counting, to make certain everyone was off

the ship. There was always the chance of a stowaway.

He blew his whistle. "Attention, all! The *Gegenschein* is about to blast off! Everyone over by the cargo, right away! The *Gegenschein* is leaving!"

Final preparations took twenty minutes. Mike Dawes, standing in the safe zone with the other colonists, felt a sharp inward tug as he saw the ship seem to draw back on its haunches, retracting its landing jacks in the last few moments before blastoff. This was the last link with Earth, the golden ship at the edge of the lake.

The warning honk died away and the ship sprang suddenly up from the ground, hovering on its blazing pillar of flame for a moment as it fought with Osiris' pull, then, breaking loose, shot upward to the cloud-muddled sky. For half a minute, perhaps, the retreating rocket-blast added a second sun to the sky. A strange luminous glow cast double shadows over the ground, but faded rapidly. The *Gegenschein* was gone.

A life hardly begun was finished now, Dawes realized.

X

PHIL HAAS mounted a packing-crate at the far end of the clearing and blew his whistle.

It was time to get things set up. Dawes joined the gathering group.

"We're on our own now," Haas said, speaking loudly to fight the insistent whistling of the wind. "That ship is gone and it isn't ever coming back. We've got plenty to do now. The first thing is to set up the stockade and inflate the domes."

A voice from the back of the group — Dave Matthews' voice — called out. "Phil, what about those aliens I saw? I think we ought to have a permanent security patrol, just in case they come back."

Haas' lean face darkened. "The important thing is to get the stockade built immediately."

"But the aliens —"

"There's some doubt as to whether you actually did see aliens, Dave. Remember, the survey team didn't find any such creatures here —"

"How long did they look? Half an hour?"

Haas said with a trace of impatience, "Dave, if you want to discuss this further, take it up in private with me. We can't spare men for a patrol until the stockade's been built. Besides which, your aliens, if they exist, are probably more afraid of us than we are of them." Haas chuckled. "Let's get busy. We've got plenty more things to do by nightfall —

important things — including the marrying."

Dawes moistened his lips. Yes, the marrying! He had pushed the thought into the back of his mind, but now there was no avoiding it.

He drew his jacket tighter around himself. Like most thin people, he had little use for cold weather; the wind seemed to cut right through his jacket and between his ribs. The survey-team report had said Osiris was Earth-type, uninhabited, and fairly fertile, but they hadn't said anything about that damned nor'wester that ripped down constantly from the forest.

Haas stepped down from his packing-crate and called over Noonan, Stoker, Donaldson, and several of the other stronger men of the group, to discuss plans for setting up the colony. According to the booklets that had been distributed before landing, there was a fixed and time-tested procedure for setting up a new colony — a procedure that had worked well on the hundreds of worlds to which humanity had already spread.

The first step was to establish a stockade, to mark the original boundaries of the colony and to provide a tangible measure of the colony's foothold, as well as to serve in keeping stray alien creatures away.

Once the stockade was up, the bubble-houses went up, the homes of the colonists. No more the painstaking hewing of logs for cabins; the new bubble-houses sprouted simply and easily from the extrusion nozzles. A gallon of the self-polymerizing fluid could serve to create homes for thousands of colonists; once it was gone, the science of architecture would begin on the new world.

ONCE the fifty couples were settled, the next matter was that of being fruitful and multiplying. Since the colonists were screened for fertility, it was reasonable to expect thirty or forty offspring in the first year of the colony, twenty or thirty in each succeeding year. By the time ten years had passed, the older children would be able to care for the new crop of babies. After fifteen years, the total population of the colony might be as much as five hundred — and the first second-generation marriages would be taking place. Given unlimited space and no economic problems, breeding could be unlimited for several generations. Population would expand: eight hundred, a thousand, fifteen hundred. It leaped upward by exponential bounds in each generation. And the colony spread outward into the alien wilds, until the raw settlement became a vil-

lage, a town, a city, a city among other cities. One by one, a series of new Earths would thus be carved across the reaches of space by grumbling, miserable, conscripted pioneers.

Haas took a while to formulate his plans for the first day's work. Dawes waited at the edge of the clearing. The idle colonists, in no hurry to receive their orders, had formed into the shipboard cliques again. Eight or nine women stood in one bleakfaced little clump not far away, their faces reflecting their realization of where they were and how dead their past lives were. Further away Dawes saw a circle composed of the younger unmarried men, joking tensely, nudging each other in the ribs. The four married couples — the Wilsons, Zacharies, Frys and Nortons — remained apart, as if emphasizing the fact that they would not be concerned with the mass mating soon to take place.

Dawes stole a look at the little group of women. At least half of them were far too old for him to begin to consider as a potential mate. If he had last choice, he might indeed have one of them thrust at him, but he hoped not.

A strange uneasiness stole over Dawes and he turned his attention away from the women. One of them would be his wife, on this bitter, wind-tossed world. He would know which one soon

enough. He did not dare speculate on which.

Haas had finished working out his plans. He whistled once again for attention.

"The order of business right now is to get the stockade up. You've been divided into six work gangs. Gangs one, two, and three will be led by Ky Noonan, Howard Stoker, and myself. We'll distribute blasters to those three gangs and you'll gather tree-trunks for the backbone of the stockade. Work gang four will be under Sid Nolan, and that gang will be in charge of placing the trunks in the ground. Work gang five, under Lee Donaldson, will bind the trunks together with permospray. Work gang six, under Mary Elliot, will unpack the crates and provisions."

IT was neatly arranged. Most of the men were assigned to the three logging groups. Dawes and sixteen others went into Nolan's group, which did the actual building of the stockade. The women were split between Donaldson's group and Mary Elliot's.

The work went off smoothly enough, thanks to the tools supplied by Earth. The forest was thick with barkless trees twenty feet high and six or eight inches in diameter; the three logging groups made swift work of burning them down, trimming away

the limbs and the fragrant needly foliage, and sizing the trees to a uniform twenty-foot length. It took only a few minutes to prepare each tree; within half an hour, several dozen were stacked at the border between the forest and the clearing.

At that point, Nolan's group went into action. They had already laid out their boundaries, and now it was a simple matter of scooping out a pit with the vacuum extractor, shoving the sharpened point of the trunk some four feet into the ground, and tamping down the ground. Dawes hove to with the rest, feeling a pleasant thrill at the thought that the colony was under way, that his hands were helping to shape its walls.

As the row of stakes grew, placed regularly in the ground three feet apart, Donaldson followed along with the extrusion machines, spewing out a binding layer of plastic between each wooden rib. And within the stockade boundaries the women worked, ripping into the sealed crates and laying bare their contents.

After nearly two hours of steady work, the stockade had taken definite shape on three sides. After three hours, it was practically finished, and Haas and his crew, no longer required to supply more logs, were fashion-

ing the gate and bolt for the stockade's entrance. Already the place seemed snug, the winds less cruel, Dawes thought. He felt exhausted from his work, the constant hoisting of logs and placing them in the ground, but it was a good kind of exhaustion, the warm feeling of constructive exertion.

Nightfall came. Giant Vega had dipped far below the horizon, and a sprinkling of unfamiliar constellations brightened the darkening sky. No moon had risen. But, by floodlights, the work had gone on. The stockade was nearly perfect, having sprung up miraculously in only a few hours. And the bubble-houses had been blown: fifty of them, small opaque blue domes that glinted dully in the floodlights' glare. A fifty-first dome, larger than the rest, stood in the very center of the stockade. It would be the central gathering-place of the colony in the early days.

Dawes hunkered down on his heels, resting. He was tired; his muscles would ache in the morning. But the colony was off to a flying start. The stockade was built and the homes were erected.

"Swell job, everyone," Haas congratulated them. "We're right on schedule. And it's wonderful the way you all pitched in and did your share."

"What about wives?" Noonan

asked. His voice echoed loudly inside the stockade.

A tense, apprehensive giggle began among the women, and rapidly spread through the group. Haas held up his hand for silence. "I was just getting to that part of it now. It's the one remaining item of business."

DAWES tensed. His stomach felt strange, and his hands were colder than they ought to be. *Wives.* The moment had come. In a few hours, he was going to have a woman for the first time. He wondered what it would be like — whether it would be the way he expected it to be.

Probably not. Somehow, nothing ever was.

The women looked strained, oddly tense, as Haas organized them into a group for the mate-picking. Dawes studied their faces. Cherry Thomas was smiling, openly expectant; she wanted a mate, and it didn't seem to matter to her who she got. Some of the other women looked worried, pale, tense. Those were the ones who had never been married, who had dreamed of a different sort of wedding-night, before their number came up. Others, those who had left husbands behind on Earth, were obviously thinking of their loved ones trillions of miles away.

Haas unfolded a sheet of paper

and frowned. "The time has come to couple off. The instructions I have suggest the following recommended procedure for handling this. As a Volunteer, Ky Noonan has the right to take first pick. As Colony Director, I get second pick. After that, we proceed in order of Computer Registration Number — an order known only to me, at the moment. I think that way is better than any other system, and unless I hear any strong objections that'll be the method we'll use."

No one spoke. Dawes privately wished that someone would speak up in favor of a more gradual system — say, letting things take their natural course, couples forming as the days went by. But colonies were warned against such arrangements. It was far safer to establish couplings right at the start, having everyone in the small community settled at once.

"Very well," Haas said. "We'll go down the list. Each man will select a woman, but she has the right of refusal. In case your choice refuses you, you don't get to pick again until every other man has spoken. If anyone remains uncoupled after three run-throughs, I'll make assignments myself. Okay. Noonan, as a Volunteer you've earned the privilege of picking first. Step forward and name your choice."

Noonan came forward, smiling calmly. He was the biggest, most aggressive male in the group, and he gloried in the confident knowledge of his own superiority.

He ran his eyes insouciantly down the row of waiting women. A strange mixture of emotions appeared on fifty feminine faces. Some of the women seemed fearful of being picked by him, others openly hostile, others pleadingly anxious.

After a moment of hushed silence, Noonan said, "All right. I pick Cherry Thomas."

Dawes let his breath out explosively. He had been certain that Noonan would pick Carol Herrick — but he had bypassed her in favor of the older woman, for some reason.

Haas said, "Miss Thomas, is this choice agreeable?"

Cherry Thomas stared levelly at Noonan, appraising him frankly. There were wrinkles creasing the skin around her eyes, and her flashily metallic smile seemed insincere and false. "I guess so," she said. "If Noonan wants me, I'll go with him."

HAAS made an entry on his list. "So be it. You can have your pick of any of the bubble-houses. Suppose I say now that any marriage can be dissolved on Osiris by approval of the Council, once we have a Council. Until

then, let's try not to have any split-ups."

Dawes watched Noonan and Cherry stroll away to take their pick of house-site. *No ceremony?* He wondered. It didn't seem so. The simple act of picking solemnized the marriage. Well, Dawes thought, it's a brand-new world. Perhaps it's better this way.

Haas was next, and to no one's surprise picked Mary Elliot, who accepted. That was a foregone conclusion, of course.

The Colony Director looked down at his list again, and announced that Lee Donaldson had next pick. Donaldson, a strong, commanding-looking man, strode forward and announced his choice loudly: "Claire Lubetkin."

Claire reddened, fidgeted, nibbled her lower lip. Haas put the question to her. She wavered indecisively, glanced around at the other men, and finally nodded. "I accept the choice."

After Donaldson came Howard Stoker. He came forward in his bear-like, rumbling walk, with the dirt of his day's labor still clinging to him.

He eyed the women as if making up his mind at the last moment and said, "Rina Morris."

Ninety-odd pairs of eyes focused on Rina Morris. The red-haired girl drew herself up stiffly. She looked at the thickset, ugly Stoker with an expression that

was anything but friendly. "Sorry. I'll wait a turn."

Stoker scowled at her angrily. "Okay. If you're going to be that way, to hell with you. I pick Carol Herrick instead."

Dawes whitened at the thought of Stoker pawing over Carol. He wanted to shout out, to protest.

But Haas said, "Sorry, Howard. I told you before that regulations don't give you a second choice until everyone else has spoken."

"But —"

"You heard me, Stoker."

"Dammit, I'm not going to wait at the end of the line! Just because that slut is too proud to have me, I —"

Haas said in a voice that suddenly crackled with authority, "You'll do whatever I tell you to do, Howard. Get back in line and wait your turn. Mike Dawes has next choice."

Stoker grumbled something, spat ostentatiously, and walked to the rear of the group. Dawes stumbled forth red-faced, still astonished at the sudden reprieve. Carol had been picked by Stoker, and Haas had refused to allow the choice, and now it was *his* choice —

A row of faces confronted him. Kindly maternal faces; frightened faces; amused faces. And one face above all others. Dawes searched for the words.

"I p-pick — I pick Carol Her-

rick," he stuttered, not daring to look at her.

Haas smiled. "Miss Herrick?"

Dawes waited for an agonizing span of time. He could not look at Carol's face. He stared away, at the ground, too tense to draw a breath.

Finally she said, in a voice so soft it could barely be heard, "I accept."

XI

DAWES and Carol left the clearing together, walking rapidly away without speaking, virtually without looking at each other.

He said to her finally, as they approached the circular row of bubble-houses, "We'd better pick one out."

"Pick any one you like—Mike."

He glanced at them. The domes were empty, merely arching shelters against the down-slanting winds, but they did provide a place to sleep if you didn't mind the ground. Colonists were not supposed to mind little things like having to sleep on the ground until there was time to build beds.

He pointed at the bubble-house that adjoined Noonan's. It might be a good idea to have Noonan as a neighbor, Dawes thought. Just in case of trouble.

"Let's take that one," Dawes said.

They walked toward it, Dawes carrying his own suitcase and hers, each with its twenty pounds of personal possessions. At the entrance to the dome he paused, wondering vaguely whether he should bother with the old ritual of carrying his wife across the threshold. He nearly put down the suitcases to turn to her; then, changing his mind, he simply walked inside the dome. She followed him in.

Within, the dome covered an area of perhaps two hundred square feet. There would be room for a bed and perhaps a clothes cabinet of some sort, not much else. Plumbing would come a while later; until that time, they would have to make do with the nearby lake for washing and drinking.

"It isn't very impressive, is it?" he asked.

"No. Not very."

"We'll fix it up. These domes are just temporary, just places to stay until we can begin building homes. We'll have a swell place some day, Carol."

He smiled encouragingly at her. But she could not keep up the pretense; she sank down onto her suitcase and stared bleakly off into nowhere. Dawes began to wonder about the sleeping arrangements for the night. They would have to spread out all their clothes, he thought, and huddle

together under layers of them for warmth —

"I hadn't expected it to be like this," she said suddenly in a toneless voice. "I mean, my life, and all. I never really thought much about what I was going to do with myself. But I didn't figure I'd end up in a little bubble on some other world."

"Neither did I. Neither did any of us, Carol."

"But we're here, aren't we?"

He nodded. After a moment he said, "What did you do, on Earth?"

"Do? Oh — I was a stenographer. Typist, mostly. For a construction firm in Oakland. I guess I was just waiting around to get married, when the time came. Well, I guess the time *did* come — sort of."

DAWES was disappointed. He had never asked her before — he had never dared to speak much with her on the ship — but he had privately hoped she had been an actress, a writer, perhaps a singer. Someone with a talent, someone he could be proud of, someone who would stand out from all the other women. He decided he would have to be content with her slim prettiness, and let all else go. She was, it seemed, just an ordinary girl, shyly innocent.

"I was going to college," he

said. "Pre-Med. Ohio State. Well, *that's* all finished too. We have to start all over, here on Osiris."

"It's like a blind date," Carol said quietly, when a few moments had passed. "You and me, put together like this. A blind date that's for keeps."

"Why did you say yes when I picked you?"

"What else could I do? I didn't want any of the others, the older men. You looked like somebody I could talk to, somebody I'd be happy with. Even if you are a little younger than me. It's better than going with one of those older ones."

"I hope we're happy together, Carol."

"I hope so too. But — Mike, I'm afraid —"

There were tears in the edges of her eyes. Dawes realized that she was rapidly losing her nerve and might well go off into wild hysterics any moment. That was not the way he cared to spend his wedding night. And he wouldn't know how to handle her if she burst out in tears.

He said as firmly as he could, "We're going to have to make the most of things, Carol. You know what I mean. It's going to be this way, now that our number came up. You and me, together on Osiris, and no turning back. Not ever."

She nodded. And then, after a

frozen moment of silence, he found himself moving toward her, putting his arms round her thin shoulders, kissing her. It was a tender, tremulous sort of kiss, a tentative contact of dry lips, and it had hardly begun when it was interrupted suddenly by a harsh yell coming from the general direction of Noonan's bubble at the left.

He pulled back from her. "Did you hear something — a shout?"

"It sounded like it was Noonan. Do you think he's having trouble with Cherry?"

"I don't know. But —"

The shouts came again. And this time the words were unmistakable. Noonan was bellowing, "*Hey! Dawes! Dawes! Help!*"

NOONAN and Cherry were outside their dome. They were surrounded by dark shapes, black forms against the blackness. Noonan was flailing at the shapes and shouting.

"Get away from me!" the big man cried. "*Hey, Dawes! Run! Get help!*"

Dawes froze, not knowing which way to turn. He heard Carol catch her breath sharply. His eyes, growing more accustomed to the dark, picked out the scene clearly now.

Six or seven dark stubby figures — unhuman figures — clustered around the struggling forms

of Noonan and Cherry Thomas. Dawes saw hunched, neckless heads, thick shoulders, corded arms. He was too sick to run. He stood where he was, listening to Noonan's cursing, Cherry's fear-sharpened voice, and the occasional croaking grunt of a smitten attacker.

Then he felt something cold and hairy touch him, and he heard Carol scream.

Other colonists were coming. Dawes fought, fought for the first time since forgotten childhood. He fought with arms and legs, whirled and butted with his shoulders, kicked out at chunky, heavily furred figures he could only partially see. His nails clawed into a musky-smelling hide. He squirmed, wriggled, kicked again. And then he could fight no more. He was held tight, solidly clamped by thick alien arms.

"Mike!" Carol whimpered.

He felt a pang of inadequacy. "I can't do anything, Carol. Not a thing. They've got me too."

"It's the aliens," came Noonan's angry voice. "The ones Matthews saw. Hostile aliens." His booming cry seemed to carry all over the colony ground. "Aliens!"

Dawes felt himself being hoisted from the ground. Two powerful hands gripped his ankles, two his shoulders. He

tried once again to resist, but it was like trying to break loose from the grip of a hydraulic press.

He swayed. He realized he was moving.

Dark shapes, and darker jungle. He was being carried toward the forest. He could see nothing, neither Carol nor Noonan nor Cherry.

After a while, he stopped trying to break free. The aliens were handling him gently enough. He simply could not move, but they were carrying him along at a steady pace. Too bad there was no moon, he thought. He could make out the shadowy shapes of trees bending above him, but all else was indistinct. He heard night-birds crowing harshly, mocking him from the treetops. Fear enshrouded him; he was too frightened even to be afraid, any more. Carried along in the soft alien grip, he offered himself up to fate, knowing he had no alternative.

THE journey went on for more than an hour. Perhaps it was two hours; it might just as well have been two months. Dawes lost all sense of the passage of time. The forest was surprisingly thick, for such a cold continent; dangling vines brushed his face, one of them leaving a nauseous trail of slime. His hands were in

alien control; he could not even wipe his face. After a while the trail of slime, running down the left side of his face from eyebrow to the corner of his mouth, began to burn — whether for imaginary reasons or because of some chemically corrosive effect, Dawes could not tell. He twisted his head around and managed to rub some of the slime off on the shoulder of his shirt. But an inch or two remained, just to the left of his eye, tormenting him by its inaccessibility. He wondered if it would leave some sort of mark, perhaps a white scar or a puckering of the skin.

At last the trek through the forest came to its end. The aliens broke from the thicket and Dawes could see the bald, bare faces of the jutting cliffs, the up-thrust fangs of black rock that had looked so forbiddingly Gothic when he had first viewed them from the lip of the *Gegenschein's* hatch.

He began to feel the ascent. Going up the side of the mountain was a terrifying experience — the most terrifying since the actual kidnapping.

The aliens, his night-sharpened eyes perceived, had thick bluish pads on their palms and on the soles of their blunt feet. Suction pads.

The aliens gripped him firmly, at shoulders and feet, and started

to ascend the naked face of the cliff. Dawes swung dizzyingly back and forth as they rose. They were climbing the unvegetated rock as if it were a ladder, and with each new upward thrust he canted out over the emptiness, wisely refusing to look down.

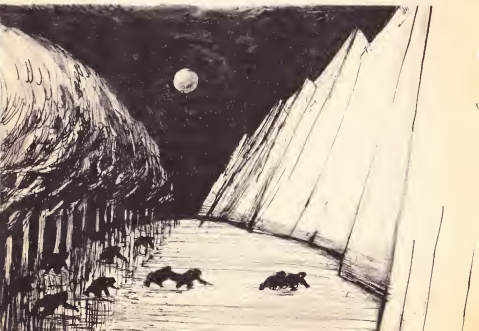
Then the upwardness ended, just when Dawes thought his mind would snap from the constant danger of the climb, and the aliens proceeded inward. Into a cave of some sort, that appeared to be hewn out of the face of the rock cliff.

Dawes' fertile imagination worked overtime. He pictured strange alien sacrificial rites taking place in this Haggardesque

cave. Or vampire bats lurking in the darkness ahead, grateful for the sacrifice being brought to them.

But none of the dire perils he conceived came immediately to pass. The aliens simply left him in the cave. They put him down with surprising gentleness, leaving him to lie in cold, moist sand, turned their backs on him, walked away. In the utter darkness he could see nothing at all.

He sensed other aliens moving about; he thought he could tell them by their ape-like shuffle. He wondered if the whole colony were to be carried off and deposited here in this cave. *The survey-team said the planet was*





uninhabited, he thought reproachfully. But Dave Matthews was right after all.

HE sat quietly in the darkness. The sound of sobbing was coming from a point somewhere to his right. As background noise he could hear the gentle murmuring sound of flowing water, as if there were a stream bubbling inside the borders of the cave.

"Who's there?" he asked. "Who are you?"

"It's Carol. Is that you, Mike?"

Some of his fear ebbed away. At least, he thought, he was not alone!

"Yes. Where are you, Carol?"

"Sitting in sand, someplace. I

can't see. What's going to happen to us?"

"I don't know," Dawes said. "Don't move. Stay right where you are and I'll try to find you. Damn this darkness, anyway!"

He looked around, trying to gauge the direction from which Carol's voice had come. But he knew that no vector would be accurate in here. The walls of the caves would have a distorting effect.

A voice he recognized as Noonan's broke in, saying, "Dawes, is that you?"

It came from someplace deeper in the cave, behind him, highlighted by resonating echoes. "Yes," Dawes said loudly. "And

Carol's here too. Is anyone else there?"

"I am," said Cherry Thomas.

Her declaration echoed around the cavern. No other voices entered in. Staring unseeingly ahead of him, Dawes waited a moment, then said flatly when the echoes died, "I guess it's just the four of us, then, up here in this cave. What the hell do they want with us?"

Nobody answered.

Outside the cavern mouth, somewhere to his right, the endless wind whipped around the mountains, whistling, moaning. Dawes shivered. In the darkness he could just barely see his own hand held before his face — and even then he could not really be sure whether or not it was imagination, not actual sight, that had put the image of the hand there. He had never experienced a darkness of such intensity before.

And he saw another darkness more clearly now—the darkness of a life that yanked a person out of his rightful place and threw him onto a strange world, and then when he had begun to carve some meaning and familiarity into the strangeness yanked him out again and tossed him in a windswept cave. He felt very alone, very young, more than a little frightened, just a little sick.

He started to crawl across the

cold wet sands that formed the floor of the cave. Evidently the brook he heard ran not too deep under the sand, close enough to the surface to impart a chill, and came bubbling out a few hundred yards deeper in the cave.

No one spoke. There was steady sobbing, but he had little hint of direction. He had no idea even of how large the cave was.

"Carol! Carol!" he called out.

On hands and knees he groped in the blackness. After minutes of uncertain searching, he felt a warm hand graze his, startling him a little. The hand found his wrist and tightened comfortingly.

"Thank God," he murmured.

Blindly he reached out and touched a yielding body. Arms gathered him in. He almost felt like sobbing, out of gratitude, out of shared terror.

When morning flooded brightly into the cavern, Dawes woke reluctantly, groggily, from a bizarre dream of alien worlds. He looked around.

With a dull sense of shock and anguish he made the discovery that he had spent his wedding night in the arms of Cherry Thomas.

XII

THE coming of daylight revealed Carol's location to him. She was lying about a hun-

dred feet up-cavern, a pathetic little bundle sprawled on the sand. She was still asleep, her knees drawn up into her body, her hands tucked under one cheek.

And, at his side, he saw that Cherry also slept — her clothes disheveled, her bright blonde hair streaming every which way (*the hair I fondled lovingly last night*, Dawes thought in guilty self-condemnation), her mouth, vacuously open, lips drooping apart. Dawes felt as if he had soiled himself. His body ached; every muscle throbbed, his bones were chilled by the damp and cold, and he felt a general lassitude, the weariness of a body not yet accustomed to the exertions of love.

Noonan was awake already. Dawes saw him far back in the cavern, over to the left on the side away from Carol. He was sitting up, arms clasped in front of him across his knees, looking amusedly at Dawes.

"Morning," the big man said with a grin.

"Good morning," Dawes said with a trace of primness that annoyed him as he detected it.

"Seems you got mixed up a little last night," Noonan remarked wryly. He didn't look concerned by the switch. "This is your gal up here, you know."

Dawes reddened. "I — it was

so dark — I didn't know —" He paused. There was something he had to know, but he could find no way of putting the question to Noonan. He said at last, "Tell me — did you — did you —"

He left the question unspoken. But Noonan grinned and said, "No, I didn't touch your sweetie. Couldn't manage to find her, to tell you the truth. But I'm not put out because of you and Cherry. Mistakes can happen. And you weren't the first with her, and I'm not going to be the last, either."

With one easy gesture Noonan pushed himself to his feet and ambled downcavern toward Dawes, who stood waiting, contemplating the shattered ruin of his values as he glanced down at the sleeping Cherry.

"These women will sleep through anything," Noonan chuckled. His eyes narrowed as he saw Dawes more closely. "Christ, you look awful. Green in the face."

"I'm — pretty tired out."

"You getting sick?"

Dawes shook his head. "I just feel washed out."

"You look sicker than just being washed out."

"How am I supposed to feel?" Dawes demanded. "Who knows where the hell we are? What are these aliens planning to do to us? We may be stew by lunch-

time, Noonan." Dawes' voice sounded thin and high in his ears.

"I doubt it," Noonan said casually. "But let's take a look."

Together they strolled forward to the lip of the cavern. Dawes gasped.

THEY were at least a hundred feet above the flat, dull-brown surface of Osiris. The cave was inset in an almost vertical rise of cliff. Above and below them were flat walls of black stone, gleaming faintly in the morning sun. And down below, on the distant ground, a few of the aliens moved in aimless patterns as if standing guard.

Dawes pointed out past the thickly forested area. "Look there. That must be the colony, in that clearing all the way out there!"

Noonan nodded. "A good ten miles or so. And we can see it easily. This is the damndest flat world I ever saw, except for these cliffs." He gestured downward, at the aliens. "Nasty bunch down there."

Dawes looked out and down. The aliens, at this distance, appeared to be nothing but yellow-brown splotches against the deeper brown of the soil. They were heavily furred, he saw, neckless, thick-bodied. He thought he could make out the

bluish-purple of the suction-pads on the palms of their broad hands.

Dawes stepped back from the rim of the cave-mouth, remarking with a levity he hardly felt, "It's a long drop."

He glanced at the bigger man, who grinned and said, "Damned right it is. I'd say we were stuck here a while. We'll just have to make the most of it."

Dawes quivered a little at Noonan's words, which uncomfortably echoed the words he'd spoken consolingly to Carol just before the alien attack. The reminder of his unconsummated marriage was painful. He turned away, to survey the interior of the cave.

The cavern was long and deep, deeper than it was wide; it slanted back downward, vanishing into a wall of rock at the rear beyond the penetrating range of the sunlight. Far to the back of the cave the little stream gushed forth out of the live rock, coursed along the cave floor for a space, and dropped below the surface again, puddling up into a small fast-flowing narrow lake. The morning air was cold and brisk; the wind wailed past the open mouth of the cavern in relentless pursuit of itself.

They were a hundred fifty feet above ground, in a cold little alcove in the side of a steep cliff.

They had fresh water. They could survive here indefinitely, if —

Hunger gnawed at Dawes' middle. He said to Noonan, "Suppose we're left here to starve to death? What if they don't bring us food?"

"We'll eat each other," Noonan said amiably. "Women and children first." He yawned, showing sharp, strong white teeth, and Dawes half-thought he might be serious. There was never any telling what idea Noonan might put forth as a serious suggestion.

Yet he was glad Noonan was here. The older man radiated strength and competence and courage, all of them attributes that Dawes knew he himself conspicuously lacked. Noonan was an adventurer. He had been a Volunteer. That took a kind of courage Dawes could hardly begin to understand, and he respected Noonan for it.

"Let's go wake up the women-folk," Noonan suggested.

"We might as well," Dawes agreed.

HE headed to the back of the cavern, where Carol slept. Looking back, he saw Noonan stooping over Cherry, shaking her urgently from side to side.

Carol still lay curled in her quasi-fetal position. She seemed so soundly asleep that Dawes re-

gretted having to wake her. He knelt by her side, listened for a moment to the untroubled rhythm of her breathing, and wondered how she could be so calmly asleep in a place like this.

He put his hand lightly to her shoulder. "Carol. Wake up, Carol."

She stirred, but her eyes remained shut — as if she did not want to wake, Dawes thought. As if she preferred the security of her dream. He shook her more energetically, and she began to awaken.

"Carol? Are you up?"

"What — oh — Mama, yes — I must have overslept —"

Her eyes opened and she sat up. For an instant she stared at Dawes, at the cave, with blank incomprehension. Then her dream of home faded and reality returned.

"Oh — I was dreaming. I slept so soundly all night — I thought you were going to come to me, but you didn't, did you? You —"

"Come," he said quietly. "Let's go down to the others. It's morning."

Cherry had awakened by this time; she stood stretching, knuckling her eyes, adjusting her clothing. Noonan, nearby, stood with arms folded. Dawes and Carol went toward them, and Cherry nodded at Carol, smiled

ironically at Dawes as if to re-establish the rapport that had existed between them in the darkness of the vanished night.

For a long moment the four of them stood apart and looked at each other. Just looked. And Dawes saw suddenly that life in the cave was going to be complicated.

He knew Noonan and Cherry, certainly, grasped the general picture. At the moment, he had no way of telling whether or not Carol realized what he had done the night before, or, if she did, whether she understood the implications of his act. That moment of love, in his blind, groping, panicky need in the darkness of the night, drew the four of them together in a way Dawes only partly understood. Inwardly he could be certain only that he had betrayed Carol.

The four of them just looked at each other.

Noonan was eyeing Carol's trim figure and high, full breasts with unconcealed curiosity. Cherry seemed divided: she was glaring at Noonan in a wifely, almost henpecking manner, and yet at the same time frankly studying Dawes in a way both maternal and openly possessive. She wanted everyone, it seemed.

Dawes himself felt terribly unsure of his emotions. By the laws of the colony, Carol was le-

gally his wife. But he had never touched her, except for one fleeting interrupted kiss. And he had spent their wedding night with Cherry.

"**W**E'RE not going to have much privacy in here," Noonan said at last, breaking a silence so taut it creaked.

"You can say that again," Cherry offered.

"I won't. But some of us are going to have to change their ideas a little. And I don't know how long we're going to be stuck up here, either — but I'd guess we don't get out until someone gets us out."

"You don't figure there's any way we can get out ourselves?" Dawes asked.

Noonan hunched his shoulders into a somber shrug. "I don't have any snap ideas. It's a long way down, that's all."

"Those aliens," Carol said in a hesitant voice. "They're down there just *watching* us?"

Noonan nodded. "There's a bunch of them outside, in the valley at the foot of the cliff. We're penned up here, and they can come get us any time they want. But there's no way for us to get out."

"And I don't suppose the colony is going to come rescue us," Cherry Thomas said. "They won't give much of a damn about

us. Chalk us off as lost, I guess. They'll be too busy defending their stockade."

"There isn't any defense," Carol said. "If they can walk up the side of a cliff, they can climb over a twenty-foot fence, can't they?"

Dawes said, "The colonists won't rescue us. They *can't*. They don't even know where we are. If there still is a surviving colony, that is."

Noonan shook his head in agreement. "That's a point. The aliens may have everybody cooped up, four to a cave. Or they may have just snatched the four of us. There's no way of telling."

"Well, we're stuck here," Cherry said. "But what are we going to do about food?"

Noonan shrugged. "We can't eat sand. Maybe the aliens will be nice about it and bring us something we can eat. Or maybe they won't."

"Suppose they don't?" Carol asked.

"Then there are three things we can do. We can sit around in here and wait to starve to death, or we can take turns eating each other, or we can simply jump out the front of the cave." Noonan laughed cavernously. "I'd recommend the last idea. It makes for a quicker death, that way."

DAWES walked to the lip of the cavern and peered down the vertiginous height. He was stunned to see alien faces peering upward at him. There were about twenty of the aliens halfway up the side of the cliff, making no attempt to move closer, looking upward at him. Their blunt heads were almost entirely covered with short bristly yellow-brown fur, from which dark blue eyes, piercingly intense, stared out.

Dawes turned away. Suddenly, he heard a thump behind him.

Surprised, he whirled and caught a glimpse of the purple suction-pad of an alien as it flashed and disappeared. A bundle lay at the mouth of the cave. Dawes ran to the edge of the cave and looked out. An alien was scampering down the side of the cliff to rejoin his fellows below.

Dawes returned to the bundle. It was a package about the size of a man, wrapped in a reddish-yellow animal hide that was shaggy and rank. Frowning, Dawes undid the coarse twine that held the uncured hide together and lay back the wrapping.

His eyes widened. Rising, he cupped one hand to his mouth and called out to the others.

"Hey, food! Come here, all of you! The aliens brought us food!"

As Noonan and Cherry and Carol came crowding around to see, Dawes spread out the provisions. The largest item in the bundle was a freshly-killed animal, small, foreshortened, vaguely pig-like, with a hairless black skin. A stiff little tail about six inches long thrust out sharply at them. There was a deep gash in the animal's throat, but otherwise it was whole, from its tail to its flattened snout and glassy yellow buttons of eyes. Strapped to the beast by a crude length of twine was a short, sharp knife made of some shiny gray material very much like obsidian.

The bundle also included several clusters of milk-white fruits the size of large grapes, and some oblong blue gourd-like vegetables with coarse, knobby skins. Dawes' mouth watered.

"So it looks like they intend to feed us," Noonan said. "That may be good, or maybe it isn't. I hope they're not fattening us for a sacrifice."

"We'll find that out soon enough," said Dawes. "We'll know whenever we get fed again. If they don't throw us any more for a week, we can figure that the fattening idea is wrong."

"How did the bundle get here?" Cherry asked.

"An alien climbed up the side of the cliff and tossed it in the entrance," Dawes said. "Then he

beat it. He looked like a big brown spider skittering down the rock wall."

Using the blade, Noonan sliced into the animal, while Dawes and the women watched. Dawes was fascinated with Noonan's surgical precision. The roughly-flaked stone knife was razor-sharp, and the big man had a ready way with the beast; he carved with the skill of a professional butcher. He laid the animal open speedily, pulling back flaps of its dark red underbelly-skin, and scooped out the warm entrails. He dumped them to one side.

"At least," Noonan said, "the alien blood is the right color." He efficiently carved chunks of meat from the small creature. "Maybe this meat is poison and maybe it isn't, but at least the blood's right."

Carol shuddered. "I've never eaten raw meat. Isn't there some way we can make a fire?"

Noonan paused to glance up at her. "No, there isn't," he said emphatically. "I know you didn't want to come on this trip, girly. But you're here, now. You'd better be ready to eat plenty of raw meat — and worse things."

XIII

THEY ate, and it was a strange, silent, almost shamefaced meal. The veneer of civilization

that still clung to all of them, even Noonan, dampened their spirits as they ate the bloody meat.

Dawes was voraciously hungry, and it wasn't as hard for him to overcome his conditioning against eating raw meat as he thought it would be. Still, something about the sticky blood that ran between his fingers, pasting them together, made him queasy. And he could see that Carol had to make a visible effort to choke the meat down. Noonan ate without inhibitions; Cherry put away her share with a certain reserve, but with no outward show of revulsion. The meat had an odd, pungent taste about it, even raw, that made it more appealing than it might otherwise have been.

There were ten of the blue gourds. After the meat course, Noonan doled out one gourd to each of them and put the remaining six aside. "In case we don't get fed again too soon," he explained. "These things will keep. The meat won't."

The gourds tasted sour, strongly acidified; they had a stringy, unpleasant texture, and needed plenty of chewing. But they were nourishing, and filled up the stomach well. Dawes finished his gourd quickly and turned his attention to the white grapes. These were doughy in consistency, dry, and not very good.

When everyone was through eating, Noonan gathered together the remnants of the meal, the bones of the small animal and the shells of the gourds, and hurled them from the cavemouth. After a distinct pause came the thudding sounds of landing.

"Why'd you do that?" Dawes asked.

"To show them that we appreciated the stuff. There's no better way than to toss back a carcass that's been cleaned of flesh. Anyway, we can't have that junk sitting around in here."

Noonan pointed upcavern, where the little stream split the cavern floor into two roughly equal sectors.

"Look here, Dawes. Suppose you and Carol take the far corner up there, on the right."

"And you?"

"Cherry and I'll stay on the left, a little ways lower down toward the cavemouth. That's for sleeping. It's the best arrangement we can make."

"It'll be something like living in a goldfish bowl," Cherry said.

Dawes shrugged. "We'll have to manage."

He rose, walked to the front of the cave, and peered out. Seven or eight aliens squatted on the ground a hundred fifty feet below, looking up.

"More like a goldfish bowl than you think," he said, turning

around. "They're watching us from down there. Just *watching*. As if — as if we were really fish in a bowl, or pets in a cage."

"Maybe we are," Noonan said. He scooped up a handful of moist sand, compressed it in his clenched fist until it was a hard ball, and angrily hurled it down at the staring aliens. It broke apart in midflight and showered harmlessly down as a spray of sand. Noonan turned away, cursing softly.

THE day dragged along horribly. Four people in an escape-proof cell a hundred yards long and perhaps seventy feet wide, without fire, without anything but themselves. And they hadn't learned yet to like each other much.

Dawes felt his nerves tightening like the tuned strings of a fiddle. There was nothing to do in the cave but stare at each other, talk, tell jokes. And there was so little to talk about. Noonan was monolithic; he spoke only when he chose, never speaking just for the mere sake of making noise. Carol's conversation seemed to be limited to expressions of faint hopes and fears; Cherry's, to jokes and acid-tipped reminiscences.

It was Noonan who broke the hypnosis. He snapped to his feet out of a cross legged position

without using his hands. "I've got an idea," he said. "Maybe it isn't worth much, but at least I can try it."

He began to strip off his shirt, kicking off his shoes at the same time.

"What are you going to do?" Dawes asked.

Noonan unsnapped his trousers. "Take a look at that underground stream up back. I'm going to get in there and wander around a little. Maybe the stream comes out somewhere. Maybe we can all get out the other side."

He picked up his clothes, stuffed them under his arm, and, wearing only briefs, walked up-cavern to the place where the stream broke the surface of the cavern floor. Looking back he called, "Come on up here with me, Dawes. If you hear me yell, come on in after me."

Dawes joined him. Noonan tossed down the bundle of his clothes, stepped out of his briefs, and, naked, entered the water. It swirled knee-deep as he waded farther up-cavern, then abruptly grew deeper.

As it approached the height of his chest, Dawes said uneasily, "It's dangerous to try this, Noonan. You may get trapped underneath, somewhere. I won't be able to hear you if you yell."

Noonan turned to glance back.

His lips were blue, and despite himself he was shivering, but he smiled. "So? What of it? At least I tried."

He turned again and advanced toward the point at which the stream dipped below ground level again and swept back into the mountain. Dawes heard Noonan suck breath in gaspingly, and then Noonan went under. Tensely Dawes began to count off the seconds.

"Where did he go?" Dawes heard Cherry ask.

He turned and saw both women standing behind him. That annoyed him; he did not want Carol to see Noonan's naked body when and if he came out of the stream. He realized it was a foolish, prudish sort of thing, but the real reason, he knew, lay deep in his own shyness.

"He went under," Dawes said simply.

"He's been gone half a minute," Dawes said a few seconds later. "He ought to be up soon."

"Suppose he doesn't come up?" Carol asked.

DAWES did not answer. But he kicked off his shoes, knowing he'd be expected to go in after Noonan and try to find him. He started to shiver a little, and his hands went tentatively to his belt.

How long could a man stay under water? Even a man like Noonan?

"You oughta go in and look for him," Cherry said. "He may be drowning."

"Yeah, I know."

The counting mechanism in his mind functioning automatically now, ticking away the seconds. With a cold hand Dawes started to strip off his trousers, not worrying about modesty in the face of the cold stream that awaited him.

Suddenly Noonan broke surface, head first — leaping up high above the water, gasping loudly for breath, plunging back down like a sounding whale.

Choking, retching, he came up again, battled the swift current for an instant or two, and managed to pull himself to the edge of the water. Dawes waded in a couple of feet, grabbed his arm, and tugged him up on the sand.

Noonan was blue all over; goosebumps of enormous size covered him. He lay there, sprawled out with his face down in the sand, drawing in breath with great hoarse sobbing sighs. Finally he looked up.

"Cold," he said. "Cold!"

"You find anything?" Dawes asked.

Weakly Noonan shook his head. "No. Not a damned thing. I followed the stream as far as I

could. Nothing. Came back and couldn't find the outlet. Thought I'd — thought I'd drown. Then I broke through."

He shivered convulsively. Dawes had never seen a man look so cold and completely exhausted before. Noonan continued to sob for breath.

"He'll freeze to death," Carol said anxiously. "He's all wet and the sand's sticking to him. We ought to warm him up somehow."

Dawes felt irritated by her show of sympathy. Noonan's wild swim, he thought, had been nothing but a grandstand play; show-boating for the benefit of the women, and nothing more.

"He'll warm up by himself," Dawes grunted.

Cherry glared at him. "The hell he will. You leave him like that. he'll catch pneumonia or something. But I'll take care of him."

Dawes looked at her, startled. As she spoke, the blonde had wriggled out of most of her clothing, and wore only a bra and sheer white panties now. He glanced away, reddening, but caught a peripheral sight of Cherry throwing down her remaining clothes defiantly.

Whitely nude, she lay down in the sand next to the still gasping Noonan. She put her arms around him.

"You two go away," she said

without looking up. "I'll keep him warm."

NO more food came that day. The aliens obviously planned to give them just one meal a day — if that.

"We need a hostage," Noonan said, talking more to himself than to any of the others. "It's the only way to get anywhere. Tomorrow we hang around the cavemouth until they bring the food — if they bring the food. When the alien shows up, we grab him."

"What good is that going to do," Dawes wanted to know.

"I don't know," Noonan said. "But at least it's *something*, dammit! A sign that we're doing something to get out. You want to sit on your can in here forever, kid?"

"We probably will," said Cherry. "Like goddam pets. Birds in a gilded cage. Why couldn't the bastards have picked someone else? Why us?"

Night was falling. Outside, in the valley, a red alien bonfire flickered.

"They're watching us," Dawes said. "Watching all the time. They want to see what we'll do. They want to see how long it takes before we start fighting, before we hate each other's guts, before we start jumping off this damned cliff to get free."

"Shut up," Noonan snapped.

Dawes ignored him. "I mean it! It's like a lab experiment. I had experiments like this in psych class, in college. You take four rats, see, and you stick them in a cage. Or you put them on a treadmill, and toss them some food when they look bushed. That's what we are, rats on a treadmill. The experimenter waits and watches, taking notes, looking to see how long it is until the rats start snapping at each other, until they drop from exhaustion."

"I told you to shut up." Noonan rumbled threateningly. "We can take it."

"Don't kid yourself, Noonan," said Cherry, half to herself. "The crackup's coming. It won't take long."

XIV

IN the darkness of that second night, Dawes cradled Carol in his arms.

His wife. Hollow mockery of a honeymoon.

Beneath the constant bubbling of the stream came the sound of Noonan's harsh laughter, and Cherry's answering giggle. Noonan and Cherry had settled down for the night somewhere down-cavern. In the utter darkness, there was no knowing where.

Carol was warm, pliable, with

a tense reserve of tightstrung nervousness. They were silent a long while, holding each other for warmth, and then out of nowhere she asked, "You slept with Cherry last night, didn't you?"

Even in the darkness, Dawes reddened. "Does it really matter?"

"I — suppose not."

"I didn't know what I was doing. The kidnapping, and all, upset me. Cherry tricked me. She let me think it was you, last night."

"Oh," Carol said.

The whispered conversation died again. Noonan and Cherry were still noisily merry at their end of the cave. Dawes listened to his own breathing for a while, longing to possess Carol but waiting for some sort of cue.

After a while the girl said, "How long can we stay living like this? The four of us. I thought you and Noonan were going to fight today."

"Noonan can kill me with his pinky and thumb. It wouldn't have been much of a fight. But I was asking for it. I started to crack up."

Her lips grazed his, then pulled away.

"That was your first time last night, wasn't it?" she asked.

"Yes." Hesitantly. Better not to lie about it, Dawes thought.

"Tonight's mine," she said.

IN three days, Dawes was beginning to think that cave life might almost become bearable. It was possible for human beings to adapt to almost any kind of situation, he told himself. Even living in a cold, windy cave on an alien planet.

Food came regularly, about noon each day — the same assortment each time, a newly-killed beast, white grapes, gourds. Noonan's plan of catching an alien and holding him as a hostage proved about as practicable as flying out of the cave, or walking insectlike down the sheer face of the cliff. Each day the alien messenger would fling the food package into the cave and vanish before the watching men could move. They kept guard for two days, but without even coming close to success. The alien would climb the cliff, hurl the bundle in, and scamper away again. After two days Noonan and Dawes completely abandoned the idea of being able to catch one.

The blowup came on the fourth day, when Dawes and Carol were bathing. Carol had stripped, and crouched naked at the water's edge, cupping up handfuls and rubbing her face and body to break the shock of climbing in. A sort of convention had sprung up in the cave: when one couple bathed, the others

busied themselves elsewhere, to provide at least the impression of privacy. But as he prepared to undress and join Carol in the water, Dawes glanced around and saw Noonan leaning against the cave wall not far from the mouth, watching them.

For a surprised second or two, Dawes had no idea of what to say. The convention in the cave had always been a completely unspoken one, and he knew Noonan cared very little about his own privacy or anybody else's. But still, thought Dawes in angry annoyance, there was such a thing as common decency, even here in the cave.

While he stared silently at Noonan, the big man smiled coldly and said, "Something wrong?"

"What are you looking at?" Dawes demanded.

"You want me to tell you?"

"Just suppose you keep your eyes where they belong!" Dawes was angered by the big man's casual amorality. It was just as easy for Noonan to look the other way and avoid such frictions.

"Mike," Carol whispered warningly. "Don't make trouble with him. Don't start a ruckus. Why can't you just ignore him?"

"No," he said. "There are some things you just don't do. He isn't going to get away with this."

He became uncomfortably

aware of Cherry's mocking eyes on him, and Noonan's. Carol stood at the water's edge with her hands uncertainly shielding her body from view. "Get into the water," he ordered the girl brusquely. "I don't want him looking at you that way."

SILENTLY, she obeyed him. Dawes walked downcavern to where Noonan waited, still leaning against the wall. The older man seemed to tower two or three feet above him, even leaning.

Dawes said sharply, "Are you trying to make it worse in here? You didn't have to look at her that way when she got undressed. There was no call for that."

"I'll put my eyes wherever I damned please, sonny-boy. And I'm tired of your niceness. This isn't any private hotel we got here."

"You don't have to go out of your way to make life tough here," Dawes returned. "I don't want you watching Carol when we bathe, from now on, Noonan. Do you understand that? We can at least *pretend* we're civilized — even if some of us don't happen to be."

Noonan hit him. This time, Dawes expected the blow, and was ready for it. He rolled agilely to one side and in the same motion directed an open-handed

slap at Noonan's face, trying to catch him off-balance.

The big man took it like the brush of a gnat's wing, laughed, and tapped Dawes sharply in the pit of the stomach. Dawes felt his knees start to buckle. He caught himself, sucked in his breath.

He swung wildly at Noonan, missed his face by a foot, and swung again. This time Noonan opened one big hand, grabbed Dawes' flailing arm, and twisted it.

Yelling, Dawes tried to break loose. He succeeded in clawing at Noonan's throat with his free arm, distracting the big man's attention for a moment. Dawes ripped loose from Noonan. He danced back a couple of feet, panting, feeling the excitement of combat even though he knew he was yet to score a telling point in the contest.

He darted forward and flicked out a fist. Noonan clubbed his hand aside, stepped forward, hit Dawes almost gently on the point of his right shoulder. The impact stunned him; he felt the surge of pain ripple down his arm to his fingers. Desperately he tried to land a blow, but once again Noonan caught his wrist.

This time there was no breaking loose. Noonan inexorably forced him to the ground.

"I'm gonna put my eyes

wherever I please," Noonan said quietly. There was no malice in his voice, nor anger; just a level affirmation of victory. "You hear that, Dawes? You ain't giving any orders inside here. If I want to look at your girl, I'll look at her, and you ain't gonna tell me I can't do it. Understand that, Dawes?" He walked away.

Carol had remained upcavern by the stream during the entire fight. Now she came over to him. She was wet and still naked, but her nakedness didn't seem to bother her now. After the fight, any pretense toward modesty in the cave would be irrelevant.

She looked down at him without speaking, without smiling, without offering a word of sympathy. Dawes could not tell whether the grave look in her eyes was one of pity or of contempt. After a while she walked away, back to the stream, and began to dress.

Dawes elbowed himself to a sitting position and massaged his wrists. Downcavern he saw that Noonan had stretched out for a nap. Cherry was drawing sketches in the sand. The cave was very silent.

He walked slowly back to the stream, knelt by it, and sloshed water over his face; the shock of the sudden coldness eased some of the pain of Noonan's slaps. Shaking himself dry, Dawes went

downcavern, past Cherry and Noonan, to stare out the mouth of the cave. The clearing below was packed with aliens. He wondered if they had enjoyed the performance.

XV

AFTER that, there was a strange realignment of the tense relationships between the four prisoners in the cave. The incident of the beating was a sort of dividing-point, separating what had been from what now was.

Dawes suffered the most; he had acted foolishly, rashly, in deliberately inviting Noonan to trounce him, and he had lost status in Carol's eyes. That was clear. The only sort of respect she could have for him would be based on his intelligence — and he hadn't acted intelligently toward Noonan. Further, Carol really wanted a man who could take care of her, who could protect her from the tensions and rigors of existence in a frightening world — and Dawes had not at all proved himself that kind of person.

But sympathy came from an unexpected quarter—from Cherry, who glared at the invincibly self-sufficient Noonan, and offered soothing words to Dawes. Noonan glared back at her angrily. His possessiveness was ob-

viously beginning to irritate Cherry. Dawes wondered when the open split between them would come.

The swirl of conflicting emotions tightened. Both women half-loved and half-pitied Dawes. Cherry was physically drawn to Noonan, but was repelled by his dominating ways, his assertion of ownership. Noonan claimed Cherry as his own property, but quite clearly he was interested in Carol as well. Around and around it went, while the aliens gathered outside, and the hours slid toward sundown and the moonless darkness of Osiris' night.

Dawes sat bitterly by himself, feeling that he had fallen into total disgrace. Cherry softly sang her old night-club songs, muffling their stridencies to avoid touching off some new dispute in the cave. Carol did nothing. As for Noonan, he bathed, slept for a while, woke, and went to the front of the cave, flattening himself strangely at the mouth, poking his head out and staring down for a long time as if measuring some distance.

After a time he came back and spoke with Cherry for a few moments. Then, moving on, he went to Carol as she sat quietly against the cave wall, and nudged her.

Dawes glanced up from his brooding. Noonan was saying something to her. He strained his

ears to catch their words; but the expression on Noonan's face told him all he really needed to know.

Cherry crossed the cave, taking a seat at Dawes' side and putting her hand on his wrist as he began to clench his fists.

"Don't pay any attention to it," she murmured. "It was bound to happen sooner or later. Don't make him have to hit you again."

"Is she going to listen to him?"

CHERRY shrugged. "I don't know. But she may. You never can tell."

"I hate him," Dawes said darkly. "I hate both of them. If he wasn't twice my size —"

"Well, he is," Cherry said. "So you might as well just relax."

She shook out her long blonde hair. It was getting stringy from lack of combing, and it seemed to Dawes that it was darkening at the roots. It didn't surprise him much to find that Cherry's bloneness was synthetic.

He tried to relax, to ignore the fact that elsewhere in the cave Noonan was successfully taking Carol away from him.

After a long silence Cherry said, "You know, Noonan thinks he knows a way out of here."

"What?"

"Shh. He told me about it just a while ago. He says there's a little ledge down the side of the cliff a way. Thinks we could

manage to reach it with a rope ladder made out of our clothes. But he won't say anything about it to you because he doesn't want to help you."

Dawes scowled. "He's got no right to keep something like that to himself —"

"Noonan never worried about rights. Besides, he doesn't really think his idea could work. We might be able to get down, all right, but then the aliens would just bring us right back up here."

Dawes had to acknowledge the truth of that. He slumped back, the momentary spark of hope dying. The waiting jailers below would never let them escape so openly, he thought.

Shadows deepened in the cave as the angle of sunlight sharpened. Four days, Dawes thought leadenly. Four days of just Noonan and Carol and Cherry, and the captivity might well go on forever.

The sun dropped almost out of sight; no more remained to the day but a few dim red flickers. The eternal wind howled wildly. In the dark, Dawes heard Carol's laugh.

MORNING. The fifth day.

And the invisible threads of hatred coiled a little tighter around the four in the cave.

Carol was unaccountably red-eyed and sullen, after her night

with Noonan. She bathed alone. Dawes watched her, from the distance, without getting up. Carol had a lovely white body, lean, beautiful. It was a magnificent woman's body. But she wasn't the right woman to be wearing such a body. She was like a little child in so many ways — helpless, frightened, selfish.

When Carol was through washing, Noonan bathed, and after him Dawes made his slow way to the rear of the cavern and plunged into the little stream, enjoying the sharp pain of the ice-cold water against his skin.

At noon, the food-bundle was hurled into the cave right on schedule. They ate silently, Noonan dividing the food as usual and doing a reasonably fair job of it. Not a word had been spoken in the cave since dawn. Dawes looked out and saw the aliens massed below, in greater numbers than ever before. He knelt and peered down the face of the cliff, trying to see Noonan's ridge. Yes, there it was, a narrow, precipitous shelf of rock projecting no more than a few inches from the cliffside. Turning, Dawes said to Noonan, "I understand you know how to get us out of here. Why the hell haven't you spoken up about it?"

"Who in blazes told you that? It's not true!"

"The ledge down there," Cher-

ry said. "Yesterday you told me that —"

Noonan slapped her viciously. Glaring at Dawes, he said, "Okay, so there's a ledge down there. But my idea won't work, anyway. Even if we got out, the aliens would just grab us and put us right back in the cave. Well, won't they?"

"Maybe not," Dawes said.

"Maybe not! Maybe not!" Noonan roared with laughter. "You can bet your pink bottom they will! You think they'll just sit down there and let us traipse past them?"

"Maybe. I know how to beat the aliens," Dawes said in a level voice.

Suddenly Carol started to laugh — a high, keening, mad shriek of a laugh, a sharply indrawn "Hoo-ha! Hoo-ha!" repeated over and over. It wasn't hysteria, but the nearest approach to hysteria. Moments later Cherry was giggling, calmly, cynically.

"Keep quiet!" Dawes shouted. "Let me talk!"

"We don't want to hear any crazy nonsense out of you," Noonan snapped. "Shut your mouth."

Dawes grinned oddly and took two unhesitant steps forward. There was only one way he could make Noonan listen to him. With careful aim he jabbed the big man sharply in the ribs.

NOONAN was astonished by the assault. He glared at Dawes in amazement for an instant, and rumbled into action. His fists shot out blindly, crashing into Dawes' stomach, pounding him under the heart. Dawes fought back grimly. He landed a solid blow on Noonan's lip; then Noonan snarled angrily and cracked him backward with two fast punches in the midsection.

Dawes landed hard, feeling pain lance through his body. He gasped for breath. Noonan stood over him, dispassionately kicking him. Each blow was a new agony.

Finally it was over. Dawes lay crumpled on the ground, shielding his face. Noonan stood over him, and a strange expression of guilt was beginning to cross his features. His lower lip was swelling.

Sitting up, Dawes put his hands to his ribs; nothing was broken. He said hoarsely to Noonan, "Okay. You were spoiling to kick me around again, and now you did it. You got it all out of your system. I hope you did, anyway."

Noonan looked completely drained of fight. He didn't speak. Dawes mopped a trickle of blood away from his lips and went on.

"Noonan, you're a strong man, and in some ways you're a clever man. But you couldn't figure a way out of here, and you were

damned if you'd let *me* have a go at it without beating me up first. Okay. I got beat up."

"Listen —" Noonan began unsteadily.

Dawes cut him off. Despite the pain of the beating, he felt a kind of exhilaration. "You listen to *me*. We can get out of here, if we only cooperate. All four of us.

"I don't know what kind of things those aliens are — but they aren't as primitive as they look. We've been writing them off as ugly ape-things, but they're a lot subtler and smarter than that. I think they grabbed us out of the colony and stuck us up here so they could listen in on our emotions, soak them up, feed on them. They took four of us. Four people who hardly knew one another. They threw us here and left us alone. They knew damned well what would happen. They knew we'd start hating each other, that we'd fight and quarrel and build walls around ourselves. That's what they wanted us to do. It would be a sort of circus for them — a purge, maybe. A kind of entertainment. Okay. They were right. We put on a good show for them. And I'll bet they've been out there drinking up every bit of friction and hate and fighting that's gone on in this cave since we got here."

Dawes paused. The words

were flowing smoothly, now that he had been granted the floor, but he wanted to allow time for his ideas to sink into the other three minds.

"Go on," Noonan said quietly. "Finish telling us what you have to say."

"We don't *have* to hate each other, that's what I'm trying to get across. Sure, we get on each others' nerves. Four saints in a cage like this would drive each other batty. But we can turn the hate outward. Hate *them*. And the best way we can show our hate for them is by loving each other instead of fighting. We're playing into their hands by bickering and brawling. Let's work together and try to understand each other. I'll admit up to now I've been as selfish as any of you. We're all equally to blame. But if we start cooperating now — hell, we'll be of no more use to them than fighting cocks without any fight. And we can build that rope ladder and they'll let us go."

No one spoke when Dawes had finished. He let them think it over, and finally Cherry said, "They're like parasites, then. Getting their kicks from our hate?"

"You've got the idea." Dawes looked at the big man. "Noonan, what do you say? You think what I said is worth anything?"

Slowly, Noonan began to smile despite the swollen lip. "Yeah.

Maybe you've got something. I guess we could try it."

XVI

THE rope ladder took nearly every stitch of clothes they had. There was nothing else to use.

"Okay," Noonan said at last. "Maybe this'll do. Let's test it. Dawes, get yourself on the other end of this thing and pull hard."

Dawes took a double grip on the rope and pulled, as hard as he could, digging his feet into the sand to keep from being dragged toward Noonan. The line held.

"Good," Noonan grunted. "She's tight."

He anchored the end of the line to a jutting rock near the mouth of the cave, hurled the free end out, and let it dangle. Leaning over the rim, Noonan squinted speculatively and said, "We're still a couple of feet short. Let's have underclothes."

No one protested. Noonan hauled the line in and tied the garments on. Dawes grinned and said, "Coming out of the cave is like being born. We come out naked." He shivered from the cold, but the new camaraderie in the group warmed him.

Noonan said, "I'm going to climb down to the ledge. Carol and Cherry will follow me. And then you, Dawes. All clear?"

Noonan grasped the line, tugged it to make sure it was fast, and lowered himself over the edge. Just before he disappeared below the floor level of the cave, he grinned, and Dawes grinned back.

"Good luck, Noonan."

"Thanks. I'll probably need it."

Dawes watched tensely as Noonan descended, hand under hand, swaying in the wind. He dangled at the very end of the line, his hands grasping the rope only an inch or two from its end, and still his feet were a couple of feet short of the ledge. He let go; his feet scrabbled for purchase, his arms flailed wildly to balance him, and then he stood solid, looking up at them and smiling.

"Okay," Noonan called. "Carol, you come down next. Keep your feet clamped onto the rope and hold on tight."

Pale, frightened beyond the point of feeling fear, Carol took hold of the rope. She paused for an instant.

"Go on," Dawes said softly. "It's safe. Just hold on let yourself down hand by hand."

The girl grasped the rope with her small hands, wrapped her legs round it, and started to descend. Dawes held his breath. The rope seemed tremendously long. Was she going to make it all the way? Or would she fatigue and topple off, still eighty feet

above the ground — with the unforgiving rock below?

She made it. She dangled in mid-air a few feet above Noonan; he stretched out his arms for her, urged her to let go, and finally she did. He caught her and put her safely down on the ledge.

Cherry was next. She showed no outward sign of fear, and she negotiated the descent quickly and skilfully. Dawes waited until she stood by Carol's side on the ledge. Then, taking a last look at the cave, he grabbed hold of the rope himself.

HE had done plenty of rope-climbing in high school, in an ultimately fruitless attempt to put some muscle on his skinny body. But those had been fifteen or twenty-foot ropes. This one dangled for a hundred feet, and no protective mat waited beneath it.

Positioning one hand beneath the other, he let himself down, feeling the savage bite of the wind against his bare skin. He knew the others were waiting for him, watching him, maybe praying. Once, he glanced down, and saw he still had nearly half the distance to go. His muscles were quivering and his arms felt as if they were about to part company with their sockets. But he made it.

He hovered above the shelf

and Noonan caught him around the waist and pulled him down to safety. The line swung out over the valley and flapped back against the side of the cliff.

Dawes caught his breath and looked downward from the ledge. "We're still at least forty feet from the ground. What now?"

"I'm going to try to yank the line loose," Noonan said. "All of you hold on to me. "If I can pull it down, we tie it on here and climb down to the ground."

"And if we can't pull it down?" Dawes asked.

Noonan glared for a moment. "You still haven't lost your old habits. You ask too many dam-fool questions. Come on—anchor me."

They held him, while he tugged at the line, grunting bitterly. Muscles corded and bunched along Noonan's back and shoulders, and tendons stood out sharply in the hollow of his elbow. The line was tied too securely at the top, though. It would not come. Noonan pulled harder —

The rope snapped loose with an impact that nearly threw the four of them off the ledge. Noonan looked at the end he held in his hands, then up at the dangling line still fastened at the cave-mouth. The rope had snapped in half.

Noonan cursed eloquently. "I

hadn't figured on that. But it could have been worse, I guess."

"How much rope do we have?" Dawes asked.

"Look for yourself."

Noonan let the line out over the side of the ledge. It stopped short nearly fifteen feet from the ground. And, Dawes thought, a fifteen-foot jump was an invitation for broken ankles or worse — and they still had a trek of perhaps ten miles back to the colony.

He looked quizzically at Noonan. The big man said, "We can still manage it. But it's going to take teamwork. *Real* teamwork. I'll go down the rope. Dawes, you follow, go right on down me and hang to my ankles. The girls will do the same, and jump when they reach your ankles. It can't be more than a six or seven-foot drop from there."

SOMEHOW, it worked. Noonan scrambled down the truncated rope as far as he could go, and hung there, waiting. Dawes went next, descending the rope until his feet touched Noonan's shoulders, then carefully clambering down Noonan's body until he grasped the big man's feet.

"Okay, come on!" Noonan shouted. "We can't hang this way forever!"

Dawes strained to hold on. His

toes were about eight feet above the ground. Carol came down the rope; he could feel every impact as she descended. Looking up, he saw her coming down past Noonan's shoulders, then reaching his own shoulders. Her face was white with tension. She clung for an instant to Dawes' hips, slid down his legs, and let go. He glanced down; she had landed in a crumpled heap, but she was getting up.

Cherry came next. Dawes' arms ached mercilessly. He tightened his grip on Noonan's ankles. But it was no use; he could not hold on. As Cherry's foot grazed his shoulder, he let go and dropped to the ground. He folded up as he hit, but was able to rise without difficulty. Cherry still dangled from Noonan.

"Go ahead," Dawes called to her. "Let go and I'll catch you."

She released her hold; Dawes braced himself and broke her fall, but the weight of her dropping on him knocked him over again. A moment later, Noonan landed on top of them.

After some instants of confusion, they struggled to their feet and began to laugh. Cherry was the first to start, and then Noonan and Dawes and Carol took it up, and they laughed for nearly a minute at the ridiculous spectacle they must have made, solemnly clambering down each other and

landing in a confused heap of arms and legs.

"Damndest silly way to get down a mountainside I ever saw," Noonan said, still laughing.

"Maybe so," Dawes said. "But it worked, didn't it? It worked!"

They huddled together nakedly at the base of the cliff. Above them, two lengths of rope dangled in the wind.

Cherry said, "And there isn't an alien in sight. Not anywhere."

Dawes looked rapidly around, as if expecting to see the thick-bodied ape-like beings clustered behind trees observing them. Perhaps they were. But certainly they were keeping well out of sight.

"You see?" Dawes said triumphantly. "They aren't interested in us any more. We don't have anything to offer them, now that we've stopped fighting with each other. They don't care what we do now."

"I'm cold," Carol said suddenly.

"We all are," said Cherry. "We better get a move on. Back to the colony, before the aliens decide they don't want to let us go after all."

Dawes nodded. He pointed toward the forest. "Standing with our backs to the cliff, the colony ought to be straight out that way. What do you think, Noonan?"

The big man frowned and said,

"That's about right. We ought to find our way back there through the forest without much trouble. If we start out now."

"Right. We want to get there before nightfall," Dawes said. "We've still got a few hours left. We'd better start out now."

THEY set out, in single file — Noonan leading, followed by Carol, then Cherry and Dawes. Even though the sun was bright in the sky, the day was cold; the temperature was barely above fifty, Dawes estimated. No temperature at all for people to be walking about in naked.

He was thankful that they had kept their shoes, even if their stockings all had gone to reinforce the rope. The forest floor was covered with the dried prickly cast-off needles of the conifer trees that abounded there. The wind whipped through the forest, but the trees served as shielding for them against the coldest blasts.

It had taken about two hours to go through the forest the first time, in the hands of the aliens. By Dawes' reckoning, nightfall was not due for at least three hours more. With luck, if they followed a true path, they would make it back to the colony before dark. Once night fell, of course, they would simply have to squat down and wait for morning be-

fore going on with the search for the colony.

But Noonan led the way with such a confident air that Dawes did not worry. The big man strode along with springing step, looking back every few moments to make sure no one had fallen behind, and seemingly felt no discomfort from the cold or from his own nakedness.

Dawes realized that a few months ago it would have been inconceivable for him to walk casually through a forest wearing nothing but a pair of battered shoes, in the company of two women and another man. Now, it hardly mattered. A new world, new values, he thought. After the days in the cave, modesty was irrelevant. He knew the three bodies ahead of him as well as he knew his own.

After an hour of walking, they stopped; Carol was exhausted. Noonan eyed the angle of the sun, wrinkled up his face, and announced that they had at least two and a half hours before sunset. "Plenty of time to make it," the big man added. "If we don't waste any time en route."

"I'm cold," Carol said. "Hungry. Tired. I can't keep walking like this."

Dawes looked at her pityingly. She looked drawn and exhausted. She had lost weight; her ribs lay close to the surface of her skin,

now, and her thighs were puckered where the fat had gone, leaving pouches of skin. Carol had taken the days in the cave worse than any of them. Noonan hardly showed a trace of his captivity; Cherry looked unkempt but healthy, with a sleek leanness that she had not had before. Dawes ached all over, but he felt splendid.

"Come on," he said gently to Carol. "We're almost there. Another hour's walk, that's all."

Noonan lifted her to her feet and pointed her in the right direction. They resumed their hike.

THEY were following a path, well-worn through the thick forest. Looking back, Dawes could see the black bulk of the cliffs — and, he thought, the two strands of rope, red and yellow and brown and green. As the sun dropped, the forest became colder. Birds hooted in the trees; small shiny-skinned animals that looked like lizards sprang up on rocks, chattered derisively at the group for an instant, and went hustling off into the safety of the woods.

They plodded on. Dawes was beginning to feel the effects of his hunger — only one meal a day for the last five, and that nothing very nourishing. He longed to stop and try to shy a rock at one of the curious little

forest beasts, but he told himself that if they ever stopped they might not get started again. He forced himself to drag one foot in front of the other. His legs ached. His feet, bare inside his shoes, were slowly being rubbed raw by the leather scraping his heel. But Noonan strutted jauntily along in the lead.

They were on their way back to the colony. Something strange and mysterious had happened to them, but it was over, and they were on their way back. Dawes comforted himself with that thought. In a little while, they would be seeing other people again. Haas and Dave Matthews and Ed Sanderson and Sid Nolan and all the others. They were really strangers to him, but at the moment Dawes thought of them as old friends, friends for whose companionship he had longed for months and years.

They stopped again a short time later. Again, it was Carol. She threw herself down on the ground, sobbing, muttering little senseless sounds.

Noonan scooped her up. Dawes hung back, even though technically she was his wife. She would have to be carried, and he had barely enough strength to carry himself along. Therefore, Noonan would have to carry her. It was as simple as that. Dawes made no protest as Noonan picked her

up and cradled her roughly in his arms.

"We're almost there," Noonan told them. "I'll carry her the rest of the way. You two all right?"

"I'll make it," Cherry said. "If I don't freeze first, that is."

"You, Dawes?"

"I'm okay."

"Let's go, then."

Step after step after step; and every step, Dawes told himself sternly, brought him that much closer to the colony, to food and warmth and clothing. Unless, of course, Noonan had been leading them in the wrong direction all this time. That might be. No, Dawes argued; the cliffs were still at their backs, and so they had to be going in the right direction. His tired mind thought up cold fantasies: suppose the aliens had been following them all this time, maliciously feeding on their suffering, and planned to massacre them as they stood within sight of the stockade? Or perhaps the stockade itself would be empty, all of the colonists dead or captured, leaving Dawes and Carol, Noonan and Cherry as the sole population of Osiris?

He shook away the thoughts and kept going. Abruptly they emerged into a clearing.

"Take a look," Noonan said exultantly.

The stockade was a hundred yards ahead of them.

UNSHEATHED gunsnouts greeted them as they appeared, footsore, dirty, chilled, at the colony stockades. The gunbarrels came snaking out of spyholes in the wall; the colonists were on guard now against any shapes of the forest, it seemed.

"Take it easy," Noonan called out. "We're friends. Humans."

A voice said distinctly behind the stockade, "Christ! Those aren't aliens! It's —"

"They've come back!" someone else yelled.

The gunsnouts disappeared. The stockade gate creaked open and people came rushing out, familiar people, *friends*. Dawes recognized Sid Nolan, Dave Matthews, Matt Zachary, and Lee Donaldson. There were a few others whose names he could not at all remember.

They dragged the four returnees within, slammed the stockade gate shut. As the colonists gathered to greet them, Dawes for the first time became uncomfortably aware of his nakedness. But only for a moment; for Marya Brannick appeared with blankets, and the wanderers were quickly clad. Inquisitive eyes goggled at the four weary ones. Questions bubbled up.

"Where were you?"

"What happened?"

"How did you get free?"

Dawes shook all the questioners off. "Where's Haas?" he asked. "We'd better talk to him first."

Dave Matthews shook his head gravely. "Haas — isn't here any more."

"Did the aliens get him?" asked Noonan.

"No. Not the aliens."

"Where is he, then?" Dawes demanded.

Matthews shrugged. "We had some trouble here, after the aliens broke in and kidnapped you. Howard Stoker and a couple of his buddies thought Haas ought to quit as Colony Director. He — got killed."

"Killed? So Stoker's in charge now?"

Matthews smiled gloomily. "No. There was a — well, a counter-revolution, you might call it. In the name of law and order we executed Stoker, Harris, and Hawes. Lee Donaldson's the Director now."

"What's happening to the four surplus women, if those men are dead?"

"We're having trouble over that," Matthews admitted. "The colony's kind of split on the subject of polygamy right now. But we —"

"Let our troubles wait till later," Lee Donaldson broke in brusquely. "I want to hear about these people. Where were you?"

"We were taken to a cave in one of the cliffs beyond the forest," Dawes said. "We were prisoners. The aliens were keeping us. But we escaped." He grinned. He felt very tired after the forest trek, but yet invigorated. Tougher, harder. And he was saddened to learn that there had been dissension in the colony.

"Did they hurt you?" Donaldson asked.

Dawes thought about that for a moment. "No," he said finally. "Not — not physically."

HE looked around. There hadn't been much progress in the colony in his absence. It still looked bare and hardly begun. He saw troubled faces. There had been bitter quarrelling here, he realized.

"What about the aliens?" he asked. "Did they make any further attacks?"

"No," Matthews said. "We've seen them skulking around, outside the stockade. But they haven't tried to break in again. We keep a constant patrol, now."

"And there's been trouble here, hasn't there?"

"Trouble?"

Dawes nodded. "Arguments. Dissension."

Lee Donaldson tightened his jaw-muscles tensely. "We've had some difficulties. Haas was our best leader, and he's dead. It

hasn't been so easy to make the people work together since Stoker got his big idea. We do more arguing than working these days."

Dawes sighed. He wanted to tell Matthews and Donaldson what they had learned in the cave, how the aliens thrived vicariously on strife, how the colonists would never be completely free of the shadowy neckless beings until they learned to function like parts of a well-machined instrument, as a colony must if it is to survive.

But there was time for that later, he thought. You didn't make people see things in a minute, or in ten minutes. It could take days—or forever. But there was time to begin healing the colony's wounds later.

In a way, Dawes thought, it was a good thing that the colony had something like the aliens waiting outside to feed on their hate. It would be like having a perpetual visible conscience; hate would not enter the colony for fear of the aliens without.

He turned away. Suddenly he wanted to be alone with himself — with the *new* self that had come out of the cave. Something had grown with him in those five days, and it hadn't been just the silky beard stubbling his cheeks. It was something else.

He understood now why Selection was necessary, why the

seed of Earth had to be carried from world to world. It was because the stars were *there*, and because it was in the nature of man to climb outward, transcending himself, changing himself. As he had changed; for he *had* changed, in those few catalytic days in the cave.

They had been days of hardening for him. No longer was he filled with vague angry resentment; no longer did he hate Selection and all its minions, local chairman Brewer and district chairman Mulholland. He forgave them. More; he admired them, and pitied them because they had to stay behind in this greatest of all human adventures.

IN the twilight Dawes walked away from the group, down toward the bubble-home he had chosen and from which he had been taken by the aliens. His suitcase and Carol's still lay half-open on the ground. The bubble hadn't been entered since the night of the kidnapping.

Shrugging out of the blanket, he took spare clothing from his suitcase and dressed slowly. He stood for a long time, thinking. They would none of them be the same any more — not Noonan, who for the first time in his life had run into a problem he could not solve with his fists, or Carol, who had gone into the cave a

virgin and 'come out otherwise, or Cherry, whose metal shell had broken open to give him a moment of tenderness that he had mistaken for a betrayal.

But Dawes knew that he had changed most of all, and yet not changed. The thing that was inside him, the curiosity, the seeking mind — now, it was alive and truly working for the first time. How wrong it had been to dream of that cozy, dead existence in his nice Ohio home with his nice Ohio wife and his nice Ohio children! He realized now that he wanted to get out into the wilderness and see the aliens again, find out why they were the way they were, what they had wanted from the prisoners in the cave, how they had taken it, what they were really like. Osiris held a million mysteries. And through the miracle of Selection he had been put here to solve them.

I'm different now.

It was a hard fact to assimilate. He realized with a jolt, looking at Carol's suitcase, that she was still his wife. He didn't want her any more. The boy Mike Dawes had been taken by her innocence and shyness, but that boy no longer existed. And he needed someone more solid, someone who could share problems with him instead of simply clinging dependently.

Someone was knocking outside the bubble.

"Come on in," Dawes said.

It was Cherry.

She looked flustered and confused. "You just walked away from everybody like that," she said. "You feeling okay, Mike?"

"I just wanted to think. I had to be by myself for a little while. I'm okay."

She was looking at him earnestly; glancing away, she saw the two suitcases.

"Carol's with Noonan," she said.

"I figured as much," said Dawes without a trace of a quiver in his voice. "I don't care. Really, I don't."

IT was funny, he thought, how lousy deals turned out to be the biggest things in your life. Being picked by the lottery, and then being grabbed by the aliens on top of that. And losing your girl to a man like Noonan. And none of it mattered — each loss was a find, each finish a beginning.

An animal honked in the forest, and Dawes grinned. A whole world lay out there beyond the stockade, waiting to have its secrets pried open in the years to come.

And he'd do it.

He said, "If Noonan's with Carol — where are you going to stay, Cherry?"

"I haven't figured that out yet."

He smiled. Carol had left her suitcase here, but nothing else. If Noonan could be happy with her, let him be.

Cherry stepped forward awkwardly. Dawes wanted to tell her that he forgave her and loved her and needed her, and that he saw through her toughness and through the scars life had left on her. But he couldn't say any of those things out loud, and he realized he wasn't finished growing up, quite yet. She would help him, though. And he would help her.

Funny. Getting picked in the lottery had seemed like the end of the world to him, once. But he couldn't have been wronger.

He smiled at Cherry. The girl before him was like a stranger, even after the days in the cave. Everything was oddly brand new. He tipped her face up the inch or two that separated them in height, and kissed her, listening to the wind of the alien world — *his* world.

"Hello," she said tenderly.

"Hello," he said.

— ROBERT SILVERBERG





GALAXY'S 5 Star Shelf

HAVING BEEN weaned on science fiction back in 1928 . . . "Doc" Smith's history-making *Skylark of Space* was the marvelous epic that ensnared me . . . I have seen the transition of SF from the original crude gimmick yarn to today's polished story of ideas.

I have seen countless new authors appear and prolific authors vanish from the field without trace. (Recent reprinting of *Drums of Tapajos* solved the mysterious disappearance of Capt. S. P. Meek.)

Individual stories have exploded like H-bombs inducing radical mutations in story genes by their fallout. A few of the many prime examples: *Skylark*; Weinbaum's *A Martian Odyssey*; Charles Cloukey's *Paradox*; Stuart-Campbell's *Forgetfulness*; Leinster's *Sidewise in Time*; Van Vogt's *Slan*; Pohl-Kornbluth's *Gravy Planet*, alias *The Space Merchants*.

Horizons have broadened, frontiers have disappeared. Thirty-odd years ago, Hugo Gernsback felt there was a need for

Air Wonder Stories. Today's super-sonic jets and X-15s leave little to expect from really radical changes in powered flight within our atmosphere.

But thirty years ago, the deep of Ocean was, and remains still, a frontier of mystery and peril. Although we are plumbing its depths with super-subs and bathyscaphes, and descending ourselves unarmored except for scuba gear, the human mind still remains horrified by the fear of gradual suffocation or slow death in an alien environment.

It is one of the strange quirks of human psychology that an intense empathy is aroused by a tragedy of duration. Unfortunately, this sense of oneness is unaffected by large scale misfortune. It becomes activated by an entrapment, usually of a child in a well, a Floyd Collins in a Kentucky cave, a miner deep in a shaft, and is usually limited in scope. The strange emotion is barely aroused by, say, the plight of millions of sufferers in Nazi concentration camps or political prisoners anywhere in the world. But millions will hang on the moment-to-moment efforts of rescuers to free a single individual. In this mood, one of the real pros of our league, Arthur C. Clarke, has penned a yarn so persuasive and convincing that reader identification is inescapable.

The yarn is emotionally gripping, astute in choice of locale, solution of technical and emotional problems . . . and so historically correct that it measures up to the very highest standard of his previous efforts. No praise can be higher. It demonstrates his skill at capturing a fantastic situation realistically.

A FALL OF MOONDUST by Arthur C. Clarke. Harcourt, Brace and World.

AT FIRST glance, shipwreck on the moon seems grade-A fantasy. Clarke, though, has developed a scientifically conceivable situation; a tourist boat, propelled by "fans," a-sail on a surface of impalpable dust so fine that it has most of the characteristics (all the bad ones) of a liquid. What would happen if said boat foundered? asks Clarke; and proceeds to introduce all sorts of fascinating and deadly problems. Though the dust can flow like water to seek its own level, its resistance is so high that it cannot be pumped, effectively eliminating escape-hatch and spacesuit rescue. What about survival problems of the trapped victims: oxygen, water and food, morale? The tremendous technical dilemmas facing the rescuers who at first can't even locate the wreck with their enormously efficient instruments?

Clarke has done his job so well that his reader had best refresh amply before reading — since he will prove unable to stop until finished.

Rating: *****

STRANGER IN A STRANGE LAND by Robert A. Heinlein.
G. P. Putnam's Sons.

ROBERT A. HEINLEIN has made his living from the future but his occupation is not complete preoccupation. He has become increasingly concerned with the state of the world today and has exercised author's privilege in mounting degree to expound from his lectern.

In his just-previous *Starship Troopers*, he expressed his dissatisfaction with our present system of strewing the rights and privileges of citizenship indiscriminately with a corresponding cheapening of its value. The story's proposed solution was to make citizenship contingent upon an honorable tour of duty in the armed forces. Theoretically, after the hardships of service life, it would seem that intellectual and political maturity would be a natural result. But such a happy conclusion is highly problematical, considering the orientation of our present crop of Big Brass. In that book, plot-stopping political harangues did fairly little dam-

age, because the story's essential interest and action far outbalanced the dead weight.

Stranger in a Strange Land is an entirely different colored horse. Being social satire with most action on a cerebral level, it has a heavy load to carry.

Still, Heinlein is too much a pro to write a real stinkeroo. His monstrously wealthy bastard hero, marooned on Mars for all his twenty-one years, is sole heir of all the dead crew of the first Martian expedition and, through legal mumbo-jumbo, legal offspring of three of them. According to a legal precedent, he is also sole owner of Mars. Returned unwillingly to Earth, and then only on direct order of the utterly alien Martian Old Ones by whom he was reared, Smith, the Man from Mars, constitutes a fundamental threat to the stability of the World Federation of Free States merely by the fact of his existence. Placed in dubious protective custody by direct order of the Secretary-General, he is whisked to safety by an idealistic and gorgeously endowed nurse and proceeds to become a pawn in power politics. His haven is the weird domicile of an Old School rugged individual, a doctor-lawyer-writer and his trio of luscious secretary-cook-companions.

Heinlein expounds his philosophy through the mouth of the leg-

al-medical-literary pundit who pontificates in a too-cute way; impudent, brash, irritating but detestably lovable . . . in the manner of a gruff old dog who gums you to death.

Smith, as completely ignorant of human customs as an utter alien, must be taught everything, from tying shoelaces to the joys of sexual union. Needless to say, the quartet of beauties are all-around teachers. His Martian teachers, however, had taught him levitation, telepathy, slowing of the time sense, teleportation, disincorporation of enemies, articles or self and also that food must not be wasted. People are protein, protein is food; and with the severe shortage on Mars, bodies of the Old Ones are shared by their friends in a ritual of love and devotion.

Smith, therefore is a human superman with a completely alien outlook and set of mores. His champion, detestably lovable Harshaw, is such a wing-ding in everything he does that the legalistic battle between him and the Secretary-General is hardly fair; he can't lose. His legal maneuverings are amusing, but the subsequent incognito wanderings of Smith to savor our culture are peculiarly uninspired and lacking in interest. Harshaw's previous cynical comments have caused Heinlein to gloss over an oppor-

tunity to observe and evaluate our society through Smith's eyes.

Smith's solution to our problems is the elimination of jealousy by formation of a quasi-religious order that emphasizes the sharing of self. Hence the scathing denunciation by many "mainstream" reviewers — notably the *New York Times* — of the book's accent on sex. Of course, the *Times* cannot be expected to remember the recent past when space ships needed no sanitary facilities and science-fictional characters owned no sexual organs. However, the book's shortcomings lie not so much in its emancipation as in the fact that Heinlein has bitten off too large a chewing portion. But kudos to him for the decision to write what he thinks.

Rating: ***½

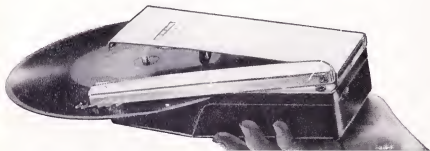
THE PAPERS OF ANDREW MELMOTH by Hugh Sykes Davies. William Morrow & Co.

RATS BEING the objects of horror and loathing to many people, it is no surprise that masters of the macabre, including Lovecraft and Kuttner, have woven tales of pure shiver about them. Davies, an Oxford don, has written an understated and genteel yarn that carries a shock.

Rating: ****

— FLOYD C. GALE

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