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WORLDS of SCIENCE FICTION
MAY 1954
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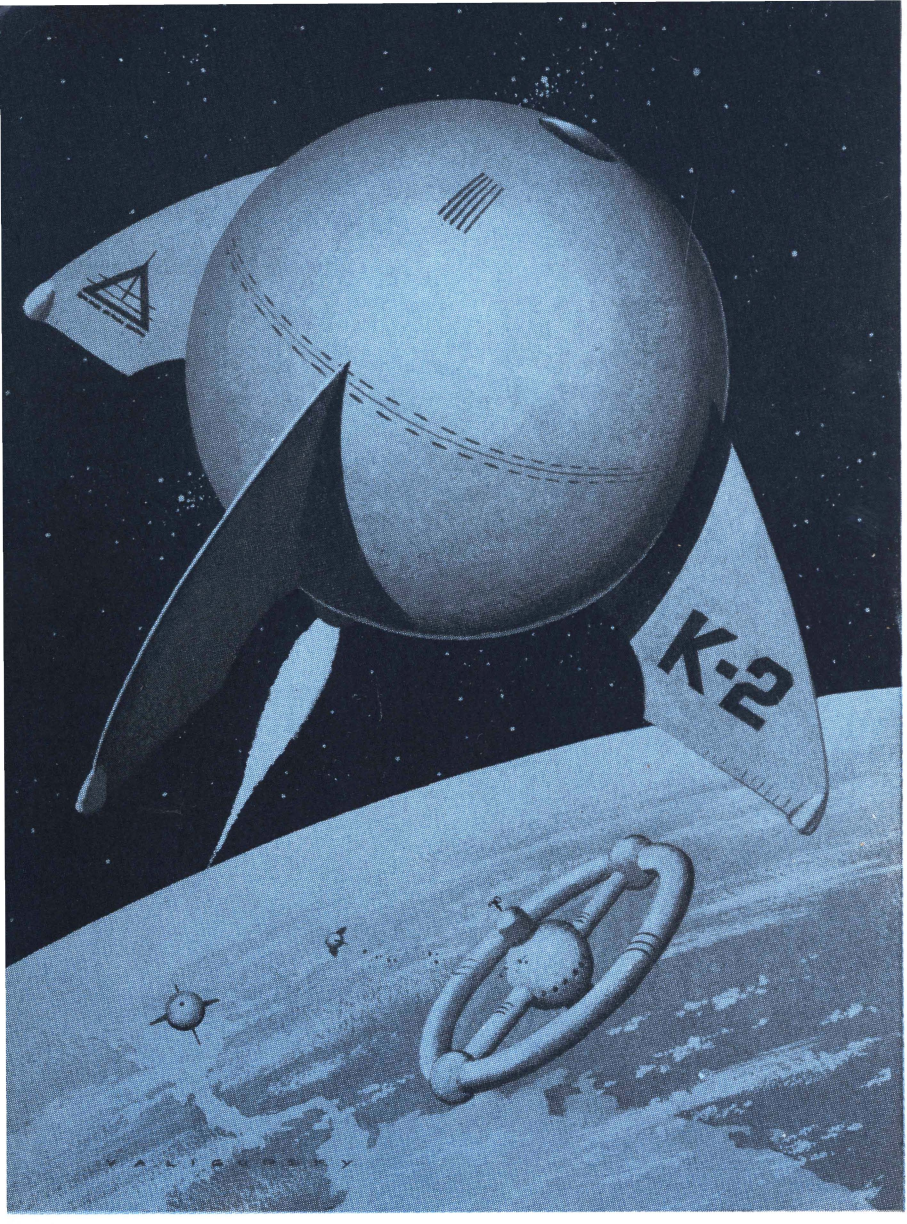
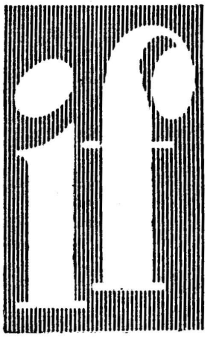


MOON SHUTTLE SHIPS—The Moon is an easy target once a space station, outside the Earth's gravitational pull, is completed. These "shuttle" ships, spherical in shape and with enormous freight capacities, are built on the space station and launched from there. The shuttle above is departing for the Moon, loaded to capacity with supplies. The ship operates in a vacuum therefore fins are functional only as mounts and fuel tanks for control rockets, and for landing gear. Now turn to inside back cover.



WORLDS of SCIENCE FICTION

MAY 1954

All Stories New and Complete

Editor: JAMES L. QUINN
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EVE P. WULFF

Cover by Ed Valigursky: *Refueling in Space*

NOVELETTES

SHORT STORIES

FEATURES

COVER PICTORIAL: Shuttle Ships for Moon Base
by Ed Valigursky

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A CHAT WITH THE EDITOR

ONE OF the interesting things to watch for in the reading of science fiction is politics. Not that the subject of political science is delved into too deeply, but we catch—quite frequently as part of a background or occasionally as a solid premise—glimpses into rather thoughtful projections of applied government. Sometimes it is the leadership of a surviving tribe dug deep into the mountains; often it is relative to the affairs of life in a city-state not too unlike those of the ancient Greeks; or it might concern an endless galactic empire. And it is encouraging to see, in the majority of stories we've published, that the structure is rather logically worked out—that in the conception of civilized life hundreds or thousands of years from now, political science is given some emphasis. Whether we agree with the author's version or not is beside the point.

What *is* to the point is that the average civilian isn't giving half as much thought to the government by which we live *today*. Quite recently, newspapers, at least around this neck of the woods, were full of front-page stories concerning politics, personalities and parties which tended to lead the average individual to suspect something slightly stinky in the ole wood pile. Somebody was calling somebody else an old so-and-so and skeletons were dug out of closets and dusted off. Mud pies were tossed and antecedents were questioned. It was like a string of Chinese firecrackers going off in a three-ring circus. The citizenry was reading the newspapers like mad. But when the nice juicy copy died out, Mr. and Mrs. John Q. Public seemed to forget about the political hoopla and turned to "something else more important".

Which is unfortunate. There *ain't* much of anything else that's *more* important. Politics (to repeat) is the science of government, *and we live under government.* We live under a government that affects our earnings, our economics, our homes and personal lives, our education, our health, our *everything*—including that beautiful word "freedom". So it seems to me that this is a pretty good argument that politics *is* mighty important to all of us.

GOOD GOVERNMENT is earned by constant vigilance on the part of *everyone.* Our democratic form of government is run (supposedly so) by people elected to office. They are human, and therefore

prone to all the frailties of human nature, and the only way to keep these duly elected servants walking the straight and narrow in the public behalf is by watching each and every one *all* the time.

Today's inconceivable speed of communications and transportation has brought the peoples of the world closer and closer together. The globe we live on, instead of once-upon-a-time isolated villages and cities and nations, is now a conglomerate mass of international intercourse—*and* intrigue. To maintain the health and identity of America—*that is, if we like living as we do today*—a study and observation of the men we elect to guide us through this maelstrom is an *absolute must.*

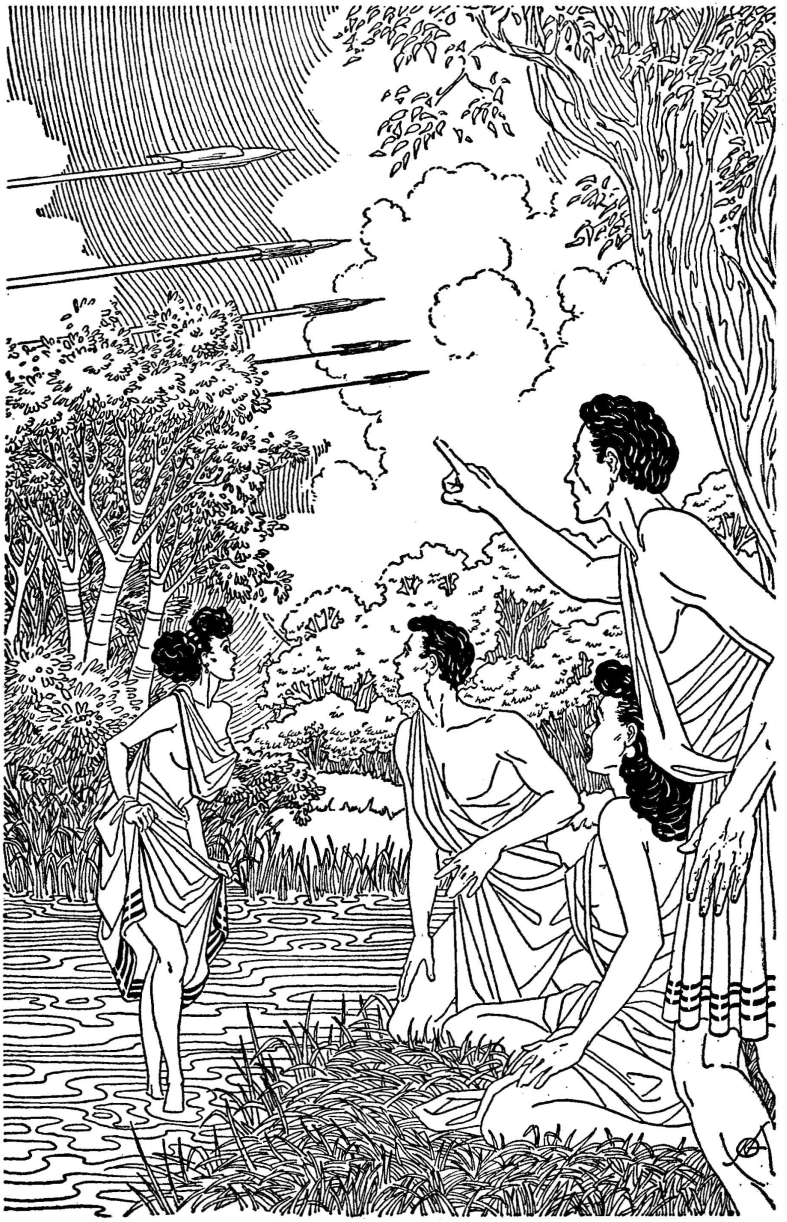
Through this intermingling of the peoples of all nations, malcontents creep in. Either they want a handout or they want to wreck something beautiful and strong because they themselves haven't got it. So we have another good reason for being *vitally* interested in politics—that of *survival!* Not only does this apply to the national scene but all the way down to the hot stove in the country store, from the highest office in the land to the local dog-catcher.

Suppose our present system of government is susceptible to too many foibles and incapabilities, how would the science fiction writer alert the populace and strengthen the sinews of government? Would it be an immediate issuance of white papers, blue papers, black papers and a flock of other papers the colors of the rainbow? Would it be a mud campaign or a series of court trials? Or would it be a carefully planned project taking generations to build and to perfect?

My bet would be on the latter. The science fiction writer, aiming at a strong, healthy, democratic form of government, would start with the grooming of young men, of high school and college age, for local, state or national government. Government is a vast business, so these young men would be trained as thoroughly as are doctors, lawyers, bankers, engineers, scientists, etc. Each man would have to pass the "board" and serve his apprenticeship before being allowed to run for public office. Then, if elected, he would know what he was stepping into. Of course, he would have to get adjusted, but he would have the foundation and the *proven loyalty* to work at his task *honestly* and in behalf of his *own* nation.

AFTER ALL, we have trained men in our diplomatic service—why not a trained man for your local alderman, councilman and mayor, or for your state legislature, or for the administrative and legislative branches of our national government. You don't find a good-time, jack-of-all-trades Charlie stepping into the trust department of a bank to handle the funds and estates of its customers—*do* you?

No, and the science fiction writer, using the America of today as his background, would never allow a greasy notebook filled with the names of hangers-on and "contacts" to qualify a man for public office—not unless his story called for an unhappy ending. —jlq



The Earth was green and quiet. Nature had survived Man, and Man had survived himself. Then, one day, the great silvery ships broke the tranquillity of the skies, bringing Man's twenty-thousand-year-lost inheritance back to Earth . . .

The TIES That BIND

By Walter Miller, Jr.

Illustrated by Kelly Freas

"Why does your brand sae drop wi' blude,
Edward, Edward?
Why does your brand sae drop wi' blude,
And why sae sad gang ye, O?"
"O I hae kill'd my hawk sae gude,
Mither, mither;
O I hae kill'd my hawk sae gude,
And I had nae mair but he, O."
—ANONYMOUS

THE HORDE of sleek ships arose in the west at twilight—gleaming slivers that reflected the dying sun as they lanced across the darkling heavens. A majestic fleet of squadrons in double-vees, groups in staggered echelon, they crossed the sky like gleaming geese, and the children of Earth came out of their whispering gardens to gape at the splendor that marched above them.

There was fear, for no vessel out of space had crossed the skies of Earth for countless generations, and the children of the planet had forgotten. The only memories that lingered were in the memnoscripts, and in the unconscious *kulturverlaengerung,* of the people. Because of the latter half-memory, the people knew, without knowing why, that the slivers of light in the sky were ships, but there was not even a word in the language to name them.

The myriad voices of the planet, they cried, or whispered, or chattered in awed voices under the elms. . .

The piping whine of a senile

hag: "The ancient gods! The day of the judging! Repent, repent. . ."

The panting gasp of a frightened fat man: "The alien! We're lost, we're lost! We've got to run for the hills!"

The voice of the child: "See the pretty birdlights? See? See?"

And a voice of wisdom in the councils of the clans: "The sons of men—they've come home from the Star Exodus. Our brothers."

The slivers of light, wave upon wave, crept into the eclipse shadow as the twilight deepened and the stars stung through the blackening shell of sky. When the moon rose, the people watched again as the silhouette of a black double-vee of darts slipped across the lunar disk.

Beneath the ground, in response to the return of the ships, ancient mechanisms whirred to life, and the tech guilds hurried to tend them. On Earth, there was a suspenseful night, pregnant with the dissimilar twins of hope and fear, laden with awe, hushed with the expectancy of twenty thousand years. The stargoers—they had come home.

"Kulturverlaengerung!" grunted the tense young man in the toga of an Analyst. He stood at one end of the desk, slightly flushed, staring down at the haughty wing leader who watched him icily from a seat at the other end. He said it again, too distinctly, as if the word were a club to hurl at the wingsman. *"Kulturverlaengerung,* that's why!"

"I heard you the first time, Meikl," the officer snapped. "Watch your tongue and your tone!"

A brief hush in the cabin as hostility flowed between them. There was only the hiss of air from the ventilators, and the low whine of the flagship's drive units somewhere below.

The erect and elderly gentleman who sat behind the desk cleared his throat politely. "Have you any further clarifications to make, Meikl?" he asked.

"It should be clear enough to all of you," the analyst retorted hotly. He jerked his head toward the misty crescent of Earth on the viewing screen that supplied most of the light in the small cabin. "You can see what they are, what they've become. And you *know* what *we* are."

The two wingsmen bristled slightly at the edge of contempt in the analyst's voice. The elderly gentlemen behind the desk remained impassive, expressionless.

The analyst leaned forward with a slow accusing glance that swept the faces of the three officers, then centered on his antagonist at the other end of the desk. "You want to *infect* them, Thaüle?" he demanded.

The wingsman darkened. His fist exploded on the desktop. "Meikl, you're in contempt! Restrict yourself to answering questions!"

"Yes, sir."

"There will be no further breaches of military etiquette during the continuance of this conference," the elderly gentleman announced icily, thus seizing the situation.

After a moment's silence, he turned to the analyst again. "We've got to refuel," he said flatly. "In

order to refuel, we must land."

"Yes, sir. But why not on Mars? We can develop our own facilities for producing fuel. Why must it be Earth?"

"Because there will be *some existing facilities* on Earth, even though they're out of space. The job would take five years on Mars."

The analyst lowered his eyes, shook his head wearily. "I'm thinking of a billion earthlings. Aren't they worth considering, sir?"

"I've got to consider the men in my command, Meikl. They've been through hell. We all have."

"The hell was our own making, baron."

"Meikl!"

"Sorry, sir."

Baron ven Klaeden paused ominously, then: "Besides, Meikl, your predictions of disaster rest on certain assumptions not known to be true. You assume that the recessive determinants still linger in the present inhabitants. Twenty thousand years is a long time. Nearly a thousand generations. I don't know a great deal about culturetics, but I've read that *kulturverlaengerung* reaches a threshhold of extinction after about a dozen generations, if there's no restimulation."

"Only in laboratory cultures, sir," sighed the analyst. "Under rigid control to make certain there's no restimulant. In practice, in a planet-wide society, there's constant accidental restimulation, unconsciously occuring. A determinant gets restimulated, pops back to original intensity, and gets passed on. In practice, a kult'laenger linkage never really dies out—although, it can stay recessive and unconscious."

"That's too bad," a wingsman growled sourly. "We'll wake it up, won't we?"

"Let's not be callous," the other wingsman grunted in sarcasm. "Analyst Meikl has sensitivities."

The analyst stared from one to the other of them in growing consternation, then looked pleadingly at the baron. "Sir, I was *summoned* here to offer my opinions about landing on Earth. You asked about possible cultural dangers. I've told you."

"You discussed the danger to earthlings."

"Yes, sir."

"I meant 'danger' to the personnel of this fleet—to their esprit, their indoctrination, their group-efficiency. I take it you see none."

"On the contrary, I see several," said the analyst, coming slowly to his feet, eyes flashing and darting among them. "Where were you born, Wingman?" he asked the officer at the oppisite end of the desk.

"Lichter Six, Satellite," the officer grunted after a moment of irritable silence.

"And you?"

"Omega Thrush," said the other wingsman.

All knew without asking that the baron was born in space, his birthplace one of the planetoid city-states of the Michea Dwarf. Meikl looked around at them, then ripped up his own sleeve, unsheathed his rank-dagger, and pricked his forearm with the needle point. A red droplet appeared, and he wiped at it with a forefinger.

"It's common stuff, gentlemen. We've shed a lot of it. And each

of us is a walking sackful of it." He paused, then turned to touch the point of his dagger to the viewer, where it left a tiny red trace on the glass, on the bright crescent of Earth, mist-shrouded, chastely wheeling her nights into days.

"It came from there," he hissed. "She's your womb, gentlemen. Are you going back?"

"Are you an analyst or a dramatist, Meikl?" the baron asked sharply, hoping to relieve the sudden chill in the room. "This becomes silly."

"If you land on her," Meikl promised ominously, "you'll go away with a fleet full of hate."

Meikl's arm dropped to his side. He sheathed his dagger. "Is my presence at this meeting still imperative, sir?" he asked the baron.

"Have you anything else to say?"

"Yes—*don't land on Earth.*"

"That's a repetition. No further reasons?—in terms of danger to ourselves?"

The analyst paused. "I can think of nothing worse that could happen to us," he said slowly, "than just being what we already are."

He snapped his heels formally, bowed to the baron, and stalked out of the cabin.

"I suggest," said a wingsman, "that we speak to Frewek about tightening up the discipline in the Intelligence section. That man was in open contempt, Baron."

"But he was also probably right," sighed the graying officer and nobleman.

"Sir—!"

"Don't worry, Wingsman, there's nothing else to do. We'll have to land. Make preparations, both of you—and try to make contact with surface. I'll dictate the message."

When the wingsmen left, it was settled. The baron arose with a sigh and went to peer morosely at the view of Earth below. Very delicately, he wiped the tiny trace of blood from the glass. She was a beautiful world, this Earth. She had spawned them all, as Meikl said—but for this, the baron could feel only bitterness toward her.

But what of her inhabitants? I'm past feeling anything for them, he thought, past feeling for any of the life-scum that creeps across the surface of a world, any world. We'll go down quickly, and take what we need quickly, and leave quickly. We'll try not to infect them, but they've already got it in them, the dormant disease, and any infection will be only a recurrence.

Nevertheless, he summoned a priest to his quarters. And, before going to the command deck, he bathed sacramentally as if in preparation for battle.

"Your hawk's blude was never sae red,
Edward, Edward;
Your hawk's blude was never sae red,
My dear son, I tell thee, O."
"O I hae kill'd my red-roan steed,
Mither, mither;
O I hae kill'd my red roan steed,
That erst was sae fair and free, O."

—ANONYMOUS

False dawn was in the east when the slivers of light appeared once again out of the eclipse shadow to rake majestically across the heavens, and again the children of

Earth crowded in teeming numbers from the quiet gardens to chatter their excitement at the wonder in the sky. But this time, a message came. The men of the tech clans who tended the newly activated mechanisms heard it, and the mechanisms memorized it, and played it again and again for the people, while the linguists puzzled over the unidentified language used in the transmission.

PROPAUTH EARTH FROM COMMSTRAFEFLEET THREE, SPACE, KLAEDEN COMM, PRESENTS GREETINGS!

IF YOU HAVE RECORDS, OUR USE OF ANCIENT ANGLO-GERMANIC SHOULD MAKE OUR IDENTITY CLEAR. HAVE YOU FUELING FACILITIES FOR 720 SHIPS OF THOR-NINE CLASS? IF NOT, WE SHALL DEVELOP FACILITIES FROM LOCAL RESOURCES, WITH, WE TRUST, YOUR PEACEFUL COOPERATION. THIS CADRE NOT REIMMIGRATING, BUT EN ROUTE TO URSAN STARS. REQUEST LANDING SUGGESTIONS, IN VIEW OF OUR FUELING NEEDS.

REQUEST INTELLIGENCE CONCERNING PRESENT LEVEL OF TERRESTRIAL CULTURE. OUR ORIBITAL OBSERVATIONS INDICATE A STATIC AGRARIAN-TECHNICAL COMPLEX, BUT DETAILS NOT AVAILABLE. WE COME IN ARMS, BUT WITHOUT ENMITY. PLEASE REPLY, IF POSSIBLE.

ERNSTLI BARON VEN KLAEDEN, COMMANDING STRAFEFLEET THREE, SPACESTRIKE COMMAND, IMPERIAL FORCES OF THE SECESSION

SO IT CAME, repeated continuously for an hour, followed by an hour of silence, and then by another hour of repetition. The linguists were unable to discern meanings. Thousands of memorizers were consulted, but none knew the words of the harsh voice from the ships. At last, the sages consulted the books and memnoscripts in the ancient vaults, pouring over tomes that had been buried for countless centuries. After hours of hurried study . . .

"It is found, *it is found,* a tongue of the ancients!" a joyous cry in the glades and the garden pathways.

Happily, the sages recorded the linguistic structure of the forgotten tongue on memnoscript, and gave it to a servo translator. Outmoded mechanisms were being brought out of wraps and prepared for use. The servos supplied a translation of the message, and the sages studied it.

"It is badly understood," was the curious mutter along the garden pathways.

"Many words have no words to match them, nor any thoughts that are similar," was the only explanation the sages could give.

In translation the message seemed meaningless, or unfathomable. Only one thing was clear. The sons of Man meant to descend again upon the world of their ancestors. There was a restless unease in the gardens, and groups of elders gathered in the conference glades to mutter and glance at the sky. "Invite our brothers to land," was the impetuous cry of the young, but there were dissenters.

In the Glade of Sopho, a few

thoughtful clansmen of Pedaga had gathered to muse and speak quietly among themselves, although it was not ordinarily the business of tutors to consider problems that confronted society as a whole, particularly problems arising outside society itself. The Pedaga were teachers of the very young, and deliberately kept themselves childlike in outlook in order to make fuller contact with the children in their charge.

"I think we should tell them to go away," said Letha, and looked around at the others for a response.

She got nothing in reply but a flickering glance from Marrita, who sat morosely on a cool rock by the spring, her chin on her bare knees. Evon gave her a brief polite smile, to acknowledge the sound of her voice, but he returned almost at once to absently tearing twigs and glancing up at the bits of sky that showed through the foliage of the overhanging trees. Iak and Karrn were whispering together at the far end of the glade, and had not heard her.

Letha shrugged and leaned back against the tree trunk again, sitting spraddle-legged this time in the hope of catching Evon's eye. She was a graceful girl, and while gracefulness is sometimes feline, Letha's was more nearly kittenish. She was full-bodied and soft, but well-shaped in spite of a trace of plumpness. Thick masses of black hair fell over baby-skin shoulders in a pleasing contrast, and while her face was a bit too round, it radiated a gentle, winning grin, and the sympathetic gaze of gray-blue eyes. Now she seemed ready to pout. Evon remained self-absorbed.

"I think we should tell them to go away," she repeated a little sharply. "They'll all be big and swashbuckling and handsome, and the children will become unmanageable as soon as they see them. All the little girls will swoon, and all the little boys will want to go with them."

Evon ganced at her briefly. "It's up to the elders of the Geoark," he muttered without interest, and prepared to return to his own meditations.

"And all the *big* girls will run away with them," she purred with a tight smile, and stretched a languorous leg out in front of her to waggle her foot.

Evon shot her a quick glance, held it for a moment, then looked skyward again. She pursed her lips in irritation and glared at him. Gradually, she forgave him. Evon was distraught. He *must* be—because she hadn't seen him sit still this long in years. He was *always* doing something, or looking for something to do. It wasn't like Evon just to sit still and think. He was a restless, outgoing fellow, nearly always reacting boisterously, or laughing his staccato laugh. Now he just sat there and looked puzzledly in the direction of the sky-fleet. Looking puzzled didn't fit his face, somehow. It was a bony brown face, slightly oily, with a long narrow jaw that jutted forward like a plowshare under an elastic smirk. It was a rubbery kind of a face, the kind that could twist into horrid masks for the amusement of the young. Now it just drooped.

She stirred restlessly, driven to

seek sympathetic understanding.

"You wonder what it's like, Evon?" she asked.

He grunted at her quizzically and shook his head.

"To be one of the children of the Exodus, I mean," she added.

"*Me?* What *are* you thinking of, Letha?"

"Of your face. It looks suddenly like a nomad's face. You remind me of an old schnorrer who used to wander through our gardenboro every year to play his fiddle, and sing us songs, and steal our chickens."

"I don't fiddle."

"But your eyes are on the skyfleet."

Evon paused, hovering between irritation and desire to express. "It's strange," he murmured at last. "It's as if I know them—the starbirds, I mean. Last night, when I saw them first, it was like looking at something I expected to happen . . . or . . . or . . ."

"Something familiar?"

"Yes."

"You think he has the genemnemon, Marrita?" she asked the blonde girl who sat on the cool rock by the spring.

Marrita looked up from dabbling her toes in the icy trickle. "I don't believe in the genemnemon. My great grandfather was a thief."

"How silly! What's that to do with it?"

"He buried a fortune, they say. If there was a genemnemon, I'd remember where he buried it, wouldn't I?" She pouted, and went back to dabbling a club toe in the spring.

Evon snorted irritably and arose to stretch. "We lie around here like sleepy pigs!" he grumbled. "Have the Pedaga nothing to do but wait on the Geoark to make up its mind?"

"What do you think they'll do?"

"The Geoark? Invite the strangers to land. What else could they do?"

"Tell them to go away."

"And suppose they chose not to go?"

The girl looked bewildered. "I can't imagine anyone refusing the Geoark."

"Maybe they've got their own Geoark. Why should they cooperate with ours?"

"*Two* Geoarks? What a strange idea."

"Is it strange that you and I should have two brains? Or were you aware that I have one too?"

"Evon! What a *strange* idea."

He seized her by the ankles and dragged her squealing to the spring, then set her down in the icy trickle. Marrita moved away, grumbling complaints, and Letha snatched up a switch and chased him around the glade, shrieking threats of mayhem, while Evon's laughter broke the gloomy air of the small gathering, and caused a few other Pedaga to wander into the clearing from the pathways.

"I think we should prepare a petition for the Geoark," someone suggested.

"About the skyfleet? And who knows what to say?"

"I'm afraid," said a girl. "Somehow I'm suddenly afraid of them."

"Our brothers from the Exodus? But they're *people*—such as you and I."

So went the voices. After an hour, a crier came running through the glade to read another message received from the skyfleet.

PROPAUTH EARTH FROM COMMSTRAFEFLEET THREE, SPACE, KLAEDEN COMM, PRESENTS GREETINGS!

HAVING RECEIVED NO ANSWER TO OUR PREVIOUS COMMUNICATION, WE HAVE NO CHOICE BUT TO LAND AT ONCE. I AM IMPOSING AN INFORMATIONAL QUARANTINE TO AVOID RESTIMULATING POSSIBLE RECESSIVE KULTURVERLAENGERUNG, BUT SUGGEST YOU GUARD YOURSELVES. OUR CULTURES HAD A COMMON ORIGIN. WE COME IN ARMS, WITHOUT ENMITY.

ERNSTLI BARON VEN KLAEDEN, COMMANDING STRAFEFLEET THREE, SPACESTRIKE COMMAND IMPERIAL FORCES OF THE SECESSION

This was even more mystifying than the previous one, even less meaningful in translation. One thing was clear, however: the fleet was going to land, without invitation.

Embarrassed, the elders of the Geoark immediately called the tech clans. "Can you revive the devices that speak across space?" they asked.

"They are revived," answered the tech clans.

"Then let us speak to our brothers from space."

And so it was that the people of the gardens of Earth sang out:

BRETHREN TO BRETHREN, PRESENT LOVE LOVE LOVE.

WE WELCOME YOU TO OUR GLADES AND TO OUR PLACES OF FEEDING AND OUR PLACES OF SLEEPING. WE WELCOME YOU TO THE BOSOM OF THE WORLD OF BEGINNING. AFTER TWENTY THOUSAND YEARS, EARTH HAS NOT FORGOTTEN. COME AMID REJOICING.

THE ELDERS OF THE GEOARK

"I'm afraid Earth will remember more than it wants to," growled Ernstli Baron ven Klaeden, as he issued the command to blast into an atmospheric-braking orbit.

And there was thunder in a cloudless sky.

"O your steed was auld and ye hae mair,
Edward, Edward.
O your steed was auld and ye hae mair,
And some other dule ye dree, O."
"O I hae kill'd my ain father dear,
Mither, mither;
O I hae kill'd my ain father dear,
Alas and woe is me, O."

—ANONYMOUS

IN ACCORDANCE with the rules of invasion strategy for semi-civilized planets, the fleet separated itself into three groups. The first group fell into atmospheric braking; the second group split apart and established an "orbital shell" of criscrossing orbits, timed and interlocking, at eight hundred miles, to guard the descent of the first wave of ships, while the third wave remained in battle for-

mation at three thousand miles as a rear guard against possible space attack. When the first wave had finished braking, it fell into formation again and flew as aircraft in the high stratosphere, while the second wave braked itself, and the third wave dropped into the orbital shell.

From the first wave, a single ship went down to land, and its telecameras broadcast a view of a forest garden, slightly charred for a hundred yards around the ship, with fires blazing along its edges.

"No signs of the natives yet," came the report. "No signs of technology. No evidence of hostility."

A second ship descended to land a mile from the first. Its telecamera caught a fleeting glimpse of a man waving from a hilltop, but nothing more.

One at a time the ships came, with weapon locks open and bristling with steel snouts. The ships came down at one-mile intervals, the first wave forming a circle that enclosed an area of forty-six hundred square miles. The second wave came down to land in a central circle of fifteen miles diameter. The third wave remained in its orbital shell, where it would stand guard as long as the fleet was on the ground.

In accordance with the rules of officer's conduct, Baron ven Klaeden, who had ordered the landing, was the first to expose himself to the enveloping conditions outside the flagship. He stood in an open lock, sniffing the autumn air of Earth in late afternoon. It was full of jet-fire smoke, and smelled of burning brush. The automatic extinguishers had quenched the flames, but the blackened trees and brush still roasted and sparked and leaked smoke across the land. Somewhere a bird was singing through the sunlit haze. Baron ven Klaeden recognized the sound as made by a living thing, and wondered if the recognition was born into his bones.

Three hundred and fifty yards to the north, a wingship towered in the sun, its guns trained outward from the inner circle, and to the south, another wingship. The baron glanced down at the earth beneath the flagship. The jets had reduced to ashes something that might have been a low wooden structure. He shrugged, and glanced across the blackened area toward the orderly forest. Trees and shrubs, and a carpet of green turf below, broken here and there by rain-worn rocks and clusters of smaller fragile leafy stuff that might be food-plants. Vivid splashes of color blossomed in the shady forest, scarlets and blues and flashes of brilliant lemon that lived in profusion in the foliage of the shrubbery. Some of the trees were living masses of tiny flowers, and when the wind stirred them, petals showered to the ground in fragrant gusts. The wind changed, and the air that breathed about the commander's face was full of perfume.

I feel nothing, he thought. Here is beauty and warmth, here is the home of Man, and almost an Eden, but I feel nothing. It is just another mote that circles a minor sun, and to me it is only an exploitable supply dump of Nature, a place to accomplish Procedure 76-A, "Refueling Method for Terrestroid Planets

Without Facilities, Native Labor Exploitable."

It was only a way-station on the long long road from Scorpius to Ursa, and it meant nothing, nothing at all. It had changed too much. Millenia ago, when the Star Exodus had burst forth to carry Man halfway across the galaxy, things had been different. A few colonies had kept accurate histories of Earth intact, and when the Transpace Empire had gathered itself into social integration, nearly five thousand years ago, the histories had been made universally available. The baron had studied them, but from the viewpoint of the spacer, the history of Humanity had ceased in any way to be associated with Earth after the Star Exodus. Man was a space creature, a denizen of the interstellum—or had been, before the War of Secession—and when history moved into space, Earth was a half-remembered hamlet. Ven Klaeden had seen the Earth-vistas that the historians had reconstructed for the museums—vistas of roaring industrial cities, flaming battlegrounds, teeming harbors and spaceports. The cities were gone, and Earth had become a carefully tended Japanese garden.

AS HE STARED around, he felt a lessening of the anxiety that had gnawed at him since the analyst Meikl had predicted dire consequences after the landing. The cultural blood of Man had diverged into two streams so vastly different that no intermingling seemed possible to him. It would be easy, he decided, to keep the informational quarantine. The order had already been issued. "All personnel are forbidden to attempt the learning of the current Earth-tongue, or to teach any Empire-culture language to the natives, or to attempt any written communication with them. Staff-officers may communicate only under the provisions of Memorandum J-43-C. The possession of any written or recorded material in the native tongue, and the giving of written material to the natives, shall be taken as violations of this order. No sign language or other form of symbolic communication shall be used. This order shall be in force until Semantics section constructs a visual code for limited purposes in dealing with the natives. Staff officers are hereby authorized to impose any penalty ranging to death upon offenders, and to try any such cases by summary courts martial. Junior officers authorized to summarily arrest offenders. Effective immediately. Ven Klaeden, Comm."

It would keep any interchange to an absolute minimum, he thought. And Semantics had been ordered to attempt construction of a visual language in which only the most vital and simple things could be said. Meanwhile, the staff could attempt to utilize the ancient Anglo-Germanic tongue in which the messages had been exchanged.

The baron had started to turn back into the lock when his eye caught a flash of motion near the edge of the forest. Reflexively, he whirled and crouched, gun flickering into his hand. His eyes probed the shrubs. Then he saw her, half

hidden behind a tree trunk—a young girl, obviously frightened, yet curious to watch the ships. While he stared at her, she darted from one trunk to the next closer one. She was already approaching the edge of the blackened area. The baron shot a quick glance at the radiation indicators on the inner wall of the airlock. The instantaneous meter registered in the red. The induced radioactivity in the ground about the base of the ship's jets was still too high. The rate-of-decrease meter registered a decrement of point ten units per unit. That meant it wouldn't be safe for the crew to leave ship for twenty-three minutes, and that the girl had better stay back.

"Keep clear!" he bellowed from the airlock, hoping to frighten her.

She saw him for the first time, then. Instead of being frightened, she seemed suddenly relieved. She came out into the open and began walking toward the ship, wearing a smile and gazing up at the lock.

"Go back, you little idiot!"

Her answer was a brief sing-song chant and another smile. She kept coming—into the charred area.

The gun exploded in his fist, and the bullet ricocheted from the ground near her feet. She stopped, startled, but not sensing hostility. The gun barked again. The bullet shattered a pebble, and it peppered her legs. She yelped and fled back into the green garden.

He stood there staring after her for a moment, his face working slowly. She had been unable to understand his anger. She saw the ships, and was frightened but curious. She saw a human, and was reassured. Any human. But was what she saw really human any longer, the baron asked himself absently. He grunted scornfully, and went back through the lock.

It was easier, even on the ground, to communicate with the elders of the Geoark by radio, since both parties had set up automatic translators to translate their own tongues into the old Anglo-German which was a mutually recorded dead language.

"We have neutralized a circle of land of thirty-one mile radius," ven Klaeden reported to the elders. "If our selection of this region is unfortunate, we are open to discussion of alternatives. However, our measurements indicated that the resources of this area make it best for *our* purposes."

"Your landing caused only minor damage, brethren," replied the gentle voice of the Geoark. "You are welcome to remain as you are."

"Thank you. We consider the occupied area to be under our military jurisdiction, and subject to property seizures. It will be a restricted area, closed to civilian population."

"But brethren, thousands of people live in the gardens you have surrounded!"

"Evacuate them."

"I don't understand."

"Evacuate them. Make them get out."

"My translator is working badly."

The baron turned away from the mike for a moment and grunted to the colonel in command of ground operations. "Start clearing the occupied zone. Get the population out unless they'll work for us."

"How much notice?"

The baron paused briefly. "Fifty hours to pack up, plus one additional hour for each mile the fellow has to stump it to the outer radius."

"My translator is working badly," the voice of the elder was parroting.

"Look," the baron grunted at the mike. "All we want is to accomplish what we came here for, and then get out—as quickly as possible. We don't have much time to be polite. I invite the elders of the Geoark to confer in my flagship. We'll try to make everything clear to you. Is this agreed?"

"My translator is working badly."

"Aren't you getting anything?"

A pause, then: "I understand that you wish us to come to the place where the skyfleet rests."

"Correct."

"But what of the welcome we have made for our brethren in the feast-glades?"

"I shall dispatch flyers to pick you up immediately. Unless you have aircraft of your own."

"We have no machinery but the self-sustaining mechanisms in the Earth."

"Any of your population understand the mechanisms?"

"Certainly, brother."

"Then bring technicians. They'll be best able to understand what we want, and maybe they can make it clear to you."

"As you wish, brother."

The baron terminated the contact and turned to his staff with a satisfied smile. "I think we shall have what we need and be gone quickly," he said.

"The elder took it well. They must be afraid of us."

"Respectful awe is more like it," the baron grunted.

"I suggest the answer is in the word 'brethren,'" came a voice from the back of the room.

"Meikl! What are you doing in here?" ven Klaeden barked irritably.

"You called my department for a man. My department sent me. Shall I go back?"

"It's up to you, Analyst. If you can keep your ideals corked and be useful."

Meikl bowed stiffly. "Thank you, sir."

"Having it in mind that our only objective is to go through the tooling-mining-fueling cycle with a minimum of trouble and time—have you got any suggestions?"

"About how to deal with the natives?"

"Certainly . . . but with the accent on *our* problems."

Meikl paused to snap the tip from an olophial and sniffed appreciatively at the mildly alkaloid vapor before replying. "From what we've gathered through limited observation, I think we'd better gather some more, and do our suggesting later."

"That constitutes your entire opinion?"

"Not quite. About the question of recessive kulturverlaengerung . . ."

"*Our* problems, I said!" the commander snapped.

"It's likely to be our problem, sir."

"How?"

"In Earth culture at the time of the Exodus, there were some pat-

terns we'd regard as undesirable. We can't know whether we're still carrying the recessive patterns or not. And we don't know whether the patterns are still dominant in the natives. Suppose we get re-stimulated."

"What patterns do you mean?"

"The Exodus was a mass-desertion, in one sense, Baron."

A moment of hush in the room. "I see what you mean," the commander grunted. "But 'desertion' is a pattern of *action,* not a transmittable determinant."

Meikl shook his head. "We don't *know* what is a transmittable determinant until after it's happened." He paused. "Suppose there's some very simple psychic mechanism behind the 'pioneer' impulse. We don't feel it, but our ancestors did, and we might have recessive traces of it in our kulturverlaengerung lines."

A wingman coughed raucously. "To be blunt with you, Meikl . . . I think this is a lot of nonsense. The whole concept is far-fetched."

"What, the kult'laenger lines?"

"Exactly." The wingsman snorted. "How could things like that get passed along from father to son. If you people'd stop the mystical gibberish, and deal in facts . . ."

"Do you regard parent-child rapport as a fact?" Meikl turned to stare absently out a viewing port at the trees.

"You mean the telepathic experiments with infants? I don't know much about it."

"Seventy years ago. On Michsa Three. A hundred parents were given intensive lessons and intensive practice in playing a very difficult skill game . . . before they became parents. They did nothing but play the game for three years. Then their babies were taken away from them at the age of one year. Brought up institutionally. There was a control group—another hundred whose parents never heard of the skill game."

"Go on."

"So, when the children were ten years old, they did learning-speed tests on all two hundred."

"Learning the game, you mean?"

"Right. The children whose parents had learned it came out way ahead. So far ahead that it was conclusive. Sometime during pregnancy and the first year, the kids had picked up a predisposition to learn the patterns of the game easily."

"So?"

"So—during infancy, a child is beginning to mirror the patterns of the parental mind—probably telepathically, or something related. He doesn't 'inherit it' in the genes, but there's an unconscious cultural mechanism of transmittal—and it's an analog of heredity. The kulturverlaengerung—and it can linger in a family line without becoming conscious for many generations."

"How? If they hadn't taught the children to play the game . . ."

"If they hadn't, it'd still be passed on—as a predisposition-talent—to the third and fourth and Nth generation. Like a mirror-image of a mirror-image of a mirror-image . . . or a memory of a memory of a memory . . ."

"This grows pedantic, and irrelevant," the baron growled. "What

are the chances of utilizing native labor?"

"And whatten penance will we dree for that,
Edward, Edward?
Whatten penance will ye dree for that?
My dear son, now tell me, O."
"I'll set my feet in yonder boat,
Mither, mither;
I'll set my feet in yonder boat,
And I'll fare over the sea, O."
—ANONYMOUS

PHASE-A had been accomplished, after six months of toil. Baltun Meikl, Analyst Culturetic of Intelligence Section stood on the sunswept hill, once forested, but now barren except for the stumps of trees, and watched the slow file of humanity that coursed along the valley, bearing the hand-hewn ties that were being laid from the opening of the mine shaft to the ore dump. Glittering ribbons of steel snaked along the valley, and ended just below him, where a crew of workmen hammered spikes under the watchful eye of a uniformed foreman. In the distance, the central ring of grounded ships dominated the land. Spacers and natives labored together, to lend an impression of egalitarian cooperation under the autocracy of the officer class.

"How good it is for brethren to be reunited," Meikl's native interpreter murmured, in the facile tongue devised by Semantics Section for use by staff officers and Intelligence men in communicating with the natives.

He stared at her profile for a moment, as she watched the men in the valley. Was she really that blind? Were all of them? Had they no resistance at all to exploitation, or any concept for it?

Meikl had learned as much as he could of the socio-economic matrix of the static civilization of the present Earthlings. He had gone into their glades and gardens and seen the patterns of their life, and he wondered. Life was easy, life was gay, life was full of idle play. Somehow, they seemed completely unaware of what they had done to the planet in twenty thousand years. One of the elders had summed up, without meaning to, the entire meaning of twenty millenia, with the casual statement: *"In our gardens, there are no weeds,"* and it applied to the garden of human culture almost as well as it applied to the fauna and flora of the planet.

This "weedlessness" had not been the goal of any planned project, but rather, the inevitable result of age-old struggles between Man and Nature on a small plot of land. When Man despoiled Nature, and slaughtered her children, Nature could respond in two ways: she could raise up organisms to survive in spite of Man, and she could raise up organisms to survive in the service and custody of Man. She had done both, but the gardener with his weed-hoe and his insect spray and his vermin exterminators had proved that he could invent new weapons faster than Nature could evolve tenacious pests, and eventually the life forms of Earth had been emasculated of the tendency to mutate into disobedient species.

Nature had won many bloody battles; but Man had won the war. Now he lived in a green world that seemed to offer up its fruits to him with only a minimum of attention from Man. Nature had learned to survive in the presence of Man. Yet the natives seemed unaware of the wonder of their Eden. There was peace, there was plenty.

This, he thought, could be the answer to their lack of resistance in the face of what seemed to Meikl to be sheer seizure and arrogant exploitation by Baron ven Klaeden and his high command. In a bounteous world, there were no concepts of "exploitation" or "property seizure" or "authoritarianism". The behaviour of the starmen appeared as strange, or fascinating, or laughable, or shocking to such as the girl who stood beside him on the hill—but not as aggressive nor imperious. When a foreman issued an order, the workman accepted it as a polite request for a favor, and did it as if for a friend. Fortunately, ven Klaeden had possessed at least the good sense to see to it that the individual natives were well treated by the individual officers in charge of tasks. There had been few cases of interpersonal hostility between natives and starmen. The careful semantics of the invented sign-language accomplished much in the way of avoiding conflicts, and the natives enthusiastically strived to please.

He glanced at the girl again, her dark hair whipping in the breeze. Lovely, he thought, and glanced around to see that no one was near.

"You belong to another, Letha?" he asked.

She tossed him a quick look with pale eyes, hesitated. "There is a boy named Evon . . ."

He nodded, lips tightening. Stop it, you fool, he told himself. You can't make love to her. You've got to leave with the rest of them.

"But I don't really belong to him," she said, and reddened.

"Letha, I . . ."

"Yes, Meikl."

"Nothing. I'm lonely, I guess."

Her eyes wandered thoughtfully toward the ships. "Meikl, why will you tell us nothing of space—how you've lived since the Exodus?"

"We are an evil people."

"Not so."

She touched his arm, and looked up at him searchingly.

"What is it you wish to know?"

"Why will you never return to your home?"

"To space—but we shall."

"To the worlds of your birth, I mean."

He stiffened slightly, stared at her. "What makes you think we won't?" he asked, a little sharply.

"Will you?"

So there were leaks after all, he thought. After six months, many things would be communicated to the natives, even under strictest security.

"No," he admitted, "we can't go back to the worlds of our birth."

"But why? Where are your women and children?"

He wanted to tell her, to see her turn and flee from him, to see the natives desert the project and keep to their forests until the ships departed. There had been a translator set up between the Anglo-Germanic and the present native tongue, and he had fed it the word "war". The

single word had brought five minutes of incomprehensible gibberish from the native tongue's output. There was no concept to equate it to.

"There is blood on our hands," he grunted, and knew immediately he had said too much.

She continued to stare at the ships. "What are the metal tubes that point from the front and the sides of the ships, Meikl?"

There was no word for "guns" or "weapons".

"They hurl death, Letha."

"How can 'death' be hurled?"

Meikl shook himself. He was saying too much. These are the children of the past, he reminded himself, the same past that had begotten the children of space. The same traces of the ancient *kulturverlaengerung* would live in their neural patterns, however recessive and subliminal. One thing he knew: sometime during the twenty millenia since the Exodus, they had carefully rooted out the vestigial traces of strife in their culture. The records had been systematically censored and rewritten. They were unaware of war and pogroms and persecution. History had forgotten. He decided to explain to her in terms of the substitute concepts of her understanding.

"There were twelve worlds, Letha, with the same Geoark. Five of them wished to break away and establish their separate Geoark. There was a contention for property."

"Was it settled?" she asked innocently.

He nodded slowly.

It was settled, he thought. We razed them and diseased them and interpested them and wrecked their civilizations, and revolutions reduced the remains to barbarism. If a ship landed on a former planet of the empire, the crew would be lynched and murdered. Under ven Klaeden, the ships of the Third Fleet were going to seek out an alleged colony in Ursa, to sell ships, tools, and services to a minor technology that was approaching its own space-going day, in return for immigration and nationalization rights—a young civilization full of chaotic expansion.

"There is much you could not understand, Letha," he told her. "Our cultures are different. All societies go through three phases, and yours has passed through them all —perhaps into a fourth and final."

"And yours, Meikl?"

"I don't know. First there is the struggle to integrate in a hostile environment. Then, after integration, comes an explosive expansion of the culture—*conquest,* a word unknown to you. Then a withering of the mother-culture, and the rebellious rise of young cultures."

"We were the mother-culture, Meikl?"

He nodded. "And the Exodus was your birth-giving."

"Now we are old and withered, Meikl?"

He looked around at the garden-forests in the distance. A second childhood? he wondered. Was there a fourth phase?—a final perpetual youth that would never reach another puberty? He wondered. The coming of the sky-fleet might be a cultural coitus, but could there be conception?

A PAIR of junior officers came wandering along the ridge, speaking in low tones and gazing down toward the valley. There was a casual exchange of salutes as they approached the girl and the analyst. The officers wore police armbands, and they asked for Meikl's fraternization permit, using the spacer's tongue.

"Deserter troubles?" he asked, as they returned his papers.

"Nineteen last week," said one of the officers. "We've lost about three hundred men since we landed."

"Found any of them?"

"Justice Section got sixty-three. The rest are probably hopeless."

Another exchange of salutes. The officers left.

"What did they want, Meikl?" she asked.

"Just idle conversation. It's nearly time for the meeting with the elders. Let's go."

They began walking along the ridge together in the late sunlight. The meeting was to attempt to explain to the elders of the Geoark that the men of the fleet were not free to depart from the occupied zone. The attempt would be fruitless, but ven Klaeden had ordered it.

From the viewpoint of the high command, three hundred desertions out of nineteen thousand men over a period of six months was not an important loss of personnel. What *was* important: the slow decay of discipline under the "no force" interdict. A policy of "no arrest" had been established for the ausland. If a man escaped from the occupied zone, Justice Section could send a detail to demand his return, but if he refused, no force would be used, because of the horrified reaction of the natives. If he were located, a killer was dispatched, armed with a tiny phial, a hollow needle, and a CO_2 gun that could be concealed in the palm of the hand. The killer stalked the deserter until he caught him alone, fired from cover, and stole quietly away while the deserter plucked the needle out of his hide to stare at it in horror. He had a week in which to get back to the occupied zone to beg for immunization; if he did not, the spot would become alive with fungus, and the fungus would spread, and within months, he would die rather grimly.

The real danger, Meikl knew, was not to the fleet but to the natives. The spacers were cultural poison, and each deserter was a source of infection moving into the native society, a focal point of restimulation for any recessive kult'laenger lines that still existed in a peaceful people after twenty thousand years.

"I think Evon will be here," the girl said too casually as they entered the forest and turned into a path that led to the glade where the elders had assembled.

He took her arm suddenly, and stopped in the pathway.

"Letha—you have worked for me many months."

"Yes—"

"I love you, Letha."

She smiled very slowly, and lifted her hands to his face. He kissed her quietly, hating himself.

"You'll take me with you," she said.

"No." It was impossible.

"Then you'll stay."

"It is . . . *forbidden* . . . *verboten*. . ." There was no word in the tongue.

"I can't understand . . . If you love. . ."

He swallowed hard. For the girl, "love" automatically settled everything, and consummation must follow. How could he explain.

"Letha—in your culture, 'life' is the highest value."

"How could it be otherwise? Love me, Meikl."

He took a deep breath and straightened. "You understand 'drama', Letha. I have watched your people. Their lives are continuous conscious play-acting. Your lives are a dance, but you know you are dancing, and you dance as you will. Have you watched our people?"

She nodded slowly. "You dance a different dance—act a different play."

"It's not a play, Letha. We act an *unconscious* drama, and thus the drama becomes more important than living. And death takes precedence over life."

She shuddered slightly and stared into his eyes, unbelieving.

"I don't know what you mean."

"Can you understand?—that I love you, and yet my . . . my. . ." He groped for a word for "duty". "My death-allegiance to the ship-people takes precedence? I can neither take you nor remain with you."

Something went dead in her eyes. "Let us go to the glade," she said in a monotone. "It's growing late."

"And what will ye leave to your ain mither dear,
Edward, Edward?
And what will ye leave to your ain mither dear,
My dear son, now tell me, O?"
"The curse of hell frae me sall ye bear,
Mither, mither;
The curse of hell frae me sall ye bear;
Sic counsels ye gave to me, O!"

—ANONYMOUS

THE TROUBLE had begun on the eighteenth day of the ninth month. A party of unidentified men had stolen into the occupied zone during the night. Without warning, they killed three guards, seized control of the dispensary, raided the pharmacy, taking the entire supply of fungus immunization serum, together with a supply of the deadly phials and needles. They stole a flyer and departed to the south, skimming low over the forest to avoid fire from the grounded fleet. The following day, a leaflet appeared, circulating among the fleet personnel.

NOTICE OF SANCTUARY

TO: ALL PERSONNEL

FROM: AUSLAND COMMITTEE

SUBJECT: FREEDOM

1. ANY OFFICER OR MAN WHO WISHES TO RESIGN FROM THE SERVICES OF THE IMPERIAL FORCES OF THE SECESSION MAY DO SO OF THIS DATE.

2. THE PROCEDURE FOR RESIGNATION INVOLVES NO FORMAL STATEMENT. A MAN MAY TERMINATE HIS PERIOD OF

SERVICE BY DEPARTING FROM THE OCCUPIED ZONE.

3. ANY OFFICER OR MAN WHO ATTEMPTS TO INTERFERE WITH THE RESIGNATION OF ANOTHER SHALL BE TRIED IN ABSENTIA BY THIS COMMITTEE, AND IF FOUND GUILTY, SHALL INCUR THE DEATH PENALTY.

AUSLAND COMMITTEE

"An outrageous and preposterous bit of deviltry!" ven Klaeden had hissed. "Get them. Make an example of them."

In reversal of previous policy, a police party was sent to search for the self-styled ausland committee, with orders to capture or kill on sight. The police party hunted down and killed six deserters, dragged eleven more back to the occupied zone, under the very eyes of the native population. But the immunizing serum was not recovered.

A few days later, three staff officers and a dozen officers in Justice Section awoke with yelps in the night to pluck stinging needles from their skins and scream for the guard to pursue the silent shadows that had invaded their quarters.

Five men were captured. Three of them were natives. Interrogation failed to disclose the location of the immunizing serum.

Muttering natives began to desert the project. The five culprits were brought before the baron.

"Execute them in public, with full dress military ceremony. Then close the border of the occupied zone. No native may leave, if he has signed a work contract."

On the day of the execution, the natives attempted to leave en masse. The police activity along the border approached the proportions of a massacre.

"We were nearly finished," raged the baron, pacing like an angry predator in the glade. "Another two weeks, and the first ore would come out of the crushers. They can't stop us now. They can't quit."

Three elders of the Geoark sat like frozen statues on a mossy boulder, tight-lipped, not understanding the colonel's tongue, disdaining to speak in the intermediate language.

"Explain it to them, Meikl. Make it clear."

Pale, trembling with suppressed disapproval, the analyst bowed curtly and turned to the girl. "Tell them," he said in the Intermedia, "that death will come to any native who deserts, and that ten auslanders will die for every man murdered by the renegade committee. Tell them that the Geoark is. . ." He paused. There was no word for "hostage."

He was explaining the hostage-concept lengthily, while the girl's face drained of color. Suddenly she turned away to retch. Meikl stood stricken for a moment, turned helplessly toward the baron.

"*They* understood you, damn them!" ven Klaeden snapped. "They know the Intermedia."

The elders continued to sit stonily on the boulder without acknowledging that they had heard. One of them sighed deeply and spoke a few words to the others. They nodded sadly, answered with polite monosyllables.

"No!" Letha yelped, suddenly whirling, looking at the elders.

One of them smiled and murmured a few words to her. Then the three of them slid down from the boulder. The guard who stood at port arms a few feet away stirred restlessly.

The elders walked casually toward a path leading away from the glade. The guard looked questioningly at the officers.

"Where are they going?" ven Klaeden demanded.

"Well, Letha?" Meikl muttered.

"I—I don't know—"

"You're lying, girl," the baron grunted, then to the guards: "Tell them to halt."

"Party, *halt!*" snapped the guard.

The three elderly gentlemen continued toward the path, loose robes gathered up from spindley shins.

"Party, halt!"

The elders murmured conversationally among themselves as they continued.

"HALT, I SAID."

"Take the one in the middle," ordered ven Klaeden.

The guard lifted the snub-nosed shoulder weapon. There was a brief rattling hiss. The back of the elder's robe went crimson, and he crumpled at the entrance of the pathway.

The other two continued on their way, their stride unbroken.

"Shoot for the legs, you fool!" barked the baron.

The rattling hiss came again. They fell in the shrubs, whimpering softly.

Miekl turned away with a choking spasm in his throat, looked around for Letha. She had vanished from the glade.

"Haul them to the dispensary, keep them prisoner," the baron was growling.

Meikl turned on him. "Now it's come to this, has it?" he snapped. "From the beginning, they were willing—even eager, to give what we wanted. Why did they *stop* being willing?"

"That's enough, Meikl!"

"I've hardly started. You came here like a tyrant, and they served you like a friend. You couldn't bear it. 'Brethren', they said. But there's nothing about 'brethren' in the tactical handbooks, is there, Baron?"

"Shut up."

Ven Klaeden said it quietly, as if bored. He crossed slowly to stand before the analyst and stare at him icily.

"You speak of the unconscious inheritance of culture, analyst—the kulturverlaengerung. And you have accused me for being a carrier of the war plague, eh?"

Meikl paused. The baron's eyes were narrowed, stabbing as if in judgment or triumph.

"Well, Meikl? Is that what we've done? Inflicted them with conflict? Brought back the old seeds of hate?"

The analyst drew himself up slightly. "You just killed a man, a man of dignity," he snarled, "and you cut two others down like weeds."

"Innocent old men." The baron's mouth twisted into a snarl.

"They wanted nothing but to help us."

"Yes, Meikl? And we are the barbarians, eh?"

The analyst spoke disdain with his eyes.

The baron straightened in sudden hauteur. *"Look down at the ground, Analyst,"* he hissed.

Ven Klaeden's sudden change of tone impelled him to obey. His eyes fell to the turf at his feet—moss covered sod, rich and dark beneath the green.

The baron kicked a hole in the moss with the toe of his boot. "Tell me where the infection came from, Analyst," he growled. He scraped at the hole with his heel. "And why is the dirt so *red* right here?"

Meikl glanced up slowly. Two men were coming through the shrubs, walking warily along the path toward the clearing. Ven Klaeden seemed unaware. He leaned forward to speak through his teeth.

"I give them nothing but what they gave our fathers—their own inner hell, Meikl—the curse they so carefully forgot. In their Eden."

The man was mad . . . perhaps. Meikl's eyes followed the men who approached through the shrubs. One of them carried a burden—the limp body of a girl, occasionally visible through the low foliage as they drew nearer. One of the men was a junior officer, the other a native. After a moment, he recognized the native. . .

"Evon!"

As he called out, the baron whirled, hand slipping to the hilt of the ceremonial sword he wore in the presence of the Geoark. The men stopped. Meikl stared at the limp figure in the arms of the native.

"Letha!"

"Dead," Evon hissed. "They killed her for running. . ."

They emerged from the shrubs into full view. The officer was holding a gun.

"Put that away!" ven Klaeden snapped.

The young officer laughed sourly. "Sorry, baron, I'm from the committee."

"Guard!"

"There's no one in earshot, Baron."

"Fool!" Ven Klaeden arrogantly whipped out the sword. "Drop that gun, or I'll blade-whip you!"

"Easy, baron, easy. I'm your executioner. . ."

The baron straightened haughtily and began a slow advance, a towering figure of icy dignity in the sun that filtered through the foliage.

". . . but I want to take care of this one first." The renegade waved the gun toward Meikl. "You, Baron, you can have it slower—a needle in your official rump."

Ven Klaeden, a figure of utter contempt, continued the slow advance with the sword. The officer's lips tightened. He squeezed the trigger. Ven Klaeden hesitated, jerking slightly, then continued, his hand pressing against his abdomen, doubling forward slightly. The officer fired again—a sharp snap of sound in the glade. The baron stopped, wrestling with pain ten feet from the pale renegade.

Suddenly he flung the sword. It looped in mid-air and slashed the man's face from chin to cheekbone. He tripped and tumbled backward as ven Klaeden slipped to his knees on the moss.

Meikl dived for the gun. By the time he wrestled it away from the

officer with the bloody face, ven Klaeden was sitting like a gaunt Buddha on the moss, and the body of Letha lay nearby, while a confused Evon clutched his hands to his face and rocked slowly. Meikl came slowly to his feet. The renegade officer wiped his face of blood and shrank back into shrubs.

"Get him," croaked ven Klaeden.

Scarcely knowing why, the analyst jerked the trigger, felt the gun explode in his fist, saw the renegade topple.

There was a moment of stillness in the glade, broken only by ven Klaeden's wheezing breath. The baron looked up with an effort, his eyes traveling over the girl, then up to the figure of the child of Earth.

"Your woman, Earthling?"

Evon lowered his hands, stood dazed and blinking for a moment. He glanced at Meikl, then at the girl. He knelt beside her, staring, not touching, and his knee encountered the blade of the sword.

"You have brought us death, you have brought us hate," he said slowly, his eyes clinging to the sword.

"Pick it up," hissed the baron.

"You will never leave. A party of men is wrecking what you have done. Then we shall wreck your ships. Then we. . ."

"Pick it up."

The native hesitated. Slowly, his brown hand reached for the hilt, and fascination was in his eyes.

"You know what it is for?" the analyst asked.

The native shook his head slowly.

Then it was in his hand, fingers shaping themselves around the hilt —as the fingers of his fathers had done in the ages before the Star Exodus. His jaw fell slightly, and he looked up, clutching it.

"*Now* do you know?" the baron gasped.

"My—my hand—*it* knows," the native whispered.

Ven Klaeden glanced sourly at Meikl, losing his balance slightly, eyes glazed with pain. "He'll need it now, won't he, Analyst?" he breathed, then fell to the moss.

Evon stood up slowly, moistening his lips, feeling the grip of the sword and touching the red-stained steel. He peered quickly up at Meikl. Meikl brandished the gun slightly.

The low rumble of a dynamite blast sounded from the direction of the mines.

"You loved her too," Evon said.

He nodded.

The native held the sword out questioningly, as if offering it.

"Keep it," the analyst grunted. "You remembered its feel after twenty thousand years. That's why you'll need it."

Some deeds, he thought, would haunt the soul of Man until his end, and there was no erasing them . . . for they *were* the soul, self-made, lasting in the ghost-grey fabric of mind as long as the lips of a child greedily sought the breast of its mother, as long as the child mirrored the mind of the man and the woman. *Kulturverlaengerung.*

The analyst left the native with the sword and went to seek the next in line of command. The purpose of the fleet must be kept intact, he thought, laughing bitterly. Yet still he went.

• • • THE END

It was the dawn of a golden age of transportation. Terran Development was ready to market a fourth dimension "vehicle" which afforded almost instantaneous travel. For instance, Henry Ellis commuted 160 miles to work in five steps and a few seconds. Then, one morning, he met some people on the way . . .

Prominent Author

By Philip K. Dick

Illustrated by Paul Orban

"MY HUSBAND," said Mary Ellis, "although he is a very prompt man, and hasn't been late to work in twenty-five years, is actually still someplace around the house." She sipped at her faintly-scented hormone and carbohydrate drink. "As a matter of fact, he won't be leaving for another ten minutes."

"Incredible," said Dorothy Lawrence, who had finished *her* drink, and now basked in the dermal-mist spray that descended over her virtually unclad body from an automatic jet above the couch. "What they won't think of next!"

Mrs. Ellis beamed proudly, as if she personally were an employee of Terran Development. "Yes, it is incredible. According to somebody down at the office, the whole history of civilization can be explained in terms of transportation techniques. Of course, I don't know anything about history. That's for Government research people. But from what this man told Henry—"

"Where's my briefcase?" came a fussy voice from the bedroom. "Good Lord, Mary. I know I left it on the clothes-cleaner last night."

"You left it upstairs," Mary replied, raising her voice slightly. "Look in the closet."

"Why would it be in the closet?" Sounds of angry stirring-arounds. "You'd think a man's own briefcase

would be safe." Henry Ellis stuck his head into the living room briefly. "I found it. Hello, Mrs. Lawrence."

"Good morning," Dorothy Lawrence replied. "Mary was explaining that you're still here."

"Yes, I'm still here." Ellis straightened his tie, as the mirror revolved slowly around him. "Anything you want me to pick up downtown, honey?"

"No," Mary replied. "Nothing I can think of. I'll vid you at the office, if I remember something."

"Is it true," Mrs. Lawrence asked, "that *as soon as you step into it* you're all the way downtown?"

"Well, almost all the way."

"A hundred and sixty miles! It's beyond belief. Why, it takes my husband two and a half hours to get his monojet through the commercial lanes and down at the parking lot and then walk all the way up to his office."

"I know," Elli smuttered, grabbing his hat and coat. "Used to take me about that long. But no more." He kissed his wife goodbye. "So long. See you tonight. Nice to have seen you again, Mrs. Lawrence."

"Can I—watch?" Mrs. Lawrence asked hopefully.

"Watch? Of course, of course." Ellis hurried through the house, out the back door and down the steps into the yard. "Come along!" he shouted impatiently. "I don't want to be late. It's nine fifty-nine and I have to be at my desk by ten."

Mrs. Lawrence hurried eagerly after Ellis. In the back yard stood a big circular hoop that gleamed brightly in the mid-morning sun. Ellis turned some controls at the base. The hoop changed color, from silver to a shimmering red.

"Here I go!" Ellis shouted. He stepped briskly into the hoop. The hoop fluttered about him. There was a faint *pop*. The glow died.

"Good Heavens!" Mrs. Lawrence gasped. "He's gone!"

"He's in downtown N'York," Mary Ellis corrected.

"I wish *my* husband had a Jiffi-scuttler. When they show up on the market commercially maybe I can afford to get him one."

"Oh, they're very handy," Mary Ellis agreed. "He's probably saying hello to the boys right this minute."

HENRY ELLIS was in a sort of tunnel. All around him a gray, formless tube stretched out in both directions, a sort of hazy sewerpipe.

Framed in the opening behind him, he could see the faint outline of his own house. His backporch and yard, Mary standing on the steps in her red bra and slacks. Mrs. Lawrence beside her in green-checkered shorts. The cedar tree and rows of petunias. A hill. The neat little houses of Cedar Groves, Pennsylvania. And in front of him—

New York City. A wavering glimpse of the busy streetcorner in front of his office. The great building itself, a section of concrete and glass and steel. People moving. Skyscrapers. Monojets landing in swarms. Aerial signs. Endless white-collar workers hurrying every-


ORGAN

where, rushing to their offices.

Ellis moved leisurely toward the New York end. He had taken the Jiffi-scuttler often enough to know just exactly how many steps it was. Five steps. Five steps along the wavery gray tunnel and he had gone a hundred and sixty miles. He halted, glancing back. So far he had gone three steps. Ninety six miles. More than half way.

The fourth dimension was a wonderful thing.

Ellis lit his pipe, leaning his briefcase against his trouserleg and groping in his coat pocket for his tobacco. He still had thirty seconds to get to work. Plenty of time. The pipelighter flared and he sucked in expertly. He snapped the lighter shut and restored it to his pocket.

A wonderful thing, all right. The Jiffi-scuttler had already revolutionized society. It was now possible to go anywhere in the world *instantly,* with no time lapse. And without wading through endless lanes of other monojets, also going places. The transportation problem had been a major headache since the middle of the twentieth century. Every year it took longer to get to work. Every year more families moved from the cities out into the country, adding numbers to the already swollen swarms that choked the roads and jetlanes.

But it was all solved, now. An *infinite* number of Jiffi-scuttlers could be set up; there was no interference between them. The Jiffi-scuttler bridged distances nonspacially, through another dimension of some kind (they hadn't explained that part too clearly to him). For a flat thousand credits any Terran family could have Jiffi-scuttler hoops set up, one in the backyard—the other in Berlin, or Bermuda, or San Francisco, or Port Said. Anywhere in the world. Of course, there was one drawback. The hoop had to be anchored in one specific spot. You picked your destination and that was that.

But for an office worker, it was perfect. Step in one end, step out the other. Five steps—a hundred and sixty miles. A hundred and sixty miles that had been a two hour nightmare of grinding gears and sudden jolts, monojets cutting in and out, speeders, reckless flyers, alert cops waiting to pounce, ulcers and bad tempers. It was all over now. All over for him, at least, as an employee of Terran Development, the manufacturer of the Jiffi-scuttler. And soon for everybody, when they were commercially on the market.

Ellis sighed. Time for work. He could see Ed Hall racing up the steps of the TD building two at a time. Tony Franklin hurrying after him. Time to get moving. He bent down and reached for his briefcase—

It was then he saw them.

THE WAVERY gray haze was thin, there. A sort of thin spot where the shimmer wasn't so strong. Just a bit beyond his foot and past the corner of his briefcase.

Beyond the thin spot were three tiny figures. Just beyond the gray waver. Incredibly small men, no larger than insects. Watching him with incredulous astonishment.

Ellis gazed down intently, his briefcase forgotten. The three tiny men were equally dumbfounded. None of them stirred, the three tiny figures, rigid with awe, Henry Ellis bent over, his mouth open, eyes wide.

A fourth little figure joined the others. They all stood rooted to the spot, eyes bulging. They had on some kind of robes. Brown robes and sandals. Strange, unTerran costumes. Everything about them was unTerran. Their size, their oddly-colored dark faces, their clothing—and their voices.

Suddenly the tiny figures were shouting shrilly at each other, squeaking a strange gibberish. They had broken out of their freeze and now ran about in queer, frantic circles. They raced with incredible speed, scampering like ants on a hot griddle. They raced jerkily, their arms and legs pumping wildly. And all the time they squeaked in their shrill high-pitched voices.

Ellis found his briefcase. He picked it up slowly. The figures watched in mixed wonder and terror as the huge bag rose, only a short distance from them. An idea drifted through Ellis' brain. Good Lord—could they come into the Jiffi-scuttler, through the gray haze?

But he had no time to find out. He was already late, as it was. He pulled away and hurried toward the New York end of the tunnel A second later he stepped out in the blinding sunlight, abruptly finding himself on the busy street-corner in front of his office.

"Hey, there, Hank!" Donald Potter shouted, as he raced through the doors into the TD building. "Get with it!"

"Sure, sure." Ellis followed after him automatically. Behind, the entrance to the Jiffi-scuttler was a vague circle above the pavement, like the ghost of a soapbubble.

He hurried up the steps and inside the offices of Terran Development, his mind already on the hard day ahead.

As they were locking up the office and getting ready to go home, Ellis stopped Coordinator Patrick Miller in his office. "Say, Mr. Miller. You're also in charge of the research end, aren't you?"

"Yeah. So?"

"Let me ask you something. Just where does the Jiffi-scuttler go? It must go somewhere."

"It goes out of this continum completely." Miller was impatient to get home. "Into another dimension."

"I know that. But—*where?*"

Miller unfolded his breast-pocket handkerchief rapidly and spread it out on his desk. "Maybe I can explain it to you this way. Suppose you're a two-dimensional creature and this handkerchief represents your—"

"I've seen that a million times," Ellis said, dissapointed. "That's merely an analogy, and I'm not interested in an analogy. I want a factual answer. Where does my Jiffi-scuttler go, between here and Cedar Groves?"

Miller laughed. "What the hell do you care?"

Ellis became abruptly guarded. He shrugged indifferently. "Just

curious. It certainly must go *someplace.*"

Miller put his hand on Ellis' shoulder in a friendly big-brother fashion. "Henry, old man, you just leave that up to us. Okay? We're the designers, you're the consumer. Your job is to use the 'scuttler, try it out for us, report any defects or failures so when we put it on the market next year we'll be sure there's nothing wrong with it."

"As a matter of fact—" Ellis began.

"What is it?"

Ellis clamped his sentence off. "Nothing." He picked up his briefcase. "Nothing at all. I'll see you tomorrow. Thanks, Mr. Miller. Goodnight."

He hurried downstairs and out of the TD building. The faint outline of his Jiffi-scuttler was visible in the fading late-afternoon sunlight. The sky was already full of monojets taking off. Weary workers beginning their long trip back to their homes in the country. The endless commute. Ellis made his way to the hoop and stepped into it. Abruptly the bright sunlight dimmed and faded.

AGAIN he was in the wavery gray tunnel. At the far end flashed a circle of green and white. Rolling green hills and his own house. His backyard. The cedar tree and flower beds. The town of Cedar Groves.

Two steps down the tunnel. Ellis halted, bending over. He studied the floor of the tunnel intently. He studied the misty gray wall, where it rose and flickered—and the thin place. The place he had noticed.

They were still there. *Still?* It was a different bunch. This time ten or eleven of them. Men and women and children. Standing together, gazing up at him with awe and wonder. No more than a half inch high, each. Tiny distorted figures, shifting and changing shape oddly. Altering colors and hues.

Ellis hurried on. The tiny figures watched him go. A brief glimpse of their microscopic astonishment—and then he was stepping out into his back yard.

He clicked off the Jiffi-scuttler and mounted the back steps. He entered his house, deep in thought.

"Hi," Mary cried, from the kitchen. She rustled toward him in her hip-length mesh shirt, her arms out. "How was work today?"

"Fine."

"Is anything wrong? You look—strange."

"No. No, nothing's wrong." Ellis kissed his wife absently on the forehead. "What's for dinner?"

"Something choice. Siriusian mole steak. One of your favorites. Is that all right?"

"Sure." Ellis tossed his hat and coat down on the chair. The chair folded them up and put them away. His thoughtful, preoccupied look still remained. "Fine, honey."

"Are you *sure* there's nothing wrong? You didn't get into another argument with Pete Taylor, did you?"

"No. Of course not." Ellis shook his head in annoyance. "Everything's all right, honey. Stop needling me."

"Well, I *hope* so," Mary said, with a sigh.

THE NEXT morning they were waiting for him.

He saw them the first step into the Jiffi-scuttler. A small group waiting within the wavering gray, like bugs caught in a block of jello. They moved jerkily, rapidly, arms and legs pumping in a blur of motion. Trying to attract his attention. Piping wildly in their pathetically faint voices.

Ellis stopped and squatted down. They were putting something through the wall of the tunnel, through the thin place in the gray. It was small, so incredibly small he could scarcely see it. A square of white at the end of a microscopic pole. They were watching him eagerly, faces alive with fear and hope. Desperate, pleading hope.

Ellis took the tiny square. It came loose like some fragile rose petal from its stalk. Clumsily, he let it drop and had to hunt all around for it. The little figures watched in an agony of dismay as his huge hands moved blindly around the floor of the tunnel. At last he found it and gingerly lifted it up.

It was too small to make out. *Writing?* Some tiny lines—but he couldn't read them. Much too small to read. He got out his wallet and carefully placed the square between two cards. He restored his wallet to his pocket.

"I'll look at it later," he said.

His voice boomed and echoed up and down the tunnel. At the sound the tiny creatures scattered. They all fled, shrieking in their shill, piping voices, away from the gray shimmer, into the dimness beyond. In a flash they were gone. Like startled mice. He was alone.

Ellis knelt down and put his eye against the gray shimmer, where it was thin. Where they had stood waiting. He could see something dim and distorted, lost in a vague haze. A landscape of some sort. Indistinct. Hard to make out.

Hills. Trees and crops. But so tiny. And dim. . .

He glanced at his watch. God, it was ten! Hastily he scrambled to his feet and hurried out of the tunnel, onto the blazing N'York sidewalk.

Late. He raced up the stairs of the Terran Development building and down the long corridor to his office.

At lunchtime he stopped in at the Research Labs. "Hey," he called, as Jim Andrews brushed past, loaded down with reports and equipment. "Got a second?"

"What do you want, Henry?"

"I'd like to borrow something. A magnifying glass." He considered. "Maybe a small photon-microscope would be better. One or two hundred power."

"Kids' stuff." Jim found him a small microscope. "Slides?"

"Yeah, a couple of blank slides."

He carried the microscope back to his office. He set it up on his desk, clearing away his papers. As a precaution he sent Miss Nelson, his secretary, out of the room and off to lunch. Then carefully, cautiously, he got the tiny wisp from his wallet and slipped it between two slides.

It was writing, all right. But nothing he could read. Utterly unfamiliar. Complex, interlaced little characters.

For a time he sat thinking. Then he dialed his inter-department vidphone. "Give me the Linguistics Department."

After a moment Earl Peterson's good-natured face appeared. "Hi, there, Ellis. What can I do for you?"

Ellis hesitated. He had to do this right. "Say, Earl, old man. Got a little favor to ask you."

"Like what? Anything to oblige an old pal."

"You, uh— you have that Machine down there, don't you? That translating business you use for working over documents from non-Terran cultures?"

"Sure. So?"

"Think I could use it?" He talked fast. "It's a screwy sort of a deal, Earl. I got this pal living on—uh—Centaurus VI, and he writes me in—uh—you know, the Centauran native semantic system, and I—"

"You want the Machine to translate a letter? Sure, I think we could manage it. This once, at least. Bring it down."

He brought it down. He got Earl to show him how the intake feed worked, and as soon as Earl had turned his back he fed in the the tiny square of material. The Linguistics Machine clicked and whirred. Ellis prayed silently that the paper wasn't too small. Wouldn't fall out between the relay-probes of the Machine.

But sure enough, after a couple of seconds, a tape unreeled from the output slot. The tape cut itself off and dropped into a basket. The Linguistics Machine turned promptly to other stuff, more vital material from TD's various export branches.

With trembling figures Ellis spread out the tape. The words danced before his eyes.

Questions. They were asking him questions. God, it was getting complicated. He read the questions intently, his lips moving. What was he getting himself into? They were expecting answers. He had taken their paper, gone off with it. Probably they would be waiting for him, on his way home.

He returned to his office and dialed his vidphone. "Give me outside," he ordered.

The regular vid monitor appeared. "Yes sir?"

"I want the Federal Library of Information," Ellis said. "Cultural Research Division."

THAT NIGHT they were waiting, all right. But not the same ones. It was odd—each time a different group. Their clothing was slightly different, too. A new hue. And in the background the landscape had also altered slightly. The trees he had seen were gone. The hills were still there, but a different shade. A hazy gray-white. Snow?

He squatted down. He had worked it out with care. The answers from the Federal Library of Information had gone back to the Linguistics Machine for re-translation. The answers were now in the original tongue of the questions —but on a trifle larger piece of paper.

Ellis made like a marble game and flicked the wad of paper through the gray shimmer. It

bowled over six or seven of the watching figures and rolled down the side of the hill on which they were standing. After a moment of terrified immobility the figures scampered frantically after it. They disappeared into the vague and invisible depths of their world and Ellis got stiffly to his feet again.

"Well," he muttered to himself, "that's that."

But it wasn't. The next morning there was a new group—and a new list of questions. The tiny figures pushed their microscopic square of paper through the thin spot in the wall of the tunnel and stood waiting and trembling as Ellis bent over and felt around for it.

He found it—finally. He put it in his wallet and continued on his way, stepping out at New York, frowning. This was getting serious. Was this going to be a full time job?

But then he grinned. It was the damn oddest thing he had ever heard of. The little rascals were cute, in their own way. Tiny intent faces, screwed up with serious concern. And terror. They were scared of him, really scared. And why not? Compared to them he was a giant.

He conjectured about their world. What kind of a planet was theirs? Odd to be so small. But size was a relative matter. Small, though, compared to him. Small and reverent. He could read fear and a yearning, gnawing hope, as they pushed up their papers. They were depending on him. Praying he'd give them answers.

Ellis grinned. "Damn unusual job," he said to himself.

"What's this?" Peterson said, when he showed up in the Linguistics Lab at noontime.

"Well, you see, I got another letter from my friend on Centauraus VI."

"Yeah?" A certain suspicion flickered across Peterson's face. "You're not ribbing me, are you, Henry? This Machine has a lot to do, you know. Stuff's coming in all the time. We can't afford to waste any time with—"

"This is really serious stuff, Earl." Ellis patted his wallet. "Very important business. Not just gossip."

"Okay. If you say so." Peterson gave the nod to the team operating the Machine. "Let this guy use the Translator, Tommie."

"Thanks," Ellis murmured.

He went through the routine, getting a translation and then carrying the questions up to his vidphone and passing them over to the Library research staff. By nightfall the answers were back in the original tongue and with them carefully in his wallet, Ellis headed out of the Terran Development building and into his Jiffi-scuttler.

As usual, a new group was waiting.

"Here you are, boys," Ellis boomed, flicking the wad through the thin place in the shimmer. The wad rolled down the microscopic countryside, bouncing from hill to hill, the little people tumbling jerkily after it in their funny stiff-legged fashion. Ellis watched them go, grinning with interest—and pride.

They really hurried; no doubt about that. He could make them out only vaguely, now. They had raced wildly off away from the shimmer. Only a small portion of

their world was tangent to the Jiffi-scuttler, apparently. Only the one spot, where the shimmer was thin. He peered intently through.

They were getting the wad open, now. Three or four of them, unprying the paper and examining the answers.

Ellis swelled with pride as he continued along the tunnel and out into his own back yard. He couldn't read their questions—and when translated, he couldn't answer them. The Linguistics Department did the first part, the Library research staff the rest. Nevertheless, Ellis felt pride. A deep, glowing spot of warmth far down inside him. The expression on their faces. The look they gave him when they saw the answer-wad in his hand. When they realized he was going to answer their questions. And the way they scampered after it. It was sort of —satisfying. It made him feel damn good.

"Not bad," he murmured, opening the back door and entering his house. "Not bad at all."

"What's not bad, dear?" Mary asked, looking quickly up from the table. She laid down her magazine and got to her feet. "Why, you look so *happy!* What is it?"

"Nothing. Nothing at all!" He kissed her warmly on the mouth. "You're looking pretty good tonight yourself, kid."

"Oh, Henry!" Much of Mary blushed prettily. "How sweet."

He surveyed his wife in her two-piece wraparound of clear plastic with appreciation. "Nice looking fragments you have on."

"Why Henry! What's come over you? You seem so—so *spirited!*"

Ellis grinned. "Oh, I guess I enjoy my job. You know, there's nothing like taking pride in your work. A job well done, as they say. Work you can be proud of."

"I thought you always said you were nothing but a cog in a great impersonal machine. Just a sort of cypher."

"Things are different," Ellis said firmly. "I'm doing a—uh—a new project. A new assignment."

"A new assignment?"

"Gathering information. A sort of—creative business. So to speak."

BY THE END of the week he had turned over quite a body of information to them.

He began starting for work about nine-thirty. That gave him a whole thirty minutes to spend squatting down on his hands and knees, peering through the thin place in the shimmer. He got so he was pretty good at seeing them and what they were doing in their microscopic world.

Their civilization was somewhat primitive. No doubt of that. By Terran standards it was scarcely a civilization at all. As near as he could tell, they were virtually without scientific techniques; a kind of agrarian culture, rural communism, a monolithic tribal-based organization apparently without too many members.

At least, not at one time. That was the part he didn't understand. Every time he came past there was a different group of them. No familiar faces. And their world changed, too. The trees, the crops, fauna. The weather, apparently.

Was their time rate different? They moved rapidly, jerkily. Like a vidtape speeded up. And their shrill voices. Maybe that was it. A totally different universe in which the whole time structure was radically different.

As to their attitude toward him, there was no mistaking it. After the first couple of times they began assembling offerings, unbelievably small bits of smoking food, prepared in ovens and on open brick hearths. If he got down with his nose against the gray shimmer he could get a faint whiff of the food. It smelled good. Strong and pungent. Highly spiced. Meat, probably.

On Friday he brought a magnifying glass along and watched them through it. It was meat, all right. They were bringing ant-sized animals to be killed and cooked, leading them up to the ovens. With the magnifying glass he could see more of their faces. They had strange faces. Strong and dark, with a peculiar firm look.

Of course, there was only one look *he* got from them. A combination of fear, reverence, and hope. The look made him feel good. It was a look for him, only. Between themselves they shouted and argued—and sometimes stabbed and fought each other furiously, rolling in their brown robes in a wild tangle. They were a passionate and strong species. He got so he admired them.

Which was good—because it made him feel better. To have the reverent awe of such a proud, sturdy race was really something. There was nothing craven about them.

About the fifth time he came there was a rather attractive structure built. Some kind of temple. A place of religious worship.

To him! They were developing a real religion about him. No doubt of it. He began going to work at nine o'clock, to give himself a full hour with them. They had, by the middle of the second week, a full-sized ritual evolved. Processions, lighted tapers, what seemed to be songs or chants. Priests in long robes. And the spiced offerings.

No idols, though. Apparently he was so big they couldn't make out his appearance. He tried to imagine what it looked like to be on their side of the shimmer. An immense shape looming up above them, beyond a wall of gray haze. An indistinct being, something like themselves, yet not like them at all. A different kind of being, obviously. Larger—but different in other ways. And when he spoke—booming echoes up and down the Jiffi-scuttler. Which still sent them fleeing in panic.

An evolving religion. He was changing them. Through his actual presence and through his answers, the precise, correct responses he obtained from the Federal Library of Information and had the Linguistics Machine translate into their language. Of course, by *their* time-rate they had to wait generations for the answers. But they had become accustomed to it, by now. They waited. They expected. They passed up questions and after a couple centuries he passed down answers, answers which they no doubt put to good use.

"What in the world?" Mary demanded, as he got home from work

an hour late, one night. "Where have you been?"

"Working," Ellis said carelessly, removing his hat and coat. He threw himself down on the couch. "I'm tired. Really tired." He sighed with relief and motioned for the couch-arm to bring him a whisky sour.

Mary came over by the couch. "Henry, I'm a little worried."

"Worried?"

"You shouldn't work so hard. You ought to take it easy, more. How long since you've had a real vacation? A trip off Terra. Out of the System. You know, I'd just like to call that fellow Miller and ask him why it's necessary a man your age put in so much—"

"A man my age!" Ellis bristled indignantly. "I'm not so old."

"Of course not." Mary sat down beside him and put her arms around him affectionately. "But you shouldn't have to do so much. You deserve a rest. Don't you think?"

"This is different. You don't understand. This isn't the same old stuff. Reports and statistics and the damn filing. This is—"

"What is it?"

"This is *different*. I'm not a cog. This gives me something. I can't explain it to you, I guess. But it's something I have to do."

"If you could tell me more about it—"

"I can't tell you any more about it," Ellis said. "But there's nothing in the world like it. I've worked twenty-five years for Terran Development. Twenty-five years at the same desk. Classifying the same reports, again and again. Twenty-five years—and I never felt this way."

OH, YEAH?" Miller roared. "Don't give me that! Come clean, Ellis!"

Ellis opened and closed his mouth. "What are you talking about?" Horror rolled through him. "What's happened?"

"Don't try to give *me* the run-around." On the vidscreen Miller's face was purple. "Come into my office."

The screen went dead.

Ellis sat stunned at his desk. Gradually, he collected himself and got shakily to his feet. "Good Lord." Weakly, he wiped cold sweat from his forehead. All at once. Everything in ruins. He was dazed with the shock.

"Anything wrong?" Miss Nelson asked sympathetically.

"No." Ellis moved numbly toward the door. He was shattered. What had Miller found out? Good God! Was it possible he had—

"Mr. Miller looked angry."

"Yeah." Ellis moved blindly down the hall, his mind reeling. Miller looked angry, all right. Somehow, he had found out. But why was he mad? Why did he care? A cold chill settled over Ellis. It looked bad. Miller was his superior—with hiring and firing powers. Maybe he'd done something wrong. Maybe he had somehow broken a law. Committed a crime. But what?

What did Miller care about *them?* What concern was it of Terran Development?

He opened the door to Miller's office. "Here I am, Mr. Miller," he muttered. "What's the trouble?"

Miller glowered at him in rage. "All this goofy stuff about your

cousin on Proxima."

"It's—uh—you mean a business friend on Centaurus VI."

"You—you swindler!" Miller leaped up. "And after all the Company's done for you."

"I don't understand," Ellis muttered. "What have—"

"Why do you think we gave you the Jiffi-scuttler in the first place?"

"Why?"

"To *test!* To try out, you wall-eyed Venusian stink-cricket! The Company magnanimously consented to allow you to operate a Jiffi-scuttler in advance of market presentation, and what do you do? Why, you—"

Ellis started to get indignant. After all, he had been with TD twenty-five years. "You don't have to be so offensive. I plunked down my thousand gold credits for it."

"Well, you can just mosey down to the accountant's office and get your money back. I've already sent out a directive for a construction team to crate up your Jiffi-scuttler and bring it back to receiving."

Ellis was dumbfounded. "But *why?*"

"Why indeed! Because it's defective. Because it doesn't work. That's why." Miller's eyes blazed with technological outrage. "The inspection crew found a leak a mile wide in it." His lip curled. "As if you didn't know."

Ellis' heart sank. "Leak?" he croaked apprehensively.

"Leak. It's a damn good thing I authorized a periodic inspection. If we depended on people like you to—"

"Are you *sure?* It seemed all right to me. That is, it got me here without any trouble." Ellis floundered. "Certainly no complaints from my end."

"No. No complaints from your end. That's exactly why you're not getting another one. That's why you're taking the monojet transport back home tonight. Because you didn't report the leak! And if you ever try to put something over on this office again—"

"How do you know I was aware of the—defect?"

Miller sank down in his chair, overcome with fury. "Because," he said carefully, "of your daily pilgrimmage to the Linguistics Machine. With your alleged letter from your grandmother on Betelgeuse II. Which wasn't any such thing. Which was an utter fraud. Which you got through the leak in the Jiffi-scuttler!"

"How do you know?" Ellis squeaked boldly, driven to the wall. "So maybe there was a defect. But you can't prove there's any connection between your badly constructed Jiffi-scuttler and my—"

"Your missive," Miller stated, "which you foisted on our Linguistics Machine, was not a non-Terran script. It was not from Centaurus VI. It was not from any nonTerran system. It was ancient Hebrew. And there's only one place you could have got it, Ellis. So don't try to kid me."

"Hebrew!" Ellis exclaimed, startled. He turned white as a sheet. "Good Lord. The other continum —The fourth dimension. Time, of course." He trembled. "And the expanding universe. That would explain their size. And it explains why a new group, a new generation—"

"We're taking enough of a chance as it is, with these Jiffi-scuttlers. Warping a tunnel through other space-time continua." Miller shook his head wearily. "You meddler! You *knew* you were supposed to report any defect."

"I don't think I did any harm, did I?" Ellis was suddenly terribly nervous. "They seemed pleased, even grateful. Gosh, I'm sure I didn't cause any trouble."

Miller shrieked in insane rage. For a time he danced around the room. Finally he threw something down on his desk, directly in front of Ellis. "No trouble. No, none. Look at this. I got this from the Ancient Artifacts Archives."

"What is it?"

"Look at it! I compared one of your question sheets to this. The same. *Exactly* the same. All your sheets, questions and answers, every one of them's in here. You multi-legged Ganymedian mange beetle!"

Ellis picked up the book and opened it. As he read the pages a strange look came slowly over his face. "Good Heavens. So they kept a record of what I gave them. They put it all together in a book. Every word of it. And some commentaries, too. It's all here— Every single word. It *did* have an effect, then. They passed it on. Wrote all of it down."

"Go back to your office. I'm through looking at you for today. I'm through looking at you forever. Your severance check will come though regular channels."

In a trance, his face flushed with a strange excitement, Ellis gripped the book and moved dazedly toward the door. "Say, Mr. Miller. Can I have this? Can I take it along?"

"Sure," Miller said wearily. "Sure, you can take it. You can read it on your way home tonight. On the public monojet transport."

HENRY has something to show you," Mary Ellis whispered excitedly, gripping Mrs. Lawrence's arm. "Make sure you say the right thing."

"The right thing?" Mrs. Lawrence faltered nervously, a trifle uneasy. "What is it? Nothing alive, I hope."

"No, no." Mary pushed her toward the study door. "Just smile." She raised her voice. "Henry, Dorothy Lawrence is here."

Henry Ellis appeared at the door of his study. He bowed slightly, a dignified figure in silk dressing gown, pipe in his mouth, fountain pen in one hand. "Good evening, Dorothy," he said in a low, well-modulated voice. "Care to step into my study a moment?"

"Study?" Mrs. Lawrence came hesitantly in. "What do you study? I mean, Mary says you've been doing something very interesting recently, now that you're not with— I mean, now that you're home more. She didn't give me any idea what it was, though."

Mrs. Lawrence's eyes roved curiously around the study. The study was full of reference volumes, charts, a huge mahogany desk, an atlas globe, leather chairs, an unbelievably ancient electric typewriter.

"Good heavens!" she exclaimed. "How odd. All these old things."

Ellis lifted something carefully from the book case and held it out to her casually. "By the way—you might glance at this."

"What is it? A book?" Mrs. Lawrence took the book and examined it eagerly. "My goodness. Heavy, isn't it?" She read the back, her lips moving. "What does it mean? It looks old. What strange letters! I've never seen anything like it. *Holy Bible.*" She glanced up brightly. "What is this?"

Ellis smiled faintly. "Well—"

A light dawned. Mrs. Lawrence gasped in revelation. "Good Heavens! You didn't *write* this, did you?"

Ellis' smile broadened into a depreciating blush. A dignified hue of modesty. "Just a little thing I threw together," he murmured indifferently. "My first, as a matter of fact." Thoughtfully, he fingered his fountain pen. "And now, if you'll excuse me, I really should be getting back to my work . . ."

• • • THE END

OUT OF THIS WORLD

by Joseph C. Stacey

LISTED below (jumbled fashion) are ten names or terms pertaining to the heavens or to heavenly bodies, together with a brief description and/or explanation of each. Can you match up at least 7 of them correctly for a passing score; 8-9 is good; 10 excellent. *Answers on page 118.*

1. PENUMBRA	(a) a collection of star-clusters and nebulae near the south pole of the heavens, looking like a piece of the Milky Way.
2. POINTERS	(b) a thunder or rain cloud.
3. APHELION	(c) a margin of a shadow observed in an eclipse within which the rays of light from an illuminating body are partly but not wholly intercepted.
4. PERIOD	(d) a group of more than 400 stars, in the constellation Taurus, 6 of which are visible to the naked eye.
5. PERSEUS	(e) the edge of the disk of the moon or any other heavenly body.
6. PLEIADES	(f) the sun.
7. CUMULO NIMBUS	(g) two stars (Alpha & Beta) in the constellation Ursa Major, whose connecting line points nearly to the North Star.
8. LIMB	(h) the time of revolution of a heavenly body about its primary.
9. MAGELLANIC CLOUDS	(i) the name of a constellation.
10. HELIO	(j) the point in the orbit (as of a planet) farthest from the sun.


EMSH

If you wish to escape, if you would go to far-away places, then go to sleep and dream. For sometimes that is the only way . . .

"perchance to dream"

By Richard Stockham

Illustrated by Kelly Freas

ALL ALONG the line of machines, the men's hands and arms worked like the legs of spiders spinning a web. They wound wire and hammered bolts, tied knots and welded pieces of steel and fitted gears. They did not look at each other or sing or whistle or talk or laugh.

And then—he made a mistake.

Instantly he stepped back and a trouble shooter moved into his place. The trouble shooter's hands flew over the controls.

The trouble shooter finished and the workman took his place. His arms moved ceaselessly again.

He was a tall man, slim and wiry, his dress identical to that of the others—grey coveralls that fit like tights.

Suddenly a red light flashed in his eyes and he began to tremble. He took two steps backward. The trouble shooter moved into the empty space.

The man stood for a moment, like a soldier at attention, turned and walked smartly toward the mouth of a corridor.

The silence was like a motion picture with a dead sound track. There was only motion—and him walking down the line of machines where the hands reached out, working, working.

In the corridor now, he looked straight ahead, marching. The walls glowed like water beneath a shallow sea.

He raised his arm, felt the door strike and the heel of his hand; felt it swing open; saw the desk suspended from the ceiling by luminous, silver chains.

A man with a massive, white-maned head and a pink, smiling face rose from behind the desk. His

suit was like that of a general.

"Well, Twenty-three." The Superfather stared down at the dossier on his desk. "Two mistakes in three months." Too bad. Just when you were on your way to the head of the machine room."

"I don't know what's the matter with me," said Twenty-three.

"I'm afraid we'll have to drop you back to a less responsible position."

"Of course."

The Superfather looked up quickly. "You accept this? No depression? No threat of suicide? . . . You *are* in bad shape." He handed a packet of cards to Twenty-three. "Put these in your dream machine tonight. Go to your new job tomorrow."

Twenty-three stood motionless, staring over the other man's shoulder.

The Superfather sat down. "Tell me about the dreams you have when you don't use the machine."

Twenty-three made a quick decision. He couldn't tell him he didn't use the standard dream cards anymore. And he certainly couldn't tell about the *other* dream cards he'd been getting from the little man he'd met on the street. He'd simply answer the factual truth to the question that had been asked.

"Well," he said, as though he were confessing a crime. "I dream I'm walking in the city. It's dark. I feel like I've got to find something. I don't know what. But the feeling's very strong. All of a sudden I notice the city's empty. There're just buildings and streets and a faint glow of light. And it comes to me that everybody's dead and buried. Then I know what I'm looking for. I've got to find something alive or I'll die too. So I start running around, in and out buildings, up and down streets. But there's nothing. I'm breathing so hard I think my heart's going to burst. Finally I fall down. I feel myself beginning to die. I try to get up but I can't! I try to yell! I've got no voice! I'm so afraid, I can't stand it! Then I wake up."

The Superfather frowned. "Incredible. Several other cases like yours have turned up in the last month. We're working on them. But yours is the worst yet. You had such high capabilities. Your tests showed, when you first began to work, ten years ago, that you were capable of going to the head of your production line. But you're not doing it. Also your normal dreams should correspond to the ones on the cards. And they don't . . . Are you using the standard cards every other night?"

Twenty-three lied. "Yes."

"And the nights you don't use them, you have a dream like the one you just told me."

"That's right."

"Incredible." The Superfather shook his head. "It just doesn't add up. As you know, you get the prescribed dreams every other night and that's supposed to condition your mind to dreaming those same dreams, by itself, on the nights you don't use the machine. The prescribed dreams merely show you the true way of life. And when you're on your own you're supposed to follow that way of life whether you're asleep or awake. That's what the dream machine is for. I'm

sure you're aware of all this?"

"Yes," said Twenty-three. "Yes."

"Now we Superfathers *never* have to use the dream machines. We're so filled with the way of life they advocate and it's become such an integral part of us, we simply *are* what our prescribed dreams are. And the more successful a person is in the city, the less he has to use the dream machine. Now you have to use it every other night. That's entirely too much for a man of your potential. You realize this, of course.

"Oh I do," said twenty-three shaking his head sadly.

"Well now," said the Superfather, "that means something's wrong. *Very* wrong." He rubbed his chin, thinking. "Your prescribed dreams show you working faster and faster on the machines, going on month after month year after year, with one hundred percent accuracy. They show you happy in your work, driven by ambition on up to the end of your capabilities. They show you contented there to the end of your working life." He paused. "And you're *doing* just the opposite . . . I suppose your wife is —concerned?"

Twenty-three nodded.

"After all, the marriage center assured her your index was right for her. *Her* sleep cards were coordinated with yours. The normal dreams of both of you, without the machine, should be identical . . . Yet you come up with this horror—running through the city, alone, falling, dying."

Twenty-three's mouth twitched.

"Well." The Superfather stood. "If you can't adjust to normal, we'll simply have to send you to the pre-frontal lobotomy men. You wouldn't want that."

"Oh no!"

"Good!" The Superfather held out another packet of cards. "Use these *tomorrow* night. It's a concentration pattern which should be dense enough to make you dream of being, well-perhaps even President, eh?"

"Yes." Twenty-three hesitated.

"Well?" said the Superfather.

"I'd—like to ask a question."

The Superfather nodded.

"What—what use," went on Twenty-three, "is all this—work being put to—that we do—along the machine lines—every day? We don't, seem to really be *making* anything. Just working."

The Superfather's eyes narrowed. "You're kept busy. You get paid. You live. The city is here. That's all. That's enough."

"Yes, sir. Thank you, sir." Twenty-three turned abruptly, marched to the door and stepped into the empty, silent corridor.

TWENTY-THREE looked up at the glowing dome of the city that curved away to the horizon. He wondered if there really was a white ball beyond it sometimes and tiny dots of light, set in blue black. And at other times did a ball of fire flame up there, giving light and heat and life? And if there was this life and light up there, *why* the great dome over the city? *Why* the factories and machine lines replacing it section after section, generation after generation? The slabs that the workers fused together this

year and the next and the next, pushing back this life and light and heat. Why not let it pour down into the city and warm all the people? Why not go to the space out there and the depth and freedom? Why this great shell that closed them away? For the sake of the Superfathers maybe? And the Superfathers-plus? For the sake of the ones, like himself maybe who worked and built? For the sake of them, so they wouldn't become dangerous maybe and tear the great wall down and rush out into whatever was beyond? Why else?

But it could be all a farce. They could all be working in the great dome because they didn't know what was beyond. Who could know if they'd never been beyond?

And so they were held under the domes with the buildings and the machines that carried them all around in the city; held with the plumbing and the theatres and all the intricate mechanisms that spoke to them and fed them, that washed them and poured thoughts into their minds, that healed them when they were sick and rested them when they were tired. The same as they were held with the great dome. Held and shackeled with the replacing of parts that didn't need replacing; the making over and over again of the tiny and large pieces of the mechanisms and the taking of the old mechanisms and the melting of them or smashing of them to powder so that this dust or molten metal could be fashioned again and again into the same pieces that they had been for so many thousands of years. All this to keep them busy? All this to keep something outside that was supposed to be destructive because once it had been so five thousand years ago or ten or fifty? All this because that was the way it had been for as long as the hundreds and the thousands of years that history had been recorded?

He walked on through the silence, dimly aware now of the people moving about him, of the automobiles rolling past, as though moved by some invisible force. He passed row upon row of movie theatres that called to him with invisible vibrations. He turned away.

Where was the little man?

He stopped, moving only his eyes. After a moment, he saw the little man step out of a shop-front and stand waiting. Twenty-three, a cigarette in his mouth, walked over and asked for a light. The little man touched a lighter to the cigarette, at the same time dropping a packet of cards into Twenty-three's pocket.

Twenty-three moved on. He felt the pounding of his heart. If only his wife were asleep so he would not have to wait to look at these new cards.

As he walked, his thoughts cried out against the silence. He glanced suspiciously from side to side. If only he could hear the sounds of the city. But except for human voices and music, the city had always been silent. The human voices spoke only words written by the Superfathers, and the music came from records that had been composed by them—all this back when the city had first come into being. Other than these sounds there could be only the quiet all around. No chugging motors or scraping

footsteps. No crashing engines in the sky, or pounding of steel on stone. No shrieking of factory whistles or clanging steeple bells or honking automobile horns. None of this to pluck and pound at nerves, to suggest that this place was not the most soothing and gentle of all places to be in. There were no winds to swirl and moan away into the distance. The chirp of birds had long since been stilled, and so had the patter of rain and the crash of thunder. There must not be any of these sounds either to lure the imagination into some distance where danger and excitement might be waiting.

Now he was walking toward the door of his apartment house. It swung open. Thirty seconds later he stopped before another door. It too swung open.

His wife stood in the middle of the room, between two traveling bags. He moved slowly toward her and stopped just out of arm's reach.

"What's this?" He gestured toward the bags. Where're you going?"

She stared at him for a long moment, her face set. She was of his height and build and wore a suit the same light grey as his. Their hair cuts were identical, their faces sharp featured and pale. They might have been brother and sister—or two brothers, or two sisters.

"I'm going to the marriage center."

"What for?" He had tried to inject surprise into his voice. But the tone was listless.

"The Superfather called about your dream."

Twenty-three turned away, lighted a cigarette. He should beg her to stay, should promise to change. But the silence was in him, like a sickness.

"A terrible thing's happening to you. I don't want any part of it." She picked up the bags. "When you come to your senses, you know where to reach me . . . *If* I haven't already made another contract, I *might* come back to you."

She hesitated at the door.

"There's one thing I don't understand. You haven't begged me to stay. You haven't broken down. You haven't threatened suicide." She paused. "It's standard procedure, you know. It might even make me decide to wait awhile.

"I don't want you to stay," he said. He felt a shock of surprise. It was as though a voice had spoken from behind him.

He watched the door shut between them.

DRESSED in his pajamas, he stood beside the metal tube, in which for so many years he had slept his regulation sleep and dreamed his regulation dreams. There was something of the finely made casket about this tube—the six foot length and three foot diameter; the lid along its top and the dull shine of the metal and the quiet of it, as though it were asleep and lying in wait for a tired body to bring it awake so that it could put the body to sleep and live in the dreams it would give to the sleeper.

Beside his own tube stood its twin, where his wife had also slept and dreamed through the years.

Leaning slightly forward, he felt the press of metal against his hip bones, felt the tube roll an inch with his weight. He rested one hand on the metal top, felt its warmth and smoothness, was aware of its cleanness, like that of a surgical instrument.

Now he glanced at the glistening black panel that stood two feet high at the tube's head; quickly checked its four illuminated dials and three gleaming arrows and at the same time raised his hand to drop the cards into the softly glowing slot at the panel's top.

Suddenly his hand stopped.

He bent forward.

What was this? A feeling of strangeness. Vague. Like sensing some subtle change in a picture that has hung for twenty years above the fireplace in one's home.

He drew closer, squinting. The dials and meters seemed to be the same as they had yesterday and the day before and the year before.

And yet?

The dials. Larger? By a fraction? And the tiny gleaming arrows of the meters. Barely longer? And the marks on the dials and meters? One extra each, very faintly, like a piece of hair.

He was very still for a long moment. Then he moved around the foot of his own sleeping tube, pushed between the two and stood at the head of the other one.

He checked its dials and meters. They were as they had been for many years. He stepped back to the panel of his own and pressed a button. As the glistening metal top rose, silently, he ran his hand around the yawning interior, felt the downy softness and the body-like warmth. Then his hand touched a pliable metal plate. That should not be there. He stood back, remembering the workmen who had come into the house that morning for the routine checkup of the tubes. His wife had already left for work and he had just stepped through the door when they had met him in the corridor. They had gone on into the rooms and he had sensed vaguely that something was wrong. Then he had put the feeling out of his mind and gone to his work.

Now suddenly, he turned to the illuminated four inch square panel above the door, read April 15, 2563. The workmen had checked a day early. He frowned. Either the Superfather had ordered the machine changed, which was highly improbable, because every object in the city was standardized and any change would upset the established order, or the workmen were tied up with the man who had given him the different dream cards. . . . In any event he had to sleep in the tube that night and he definitely wanted to dream the dreams on the cards he had just gotten from the man on the corner.

He dropped the cards into the slot at the top of the panel, climbed into the tube and pressed a button. The top closed over him, like a hand. He lay still, feeling the warm clasp wash over his body. There was darkness and silence and a cool motion of antiseptic air. He could try the first dream. If it wasn't right, he could shut it off and sleep without dreams.

He pressed another button.

Silence.

The sound of his regular breathing.

Then a sighing came into his mind, and a green haze. The sighing became a soft breeze; the green, tree-covered hills rolling off to the horizon. He relaxed, aware in a fading, sinking part of his consciousness that the machine worked as usual. He would dream and wait and hope . . .

And so the wind was breathing across the land from off a vast stretch of blue water, which broke along a sandy beach in foamy white breakers. The surf thundered all through his body. The wind brushed against him like a great, purring cat. He looked up at the blue sky and seemed to feel himself rising and sinking, both at the same time, up into its depths. As his sight touched the sun there was an explosion of brightness which blinded him. He turned away then to the rolling green sea of hills, saw the trees bending from the surge of wind and heard the rustling of leaves.

And then a deep voice moved through his mind.

"Outside the city," it said, "all this exists. During the terrible burning of the Earth back in the wars of its antiquity, the city was built as a place of life for those who yet lived. But those people were not aware that the Earth would come alive again and they made the city so that no death could enter it from without and no life could escape from within. And they turned away from the Earth and lived only with the city so that it became their universe—to all but a very few of us. We still held a faint awareness of what the Earth had been—this passed down to us for many generations, in whisperings, by the wise ones of our people, back in the beginning of the city. And in those times, we had been in the city too long, for thousands of years. We knew that there must be freedom beyond the walls, if we could get through. But the walls were thick and high and without a flaw, making a sky over us. We worked for five hundred years on a machine to get us through the wall. Now a few of us have succeeded and more will follow us to the freedom out here in the good land. There is room for everyone here, there are no boundaries and no ceilings and no walls anywhere. And you may join us some time in the near future, if you wish."

Twenty-three sighed in his sleep.

Now a great city faded into his mind. There were long, tree lined streets and buildings, some built in rising spirals, some in spreading squares, others in ovals, domes and curved half circles. The wind wandered among the buildings and the bursts of green. People, dressed in white, flowing robes or black tights, walked the streets. He could hear their footsteps on the stone or grassy walk, could hear the hum of vehicles rolling along the streets or flying through the air. They were long and streamlined or short and round, or they were curved like gondolas or squat like saucers. And they were moving at many speeds. Yet there was order. And the air was sweet and clean. A black line of clouds was rising across the horizon. Soon there would be lightning

and thunder and cool rain.

The deep voice touched him again. This is the city that can be. A city of life, open to the sky and the earth, a city in which people can find and follow their own lives. After the wars, the cities were built to shut out the death of Earth. But the Earth has come to life again. And so can the cities."

The silence came while the picture changed and Twenty-three stirred, waiting.

A figure grew in his mind, wavered, and became a woman. Twenty-three saw the long body and the softness; saw the flowing hair and the smile as she watched him. He saw the gentleness in her face; saw a strength under the softness, like the storm that lies below the charged quiet of a summer evening. Her lips moved.

"Paul. Dream your dreams for *us.*" The words seemed to fall on him. He trembled and cried out. And he felt a violent stirring in his body and a breaking away as though he had flung himself through the walls of a tomb.

The picture blew away while the voice continued: "She is a woman, not a woman who half resembles a man." A pause. "When you wish to leave the city, ask for the final card. You are welcome."

There was silence and darkness. Twenty-three stirred. He opened his eyes. The glow from the city outside filtered into the room through the translucent walls. He lay motionless. Paul. He was Paul. Not Twenty-three. A man with a name. Wonder came into him, and a sense of strength, and a willingness to remember without fear.

His mind ran back to the first mistake, almost a year past. He remembered the horror of failure then and the terror at his being subjected to a mistake. He remembered the inference from the Superfather that there might be a bad strain in his blood line. He remembered taking the dream cards that were to have set him straight, that were to have shown him working over the machines with super speed, moving moving up along the production line to its pinnacle and on up to the position of Superfather and on up to Superfather-plus and on up to the place of Father of The City. But the cards had been sabotaged, so that from them into his mind had come the dreams of the trees and the oceans and the green earth spreading off to the horizon and the expanse of blue sky.

And then the words had directed him to the little man who had given him the cards on the street corner. They had known him, the words had said, through what was called telepathetic screening, for ones suitable to leave the city. He was one of those chosen, because he, like a few others, had been unable to adjust completely to the demands of the city. He was one of those in whom a rebellious nature had been passed down from generation to generation, by attitudes and acts of his ancestors, by a word spoken here and one there, by an intangible reaching out toward the sky and the green growing things and the need to understand who and what he was. But in him now this feeling was weak and close to death and would die in him if it were not brought out into life of the Earth.

Now the memories receded; he lay motionless, listening to his breathing and his heartbeat, feeling his body press against the softness that held him.

SUDDENLY a shaft of light fell on him through the transparent square. Opening his eyes, he saw his wife's face staring down at him.

She moved her hand. The lid of the tube raised. He lay watching her, feeling naked and, for a moment, helpless.

"I talked for a long while with your Superfather," she said. "I feel better. He told me you'd promised to take the prescribed dreams tonight."

Twenty-three turned his face away from her.

She began to undress.

"I'm going out for a walk." He stepped from the machine.

She watched him dress, her look a mixture of curiosity and fright.

When he left it was as though he were leaving an empty room and she watched him as though he were not quite human.

The glow of the city was all around him as he walked toward the corner where the little man stood. The telepathic advertisers reached out from the places of entertainment, pulling at him. The voices enveloped him for a moment so that he almost turned back to them. But then he saw, in his mind, his arms working over the machines, saw them make a wrong motion that smashed a gear, saw the flashing red light and the heavy, expressionless face of the Superfather. He was aware that his memory would be erased and the skies, and the ocean, and the green hills. His name would be gone. Paul would die. And the city would be his tomb.

Quickly he turned down a side street, saw the small figure leaning against the corner of the building.

Walking rapidly toward him, as though he were being chased, he saw the lean, ruddy face smile and the deep, blue eyes look at him; heard the voice gently say:

"Welcome, Paul."

"The last card," said Twenty-three.

The little man handed it to him, quickly. "Good luck. Turn the dials one extra point on the control panel. Our men have made the machine ready. It's time now."

Twenty-three thrust the card into the inner pocket of his jacket. So that *was* it. They *had* changed the machine.

"One extra point," he repeated, glancing up and down the street.

"And remember," said the little man. "Destroy all the cards you've used before. They were designed particularly for you. If you don't make it across to us, the Superfathers will use the cards against you."

Twenty-three whirled around. The little man had gone. Twenty-three suddenly felt weak. My God! The other cards! Left in the machine! If his wife—!

He stood very still for a long moment, then he ran!

The door to his apartment swung open. The room beyond was empty. A light shown faintly. He stood for a moment, listening. Silence. He stepped to the bedroom. The top of

his wife's sleeping tube was closed. He could see her face through the transparent square, could hear her quiet breathing.

In one quick, silent motion, he stepped to the side of his own tube, pulling the last card from his pocket, and dropped it into the glowing slot at the top of the black control panel. Then he turned the dials to the extra point.

Several minutes later he pressed the button at the bottom of the control panel. The top opened. At the same moment, he heard a step behind him. He whirled around. The Superfather stood in the doorway. At his back hovered the dark bulks of two other men. Twenty-three felt his muscles lock. He saw the Superfather's dead smile and then his wife stepping down to the floor and hurrying to the side of the Superfather.

"Those pictures," she said, shuddering. "They were so—strange."

The Superfather held his eyes on Twenty-three but spoke to the woman. "Thank God you were strong. It was commendable of you to call us."

"I don't know what made me look at his dreams," she cried. "Maybe it was when I asked him if he'd taken the prescribed dreams and he didn't answer . . . Anyway, I tested his machine. It was insane!"

"Dreams made by some twisted mind," the Superfather said. "Remember. They've no real existence. Nothing lives or moves outside the city. There were old myths but they've been dead for countless generations." He paused. "Where *are* the pictures?"

"I burned them."

"Good." He motioned to the men behind him. They came forward and stood on each side of Twenty-three.

"Twenty-three," said the Superfather, "we may have to erase your memories and your present individuality." He cleared his throat. "Our records show that some two thousand people have disappeared in the last five years. Your case has much to do with it . . . Where'd you get the new cards?"

Twenty-three was silent.

The Superfather pulled out a pack of cards. "Before we leave this room, you'll be a different man. If you tell us,"—he waggled the cards in his right hand—"this'll be your new life. You'll have dreams of outdoing every man on the machine lines and fix your body so you'll have the capacity to do it. You *will* do it. You'll become a Superfather. You'll burn to excel them. You'll push on up, become a Superfather-plus. You'll work with ideas, ways of increasing efficiency, pushing the workmen faster and faster. And you'll find ways of conditioning them to meet the greater and greater demands for speed. The city and people'll be at your fingertips. There'll be rooms of marble and gold for you. Soft carpets and buttons to push that'll give you any desire instantly. You'll *have* everything and *be* everything!" He paused and took a deep breath. "All this'll be yours if you'll tell us where you got the cards, without forcing us to probe your mind with the electric-scalpel . . ."

With an effort, Twenty-three raised his eyes to the Superfather's face.

"And if I don't tell you?"

"Moving a lever back and forth twice a minute hour after hour, year after year. Living in a bare cubicle. No entertainment. No desires." He paused. "And no *memories.*"

Twenty-three looked over the Superfather's shoulder. The last card, he thought, is in the machine. Escape from the city. They said that, from outside. I've got to know. No matter what they put in the machine, that card will show first. Even if it's only for ten seconds or thirty or sixty, or however long—I'll know.

"No," he said, "I won't tell you . . ."

The woman gasped and hid her face. The Superfather, scowling, made a motion.

The two dark men took hold of Twenty-three. They lifted him into the tube.

The Superfather dropped the second pack of cards into the panel and pressed the button. The top closed silently, like a mouth.

Twenty-three's eyes closed; his body waited.

FOR AN INSTANT—blackness, and silence, like a moment after death, or a moment before birth. Then twilight, or dusk, over an ocean. A sky of pale blue. A shine on the gently surging waters. A scent of clean air. Sea spray. The cool sound of wind.

Then a man's voice, deep and flowing: "You know that there is no entrance or exit to this city. It is sealed off and will always be so. But the dream machine in which you lie has been changed by our agents inside the city. The last card you dropped into it is different from the others. These changes have been made so your dream will become a reality. Your mind will be transmitted to us here among the hills and under the trees and by the ocean. And a new body, that we have grown, artificially, from all the elements, a body like the one you will leave behind, will be waiting for you. You need not be afraid.

Twenty-three felt himself moving forward. Sight and hearing and sensation, without a body. Time dropping away, like a forgetting of yesterday and tomorrow. There was only this moment. And then he felt the great humming surging power of the machine, like an ocean rushing him toward some unseen shore. He was caught in a gigantic tingling shock wave, and felt like a tremendously outsized torch, lit and flaming, and carried, still burning, in the green tide of sizzling electricity. The machine screamed. The machine chanted. The machine raved. Dimly, he heard his wife cry, and above him felt the Superfather scrabbling at the machine, the guards shouting. The machine shrieked and the great tidal wave of power jolted and flung him, white-hot kindling, through air, through sky, up and down! Down upon a white shore, upon creaming sands, leaving him to quiet, to silence, to a pulling away of the tide . . .

Now the scent of sea came strong into him. He heard the crash and roar of surf and the rustling of leaves and the sweep of wind. There were bird songs and the cries of animals. He saw the spread of roll-

ing hills, saw a stream searching its way among great rocks and swelling and rolling full into a river and the river flowing and sinking into the sea. He felt the earth upon his feet and the touch of grass. Breezes, heavy with green from the land eddied all around him and filled his body and washed him. He heard his name—saw people coming toward him saying, "Welcome." He felt their arms, embracing him. He saw an open city growing among the hills. Its buildings rolled away with the hills of the Earth and became a part of the Earth. The people took him by the hand and led him toward it speaking to him of no one hurting the other, and no one locked in a cell and all the walls of this world outside, tumbled down . . .

He was happy and repeated the name they spoke to him.

"Paul."

Back in the city, in the room, the wife cried out.

The Superfather, too, seeing the strange look on the face of the man inside the chrysalis of the dream-maker, quickly touched the button that raised the lid. He bent down and took the wrist of the cold man lying there.

"Dead."

"Are you sure?"

The Superfather bent still further down and listened to the chest, and the wife came close, and they both stood there, half-bent. The mouth of the dead man was open and the Superfather listened for any faint whisper of breath. The wife listened. They both looked at each other for a long time.

Because, from the open mouth of the cold man lying there, faintly, far away, and fading slowly into silence, they heard quiet laughter, and the sound of many birds and voices, and trees rustling in the late afternoon. Then it was gone and no matter how the two people bending there waited and listened, it was like putting their ear to a white stone.

• • • THE END

Working on the theory that you can skin a sucker in space as well as on Earth, the con team of Harding and Sheckly operated furtively but profitably among natives of the outer planets. That is—until there was a question of turnabout being fair play in a world where natives took their skinning literally!

SKIN GAME

By Charles E. Fritch

Illustrated by Kelly Freas

"PEOPLE ARE basically alike," Harding said democratically. He sat idly against the strawlike matting of the hut wall and reached for a native fruit in a nearby bowl. "They're all suckers, even the smartest of them; in fact, the ones who think they're the smartest generally wind up to be the dumbest." Carefully, he bit into the fruit which resembled an orange and, mouth full, nodded approvingly. "Say, these aren't bad. Try one."

Sheckly shook his head, determined to avoid as many aspects of this culture as he could. "But these aren't people," he reminded, not happy with the thought. "They're lizards."

Harding shrugged and settled back, his grinning features ruddy in the flaring torchlight. "Humanoids have no monopoly on suckerhood. When it comes to that, we're all brothers under the skin, no matter what color or how hard the skin may be." He sighed, contemplating the harvest-to-be. "No, Sheckly, it'll be like taking candy from a baby. We'll be out of here with our pockets bulging before the Space Patrol can bat an eyelash in this direction."

Unconvinced, Sheckly stared glumly through the open doorway of the hut into the warm humid night, where a fire flared in the darkness and long shadows danced and slithered around it.

"It's not the Space Patrol I'm

worried about," he said, after awhile. "I don't mind fleecing humanoids—" he shivered, grimacing— "but lizards!"

Harding laughed. "Their riches are as good as anybody else's. The trouble with you, Sheckly, you're too chicken-hearted. If it weren't for me, you'd still be small-timing back on Earth. It takes imagination to get along these days."

Sheckly grunted, for he had no ready answer to deny this truth. While he didn't like the reference to his inability to get along in the world without Harding's help, the man was right about other things. It did take imagination, all right, mixed with a generous supply of plain ordinary guts; that, plus an eye focused unfalteringly on the good old credit sign.

He certainly could not get along without Harding's timing. The man knew just when Patrol Ships would be at certain spots, knew their schedules for visiting these small otherworlds, and always he was several steps ahead of them. They went into a planet, their rocket ship loaded with gambling devices—cards, dice, roulette wheels, and other cultural refinements—and set up shop which could be folded at a moment's notice if necessary. Natives seemed almost eager to be skinned of their riches, and he and Harding happily obliged them.

"Listen to them out there," Harding marveled, leaning forward to hear the sharp scrapings that represented music. "They must be having some kind of ceremony."

Sheckly nodded, shivering slightly, though the air was hot and humid. He wished again, as he often had in the past, he could have some of Harding's assurance, some of that unrelenting optimism that insisted everything would turn out favorably. But he didn't like these strange primitive worlds, he didn't trust them or their inhabitants. The lizard-people had seemed friendly enough, but by looking at a strange reptile you couldn't tell how far it would jump. When the earth ship landed, the creatures had come slithering to them with all but a brass band, welcoming the Earthlings with the hissings that composed their language. One of them—the official interpreter, he proclaimed himself—knew a peculiarly good brand of English, and welcomed them in a more satisfactory manner, but still Sheckly didn't like it. Harding had called him chicken-hearted, and he felt a certain amount of justified indignance at the description. Cautious would be a better word, he decided.

THESE PEOPLE appeared friendly to the Earthlings, but so did the Earthlings give the appearance of friendliness to the natives; that was proof in itself that you couldn't trust actions to indicate purpose. But even more than that, their basic alienness troubled Sheckly more than he dared admit aloud. Differences in skin color and modified body shapes were one thing, but when a race was on a completely different evolutionary track it was a time for caution. These were a different people, on a different planet under a different star.

Their customs were strange, how strange he could yet only guess, though he preferred not to. This ceremony now, for example, what did it mean? A rite for some serpent god perhaps. A dance in honor of the Earthmen's arrival. Or it might just as easily be a preliminary to a feast at which the visitors would be the main course.

"I just wish we knew more about the creatures," he complained, trying to shove that last thought from his mind.

Harding looked annoyed, as he drew his attention from the alien music which had fascinated him. "Stop worrying, will you? They're probably among the friendliest creatures in the universe, even if they do look like serpents out of Eden. And the friendly ones rate A-1 on my sucker-list."

Sheckly shuddered and cast an annoyed glance into the night. "How can anybody concentrate with that infernal racket going on out there? Don't they ever sleep?"

"Patience," Harding advised calmly, "is a noble virtue. Ah, here comes our interpreter."

Sheckly started involuntarily, as a scaley head thrust itself into the hut. The serpentman had a long sharp knife gleaming in one hand. "Pardon, sirs," the head said slurringly, as a forked tongue sorted over the unfamiliar syllables. "The leader wishes to know will you join us?"

"No, thanks," Sheckly said, staring at the knife.

Harding said, "We should join them. We don't want to offend these creatures, and if we're real friendly we might make out better."

"*You* go out then. I'm going to see if I can get some sleep."

Harding shrugged, his glance making it plain he knew Sheckly lacked nerve more than sleep. To the serpentman he said, "Tell your leader my companion is tired from our long journey and would rest now. However, I will be happy to join you."

"Yesss," the serpent head hissed and withdrew.

"Boy, will I be glad to get out of here," Sheckly muttered.

"Sometimes I wonder why I ever teamed up with a pansy like you, Sheckly," Harding said harshly, a disgusted look on his face. "There are times when I regret it." He turned and walked from the hut.

Sheckly stared bitterly after him. He felt no anger at the denunciation, only a plaguing irritableness, an annoyance with both Harding and himself. He should have gone out there with Harding, if only to show the man that he was not afraid, that he was no coward. And yet, as he sat there listening to the strange sounds creeping across the warm dampness, he made no move to rise, and he knew he would not.

Grunting disgustedly, Sheckly stretched out on the floor matting and tried to think of other things. He stared at the orange-flaring torch and contemplated putting it out, but the sounds from the outside drifted in upon him and changed his mind. After awhile, he closed his eyes and dozed.

HE WOKE suddenly and sat upright, a cold sweat making him

tremble. What had wakened him? he wondered. He had the vague notion that someone had screamed, yet he wasn't sure. In the faltering torchlight, he could see Harding had not returned. He listened intently to the noises outside, the scraping, the hissing, the slithering. No screams came.

I'm not going to stay here, he told himself. I'll leave tomorrow, I don't care what Harding says. I'll go crazy if I have to spend another night like this. Exhausted, he fell asleep.

Morning came, and the alien sun slanted orange rays through the cabin doorway. Sheckly opened his eyes and stared at the thatched roof. The torch had burned out, but it was no longer needed for light. Thank goodness for morning, he thought. Morning brought a temporary sanity to this world, and after the madness of the night it was a reprieve he welcomed gladly. He had not opposed Harding till now, but desperation was a strong incentive to rebellion. When Harding returned—Startled, he considered the thought. *When* Harding returned?

He sat up and stared around him. Harding was not in sight. Panic came, and he leaped up, blood racing, as though to defend himself against invisible enemies. Perhaps he'd gotten up early, Sheckly thought. But suppose he hadn't returned? Suppose—

He jumped, as the interpreter entered the hut behind him. "The Leader wishes you to join him for eating," the serpentman said.

"No," Sheckly said hastily. They weren't going to make a meal out of him. "No, thanks. Look, I've got to leave your planet. Leave, understand? Right away."

"The leader wishes you to join him," the creature repeated. This time the sword crept into his hands.

Sheckly stared at the sword, and his heart leaped. He thought there was a tinge of red on the blade's edge. Mentally, he shook his head. No, it was his imagination again. Just imagination. Still, the drawn sword clearly indicated that the invitation was not to be refused.

"All right," he said weakly. "All right, in a few minutes."

"Now," the other said.

"Okay, now," the Earthling agreed listlessly. "Where is my companion?"

"You will see him," the creature promised.

Sheckly breathed a sigh of relief at that. Harding was probably all right then. It made him feel better, though it would make the task of leaving much harder.

THEY HAD arrived at twilight the previous day, so they hadn't the opportunity to see the village in its entirety. They hadn't missed much, Sheckly realized as he walked along, for the grouped huts were unimpressive, looking somewhat like a primitive African village back on Earth. But the Earthling would have preferred the most primitive Earth native to these serpents. In the distance, the slim nose of the rocket ship pointed the way to freedom, and Sheckly looked longingly at it.

At one end of the village was a small mountain of what appeared

to be plastic clothing, milkily translucent—which was strange, since these creatures wore no clothing. The Earthling wondered at this but did not ask about it. Other thoughts more important troubled him.

"In here," the interpreter told him, stopping before the largest hut.

Hesitating briefly, Sheckly entered and the creature followed him in. Seated on the floor were the leader and his mate and several smaller reptiles that evidently were the children. Between them lay several bowls of food. Sheckly grimaced and turned hastily away as he saw small crawling insects in one bowl.

"Sit down," the interpreter directed.

Harding was not in evidence. "Where is my companion," he asked.

The interpreter conferred briefly with the leader, then told Sheckly, "He could not come. Sit down —eat."

Sheckly sat down, but he didn't feel like eating. He wondered *why* Harding could not come. At a sudden thought, he said, "I have rations on my ship—"

"Eat," the interpreter said, gripping his sword.

Sheckly nodded weakly and reached out for the bowl of fruit, taking one that resembled that which Harding had eaten the previous night. It wasn't bad. The leader stuffed a fistful of squirming insects in his mouth and offered the bowl to Sheckly, who shook his head as politely as he could and indicated the fruit in his hand. Fortunately, the serpentman did not insist on his taking anything other than fruit, so the meal passed without physical discomfort.

When they were through, the leader hissed several syllables to the interpreter, who said, "The leader wishes to see your games. You will set them up now."

Sheckly ran his tongue over dry lips. "They're in the ship," he said, and eagerness crept into his voice. "I'll have to get them." Once inside the ship, he'd never come back. He'd slam the airlock door and bolt it and then blast off as fast as he could get the motors going, Harding or no Harding. He got up.

"We will help you," the interpreter said.

"No. I can do it myself."

"We will help you," the interpreter insisted firmly. His eyes bored into the Earthling, as though daring him to refuse again.

Sheckly's mouth felt dry once more. "Where's Harding?" he demanded. "Where's the other Earth man? What have you done with him?"

The interpreter looked at the leader, who nodded. The interpreter said gravely, "It is too bad. It is the season for the shedding of skins. At the shedding feast last night—"

"The shedding of skins!" Sheckly said, remembering the pile he'd seen at one corner of the village; "those translucent things were your cast off skins." He recalled that some reptiles back on Earth had regular seasons of shedding. That intelligent creatures should do it made him feel slightly sick.

"Your friend joined us last

night," the serpentman went on. "But he could not shed properly, so—"

Sheckly felt his blood turn to ice.

"—so we helped him."

"You *what?*"

"We helped him out of his skin," the serpentman went on calmly. "We try to help those who are friends with us. Your friend had trouble getting his skin off, but with our help—"

"No!" the Earthling cried, trying to reject the thought.

The full realization of what had happened struck him at once. Despite himself, he could picture Harding struggling, trying to convince these creatures that Earthlings don't shed their skins. His struggles must have convinced them only that he was having trouble shedding, so they "helped him." They had come to skin the natives, but the reverse was happening—only literally.

"Where—where is he?" he asked finally, though he knew it didn't really matter.

"We will take you to him," the interpreter said.

"No," Sheckly cried. "No, I—I'd rather not."

The serpentman nodded. "As you wish. He does not look pretty. I hope that tonight you do not have as much trouble."

Sheckly's eyes went wide. "What do you mean?"

"In your shedding," the serpentman explained. "We will try to help you all we can, of course."

"Of course," the Earthling agreed weakly, licking cottony lips. He wondered how he could just stand there so apparently calm, instead of letting out a shriek and running as fast as he could for the rocket ship. He decided it was some sort of paralysis, the shock of finding himself in the middle of something so alien his mind told him it couldn't possibly be.

KNEES WOBBLING, Sheckly went to the door and out into the morning. That he had gotten that far surprised him pleasantly. The tall rocket ship was in a clearing several yards beyond the edge of the village. He headed for it. He thought of running, but his legs felt like rubber, his blood like ice. He walked past the pile of drying skins on the ground without looking at them, and he was followed by the interpreter and several others whom the serpentman had motioned to join them. Except for their swords, they had no weapons, he noticed. Poor Harding, he thought, and wondered if the Earthling's skin were somewhere in the pile; he felt sick, thinking about it.

"You'd better stay outside the ship," he suggested testily. "I'll lower the equipment to you."

"I will go aboard with you," the serpentman said.

"But—"

"I will go aboard with you."

Sheckly shrugged, but he hardly felt complacent. He felt as though a giant icy hand held onto his spine with a firm paralyzing grip. He trembled visibly. Got to think, he told himself desperately, got to plan this out. But fear jumbled his thoughts, and he could only

think of Harding back in the village minus his skin, and of what was going to happen that night if all went as these creatures planned.

The second thought was the more terrifying, and when they were within a hundred feet of the rocket ship, Sheckly broke into a frantic run.

"Stop," the interpreter cried.

Sheckly had no intentions of stopping. His glands told him to run, and he ran. He ran as fast as he could and didn't look back. He imagined the serpentman was on his heels, knife poised, and he ran even faster. He reached the rocket ship and went up the ladder, scrambling, missing his foothold, pulling himself up with clutching hands. He threw himself through the airlock and slammed the massive door behind him.

He ran through the metal corridors to the control room. They must be on the ladder, he thought, prying at the airlock with their metal swords. He pressed switches, slammed down on the throttle, and the sweet music of the rockets came and pressed him into his seat.

He looked down at the planet dwindling into space below him and he laughed hysterically, thinking of the narrow escape he'd had. No more planets for him, no more trying to skin anyone.

THERE IT goes," the Space Patrolman said, watching the rocket rise.

Harding trembled with helpless rage. "That blasted fool Sheckly'll lead you right to the money, too," he complained.

"That's the way we planned it," the Patrolman smiled. "I must compliment our native friends on their fine acting. Your pal took off like a scared rabbit."

"Yeah," Harding grimaced, clenching his fists as though wishing he had someone's neck in them.

"Don't blame your friend too much," the Patrolman advised. "Whether you realize it or not, the fact that you were consciously avoiding our schedules caused you to follow a pattern in your visits to these outerspace planets; we just figured a bit ahead of you and posted hidden patrols on all the inhabited planets in this sector, knowing that sooner or later you'd land on one of them. We spotted your ship last night and hurried over by 'copter so we wouldn't be seen."

"Forget the synopsis," Harding growled. "You walked in when these blasted lizards were making believe they were going to skin me alive. They didn't have to act so realistic about it."

"You're wrong about one thing," the Patrolman said. "The act didn't start until after we arrived to direct it."

Harding looked at him, puzzled. "What do you mean by that?"

"We arrived, as the books say, just in time," the Patrolman told him. "They *weren't* making believe." He offered a bowl of fruit to his prisoner. "We'll be here for another hour yet. Eat something."

Weakly, Harding shook his head no. He sat down, suddenly pale at what the officer had said.

He didn't feel very hungry.

• • • THE END

The average age of America's population is going up, people are living longer . . . Here's a fascinating and enlightening article that tells how and explains why modern medicine might well make our grandchildren centurians.

METHUSELAH'S GRANDPARENTS

By James Blish

ONE OF the most frequently-encountered predictions in science fiction is that of indefinitely prolonged life. Occasional stories even go so far as to predict physical immortality, usually with the qualification, "barring accidents". There are probably fewer predictions in the literature which are derived more solidly from known scientific facts; unfortunately for ourselves and our immediate descendants, however, these same facts are subject to a number of other interpretations.

Just how likely is it that our grandchildren may live, say, twice as long as we do? This seems like a modest enough target. Before we can answer the question, however, it would be a good idea to look at the facts as they stand today.

Almost everyone now knows that deaths from infections have been declining at a tremendous rate in every civilized country for the past 25 years. Back in the days when Semmelweis first propounded the revolutionary doctrine that doctors should wash their hands before examining a patient, more deaths were caused among expectant mothers by childbed fever—an infectious disease—than occurred from all other causes combined. Today, deaths from any form of infection among this group of patients are so rare as to be curiosities in hospital records. A good many similar examples could be cited.

At the root of this basic change in the medical picture is the form

of treatment called chemotherapy —the use of drugs which kill the disease-causing organisms without injuring the patient. The effective history of chemotherapy began with Paul Ehrlich, Pasteur's famous contemporary. Ehrlich tested 605 different chemical compounds in search of a "magic bullet" against syphilis, and in the six hundred and sixth he found one which worked reasonably well. Ehrlich also dreamed of finding what he might now describe as a "magic machine gun"—a chemical effective against *all* disease germs, with which any illness might be treated.

Ehrlich never found that master drug, and himself abandoned the approach in succeeding years to develop instead the techniques of immunization. The latter are enormously complicated, and expensive to boot, but they had the advantage of being frequently life-saving. For some diseases we still have nothing better; infantile paralysis is one.

Chemotherapy remained on the rubbish heap until the Germans discovered the sulfonamides, not long before World War II. The sulfa drugs are household words now, but at that time they were revolutionary. They seemed to promise something very like that master drug which Ehrlich had been seeking. And where they worked, they simplified existing treatments like magic.

Meningitis offers a typical example. There are more than twenty different varieties or strains of the bacterium which causes this disease. If you recover from an attack by one of these strains, you will be immune to that strain from then on—but you will still be open to attack by any of the others. If your doctor were forced to treat you by the old serum technique, he would first have to order a special laboratory test to determine which strain of germ you were harboring, for an anti-serum which works against one strain is useless against all the others. Finally, you would get the injection, which would cost you a sizable sum, because you would be paying not only for the production of the serum of use to you, but also for the more than twenty others which *might* have been of use to you. And finally, if the disease was not too far advanced, you would recover in about two weeks and be forced to convalesce for a minimum of a month.

The sulfa drugs are indifferent to which strain of the meningitis bacterium they are called upon to attack. They kill them all, usually within 48 hours. That's all there is to it; no tests, no shots, and very little expense, since the sulfas are produced synthetically in great quantities.

An even more important action of the sulfa drugs, however, was their action on doctor's minds. The drugs cured all but one form of pneumonia; they cured several forms of meningitis; they stopped gonorrhea cold—in short, it was possible after all, as Ehrlich had hoped, that a single drug might kill several different kinds of disease germs at once. It was even possible that Ehrlich's master drug could be found.

Chemotherapy research sprang back to life almost instantly. A whole family of new sulfa drugs

was produced, in the hope of finding a new one with a broad spectrum of anti-bacterial activity. Unhappily, nothing much better than sulfadiazine was ever turned up. And as a group, the sulfas have several important deficiencies. For one, they are effective only against the Gram-negative group of bacteria (about half of all known bacteria belong to this group). Secondly, many organisms initially sensitive to the sulfa drugs develop resistant strains, very much like flies becoming resistant to DDT. Finally, the sulfas have no effect against non-bacterial diseases, of which there is a very long roster, including virus diseases like flu, protozoan disease like malaria, mold diseases like lumpy jaw, etc.

To find a more effective anti-bacterial substance, research had to go back to the living world itself—to the antibiotics. These are chemicals which are secreted by bacteria and molds themselves, presumably to suppress competition from other organisms (although this assumption, reasonable though it sounds, hasn't yet been proven). The best known antibiotic was also the first important one to be discovered, penicillin, a drug secreted by a mold which is often found on bread. Mass production of this anti-biotic resulted from the pressures exerted by World War II, though it had been discovered by Six Alexander Fleming twenty years earlier.

PENICILLIN certainly comes a lot closer to being Ehrlich's master drug than did the sulfas. It kills the bacteria causing about 25 different human diseases, including boils and wound infections, tonsillitis, scarlet fever, erysipelas, pneumonia, diphtheria, tetanus, gas gangrene, anthrax, most forms of meningitis, gonorrhea, syphilis, trench mouth, and numerous heart, bone and tissue infections. Furthermore, penicillin is a remarkably safe drug, though some people do become sensitive to it in time (just as some people become sensitive to ragweed or tomatoes). Like the sulfa drugs, too, penicillin is now produced in staggering quantities, so that its price to the patient is low.

The introduction of the sulfa drugs caused a sharp dip in the death rates from diseases caused by Gram-negative bacteria. Penicillin turned that dip into a roller-coaster dive, by adding many Gram-positive organisms to the list.

But penicillin, too, is limited in its effectiveness to the Gram-positive bacteria, although it attacks a few Gram-negative species as well. A drug that attacks 25 diseases can properly be described as a wonder drug, but the roster of human ills is much longer than that, and it includes some of the world's worst killers—including malaria and tuberculosis.

Once it was understood, however, that almost any micro-organism in nature might be producing a better antibiotic than penicillin, the search was on. There are now over three hundred known antibiotics. This is not to say that they are all better than penicillin—far from it. Many of them are relatively narrower in range and weak-

er in effect; many, too, are highly poisonous in themselves to human beings.

Nevertheless, there are some outstanding new antibiotics on the list. A chemical compound called tetracycline has turned out to be particularly promising: two forms of it, called terramycin and aureomycin, are each effective against more than *eighty* human diseases. (The ailments attacked by terramycin are about the same as those hit by aureomycin, with a few exceptions; of the two, terramycin appears to be a little better tolerated by the patient, but the difference is not great.) Both known forms of tetracycline are produced by molds. Also produced by a mold—as well as synthetically now—is chloramphenicol (Chloromycetin), another broad-spectrum anti-biotic. This one has a nasty habit of upsetting some people's red blood cell production, but it is also the most powerful of all known drugs against typhoid fever.

There are also quite a few antibiotics which are important for their action against only a single disease, or against a relatively narrow spectrum. Chief among these is streptomycin, which like the sulfa drugs acts against Gram-negative organisms only (and hence is often combined with penicillin to get a broad-range effect). This activity, however, is of minor importance, partly because streptomycin is rather toxic to use routinely. But streptomycin also hits a single Gram-positive germ, and one of tremendous significance: *Mycobacterium tuberculosis.* It was the first drug in history to show a direct action against TB.

There are now a number of other available antibiotics which attack the tuberculosis germ, of which viomycin appears to be the most promising. A synthetic chemical called isoniazid (chemically, isonicotinic acid hydrazide) also has proved to be a powerful weapon. But streptomycin is still our most important agent against the White Plague.

A number of other antibiotics have proven useful enough against special types of infections to make their names more or less familiar —tyrothricin, bacitracin, polymyxin are examples. Most of them, however, are rather tricky to handle.

IT WOULD SEEM, then, that with the advent of the antibiotics—a form of treatment now little more than a decade old in general practice—we should have the infectious diseases on the run. The statistics bear out this conclusion. In all countries where modern medical treatment is widely available, and where reasonable sanitary practices are being followed, the yearly death rate per thousand persons is now tobagganing, almost entirely because of the decreasing seriousness of germ diseases. Furthermore, the proportion of older people in the population is rising, because fewer and fewer citizens are being carried off by some bacterium or virus before reaching the judicious years. (Yes, modern antibiotics such as terramycin attack viruses too.)

Is it reasonable to extrapolate

this trend right down to the bottom, to the point where all infectious diseases have been wiped out?

It is a hard fact of medicine that *no therapy ever wipes out a disease.* The reason is that a disease is not a solid object like a passenger pigeon, which we can cause to become extinct by sufficient gunfire. It is actually a fiction, an assemblage of symptoms, laboratory tests, and so on to which we have given a name—and what that name describes is what happens when some specific germ invades a human being.

For instance: tetanus, or lockjaw, is a disease which is caused by the entrance of a certain bacterium into the body. Once that bacterium begins to multiply and the symptoms appear, we can inject penicillin *into the patient* and kill off the germs. Until the symptoms appear, however, we don't even know the germs have gotten in. In addition, the patient himself picked up the germs from the soil, which harbors innumerable billions more germs just like the ones that made the patient sick. The tetanus germ gets along very nicely in the soil, thank you, and doubtless always will—and will always be lying in wait for the next patient, no matter how quickly we can kill it once the patient lets us know that he's sick.

In short, we can cure diseases, but we cannot wipe them out—at least, not in the foreseeable future.

In addition, many bacteria tend to develop resistance to antibiotics. In this respect, as we mentioned in passing before, the organism which causes tuberculosis is one of the most versatile. Not a single drug which has so far been found to attack this organism has failed also to turn up a strain of the germ indifferent to the drug, but still capable of causing the disease. Indeed, some strains of *M. tuberculosis* have now emerged which can't get along *without* streptomycin. Combinations of drugs sometimes can eradicate these resistant strains, if the combination is the first therapy to be given the patient. If the drugs are given one at a time, strains emerge which are resistant to all of them.

Resistance to streptomycin usually appears in a single huge bound —within one bacterial generation. Resistance to penicillin emerges gradually and over a long period, but it is equally definite. This holds true also for the broad-spectrum antibiotics. And the number of resistant strains is sharply on the increase, as you would expect. Hospitals all over the world report that their sensitivity tests now show nearly 40% of all strains of staphylococci—to choose a single example—are now resistant to penicillin, as compared to a normal rate of about 2%. And this rate is still going up.*

**To a considerable extent, this rise in resistance is due to downright abuse of these powerful drugs. Many doctors, especially in the United States, prescribe penicillin or even more powerful antibiotics for conditions in which they are of no use, such as the common cold. In many states, trochees or throat pastilles containing antibiotics are sold over the counter, without a*

It seems unlikely, therefore, that we are going to find the time or energy to embark on a program of eliminating disease bacteria from the soil, the air, the sea, and the rest of the earth. We are going to be kept pretty busy finding new antibiotics just to keep up with the rising resistance-rates against the older ones. As a matter of fact, there are *already* two new antibiotics (carbomycin and erythromycin) on the market which virtually duplicate the anti-bacterial activity of penicillin, for use in penicillin-resistant cases—and I have already seen reports of cases resistant to them, too, for they're already being over-prescribed.

ANOTHER FACT of medicine standing in the way of longevity, and one which laymen usually find hard to take, can be stated simply this way: *Healthy people also die.* While it is perfectly true that many more people these days are living out their threescore-and-ten, there is no evidence at all that the number of people surviving *beyond* 70 or 80 years is increasing. We have simply made it possible for more people to grow old—but they do grow old.

Indeed, it is now a very widely accepted hypothesis in theoretical medicine that we are "set" like a clock *by our heredity* at the moment when we are conceived, and that we are going to run down at the predetermined time no matter what the state of our health—providing, of course, that we've managed to jump out of the way of passing germs and hot-rods until that time comes. Readers who remember Heinlein's *Methuselah's Children* will not need to be reminded that the best way to live to be a hundred is to pick your grandparents very carefully. That still seems to hold true, and probably will continue to hold true for many years.

The picture, however, may not be entirely hopeless; we may nevertheless manage to be, if not Methuselah's children, at least his grandparents. Whether or not a man who dies of lung cancer or a heart attack at the age of 90 can reasonably be described as "healthy" is open to some question. The various degenerative changes which go on in our bodies as we grow older do not seem to be caused by any infection, but in most other respects they do resemble diseases as we commonly understand that term, and they may eventually be amenable to treatment. The outlook for some of them, hardening of the arteries in particular, is considerably brighter now than it was as little as five years ago, and even the cancer picture is beginning to show signs of coming clearer.

Whether or not a man with no infectious diseases *and* no degenerative diseases would topple over like a felled tree when his hereditary clock runs down still remains to be seen, but the proposition

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prescription, for people to suck on whenever they feel a little hoarse. Both practices boom the selecting-out of resistant strains and speed the day when the antibiotics involved are going to be as useless as Peruna.

stated in those terms sounds unlikely, perhaps even a mite mystical. If our "clock" is "set" at all, it is likely to be set by a hereditary susceptibility to some degenerative change. If that change can be prevented or arrested, there is no visible reason why the patient should nevertheless die.

(Right at the moment, let me add hastily, we do not know how to arrest a single one of these changes, let alone prevent them. Furthermore, some of the fragilities of old age are due, not to changes, but to the running-down of normal physical functions, such as the renewal of bone-building cells. How we might go about restarting those defunct operations is also unknown now.)

Let's suppose, then, that at some time in the future we can protect the average human being from both kinds of disease—the degenerative and the infectious. How long would it be possible for him to live under such near-ideal circumstances?

We have no real information, but we've seen some suggestive bits of data. We have records of people who have passed the century mark under today's far-from-ideal conditions. At death, these people were *old;* their bodies showed the marks of half a hundred irreversible degenerative changes, the scars of many an infection; their minds often were nearly as gone as their teeth. How long might they have lived had all these changes and infections been prevented?

Again, we just don't know. Barring a third World War, however, we will probably have a clear-cut answer before this century is over, for medical research is now concentrating heavily on the degenerative diseases, and has already made progress against them at least as spectacular as that made against the infectious diseases during the first years of the Decade of Antibiotics.

As matters stand now, the problem of prolonging life indefinitely is enormously complex, but it is not necessarily insoluble. The attainment of the target we set up at the beginning of this article, a life twice as long as the present expectation, is probably possible, and possibly probable.

On the other hand, it is safe to say that nobody is going to live forever, not even "barring accidents". After all, one can't bar accidents, for it is in the nature of an accident to be accidental, and hence immune to foreplanning; however carefully you may drive your car, some drunk may kill you in a split second by failing to behave as sanely as you do. And in the long view, there is no such thing as "forever" for human beings, whose ultimate possible life-spans are limited to the life-span of the universe they live in. All the present evidence seems to indicate that the universe itself isn't going to last forever, and outliving the universe would at the very best be pretty dull. It is far more likely to be fatal.

Most of us, I think, would settle for an extra thousand years or so. It's even possible that we'll get them—or that our grandchildren will.


O.R.BAN.

Sethos was a great artist, a talented man, quite possibly the most famous man of his time and world. But, alas!—there were other worlds. And is not the grass always greener . . . ?

THE GENIUS

By Con Pederson

Illustrated by Paul Orban

SETHOS ENTERED the park. Brown autumn leaves crumpled sharply beneath his feet, the green grass sank. The sun was nearly gone, and the last of the children passed him, chattering as they faded into the twilight. Only one other person remained in the park, and she was waiting for Sethos.

"Ela," he said. "Have you been here long?"

She touched his cheek with hers in greeting.

"Not at all. I'm in no hurry." She handed him a cigarette as they walked together, then lit her own and breathed deeply of the scented fumes. "Nothing special about Matya's parties—unless she has that intriguing man there again. What's his name? You know—"

"You must mean Andian, the sculptor. The man who built North Square, to hear him talk. What about him?"

Ela laughed. "He'd never heard of my fluid porcelain. Isn't that silly? After everyone in West has been overwhelmed with the color effects, he turns up, a perfect innocent. I showed him pliables."

Smiling, Sethos recalled it was Ela's enthusiasm that had first attracted him, as it had most of the males in their clique. Then too, she was beautiful, with startling gold hair and a delicate round face that always aroused flattery. Tonight he felt especially aware of her beside him, and the quick beat of her sandals on the pavement.

The lights of Matya's hillhouse gleamed before them, enticing all who wandered through West Park this evening. The party had started, as parties always did, at that unknown instant shortly before the first guest's arrival. It was thriving

now, for the colors behind the contoured glass facade throbbed as though underwater, and people sat along the terraced hillside, talking and inhaling the elegant smoke from smoldering chalices that stood around the entrance.

They climbed the flagstone path toward the low, pale yellow building. Luxuriant plants grew thick along the walls, creating a jungle that extended even to the inner rooms of the house.

"Sethos, my friend!" said an unsteady voice.

The old man was seated in shadow by the house, a glass of sparkling liquor on the arm of his chair. Against the green background of giant plants, his frail, pink face resembled a huge bud that would open when daylight came.

"How are you, Paton?" Sethos asked warmly. "I remember you from somewhere in East. It must be years. . . . Weren't you gardening with Ana? Of course—developing a perfect Lyocanthia. What a welcome sight you are among these woodcutters!"

"You're a fellow greensman now, they say," beamed Paton happily, seizing his glass and leaning forward. "Such an honor to us. You work with succulents—right?"

Sethos smiled. He watched Ela disappear into the interior of the sprawling hillhouse, heard her distant laugh become part of the machinery of voices. People drifted to and fro across the broad lawns.

"Yes," answered Sethos, drawing up a chair. "Succulents are my latest joy. One must specialize. I like to work with growing things, yet I'd feel like a mechanoid if I got involved in crystal sculpture, like my charming Ela there."

"Perhaps—but who else gets such *color,* starts so many new directions as she? My flowers blush before her crystals." Paton's glass was empty, and with an automatic gesture, Sethos refilled it from a tall flask standing nearby, and poured one for himself.

"Speaking of mechanoids," Paton continued genially, "I had a most stimulating conversation with Mr. First himself a few days ago. He came to see me."

Sethos blinked. That was unusual—mechanoids seldom mingled with humans, especially those of the primary levels.

"He's very intelligent about flowers," Paton went on, waving his glass in animation. "We talked about common hedge roses. Did you know he raises them?"

"Amazing!" Sethos drank deeply of the fiery liquor. Now the drifting plumes of smoke from the chalices performed fantasies with his vision, and his body felt light again, as it had so often in the evenings of the past few years.

"Of course I was flattered, having a visit from the *most* prime mechanoid. He could have called me, but they are somewhat conscious of being mechanical as it is, and try to be cordial as possible."

Sethos leaned forward eagerly. "Did he say anything about—their activities?"

"Well, that's not too interesting to me, because it's always just one change after another outside. He did say there is a new earth-bridge between the continents. Doesn't it

seem incredible that they should want to go to all that trouble? But then, that's a mechanoid for you. Always making things bigger. That's why I enjoy seeing Mr. First take up flowers. Maybe he sees things our way himself."

"I don't suppose you've ever been out there, have you?"

"Out there? You mean, where the mechanoids live? Why, now that you mention it, I believe I was, once. But a long time ago—I must have been still living with my elders. It's not very enjoyable. Too big to call home, after all." With a short laugh, Paton emptied his glass again.

Sethos frowned. The idea that the world was so large fascinated him. As his contemporaries and their ancestors for unknown generations, Sethos had passed from dreamy childhood directly into the dream of adult life. He could barely recall the days of education, when drugged smoke and liquor were withheld, and life consisted of a different fairy world. How he had loved the gay mechanoid nurses, with their tinkling arms and bright colors! But of their world, the vast reaches of the planet outside the tiny circle of men, he knew very little. One fact was plain to him: it was unthinkably huge.

Sudden music poured from the house, gay and fast.

"Ha! The dancers!" exclaimed Paton, seeing the rows of gyrating figures beyond a pink translucent wall. "You must excuse me. I promised Matya I would watch her dance tonight."

Paton hurried away, leaving Sethos to wander along the dimly lighted terrace. The party had lightened his senses as expected, yet his thoughts were heavy. He remembered the library, and the strange legends in the books. Legends of ancient cities of men, over all the earth, and of the prehistoric machines used by men to travel great distances. And always in the old legends men were very much like the industrious mechanoids—ever building, ever moving. . .

How he wished he might live in those days! He knew the pleasure of creating, for he had been acclaimed a genius in music before he was twenty, and his mastery of painting and architecture had won the admiration of all the human zone. Still, he was not satisfied, and often lay awake in the early hours of morning after a stirring party, dreaming of those long-gone days of empire, when he could have ridden with the ancients through the sky on their winged craft, see their cities rise toward the clouds, experience the exciting pace of that life. What remarkable ambitions they must have had!

AS SETHOS reached the end of the terrace, he was hailed by a garmenter named Brin, standing with a group of men around a light projector. The colors sprayed up about their faces, matching the gaudy orange of Brin's trousers and the blue of his little plumed hat.

"Greetings, Sethos! How are the crops up North? Still live with Ela?"

"They're fine, Brin. Live with Ela? No more than anyone else these days."

Brin chuckled. "A neat remark, Seth—I must remember it to your true love the next time I have reason to see her."

The men laughed appreciatively, the colors wheeling in rhythm across their grinning faces.

Suddenly three young women converged on the group, having spied Sethos from inside.

"Oh, Sethos!" one cried. "How wonderful you're here!"

"Are you still composing that *magnificent* diphonic music?" asked another breathlessly.

Grimly, he realized he was trapped again. Every party brought on something like this. How could he explain to these well-meaning girls that he was trying to forget the past, that it bored him, that his music was trite and his painting insipid? Still they would clamor for it.

"Excuse me," muttered Sethos, walking away. His ears rang with their adulation, but it always sickened him. Efforts he considered nothing at all were worshiped by the others. It was demoralizing.

Following the path around the corner, he descended from the noise of the house, opening his mouth and inhaling the cool night air as though to cleanse his lungs. He was growing extremely weary of the people at parties.

From here he could see the town laid out below, the four directions of it, and he tried to guess how many times he had walked each street one end to the other, then turned around and walked back, simply because no one ever considered going straight on.

At that moment a tall, lean man approached him. He was a stranger, with a bearing Sethos did not recognize.

"How do you do, Sethos," he said softly. "I understand you are the most accomplished of your group. May I ask a few questions?"

Someone from across town, obviously. He knew the type—they traveled between the cliques, learning of new trends and ideas to pirate. He had done it once himself.

"I'm sorry. I don't have any new goodies for your side of town. Why don't you go in and pester Brin? He's always easy to tap."

"You misjudge me. I'm not interested in stealing ideas."

"I know, I know. But I'm not for sale anyway."

Angered, Sethos turned and strode down the hill. The nerve of these apprentices, he thought. Some day they'll ask for autographed samples.

He stopped. A small autocar had caught his attention. On a wild impulse, he opened the door. "Good evening, little servant," he said gently.

The desire to move came on him more strongly now. Stooping, he got in, the seat cushions adjusting automatically to his posture, and a voice somewhere in the drive panel said, "Direction, please."

Yes—where to? He didn't know. But he had to get away.

"Straight ahead," he ordered, hoping the machine would make the best of it.

As he rode, he wondered desperately what was wrong with him. He was easily the most talented of men, yet he was unhappy. Perhaps it was

because they all treated him so adoringly that he was tired of them. He saw nowhere that drive which was so strong in him, the urge to go on to bigger things. He had sought it in his friends many times before, but gave up when no one knew what he meant. Even as a child his elders said he should have been born a mechanoid. It was a jest that was deathly true.

Trees flashed by, but as Sethos watched, they slowed in their flight, and he realized the car was stopping.

"I'm sorry, this is zone," said the car. "I can go no further. Redirection, or shall I cruise at random?"

He started to affirm, but something stopped him.

Barely visible ahead were the first low, dark buildings of the mechanoid world.

"No," he answered. "I'm getting out here."

He left the car, walking forward rapidly until the headlights no longer lighted his path. The trees began to thin out, and his feet struck concrete. He knew he was beyond the general limits of human activity.

FEAR CAME, now that he was in that land where men never walked. The buildings loomed around him, forbidding and dark. Further down the street the lights began, spaced at intervals on the walls.

"Your attention, please," said a voice at his shoulder. He recoiled, noticing for the first time a small yellow mechanoid rolling silently beside him. Its face screen watched him steadily.

"May I remind you that this is no longer the human zone? I can whistle an autocar for you, if you wish."

Sethos felt a twinge of terror as he said, "No, thank you," and continued to walk.

Now it will begin, he thought. *They'll be on me every block. Turn back. No, don't give up now. What can I lose? They won't hurt me—it's just a matter of regulation. They can't do anything to me for disobedience.*

Looking up, he saw stars between the clouds. For a moment he could imagine that perhaps, once upon a time, men must have longed to reach out in some way across the tremendous distance to the stars. It was a strange sensation, this longing for something obviously unattainable.

"Hello," said another voice. "Are you lost?"

Sethos glanced at the new figure that accompanied him. It was human in shape, but the fact that it skated on rollers betrayed its nature.

"No. I'm . . . just walking." His voice sounded small and guilty in the strange city.

"I see. For exercise?"

"No—I mean, not exactly. Well, I wanted to see what things were like outside our zone."

"Our course."

He won't stop me, Sethos thought with determination.

"Are you someone I should know?" he asked.

"Tenth level," the mechanoid replied, whirring sedately along beside him. "I was notified five min-

utes ago by a circuit walker. He said he offered to radio for a vehicle, but you did not wish to return."

"That's right." Sethos was nervous now, but maintained his even step. They had gone three blocks together, and still he would not slow down.

"Tell me, Mr. Tenth," Sethos said, trying to appear calm, "do people—often walk as I'm doing?"

"No, not often." Mr. Tenth took a step across a small puddle, then resumed skating.

"What happens if I get tired of walking?"

"I can direct you to Mr. Third's office, if you won't mind. He handles such things."

"And suppose I keep going?"

"You'll be followed by an autocar that will pick you up whenever you get tired."

"I intend to keep going," Sethos said, his teeth clenched.

"Very well." The mechanoid rolled away.

SETHOS was entering the heart of the city. As far as he could see, the streets led off into the distance, with the gleaming lights that lined the buildings on either side diminishing until they merged at a far vanishing point.

How far does it go? he wondered, overwhelmed. *Maybe if I go far enough, I'll find another community like our own, with men living in it! What a discovery that would be!*

The low hanging clouds threw back the city's glow as far as he could see.

In the streets there were now several mechanoids, and their number increased as he went. Some were prime mechanoids, and resembled humans, rolling along the slower traffic lanes. Others were specialized workers, with longer arms or a number of arms, or with a truck body instead of legs. In fact, he saw every gradation between prime mechanoid and service vehicle. A bizarre parade!

A strange little apparatus with three wheels stopped before Sethos. "Your attention, please," it said. "You are now one-half mile from zone. The time is eleven-twenty p.m."

It occurred to him to watch for more tenth level mechanoids, and he saw three immediately, moving with him several yards away. An autocar cruised patiently.

"You are heading due west, on Street 751 West, at a speed of three and eight tenths miles per hour."

He saw the mechanoid with three wheels again, clocking him helpfully.

"Go away," he said.

His breath came hard; he was not used to walking such a distance.

How long can I last? If I keep going, I'll get hungry, and there won't be any food. They don't serve food out here. I can go until I drop from exhaustion. Then they'll take me back . . . ask me if I want therapy.

He would refuse, then try it again later. He would try it day after day, probably, maybe getting a little further each time, and each time the mechanoids would patiently bring him back. On and on . . . until he requested therapy. . .

"You are now one mile from zone," said his clocker. "The time is eleven-twenty-eight p.m."

The lights burned on into the distance. His legs were beginning to ache, but still the urge to cross the city was intense.

Maybe I'll go till I come to the ocean, he thought, sucking his breath. He had seen pictures of the ocean, that featureless blue with its concrete wall stretching away for thousands of miles.

A mechanoid stood on a corner, pointing back. So that was the next trick! Helpful, hinting. . . He saw another, showing the way home.

He grew angry. *It'll be a battle of nerves. They'll get nicer and nicer to me, until I can't stand it any more.*

He concentrated on the lights, watching them pass one by one. That helped.

"Please note your return route."

He wondered if they had missed him at the party.

"There is an autocar at your service."

They would be preparing to eat the midnight meal, now, he remembered. The foodmakers would emerge from the kitchens and steal the show in their performance of taste appeal, warm odors, rare dishes. . .

"You are heading due west, on Street 751 West, at a speed of three and six tenths miles per hour."

It seemed cold. The mechanoids did not have thermostat stations, for they did not need them. He shivered slightly.

"You are now two miles from zone. The time is eleven-forty-five p.m."

The lights. Watch the lights.

"Please submit any request for information here."

He was panting, and his legs felt weak.

"There is an autocar. . ."

It was useless. Shutting his eyes tight, he stopped.

"All right. Let's go."

"GOOD EVENING," said Mr. Third.

Sethos seated himself in a contour chair in the center of the softly lighted office. From behind a curving desk, the brain of a slender metal cylinder observed the young man before it, checked by radio with five Mr. Tenths in the space of three and one fifth seconds as to the incident's details. Then Mr. Third folded his plastic arms and studied the short brown hair and dark eyes, the lean face and straight nose. Human features always fascinated him.

"I'm the human coordinator, Sethos. You know why you're here, don't you?"

Sethos nodded.

"Everyone learns that sometime," Mr. Third remarked. "In a certain number of births there is a percentage who are of higher intelligence. These are the restless ones whom we cannot discourage developmentally as easily as the others. They usually have to request therapy to adjust. So your case is not new."

Sethos lit a cigarette. He knew the story, but coming from a third level prime mechanoid it was all the more impressive.

"All right, I'm inquisitive. Why must we have therapy? Why do we have to stay in our zone?"

Mr. Third paused. He recognized challenge in the young man before him, and tried to estimate his will power.

"Did you know that there was on the earth, long ago, lower forms of life called animals? And that man once specified these and contained them in cages, from which they were denied exit?"

"I have read of their place in our biological evolution, but of course they are before the time of records."

"Well, we know very little about this practice or its use, but it's similar to what we have here, I believe. We mechanoids are not concerned with history, having only one structural law which was built into us by your ancestors, and it cannot be superseded. We must preserve man in the state he existed when we were created. We cannot impede his activities—unless they peril his stability, which we maintain precisely, as you know. It is impossible, you see, for us to allow man to change or expand. We have fulfilled that obligation, and continue to fulfill it. There are no alternatives whatever."

"I can't see what they had in mind when they made you that way. It sounds insane."

"Don't ask why—that is no longer important. We cannot question what is fundamental to all our operations, the factor present in every formula we must work. Our mechanoid civilization is gigantic, by your standards, but it is flawless. Once set in motion, such a system is impenetrable. All individuals are their allotted part of the entirety, no more, no less. It is beautiful concept, you'll agree?"

"You must get terribly bored," Sethos said humorlessly.

"That word has no meaning for us. Now—do you request therapy?"

Sethos was startled. He had expected the question, and knew there was little point in refusing. Yet he hesitated. The desire to learn was strong.

Before he could reply, a door opened and another mechanoid rolled in.

"You didn't whistle, Mr. First," said Mr. Third to the newcomer. "Something on your mind?"

Sethos noted that they spoke aloud for his benefit. He inhaled reflectively of his cigarette.

"A mutual friend of ours is here," said the first level prime.

"The one we've been expecting?" asked Mr. Third.

"That's right. I see you have a young fellow here—out walking?"

Sethos nodded, wondering what visitor they could have. Perhaps a mechanoid from another continent—but still such a mechanoid would be in perpetual contact anyway.

"Good—come along. It'll save the gentleman some time. He's looking for this sort of thing."

"Save him some time! He's in a hurry?" interrupted Sethos.

"For this man, time is very important," said Mr. First gravely.

"Where is he now?" asked Third.

"In my office, studying the vocabulary. Shall we go over?"

More curious than ever, Sethos followed the mechanoids down the

corridor to a slide. Holding the rail, he felt the car surge through its shaft at a tremendous speed.

THEY EMERGED into the first level office. Two other first level mechanoids sat reading formulated material, while near the center stood a tall man, his eyes on a page of printed matter in his hands. He had no hair, and wore only a simple gray cloak over a white, loose-fitting one-piece suit. Sethos regarded his graceful appearance and sophisticated demeanor.

"Hello," he said, looking up. "I am Hol."

Sethos nodded cautiously. "My name is Sethos."

For a moment, Hol looked at the two Mr. Firsts reading, then at the one standing. There seemed to be some sort of communication between them. Then he spoke again.

"Are you discontented with your culture?"

"Of course. I don't believe man's curiosity should be restricted."

"I see. What do you propose in this case?"

Sethos was perplexed. He had not dreamed of a possible solution. But perhaps there was one!

"I don't know. If mechanoid control could be removed, I think humans would expand over all the planet. Then they could progress by themselves."

"Do you think they can?"

"What do you mean?"

"Do you think humans can progress further—without mechanoids?"

Further—so that was it. The creation of mechanoids must represent the height of human development. Which meant they were necessary to going on, reaching the stars. . .

"You mean, if humans could work *with* mechanoids, we could even travel to other worlds and spread throughout the universe?"

"He's getting close to the 'matter masters matter' principle," mused Mr. Third. "It's growth through extension, Sethos, a universal. Not just 'human'—man isn't alone in the universe."

Sethos did not understand. But another thought struck him.

"Just a moment, Hol. I've never seen you before. Where are you from?"

"From Antares System. I am an ethnographer, making a survey of the planets of man's early history."

Sethos was stunned.

"You—you are from out in *space?* From the *stars?*"

"That is correct. Man lives everywhere in the universe. But as Mr. Third said, that may be misleading."

Sethos disregarded the comment. It didn't matter if he were alone or not, at least he was *there*—man in the universe!

"I have completed a section of my work here. It is necessary to speak with the first level alone, if possible," said Hol.

"Of course," said Mr. Third. "Sethos, there is a vehicle in the hall. Will you return home until you wish to contact us about therapy? You have clearance to come in directly when you decide."

"Yes—yes, certainly."

In his shock he was barely conscious of an autocar hurtling

through the dark streets, the familiar trees of West Park looming above him. Then, once more he saw the lights at Matya's, heard the noise and laughter.

Stepping from the autocar, Sethos felt the night breeze on his face. He looked upward at the sky, saw the stars like fierce eyes that had been watching all along. The revelation was too much to take, he thought. Suddenly Earth itself, so vastly greater than the small reservation of men, and short hours ago a veritable infinity, seemed tiny and insignificant.

"Why, Sethos! Where have you been?"

It was Paton's voice. The old man stood alone on the path.

"Paton, you couldn't guess what has happened. It's incredible!"

"Come up and get a drink, boy. You look exhausted. I was alarmed when I found you'd left."

Sethos took his arm and faced him squarely.

"Paton—I left the zone, and was taken to Mr. First's office. And do you know who I met? I met a man from the stars! Think of it! A man from other worlds, Paton. Do you realize that human beings have *already* traveled those fantastic distances, long ago? They must have forgotten about us on Earth!"

"Why, that is amazing. It just goes to show you, there's nothing new under the sun. Come along, and get that drink. I found some *exquisite* wine."

Sethos stopped. His hand slipped from Paton's arm.

"Paton. . . Did you hear what I said? Didn't it penetrate? I said man has *reached* the stars! We already own the universe. . ."

"Of course. But I must say I don't know what we want with it all. Won't you join us now? Say, Ela has been looking for you."

"Ela? Yes, Ela. I want to see Ela. . ."

She came down the walk, and took him by the hands.

"*There* you are, you elusive boy! I want to go home now. I simply have to adjust my crystals or they'll overflow the bedroom. Oh, Matya! Thank you for a splendid time. I'll be having you over next week, don't forget."

Then they were down from the hill and in the park, and the party flowed on behind them, forgetting.

THEY WERE home again, and Ela hurried off to add nutrients to the huge crystal sculpture that was growing in the bedroom. It glowed and vibrated in every color of the spectrum, and strange textures developed at those edges where Ela hovered with a glass dropper and her chemicals, touching, wiping, smoothing. . .

"Oh, it nearly got away from me over here. I *must* get these reds to balance, or the whole thing will never refract properly at all. Did you know, Seth—they want to erect it in Central Plaza when I'm finished! Isn't that wonderful?" Her pleased face sparkled as she worked.

Sethos sat on the bed, folding his hands in his lap. Still stunned by Paton's reaction, he gazed absently at the floor.

"Ela, I met a man tonight. He is a very important man."

"Yes, there were *so* many dolls there. I only wish I had met Andian again. He'd be so jealous if he knew I was acclaimed for exhibition in the Plaza."

"I don't mean at the party."

Ela turned. "Really, dear? Where was he?"

"In the office of Mr. First. He wanted to talk to me."

"You went outside zone? Whatever for?"

Sethos rose and took her shoulders firmly in his hands.

"This man is from another planet, Ela. He told me that people live all over the universe!"

"You don't say!"

"They left the earth a long time ago. They've traveled between the stars for centuries and centuries!"

"That's wonderful, dear. Help me with this pot of dye, will you, Seth?"

Sethos drew back, unbelieving.

"Ela. . . The stars are trillions of miles apart. Men have learned to fly between them somehow!"

"It's breathtaking. The dye?"

"Quintillions, some of them! Think of it, Ela!" Sethos was shaking with agitation.

"Dearest," said Ela, moving away from him, "do you think we might move closer to Center after my Plaza crystal is finished? I'd like to be able to look out and see it every morning in the sun. . ."

She wasn't listening! *She didn't care!*

"Ela. Ela, love—listen to me! What's wrong with you? Can't you *see?*" His voice shrank to a whisper.

She smiled tolerantly. "Of course, dear."

"I'm telling you something no one has dreamed of before and you fuss about your crystals! Don't you ever get sick of this little cage? Don't you ever feel like getting out and running away?"

"Cage?"

"I'm telling you the earth can be ours! People can live like mechanoids if they'll only wake up and stop their childish play!"

"But why, dear?"

"*Why?* We were *meant* to, that's why. Because we've already *done* it, or someone has. But *we're* still here, left behind. We've got to catch up!"

"How silly." She returned to her chemicals.

Sethos felt a burning rage seize him. This woman he had loved—she was only a shell, a stick of wood, with no ideas of her own—no curiosity. Nothing! And she didn't have the faintest notion what he was talking about. She didn't *care!*

Furious, he grasped a heavy bronze ash tray and hurled it, hard as he could, into the mass of shining crystal that filled the room. With an explosive rainbow of color and a reverberating crash, it collapsed under the heavy blow into a million tiny fragments.

He stood, glaring at the scattered shards, waiting for Ela to leap at him, screaming and clawing him for the ruin he had made of her masterpiece.

But she only smiled weakly, and shrugged.

"Dear, that was very irrational. I think you had better request therapy one of these days. Now I shall have to start all over again. But don't fret, sweet. I had a much

better idea anyway. I can get sensational results using fluorides."

She wouldn't fight him—she couldn't think of such an act, raised in a world where coercion and violence did not exist. She didn't care about *anything!*

Calm now, he knew what to do. Striding swiftly from the house, he went straight to the vehicle space. He got into an autocar and slammed the door.

"Direction, please."

"Contact Dispatching. Ask for permission to go directly to first level primary. Tell them it's Sethos."

Pause. "Permission granted."

COME IN, Sethos. What can I do for you?"

Sethos looked around the room anxiously.

"I want to make a request, Mr. First, if it isn't too late."

"Too late?"

"I would like to see Hol before he leaves. Is he still here?"

"Perhaps I can arrange it. His time is budgeted, you understand."

"I *must* see him."

Mr. First was silent for a moment, and Sethos realized he was contacting someone. Then, he announced, "Yes, he's willing to see you. Go through this door. His compartment is the second down the corridor."

Sethos thanked him and hurried out. Finding the door, he hesitated an instant, then went in.

"Good morning," said Hol.

There was a second man standing beside him, dressed in the same manner and of the same stature as Hol.

"I had to see you," Sethos began hastily, not expecting to encounter two men.

"I see. This is Bek, a field observer. He was at your party last night."

Sethos remembered the stranger he had taken for a spying apprentice on the hillside. He felt embarrassed, but brushed it aside.

"I . . . want you to take me with you."

Hol looked at his companion.

"I don't fit here," Sethos went on. "Mr. Third himself said I'm more intelligent than the others—I'm the only one who knows what your visit means. I want to go where people are interested in learning and progress. If I stay here I'll have to fool around with a hobby the rest of my life. There's no work, no expansion. You can see why I have to leave, can't you? I'm the *curious* type."

"You don't know what you're asking."

"Why? Can't you take me with you? What harm would it do?"

"Well, there are rules."

"But—I'm not just anybody. I'm an exception to the rule. I qualify as a genius—you mean there isn't a place for me *somewhere* in the universe? Surely you can use a smart man!"

"You are a genius, that's true," said Bek, in a deep, serious voice. "As long as you remain here. Hundreds of centuries ago, your ancestors discovered principles that are not even expressible in your language, and learned to apply them to matter. Soon they knew no boundaries. The earth was not for-

gotten, but it was no longer important. It still is only a statistic. And we are here to examine it briefly. We have many others to visit.

"You see, Sethos, man changed out in space. He is a long way from your ancestors who started all this. But before those ancient men left, they established Earth as a control planet, to maintain forever a specimen of the original stock. It may have been done out of his egocentric ideas at the time, but it proved wise, for such a specimen is valuable in our research."

"Sethos," said Hol, seeing the bewilderment on the young man's face, "the mechanoids who attend your little community are more than one hundred thousand years old. That is how long your little culture has been faithfully preserved, just as it was then. You would not be capable of living elsewhere in the universe now. You could survive, perhaps, bright as you are, for a century or so, and then die, unhappy, maladjusted, never finding another of your own level. You are, after all, a savage."

Sethos was dazed.

He—an atavism, a prehistoric man! No wonder his people behaved as they did—they were merely a docile herd of caged animals, kept complacent and well-fed by the keepers outside. An extinct beast, left to be tended until the earth reached the end of its course as a flaming speck in the infinite cavern of space!

"You—you *must* take me! I couldn't stand it now. How can I go back, knowing we're just a miserable experiment? Please—I'll go crazy!"

"Even now you exhibit one of your primitive traits—pride of being a man. But you will adjust to life. It is as it should be."

"But—"

"I'm sorry. There's nothing we can do."

"No, wait—I . . ."

The two men were gone.

Sethos stared. He was alone in the room. A constriction grew in his throat, and he felt weak. Indeed, man had changed.

"Sethos?"

Mr. First stood in the door.

"Yes . . ."

Now the pattern was clear. Sethos—the curious man, the genius—was doomed. He had lost a battle in which he never had a chance. Still, he had fought.

But walking down the corridor with the mechanoid, he knew that no one lost completely. He knew that Sethos, the human, the adjusted hobbyist, would soon look back on this night as though it were an ordinary phase of life.

Then, on the table, with the gently humming mechanism lowered to his head, the knot in his throat softened.

"All yours," said Mr. First to Mr. Third.

"A remarkable case," said Mr. Third. "Sometimes I wish we kept a record of his kind. It might be very interesting."

"Someday, perhaps. When our work grows dull."

• • • THE END


EMSH

A young man and a young woman alone on the first over-the-moon ship. The world cheered them as the most romantic adventurers in all history. Do-gooders decried them as immoral stunters. Gaunt, serious militarists pronounced them part of the most crucial experiment ever undertaken . . .

FLY by NIGHT

By Arthur Dekker Savage

Illustrated by Ed Emsh

THE GENERAL introduced them in the ship's shadow, a trim lieutenant, a clean-cut major. "You probably already think of each other as Carol and Ken. At any rate, there are no two people in the world who have heard as much about each other without previously meeting."

She offered her hand and he took it, held it for a long moment while their eyes locked. "Hello, Carol," he said warmly. "I'd have known you from your pictures." And he realized as never before what a poor substitute were the hoarded scraps of paper.

"Hello—Ken." A smile made her face radiant. "I've sort of studied your pictures too."

Ken turned his eyes to the crowd—a roaring, cheering multitude surrounding the poised rocket ship here on the California desert in this zero hour. To certain harried physicists and engineers, it was a moment promising paramount achievement. To romanticists of 1966, watching their video screens avidly, it was fulfillment of their most sensual dreams: a beautiful girl being given wholly and unreservedly to a handsome young man; the flight around the moon was merely an added fillip. To a few gaunt military psychologists it was the end of a long nightmare of protests by women's clubs, demon-

strations by national female societies and actual attempts at murder by fanatical blue-noses; and a mere beginning of the most crucial experiment ever undertaken—which *had* to be a success.

Suddenly Ken was angry at the knowing looks from the throng's nearest ranks. While the general continued his prepared speech into the mike, focus of the hollow, hungry eyes of the video cameras, Ken pulled Carol to his side and held her with an arm about her waist, glaring when the crowd murmured and the cameras swung their way again. He had not questioned the actions of the military, of the world, before. But now—a public spectacle—

During the years of rigorous, specialized training almost from childhood they had kept him away from Carol, teasing him—it was the only word that now occurred to his mind—with the dangled promise of her presence on the flight. They had let him see her pictures — intimate, almost-nude photos harvested by the gossip columnists, snaps of her glory in bathing attire as she lounged by a swimming pool.

Swimming. Since he had been selected as a boy, every free afternoon he had been made to swim, swim, swim—developing the long, smooth muscles they wanted him to have. It had been, he knew, the same with Carol.

Had they taunted her with his pictures too? Had she responded by wanting him, loving him, longing for him? How did she feel about their first moment together being shared by the greedy eyes of continents?

The President was speaking now, rolling sonorous sentences into the mike, words which would officially sanction this unorthodox act of the military, which would justify the morally unprecedented dispensing of maid to man without benefit of —anything. Because the psychologists had wanted it that way. Ken leaned down to whisper in her ear, "I wish I could get you inside the ship."

She looked at him with sudden coolness. "Impatient, Major?" She turned away quickly and he could feel her body stiffen.

Had he said something wrong? Or—the new thought was jarring disharmony: did he represent the end of this girl's—*his* girl's—hopes for a conventional, happy marriage? Did she think him the altar of sacrifice, whereupon she would accrue the moralist's scorn and, tomorrow, attract only the lecherous? Or was it just an act? What, besides ship and instrument operation, had they taught her?

Grimly he listened to the President, who was then extolling their merits as though—well, as though they were some sort of laboratory specimens. ". . . acute hearing, 20/10 vision . . . perfect health . . . highest combination of intelligence and fast physical reactions . . . exceptional bravery and loyalty." Cheers. ". . . intensive training . . . youngest to receive their military ranks . . . expert pilots . . . *fittest humans for this attempt.*"

Stubbornly, Ken continued to hold her waist. He watched the sun sneak around one stubby wing of the *Latecomer.* He'd need those

glinting wings to land. Land? What were the actual odds against circling the moon and landing again on earth? That phase—and a lot of others—had never been discussed. The speeches were over and he put the thought from his mind. They were extending the mike to him, waiting for his farewell—or his last words?

Abruptly, ignoring the mike, he swung Carol up the ramp and crawled in through the port behind her.

IN THE narrow confines she slipped out of her uniform. She glanced at him once, quickly, then cast down her eyes. "You don't have to look, you know."

There was a hurt in his throat. "I want to look, Carol. I don't ever want to stop looking at you. I—" He choked off, tore his eyes from her and hurriedly began to get out of his uniform.

Hidden from the spectators outside, they divested themselves of all but filmy, clinging, chemically inert garb. Carol's body was sheathed in a kind of sarong. Ken wore a short, kilt-like affair. They pulled on soft, tough-soled sandals. The medics had insisted on this specific attire, but the psychologists had planned it that way. Their discarded clothing was dropped into a basket. Ken shoved it out the port, down the ramp, slammed and bolted the hatch. Then he stared at it. Clamped to the inner side were two knives: one was about the length of a bayonet, shaped like a saber; the other was half that length, and straight. Both were sheathed, with belts wrapped around checkered handles.

All his official instructions flashed through his head in an instant. All the technical data, instrument operation, procedures, emergency measures. There had never been mention of knives. Except—of course. Survival training. If he were unable to bring the ship to its proper destination, was forced down in uninhabited territory, a knife would be essential equipment. But so would a gun, fishing tackle, matches, clothing. . .

The ship's radio said, "Fourteen minutes to take-off."

Ken flung himself on the couch. Carol moved in quietly beside him.

"You understand, Carol," he said, "you're to touch no controls unless I'm unable to."

"Yes."

"You'll handle the cameras only, but you'll keep reminding me of every step to be taken, as though I'd forgotten, and make sure I answer sensibly each time."

"Yes, Ken."

Yes, *Ken*. A pulse throbbed in his temple.

They watched the crowd on the screen—scattered now, far from that area below and behind the whip which would be washed in radiation. They listened to the radio calling off the minutes before departure. Ken kept his thoughts on the structure of the space vessel, similar in many ways to vastly cheaper atmosphere models he and Carol had flown—separately—for hundreds of training hours. Behind them, and lining the inner hull, was a light, spongy wall protecting them from the

atomic converters aft. The surrounding couch could be regulated to form a resilient cocoon during high-G acceleration and deceleration, or during periods of weightlessness. Forward were the controls, instruments and hooded viewport.

Escape velocity was not needed to pull away from gravity. With atomic engines and the new, low-mass shielding, fuel quantity was a problem of dollars only—and none had been spared for this voyage. The psychologists had seen to that.

"Eight minutes to take-off."

He started the atomic reactors, a mighty purring here in the sealed cabin. Gently, watching the instruments, he tested bow and stern rockets, matching fore and aft forces delicately, tentatively increasing stern thrust until the craft barely stirred in its silicone-greased, magnetized launching rack.

"Two minutes to take-off."

They placed their faces against soft masks in the couch, down through which they could watch the instruments, in a mirror, the video screen and bow viewport. The couch encompassed them, their arms in padded slots reaching to the controls.

". . . thirty-four, thirty-three, thirty-two, thirty-one . . ."

Thunder hammered at their ears. The couch squeezed them as the *Latecomer* shot beyond its ramp, increased its velocity. Ken gripped a lever which cut in the autopilot to take them beyond atmosphere, beyond gravity.

KEN UNHOODED the viewport, leaving covered only that section which blocked a tiny blinding sun. They stared into an utter, absolute ebony that suddenly seemed to be straining against the thick canopy, mocking the dim lights of the compartment. For many hours now, nothing to do but wait and watch, make occasional control corrections.

He caused the couch to relax, offered Carol a water sausage. They had eaten nothing, and drunk but sparingly, since twenty-four hours before take-off. Her hand touched his as she took the container. It was like an electric shock, and his heart thudded. Deliberately, he brushed his fingers over hers, clasped her wrist, looking at her.

She became motionless. Then she looked up at him, lingeringly. Her lips parted.

The pressure within him mounted. Almost reverently he reached for her—then stopped when tears formed in her eyes. He drew back, uncomprehending. Could desire be coupled with sorrow? Or was he merely reading desire into some emotion not remotely connected with passion? She had been given to him without reservation, but he could not bring himself to take her unwillingly. The difference, he realized, between love and lust—damn the psychologists. He let out his breath, fumbled in a small plastic box near the controls, dug out several nutriment bars. He handed a couple to Carol without looking at her and munched unhappily at the chocolate-flavored ration.

They watched the blackness of space for hours. The stars appeared as bright glowing blobs sunk dis-

mally far into the heavy depths of some Stygian jelly. It was a time to be savoring the first experience of man beyond his mortal sphere, but Ken stared unseeingly, his mind dulled, vacant with indecision and disillusion that was almost a physical hurt. The zest of adventure, in the midst of adventure, was throttled before it saw life. The sustaining dreams of training and preparation were dusty misery. Robotically, he watched the instruments, occasionally made microscopic adjustments. Carol's hands, close to his, infrequently changed camera settings.

Unexpectedly the radio sounded. Ken tuned to maximum volume, strained to hear the muted words. It was a moment before he realized they were drawling, abnormally slow, like one of the old spring-wound phonographs running down. When he caught it, the message stunned him.

"*Late-comm-merr* pers-sonn-nell. Re-turnn noww, noww, noww. E-merr-genn-cy orr-derr of the Prezz-zi-dent. *Llate-comm-merr* pers-sonn-nell . . ."

He listened to it twice more before silencing the radio. Turn back? Now? He looked at Carol. She returned his stare, drawing her arms up out of the slots and leaning on her elbows, frowning in puzzlement. Her breasts were pendent promises of—further disappointment? Were both love and life to be reduced, in a day, to twin voids of defeat? Love was Carol and life was a successful flight around the moon.

Discipline kept his act just short of viciousness as he slapped the controls back to manual. Grimly he silenced the stern rockets, cut in the bow units slowly. The flight was to have been a loop "over" the moon, almost intersecting its orbit at the precise time it swung ponderously by. What possible emergency could have arisen?

KEN COULDN'T remember just when the fear had started —maybe on the way outward, now that he thought of it: the feeling of deep depression. They were in free fall, weightless, the couch adjusted to keep them floating within a few inches of its confines. The brilliant, abandoned moon had just swung behind its big-sister world, the glaring furnace of Sol was still thwarted by a section of bow hood.

He felt the fear mount—little tugging fingers frantically at work within his chest. The blue sphere of Earth seemed to recede in the black muck, although he knew it was only an optical effect of space—of the vast, scornful emptiness in which the stars were but helpless, hopelessly enmeshed droplets of dross.

He shivered involuntarily. With the movement he touched the side of the couch and rebounded against Carol.

She screamed.

He stared at her, his fear mounting swiftly through panic to abject, uncaring terror. Carol had drawn herself up into a knot, the fetal position of infantile regression; her eyes were wide, unseeing, her mouth open in the scream that was now soundless.

Ken felt his mind brinking on madness. He continued to stare in a

terrified frenzy until, from some tiny nook of sanity deep inside him, came the realization that this was Carol beside him—Carol, who was his, who needed him . . .

He fought. He staggered up from depths of bleak despair, aided by that deep-rooted male instinct which rouses raging fury at danger to his beloved. The innate protective impulse was heightened, strengthened by that emotional desire which is strongest at first contact, undiluted by familiarity and the consequent dissolution of ideals. The prime strength of manhood blasted in a coruscating mental flare against the forces of darkness and the unknown. Tenderly, he encircled her floating body with his arms and drew her close. He soothed her as one might a baby.

Slowly her eyes came back from horrific infinity. Slowly they focused on his. And then, comprehension returned, she pressed tightly against him, clung to him, sobbing with the remnant fear of fear remembered.

He talked to her for an hour, caressing, reassuring, until her responses were normal beyond any doubt. Then he told her he loved her.

She raised her head from where it was burrowed against his chest. "*Love* me, Ken? Love *me?*"

He blinked in astonishment. "Of course I love you. It seems like I've always loved you. I tried to tell you. I—"

But she was crying again, shaking her head a little, saying, "Ken, Ken," over and over.

This time he continued to hold her intimately close. "What's the matter? Anything wrong with love?"

"But Ken—you could have any girl in the world!"

"Me? Where'd you get that idea?"

"Why, everyone knows the story of your training, and what it was for. The swoon clubs must have sent you tons of letters!"

"I never got any."

"Censors?"

He shrugged. "Could be. I used to drive myself nuts thinking of all the guys you must be going out with. Your story was spread around just as much as mine."

"They picked my few escorts with care. I used to lie awake thinking of you running around with hundreds of girls."

Ken snorted. "The army kept me too busy. I went out with a few, but I never loved anybody but you. Hell, I'm only nineteen, you know."

She nodded, her eyes bright with happiness. She was a year younger. Then her words came in a flood. "I couldn't believe you'd love me. They told me I was to go with you and do anything you said—anything. No explanation, but I knew what they meant and I agreed because you were doing such a great thing for the world and—I wanted you too. But I thought you'd just want me for the trip, and afterward you'd go back to your other girls, and—"

He kissed her. Again. And again. Surely there never was, never could be, a greater delight embracing than in the floating, heady, free fall of null-G. Certainly the psychologists knew no other method of retaining sanity in the cruelly endless jet pit engulfing the stars.

Which was why they had planned it that way.

WELL OUT of atmosphere he began to brake skillfully, easing the craft into an orbital arc that would later be changed to a descending spiral. Biting into rarified air, he adjusted the hull heat distributor, cut in the refrigeration unit, increased oxygen a trifle. He removed a small envelope from its taped position on a panel and opened it to read his landing instructions. Then he looked questioningly at Carol.

"Southwest Oregon. The Oregon Caves National Monument. We're to go in on a beacon signal."

"You don't suppose they want us to show survival ability?"

"On a deal like this? No, something's haywire here. First, there's not a strip that'll take the *Latecomer* for at least a hundred miles around, and the only road into the area twists like a snake. This baby wasn't built with a chute, either. Second, it's only about ten miles from some ranches, even if there's no one at the chateau, so it wouldn't be a survival problem." He dropped the craft's nose a few more degrees.

"Are there any more instructions?"

"Must be." He unfolded the slip. " 'Abandon ship immediately upon landing. Enter bronze portal to Caves with all possible haste. Look for inscribed square beside door, with a slot at each corner. Activate door as follows: simultaneously insert curved blade of longer knife entirely in upper left-hand slot, and straight blade of shorter knife entirely in lower right-hand slot. Extreme emergency. Memorize and destroy these orders.'" Carol hadn't seen the knives.

They lay in stunned silence until she gasped, "But, Ken—this means they *knew* about the emergency before we took off!"

He nodded grimly. "We were never supposed to reach the moon." He crumpled the paper, thust it into his mouth and chewed on it awhile, then slipped it into the waste disposal unit. "Well, we'll pick up the beacon and buzz the Caves area for possibilities. There was nothing said about making radio contact, so we'll just listen in. Want to take over the radio on the way down?" He forced the *Latecomer* into as tight a spiral as he dared. The wings were still useless here in the ionosphere.

Carol turned on the receiver, dialed expectantly. "Ken—the whole band is silent!"

"Take it easy, Lieutenant honey—we're barely through the F_2 layer."

But all bands remained dead except for sun static. Rockets chattering for a 2G brake and directional control, they plunged through the F_1 stratum, losing Sol behind the eastern rim of Terra. Down, down for dim countless minutes, through the thin ionization of E, past the lowest ranges of auroras and noctilucent clouds and below the ozone layer. Still no signals of any kind on any frequency.

At last Ken leveled off in the troposphere, at an altitude of five miles. A placid, swollen sun rode into view while they flashed west-

ward over the Atlantic in a straight and lowering course that would take them over New York. The momentous—even though aborted—flight was over. Each tiniest mechanism of the *Latecomer* had functioned perfectly. Ken took a deep breath at the sheer pleasure of normal gravity. Man held the key to the planets, at least—if the psychologists could figure some way to nullify the soul-shattering fear imbued by deep space. Or had he and Carol reached the maximum distance life could tolerate? Was that the foreseen emergency, withheld from them lest it sap their carefully-nurtured morale? He felt a vague, gnawing worry about the silence of earth's transmitters.

New York would supply the answer. Over New York the cacophony of blaring broadcasts would practically tear the receivers from their moorings

And New York did yield an answer—of sorts. With Long Island in visual range, and not a sound or a picture on any wave length which Carol's flying fingers tuned in at maximum volume, Ken dipped below legal ceiling to drag the city.

Then his reactions galvanized him to motion of a speed outstripping his thoughts. Hardly hearing Carol's gasp of dismay, he snapped the coccoon tight about them like a sprung trap, blasted the ship's nose to a skidding vertical and spurted away from the yawning craters of New York City at five Gs.

HE LEVELED off in ozone over Canada and relaxed the couch. Unbelievingly, he looked at Carol. She looked back at him, wide-eyed.

"Listen, Carol—we can't both be crazy the same way. You tell me exactly what you saw."

"Well—everything had been bombed."

"What else?"

"There—there wasn't any movement or people or—"

"What else."

"There—oh, Ken, there were *trees growing in the craters!"*

Some of the tenseness left his features. "Okay, honey. Now we know a little bit. The war came and went and there's not an active transmitter in the world. Somebody knew it was coming, even before we left, so they want us to land at a hideout in Oregon. There'll be a landing strip there—they've had more than a month to build it since I was at the Caves, and it only took a day for the whole war, for the radiation to clear up—and for twenty—maybe fifty-year-old trees to grow!" His ending sarcasm was directed at himself; youth angers at the spur of illogicalness.

Carol pressed his shoulder and kissed him. "Darling—maybe we shouldn't even think about it now. They must be waiting for us in Oregon."

"Yeah," he said absently. "Wonder what happened farther inland?" He herded the *Latecomer* down along the border of Lakes Ontario and Erie. Cleveland was dotted with lakes, the city rubble choked with brush. On a zig-zag course, Detroit was a wilderness, Chicago almost a part of Lake Michigan. Carol's spirits sank with each revelation.

They arced high above the jet winds, on course to Oregon.

Ken almost shouted with joy when their beacon code came in weakly, strengthening as they approached the Pacific. Carol hugged him until he relinquished control to the autopilot and gave her his undivided attention.

The chronometer ticked away time, but Sol gave up the unequal race, and so it was another morning of the same day when Ken slipped the *Latecomer* over the mighty Cascades, homing on the beacon until they both saw the outline of a long, level, arrow straight runway carved from forested mountainside and spanning chasmal, growth-choked gulches.

But it was the outline only, discernible through a light rain. "At least two years' work," mused Ken, "littered with at least a hundred years' debris. *And we've only been gone a day.*" He killed signal reception, circled the runway.

Carol pressed his arm. "It's been longer than a day, Ken. I mean, we've actually used up more time, because it was morning when we were over New York, and it's still—"

"Okay—day and night don't mean much. But we've clocked a little over thirty-three hours since we took off. That's *our* time."

There was a catch in her throat. "I know, darling. Something's horribly wrong. Everybody we know must be dead!"

His jaw set, then he said gently, "Snug down, kitten, we're going in."

She glanced through the port. "But how can you land on *that?*"

He tightened the couch about them. "Blow the stuff out of the way," he said cheerfully. "Maybe." He swooped in from the east. "Keep an eye peeled for the Caves' entrance—I bet it won't look like it did last month."

The *Latecomer* touched the runway at little more than a hundred miles per hour. Its forward rockets braked sharply, blasting aside the scattered dead limbs and smaller trees—roaring, bucking and hissing. Its underside buckled from triphammer contact with rock slides and a few larger logs. It grated to a bumpy halt, gouged, scarred, split, its warped hull a forever useless thing.

Before opening the port he buckled the long knife at his waist, had Carol do the same with the short one. He climbed out, breathing deeply of the warm, moist air, savoring the incense of pine while helping Carol to the ground.

THEY AVOIDED the radioactive path made by the ship, picked their way along the side of the strip until Carol pointed and cried, "There it is!"

Ken gripped her arm. "You follow behind me, and if the welcoming committee moves this way you get up in that big madrona over there."

"What?"

He pointed out the bear, watching from a wet tangle of brush. "If it's a male—or a female with no cubs—we're probably all right."

"Oh. But what will *you* do?"

"Don't argue, Lieutenant." His hand moved to the pommel of his

knife. Ranger training wasn't exactly qualification for tangling with a bear, but long odds were becoming commonplace.

The animal remained where it was. They climbed over a rock slide and faced a wide bronze door protected by a concrete foyer. Out a way from the door was—

"Look, Ken—that's been a recent campfire!"

He whipped the blade from its sheath. "C'mon, kitten—get that knife out!" He vaulted the ashes.

A six-inch square was cut deeply in the dense metal. Ken poised his knife over a slot, and as Carol plunged her blade into the wall he rammed his home to the guard.

With a squeak and a sigh the door, terraced like a vault portal, swung outward slowly. Ken grabbed a recessed knob to hurry it up. Lights flashed inside, flooding a man-changed interior.

He leaped across the raised threshold, dragging Carol with him, swung the door shut and shot home two great bolts on its inner surface. On a rack just beside the door was an automatic rifle, ready for instant use. The psychologists had not known about the campfire, but they had planned for the possibility of a hostile builder.

Ken and Carol looked about the first of the labyrinthine caverns. Squared walls were lined solidly with glass-enclosed bookshelves stretching as far as they could see. Crowding the floor were machines, cabinets of tools, implements, instruments, weapons and medical and surgical supplies.

They moved to stand before a large video screen set near the door. Ken flipped the single toggle below it. A scene grew, showing a white-haired army colonel seated behind a desk, facing them.

"Ken—it's Dr. Halsey," Carol whispered.

"*Was* Dr. Halsey," said Ken heavily. "I used to wonder if we had the same instructors."

The officer's lips moved. "Hello, Ken and Carol. I've been selected to make this film to greet you, and I know both of you will return to see it." His eyebrows lifted in the quizzical expression they knew well. "I'm going to rattle off a lot of explanations and suggestions, but I imagine the first thing you'll want to know is how all the things you've seen could have happened so quickly. And knowing that, will clarify the rest.

"You remember the experiments the Air Force made, sending small animals above the stratosphere. By means of controlled diets and more complicated devices you'll find explained in a book, we learned that these animals were not subjectively experiencing the time-span they should have aloft. In effect, they were aging hardly at all away from gravity—the farther away, the less aging.

"We got some fairly accurate figures on the time-distance ratios. Briefly, assuming you held to your course until you were recalled, you can figure that an average of ten years has elapsed on the earth's surface for every hour you were in space."

Ken muttered, "We were actually out of atmosphere about twenty-four hours. That would make it the year—"

"About 2200," finished Carol breathlessly.

". . . how or why, but that Time was evidently a variable. The realm of physics was a madhouse—discreetly so, lest our enemies profit by our knowledge. There is no visual or other subjective means to sense the deceiving change in time-rate, or its illogical effects; we knew, for instance, that you would not see the moon as a solid ring girding a gyroscopic earth, as might seemingly be expected.

"Your message of recall was a record, slowed down to be within an intelligible range of fast chatter or slow drawl when you received it. We could have told you to open the envelope at a certain time or distance, but even minutes and miles were critical and"—the pictured features smiled paternally—"we knew your interest in each other might cause a delay, while"—the expression changed to serious sympathy—"we didn't know just when Space-Fear would strike."

Carol blushed and laid her cheek against Ken's chest. "They knew everything that would happen, didn't they? They—they *planned* everything!"

He crushed her to him. "Lucky they did, honey. Seems like they've put all their hopes in us."

". . . imminent war, and what radiation would do to surface life. We could not go with you, nor was there time to build underground installations for surviving more than half a century and emerging to a temporarily unproductive soil. We selected you to inherit the world, and you have had the hopes and prayers of your nation and your people."

They sat on a low chest and listened to the psychologist's voice for nearly an hour more. He finished on a message of hope. "You have seen the results of war. With the knowledge and material at hand, and the atmosphere craft waiting at the sealed exit, you can contact what survivors' decendants you may find in hidden corners of the world and lead them to the peaceful glory of Earth's future.

"Obviously, life will not visit back and forth between the stars, or even the planets. The laws of Space and Time confine man to one world—but it *can* be made the best of all possible worlds, free of war within, and free of conquest from without, since the reasons which keep man from visiting other spheres will keep other life from visiting him."

The screen faded and was silent, followed by a clear, trilling whistle which swelled in a paean of lilting sound. While Ken squeezed Carol's hand in mounting amazement, the piping strain formed clearly into words—

With understanding of universal laws, life may do as it wills, go where it wills . . . we have come to your planet to help you . . . may we?

The psychologists had not foreseen quite everything . . .

• • • THE END

Sextus Rollo Forsyte had his trouble with the bottle, but nothing out of a bottle ever *produced such a hotel as the Mahoney-Plaza: only 260 rooms . . . only two guests to a room . . . but accommodating 5200 guests*——all *at the* same *time! . . . Floor please?*

FORSYTE'S RETREAT

By Winston Marks

Illustration by Kelly Freas

AT LAST he was second in line. He squared his shoulders and pulled at the lower edges of his black double-breasted suitcoat to erase the travel wrinkles. The applicant ahead of him exploded the words, "Nuts! I'll leave town first. I just *came* from the Phony-Plaza. You can take that squirrel-cage and—"

"Next!" the employment agent called sadly. Sextus Rollo Forsyte moved up and sat in the oak chair before the oak desk and faced the oak-featured man with the jobs.

"Forsyte is the name," Sextus reminded. The man riffled through the application cards.

"Yes. Indeed. Lucky you came back. I have a fine position for you, Mr. Forsyte. Right in your line." He held out a blue slip. "The general manager's position is open at the Mahoney-Plaza. Six hundred a month, board and room. Now if you will . . ."

Sextus staggered from the employment office stunned.

He could handle the job, all right. As he'd said on the application form, in his forty years he had managed half a dozen large hotels. But they were handing him this plum without comment on his failure to fill in the spaces marked: COMPLETE REFERENCES (names and addresses).

He shrugged. They did a lot of things different in California. The most he had hoped for was a waiter's job or maybe a short order cook in a fry joint. But if they wanted

to ignore the hotel associations' black list, he wouldn't argue.

Sextus Forsyte craved anonymity with the passion that most men seek fame and glory. Beneath his suave, mature exterior beat the shrinking heart of a perennial hermit whose delight was an adventure book and a bottle of whiskey.

His recent employer had not objected to his fondness for reading nor solitude, but his appetite for liquor had revealed itself in a series of unfortunate crises which plague the life of any hotel executive.

Yes, Sextus Forsyte had sought his solitude in that remotest of all places, the large city hotel. His career of smiling at strange faces, welcoming famous people and snapping crisp commands to assistant managers had provided the near-perfect isolation from normal society. To the transient eye he was the poised, gregarious greeter. Actually he lived in a deep well of introversion. Of course, this was no affair of the succession of boards of directors who had uttered the harsh charges of "dipsomania" and fired him. But then boards of directors are never notable for their sympathy or understanding.

And finally word got around the eastern seaboard about Sextus. "A competent man, yes. Drinks on the job. Wouldn't have him as a busboy."

Worse than the mere prospect of unemployment was the notoriety. Coldly sober, Sextus had fled panic-stricken to the west coast, vaguely determined to become a beachcomber or an oyster-fisherman or whatever they did out there.

He stared now at the blue slip and turned in to a florist shop. He broke his last five-dollar bill to buy a pink carnation for his buttonhole then headed down the sunny walk to the hotel. It was a fine December morning in the little beach town, such as only Florida and California can advertise. He breathed the salt air and turned an appreciative ear to the gentle wash of the Pacific surf. He felt so good he might even take a little breakfast before his first drink of whiskey of the day.

AT THE BUS depot he traded his baggage checks for two old, but fine leather, two-suiters. Then he taxied the remaining two blocks to the Mahoney-Plaza.

He paused at the entrance, stepped from under the marquis and looked up mystified. The frontage indicated a rather small hostelry to pay such munificent salary to its general manager. Only five stories high, it was squeezed in by low office buildings on either side like an ancient, narrow-chested old man.

He handed his bags to a bell-hop and stepped into a spacious lobby. It was decorated with fine furniture, thick carpets and throngs of expensively undressed people.

The boy put his bags down before a remarkably long room-desk manned by three white-suited clerks, but Sextus touched his arm. "Just take them up to the manager's suite, please." The boy eyed him from carnation to dusty shoes.

"Right off a park bench. It figures, though." He got a key from the desk clerk, picked up the bags

again and they started for the elevator alcove.

Sextus' practiced eye vacuumed details from the lobby, the well-swept carpets, freshly emptied sand-jars and the modern elevators. The place seemed well-ordered and enjoying convention-magnitude business.

He started into the first elevator, but the operator warned, "To Wing 'A' only!" with such a question in his voice that Sextus looked back for his bellman. That person, a sandy-haired stripling of some five-feet-four, was trying to wave him on with his head.

"Not that one," he said impatiently. "Over here. Wing 'H'." Then Sextus noticed there were five elevators on either side of the alcove. Each was plainly marked with a letter, running from "A" through "J". This was a new wrinkle. Elevators were a mode of strictly vertical transportation, meaning, as a safe generality, that they travelled in parallel routes. Why, then, differentiate for separate wings when they were all grouped together in the first place?

And, incidentally, why *ten* elevators for a 200 or so room hotel, anyway?

They rode to the fourth floor in one-level leaps, stopping to unload several guests on each floor. The upper floor hall was of modest length, running fore and aft of the long, narrow building, as he had first sized it up. Where were all the *wings*—the wings with the separate elevators?

The boy let him into the light, airy apartment, dropped his bags in the middle of the floor and started out abruptly. Sextus called him back.

"Yeah, what'll it be—Chief?" His voice was derisive.

"How many rooms do we have here, fellow?"

"Twenny-six hunnerd and all full for the season, so if you'll just leggo of me—"

"Don't you enjoy your work here?"

"I detest it. Go ahead, fire me, chum. I'm lookin' for an excuse to clear out."

"Very well, you have one. Check out with the captain." Sextus couldn't tolerate discourteous familiarity. Friendly familiarity was bad enough, but the "chum" did it.

The boy banged the door behind him.

Sextus opened his bag. From it he extracted a fifth of whiskey which he took to the tiled bathroom. He stripped the cellophane from a drinking glass, poured it half-full of the amber liquor and drained it.

He was in the shower when the phone rang. He dripped to the night stand with the patience of one who has soaked many a rug and discovered that they don't stain. "Forsyte here!" he answered.

"The new manager? Well, this is Jackson, bell-captain. Whadda you mean canning Jerry? I'm down to twelve skippers and you start out by firing one of my fastest boys!"

"The boy was sarcastic and insolent. Take it up with the service manager. Anyway, how many bellmen do you need to run this cracker-box? Twelve is about eight too many."

There was a brief silence, then: "In the first place *I am* your service manager, or all you got at the present. In the second damned place, you tell me where I can lay my hands on ten more boys before you go canning any more. I'm rehiring Jerry as of now!" He banged the receiver in Sextus' ear.

Unperturbed, Sextus finished his shower, dressed in a lighter weight suit and picked up the phone. The house switchboard apparently was jammed. It took a full minute to get an operator. "Forsyte here. Your new manager, that is. Instruct all department heads to be in my office in seven minutes. General conference."

ANOTHER short nip at the bottle served nicely to quiet a small hunger pang. He went in search of his office. He found it on the mezzanine, suitably lavish, clean and well-furnished.

He adjusted the fragrant carnation on his lapel in the large wall mirror, not entirely displeased with what it reflected. Except for the suitcase wrinkles in his morning coat, he should pass inspection. His thinning hair, square jaw and wide-set eyes radiated a quiet dignity. The slight pink of his cheeks and nose was a bit more prominent than he liked. He should have had some breakfast.

The phone rang and he let it. He was not yet ready to assume his duties. But as time passed and none of his staff appeared, the ring became more significant. He gave in.

"Forsyte here!"

"Sorry, Mr. Forsyte," it was the operator, "but none of your staff can join you just now. They send their regrets."

"Regrets?" Sextus said icily. "Did you explain who called this meeting, young lady?"

Her voice dropped the synthetic sweetness and became a throaty rasp. "Look, Buster, we're shorthanded enough without you should call meetings at eleven A. M. Plug the hole in your head. It's suckin' air." He broke the connection. The place was busy, he'd grant, but this was rank insubordination. His whole staff! Everyone seemed keyed to the *boingg!* point.

He decided to mull it over breakfast. The spacious, well-appointed coffee-shop served his juice gelid and his coffee hot, his egg tender and his toast crisp. The bit of tension vanished as he ate with relish. He signed the check with his tight, little introverted signature.

Now for a quick inspection tour to see just how rough things really were. He told the boy on the service elevator, "To the bottom." His stomach writhed as the cage plummeted four floors below the street level. The kitchens, laundry, warehouse, baggage-room, switchboard room, ice-plant and personnel spaces sprawled through an acre of underground levels. They boiled with sweating men and dishevelled women engaged in the intricate business of housing, feeding, clothing, liquoring and catering to a small city under one roof. Then he remembered how small the quarters were upstairs.

How could they *house* enough guests to justify all this?

Returning to his office he called

the employment bureau. "Mr. Crowson? Forsyte here! I'm at the hotel."

"Oh dear, what's wrong now?"

"You didn't tell me to whom I should report. This, ah, is my first experience with employment agencies. Usually there is a board of directors."

"Is that all?" Crowson sighed audibly. "You are in full charge, I assure you. Our little interview was quite satisfactory. I have certified you to your bookkeeping department, and you may draw upon your salary after a week. Anything else?"

"Where may I reach the owner or the chairman in an emergency?"

"The owner is a Dr. Bradford who is in Hanford, Washington. Top secret government work. He may not be contacted until he returns. Sorry, that's all I can tell you. Getting on all right, Mr. Forsyte?" he asked with obvious reluctance.

Sextus cut off. Two lights on the intercom were blinking at him. One call was from the kitchen. The first chef had just heaved a cleaver at the steward, and the head salad girl was in hysterics.

Sextus said he'd be right down. The second call was from the chief house-detective. He had caught a bellhop peddling marijuana to the waitresses. What was the manager's new policy? Sextus told him to hold the boy in the locker room for him. Then one of the room clerks rang to say that Gary Gable, the movie star, was raising hell in the lobby because he couldn't get the bridal suite and demanded to see the manager.

Sextus smiled. These things were the routine of running a large hotel. He stopped at the bar for a quick one and then started for the kitchen.

THE DAY passed pleasantly enough, and he looked forward to retiring to his quiet rooms upstairs. He thought to get some intelligent answers from his assistant manager when he walked in promptly at five P. M., but he turned out to be a university student from Southern Cal, working days on his master's degree in business administration and nights at the hotel. No wonder he hadn't been promoted. Not that he wasn't bright—just not experienced.

Sextus formally offered his hand and introduced himself. The lad said, "I'm Horace Smith the phone is ringing excuse me." He snatched the phone with a harried look.

Somehow the phone never stopped ringing. Sextus gave up and retired to dress for dinner. He finished his fifth of whiskey and descended to the hotel's swank Oceania Room, where he made himself known to the maitre d'hotel. That frenzied little moustachioed person sniffed Sextus' breath and seated him behind a potted palm.

Discreetly avoiding the wine list, Sextus dined well, noting several movie stars and other vip's in the crowded dining room. He couldn't escape the illusion that he was dining at the Ambassador or the Waldorf Astoria—instead of in a five-story rat-trap. Where did they all come from?

As he awaited the elevator, he

was approached by the bell-captain. "Mr. Forsyte?" Sextus nodded stiffly. "Here's an envelope Mr. Patterson left for you. He was the last G. M. Incidentally, sorry I was a little rough on the phone, but you can see our situation here. Understaffed and overcrowded. It gets thick, real thick, brother."

Sextus felt his belly muscles tighten. "Confusion is never improved by discourtesy or insubordination," he said coldly.

At that moment a bellman rushed up to the rebuffed captain who was regarding Sextus with a restrained loathing. "The guy in C332 keeps screaming for his beer, but the service elevator to 'C' vector keeps dumping me off in 'F'."

The captain said, "Try riding to fourth on 'C' and then walk down a deck and come out through the linen room."

"Can't I just ride up the guest elevator, Jack?"

The captain stared at Sextus. "Our Mr. Forsyte wouldn't approve. Now, move!"

He turned to Sextus and said acidly, "Just one of our little extra problems." He moved off with a disgusted shake of his carefully barbered head.

The nature of the bell-captain's special problem sounded interesting, but the details confused Sextus. *Ride to four on "C", walk down to three and out by the linen closet.* Sounded like three-dimensional chess.

His cage arrived and he returned to his suite. He removed his shoes, stripped to the waist and sank gratefully into the soft bed, nestling the last bottle of his suitcase reserve in the crook of his bare arm.

He considered the sealed envelope marked: TO MY SUCCESSOR. URGENT MATTERS.

First he opened a fresh bottle and then the envelope. He flipped through the papers. There were some tax reports ready for signature, two union contracts up for renegotiation and an estimate on re-doing 520 rooms in vectors "B" and "F". Vectors? Did they mean "Wings"?

The last paper was a personal letter, apparently addressed to him. Before he could begin it the phone at his bedside jangled. Operator said, "Would you take this, please, Mr. Forsyte? I dispatched a house man, but the guest is hysterical."

Without awaiting his permission she cut in the woman. "Hello, manager? There's a man in my bed!"

"What is your room number, madame?" Sextus asked with drowsy detachment.

"I'm in H-408," she said, and on the "8" her voice ran up the scale in a quivering crescendo that launched Sextus briskly from his bed. H-408 was his floor and his wing, luckily. He tore out of the suite and down the hall without shirt or shoes.

The door stood ajar, and he pushed it open. In the middle of the floor, still gabbling into the phone, stood a lumpy, pallid woman about his own age, naked except for a pillow which she hugged fiercely to her navel. Her bleached hair was a frayed bird's-nest.

In bed, decently clad in a pair of blue and white striped pajamas, was a rather distinguished, gray-haired gentleman of about fifty,

leaning on one elbow and watching the woman with an expression of mild astonishment and interest. To Sextus' practiced eye, the man was guilty of nothing.

The house detective arrived at that moment, but Sextus dismissed him with a wave of his hand. He went in alone.

"I'm the manager, madam," he assured her. He noted that despite her excited wails, her eyes drooped half shut. A bottle of sleeping pills on the table was uncapped.

"Thizz man, thizz man, thizz man!" she kept repeating and pointing her elbow at the bed. The man in question raised his eyebrows and shook his head.

"Damndest sensation I ever felt," he said. "I'm Johnathan P. Turner, attorney. Before I tell you my story, please check with the desk and verify that I was assigned this room."

Sextus took the phone from the woman's pudgy hand which darted to rescue the sagging pillow. The room-clerk reported that Mr. J. P. Turner was registered to room 408, but in "J" vector, not "H".

Sextus' eyes swept the room. It was an unexplainable mess. Two sets of luggage were jumbled on and around the baggage rack at the foot of the bed. Rinsed out nylons hung from the shower rod, but a man's shaving kit occupied the shelf over the lavatory. Despairing of ever arriving at a sensible explanation, Sextus went to work.

Although hampered somewhat without his shirt, coat and tie, Sextus managed to get Turner and his belongings transferred peaceably to another room and the woman quieted down in bed with another sleeping pill.

Then Turner was allowed to tell his story. "I had turned in early and was lying there on my back reading the paper when suddenly I got the most messy feeling all through me. It was like—oh, hell, I can't say it. Anyhow, in just about a second, something went *thub!*—and there she was in bed with me—naked!" he added with a shiver.

Sextus grasped at a straw. "How many did you have to drink this evening, Mr. Turner?"

The attorney squirmed uncomfortably. "Well, quite a few, maybe, but not enough to—"

Sextus shrugged one shoulder and turned to leave. "Understand, we don't blame you a bit, sir. You know how these middle-aged women can carry on when they get out on the town. You must have dozed off before she slipped in."

"But my door was locked! I think," he added uncertainly.

"We won't breathe a word of it, Mr. Turner. Rest well!"

SEXTUS padded silently back to his room in his stocking feet and took a long pull at the whiskey. Funny thing, this. People often got into the wrong hotel beds, but rarely with such impalpable excuses. He sighed and picked up the letter from his predecessor again. It read:

Welcome to the Phony-Plaza. (That name again.) You will be the fifth manager in 30 days. If you need the job as much as I thought I did you will probably ignore my advice, but here goes, anyway:

RESIGN! BAIL OUT! SKIDOO! (The man was emphatic.) I can't tell you where they've got the 2600 rooms in this haunted ant-hill, but believe me, they are there, and you'll be sorry if you hang around long enough to prove it.

My predecessor left a garbled note about some *hyperspace* system that the owner, Dr. Bradford, has figured out. Actually, there are only 260 rooms, as you've probably surmised. But this Bradford, who is a nuclear physicist, by the way, has installed some sort of field generator in each elevator shaft that gives entry to these rooms at *ten different locations in time.* Room 500, for instance, in Vector A is 10 years from Vector B. So when you run to capacity with, say, two people to the room, you have 5200 guests in 260 rooms! They all live by the same calendar, but in their rooms they are actually centuries apart. How do you like those apples?

It's all quite neat and economical, what with the cost per front foot of this beach area zoned for business, and you'll find a dandy profit on the books, but start worrying, fellow! Things are beginning to happen. The maintenance engineer, who, incidentally, is quitting, too, says that the equipment in the shafts is wearing out, and the fields are pulsating or decaying or some damned thing. And we can't contact Dr. Bradford, who took the service manual with him.

Maybe you are more experienced in this hotel business than I am, but I couldn't stand the gaff. One more mess like I barely managed to clean up this week and someone's going to the pokey. It won't be me.

Good luck, if you insist on staying, but I warned you.

(signed) Thornton K. Patterson

P.S. The fire-marshall is on our necks because the windows are all sealed, but for God's sake, DON'T UNSEAL THEM!

SEXTUS tossed the fantastic communication aside in disgust, but his mind began to unreel a picture of the confusion he had witnessed down in the service quarters: Bellboys and room-service waiters fighting for service elevators; chambermaids trundling their little carts on the dead run; the overworked laundry staff, laboring in a veritable sweatshop of steamy chaos, swamped in a billowing backlog of sheets and towels. It all pointed to a large hotel operation.

If so, where were the rooms? Refusing to argue further with himself, he got undressed. Hyperspace or not, the people apparently were there, and it was his job to serve them. He got a bucket of ice from room-service, mixed an ice and whiskey highball and retreated into his private little world between crisp sheets and the pages of a twenty-five-cent mystery novel.

Arising early, he was girded for the summons from Miss Genevieve Hafner in room H-408. He went to her room. Fully dressed and in the daylight she was still a hollow-eyed mess. The only visible improvement was in the bleached bird's-nest, now a prim, rolled circle on her unlovely pate.

"What amends," she demanded, "do you intend to make for my terrible experience last night? Is that horrid creature in jail?"

"Experience? Jail?" Sextus asked innocent-eyed. He asked that she tell him about it. Exasperated, she went over the details. When she finished he patted her hand and pointed to the sleeping pills. "You should see your doctor."

"But my doctor *prescribed* those pills," she whimpered, looking down shyly at the hand which Sextus held gingerly. "They never made me dream—before."

He bent and kissed the revolting hand. "You are much too lovely a lady to have escaped from such a predicament as you describe without suffering—shall we say, a more romantic—fate?"

Miss Hafner blushed at the thought and wavered between outrage and ecstasy for a dangerous moment. With time-tested genius, Sextus withdrew quietly and left her to her thoughts.

He *must* get in touch with Dr. Bradford, atom business or not. This place could blow sky-high any minute.

He slipped the key into his own door and entered his suite. He took two brisk strides into his bedroom, tripped over a lady's overnight case and sprawled into his unmade bed. Even as he landed he realized it had an occupant, a gorgeous, strangely familiar blonde creature, touselled and asleep hugging her pillow with a creamy arm. A crash from the bathroom brought his head bouncing off the silken coverlet even as the girl awakened with a scream and tangled them both with the bed clothes.

Gary Gable charged from the bathroom, face dripping and a tuft of lather under each ear. "What in the Goddam hell—" He leaped for Sextus with his internationally famous shoulders knotted into bunches of muscular menace.

"I'm the hotel manager," Sextus blurted loudly. For once his self-assurance wavered under fire. Even to himself his words explained nothing.

Meanwhile, Gable tripped over one of Sextus' heavy suitcases and joined the pair in bed. Another male voice issued from the bathroom, and as they all thrashed about, Sextus became aware that a second female had somehow appeared between Gable and his brand new bride. They came up together, face to face, the beautiful, sleepy blonde and the very wide-awake, queenly brunette. Now a pot-bellied little man in shorts and undershirt emerged from the bathroom, his mouth a gaping hole in a fully lathered face.

Sextus wriggled free, made for the door and off down the hall. To his horror, the automatic signal light on the vector "H" elevator was flickering and fading. The whole H-vector must be collapsing. He dashed for the stairwell and then reconsidered. He moved to the end of the hall which overlooked the low roof of the adjacent building. He tried the window and remembered that it was sealed. Back in the alcove he seized one of the sand jars and headed back for the window. A growing tide of commotion swelled from behind almost every door now. Grunts,

screams and wrestling sounds came over the transoms.

He dashed the sand jar through the window, chipped off the jagged edges with his heel and climbed out. It was a twenty-foot drop to security, and he made it without hesitation. What could a man hope to do with a mess like—

Spang! His feet struck, not with a crunch on gravelled tar, but into a springy fabric that sagged under his 180 pounds, tossed him six feet in the air, caught him on the rebound and then juggled him down with diminishing bounces.

THEY WERE waiting for him, as he regained his feet on the quivering surface of a spring-loaded, canvas trampoline. The bright, mid-morning sun blinded him for an instant, but their voices assailed his ears in a mighty roar of approval as he squinted under his hand and peered around him.

"Attaboy, Sexy," a shrill female voice piped. The roof-top was jammed with a pressing throng of —nearly naked people. In the cleared semi-circle about him a cordon of male bodies-beautiful restrained the mob behind a rope from which a long streamer hung with letters reading:

"WELCOME, SEXTUS, TO
2153 A. D."

Reaching over the edge of the canvas platform with outstretched hand was a single, willowy, sun-baked oldster in a purple loin-cloth. His hair and beard were a dazzling white, and his face was wreathed in a silly smile, the kind officials always wear when presenting the keys to the city.

He shuffled his white kid sandals and spoke with an accent: "Welcome to 2153, Sextus Rollo Forsyte! California salutes you!"

Somewhere down on the street a raucous brass band broke into the *Stars and Stripes Forever* that quickly medlied into *California, Here We Come!*

Sextus shrank back against the wall and felt ancient bricks crumble into dust against his hands. The magnitude of his disaster crushed in upon shrinking soul, and as his nimble imagination grasped the stunning significance every molecule of his being vibrated with horror. *He had been warned not to open a window.*

"You have fulfilled the legend," the old man sang joyously. "You are a famous man." How famous, Sextus was forced to acknowledge as a television boom snaked over the heads of the crowd trailing a wisp of cable and cast its baleful, glassy eye full into his face.

"Two hundred years to the day, as my great-great-grandfather predicted. I am Clark Bradford, direct descendent of—"

Sextus stared wildly up at the open window. He bounced once experimentally. It was a fine trampoline, and he flipped a foot off the surface. Next bounce he flexed his knees a little and gained another foot. Now he doubled up purposefully.

The one-man-delegate in purple frowned. "Stop that. We are here to welcome you and start the celebration at the Hollywood Bowl and— Stop that, I say!" Now he

sensed Sextus' incredible intent. "Officer, help out here, please!"

A bulgy, bronzed fellow clad mainly in an immaculately white brassard left the rope barrier and joined Bradford.

The Elder screamed, "You can't go back, Forsyte! Don't you understand? You disappeared two centuries ago when the vector field collapsed. You can't go back! You can't! This is your destiny!"

Sextus' heels soared five feet above the canvas and gained precious altitude with each spring, but it was a precarious business the higher he went. One slip and he'd glance off at a tangent and be captured by those reaching, grasping obscene hands in the crowd. The thought almost unseated his reason.

The police officer asked Bradford, "What would happen if he did go back?" Then he added, "Ain't he got a right to?"

Bradford shuffled nervously. "I don't quite know. We never considered such a—my God! Stop, man, stop. You'll change the whole course of history! Stop him!"

The barelegged minion tried, but as he climbed up on the edge of the trampoline Sextus bounced and kicked out with accuracy and determination. The policeman sprawled back clutching air, and the crowd roared.

One more bounce and a half twist, now. Sextus soared up, up, and his hands touched the sill. With the agility of desperation he clawed up and through the paneless window.

"You don't know what you are doing," the old man screeched. "Stay here and you'll be famous. If you go back it is to oblivion. Oblivion! Very, well, *go* back! *Go* back, you—you nonentity!"

"You bet," Sextus panted to himself and tumbled onto the carpeted fourth floor hallway of the Mahoney-Plaza hotel.

Instantly, another voice, but without accent, accosted him shrilly from down the hall. "You, there. You mister manager. Sextus sighed mightily with relief. It was only Miss Genevieve Hafner holding a pimply-faced, red-haired youth by the ear.

True, Gary Gable and two hair-pulling, female starlets bore down right behind her, and rooms along both sides of the corridor were disgorging eddies of indignant displaced persons.

But these were things he understood. These were just beefs. Somewhat more involved than usual, but nothing much worse than a full-fledged convention at mid-night.

He adjusted his mashed carnation, brushed the crumbles of old brick dust from his morning coat and moved into the fray.

"Now, now, Miss Hafner! *What* are you up to *this* time?"

• • • THE END

How would you *spend your last day under the sun? . . . Here's what happened in the lives of three young couples who would be part of that great underground exodus on the morrow . . .*

DESCENT

By Richard Matheson

Illustration by Alan Anderson

IT WAS IMPULSE. Les pulled the car over to the curb and stopped it. He twisted the shiny key and the motor stopped. He turned to look across Sunset Boulevard, across the green hills that dropped away steeply to the ocean.

"Look Ruth," he said.

It was late afternoon. Far out across the palisades they could see the Pacific shimmering with reflections of the red sun. The sky was a tapestry dripping gold and crimson. Streamers of billowy, pink-edged clouds hung across it.

"It's so pretty," Ruth said.

His hand lifted from the car seat to cover hers. She smiled at him a moment, then the smile faded as they watched the sunset again.

"It's hard to believe," Ruth said.

"What?" he asked.

"That we'll never see another."

He looked soberly at the brightly colored sky. Then he smiled but not in pleasure.

"Didn't we read that they'd have artificial sunsets?" he said. "You'll look out the windows of your room and see a sunset. Didn't we read that somewhere?"

"It won't be the same," she said, "Will it, Les?"

"How could it be?"

"I wonder," she murmured, "What it will really be like."

"A lot of people would like to know," he said.

They sat in silence watching the sun go down. It's funny, he thought, you try to get underneath to the real meaning of a moment like this but you can't. It passes and when it's over you don't know or feel any more than you did before. It's just one more moment added

to the past. You *don't* appreciate what you have until it's taken away.

He looked over at Ruth and saw her looking solemnly and strangely at the ocean.

"Honey," he said quietly and gave her, with the word, his love.

She looked at him and tried to smile.

"We'll still be together," he told her.

"I know," she said. "Don't pay any attention to me."

"But I will," he said, leaning over to kiss her cheek. "I'll look after you. Over the earth. . ."

"Or under it," she said.

BILL CAME out of the house to meet them. Les looked at his friend as he steered the car into the open concrete space by the garage. He wondered how Bill felt about leaving the house he'd just finished paying for. Free and clear, after eighteen years of payments, and tomorrow it would be rubble. Life is a bastard, he thought, switching off the engine.

"Hello, kid," Bill said to him." Hi, beautiful," to Ruth.

"Hello handsome," Ruth said.

They got out of the car and Ruth took the package off the front seat. Bill's daughter Jeannie came running out of the house. "Hi, Les! Hi, Ruth!"

"Say, Bill, whose car are we going to take tomorrow?" Les asked him.

"I don't know, kid," Bill said. "We'll talk it over when Fred and Grace get here."

"Carry me piggy back Les," Jeannie demanded.

He swung her up. *I'm glad we don't have a child, I'd hate to take a child down there tomorrow.*

Mary looked up from the stove as they moved in. They all said hello and Ruth put the package on the table.

"What's that?" Mary asked.

"I baked a pie," Ruth told her.

"Oh, you didn't have to do that," Mary said.

"Why not? It may be the last one I'll ever bake."

"It's not that bad," Bill said. "They'll have stoves down there."

"There'll be so much rationing it won't be worth the effort," Ruth said.

"The way my true love bakes that'll be good fortune," Bill said.

"Is *that* so!" Mary glared at her grinning husband. Who patted her behind and moved into the living-room with Les. Ruth stayed in the kitchen to help.

Les put down Bill's daughter.

Jeannie ran out. "Mama, I'm gonna help you make dinner!"

"How nice," they heard Mary say.

Les sank down on the big cherry colored couch and Bill took the chair across the room by the window.

"You come up through Santa Monica?" he asked.

"No, we came along the Coast Highway," Les said. "Why?"

"Jesus, you should have gone through Santa Monica," Bill said. "Everybody's going crazy—breaking store windows, turning cars upside down, setting fire to everything. I was down there this morning. I'm lucky I got the car back.

Some jokers wanted to roll it down Wilshire Boulevard."

"What's the matter, are they crazy?" Les said. "You'd think it was the end of the world."

"For some people it is," Bill said. "What do you think M.G.M. is going to do down there, make cartoons?"

"Sure," said Les. *"Tom and Jerry in The Middle Of The Earth."*

Bill shook his head. "Business is going out of its mind," he said. "There's no place to set up everything down there. Everybody's flipping. Look at that paper."

Les leaned forward and took the newspaper off the coffee table. It was three days old. The main stories, of course, covered the details of the descent—the entry schedules at the various entrances: the one in Hollywood, the one in Reseda, the one in Downtown Los Angeles. In large type across eight columns, the front page headline read: *Remember! The Bomb Falls At Sunset!* Newspapers had been carrying the warning for a week. And tomorrow was the day.

The rest of the stories were about robbery, rape, arson and murder.

"People just can't take it," Bill said. "They have to flip."

"Sometimes I feel like flipping myself," said Les.

"Why?" Bill said with a shrug. "So we live under the ground instead of over it. What the hell will change? Television will still be lousy."

"Don't tell me we aren't even leaving that above ground?"

"No, didn't you see?" Bill said. He pushed up and walked over to the coffee table. He picked up the paper Les had dropped. "Where the hell is it?" he muttered to himself, ruffling through the pages.

"There." Bill held out the paper.

TELEVISION TO GO ON SCIENTISTS PROMISE

"Consolation?" Les said.

"Sure," Bill said, tossing down the paper. "Now we'll be able to watch the bomb smear us."

He went back to his chair.

Les shook his head. "Who's going to build television sets down there?"

"Kid, there'll be everything down . . . what's up, beautiful?"

Ruth stood in the archway that opened on the livingroom.

"Anybody want wine?" she asked. "Beer?"

Bill said beer and Les said wine, then Bill went on.

"Maybe that promise of television is a little far-fetched," he said. "But, otherwise, there'll be business as usual. Oh, maybe it'll be on a different level, but it'll be there. Christ, somebody's gonna want something for all the money they've invested in The Tunnels."

"Isn't their life enough?"

Bill went on talking about what he'd read concerning life in The Tunnels—the exchange setup, the transportation system, the plans for substitute food production and all the endless skein of details that went into the creation of a new society in a new world.

Les didn't listen. He sat looking past his friend at the purple and red sky that topped the shifting dark blue of the ocean. He heard the steady flow of Bill's words with-

out their content; he heard the women moving in the kitchen. What *would* it be like?—he wondered. Nothing like this. No aquamarine broadloom, wall to wall, no vivid colors, no fireplace with copper screening, most of all no picture windows with the beautiful world outside for them to watch. He felt his throat tighten slowly. Tomorrow and tomorrow and tomorrow. . .

Ruth came in with the glasses and handed Bill his beer and Les his wine. Her eyes met those of her husband for a moment and she smiled. He wanted to pull her down suddenly and bury his face in her hair. He wanted to forget. But she returned to the kitchen and he said "What?" to Bill's question.

"I said I guess we'll go to the Reseda entrance."

"I guess it's as good as any other," Les said.

"Well, I figure the Hollywood and the downtown entrances will be jammed," Bill said. "Christ, you really threw down that wine."

Les felt the slow warmth run down into his stomach as he put down the glass.

"This thing getting you, kid?" Bill asked.

"Isn't it getting you?"

"Oh. . ." Bill shrugged. "Who knows? Maybe I just make noise to hide what it's doing to me. I guess. I feel it for Jeannie more than anything else. She's only five."

Outside they heard a car pull up in front of the house and Mary called to say that Fred and Grace were there. Bill pressed palms on his knees and pushed up.

"Don't let it get you," he said with a grin. "You're from New York. It won't be any different from the subway."

Les made a sound of disgruntled amusement.

"Forty years in the subway," he said.

"It's not that bad," Bill said, starting out of the room. "The scientists claim they'll find some way to de-radiate the country and get things growing again."

"When?"

"Maybe twenty years," Bill said, and then he went out to welcome his guests.

BUT HOW do we know what they *really* look like?" Grace said. "All the pictures they print are only artist's *conceptions* of what the living quarters are like down there. They may be *holes* in the wall for all we know."

"Don't be a knocker, kid, be a booster," Bill told her.

"Uh!" Grace grunted. "I think you're oblivious to the . . . *terror* of this horrible descent into the ground."

They were all in the living room full of steak and salad and biscuits and pie and coffee. Les sat on the cherry colored couch, his arm around Ruth's slender waist. Grace and Fred sat on the yellow studio couch, Mary and Bill in separate chairs. Jeannie was in bed. Warmth filtered from the fireplace where a low, steady log fire burned. Fred and Bill drank beer from cans and the rest drank wine.

"Not oblivious, kid," Bill said. "Just adjusting. We have to do it.

We might as well make the best of it."

"Easily said, easily said," Grace repeated. "But I for one *certainly* don't look forward to living in those tunnels. I expect to be miserable. I don't know how Fred feels, but those are *my* sentiments. I don't think it really *matters* to Fred."

"Fred is an adjuster," Bill said. "Fred is not a knocker."

Fred smiled a little and said nothing. He was a small man sitting by his wife like a patient boy with his mother in the dentist's office.

"Oh!" Grace again. "How you can be so *blasé* about it is beyond me. How can it be *anything* but bad? No theatres, no restaurants, no traveling. . ."

"No beauty parlors," said Bill with a short laugh.

"Yes, no beauty parlors," said Grace. "If you don't think *that's* important to a woman . . . *well."*

"We'll have our loved ones," Mary said. "I think that's most important. And we'll all be alive."

Grace shrugged. "All right we'll be alive, we'll be together," she said. "But I'm afraid I just can't call *that* life—living in a *cellar* the rest of my life."

"Don't go," Bill said. "Show 'em how tough you are."

"Very funny," Grace said.

"I bet some people *will* decide not to go down there," Les said.

"If they're *crazy,"* said Grace. "Uh! What a *hideous* way to die."

"Maybe it'd be better than going underground," Bill said, "Who knows? Maybe a lot of people will spend a quiet day at home tomorrow."

"Quiet?" said Grace, "Don't worry, Fred and I will be down in those tunnels bright and early tomorrow."

"I'm not worried," said Bill.

They were quiet for a moment, then Bill said, "The Reseda entrance all right with everybody? We might as well decide now."

Fred made a small palms-up gesture with his hands.

"All right with me," he said. "Whatever the majority decides."

"Kid, let's face it," Bill said. "You're the most important person we've got here. An electrician's going to be a big man down there."

Fred smiled. "That's okay," he said, "Anything you decide."

"You know," Bill said. "I wonder what the hell we mailmen are going to do down there."

"And we bank tellers," Les said.

"Oh, there'll be money down there," Bill said. "Where America goes, money goes. Now what about the car? We can only take one for six. Shall we take mine? It's the biggest."

"Why not *ours?"* Grace said.

"Doesn't matter a damn to me," Bill said. "We can't take them down with us, anyway."

Grace stared bitterly at the fire, her frail hands opening and closing in her lap.

"Oh, why don't we *stop* the bomb! Why don't we attack *first?"*

"We can't stop it now," Les said.

"I wonder if they have tunnels too," said Mary.

"Sure," Bill said, "They're probably sitting in their houses right now just like us, drinking wine and wondering what it'll be like to go underground."

"Not *them*," Grace said, bitterly, "What do *they* care?"

Bill smiled wryly. "They care."

"There doesn't seem any point," Ruth said.

Then they all sat in silence watching their last fire of a cool California evening. Ruth rested her head on Les's shoulder as he slowly stroked her blond hair. Bill and Mary caught each other's eye and smiled a little. Fred sat and stared with gentle, melancholy eyes at the glowing logs while Grace opened up and closed her hands and looked very old.

And, outside, the stars shown down for a million times the millionth year.

RUTH AND LES were sitting on their living room floor listening to records when Bill sounded his horn. For a moment they looked at each other without a word, a little frightened, the sunlight filtering between the blinds and falling like golden ladders across their legs. What can I say?—he wondered suddenly—Are there any words in the world that can make this minute easier for her?

Ruth moved against him quickly and they clung together as hard as they could. Outside the horn blew again.

"We'd better go," Les said quietly.

"All right," she said.

They stood up and Les went to the front door.

"We'll be right out!" he called.

Ruth moved into the bedroom and got their coats and the two small suitcases they were allowed to take. All their furniture, their clothes, their books, their records—they had to be left behind.

When she went back to the living room, Les was turning off the record player.

"I wish we could take more books," he said.

"They'll have libraries, honey," she said.

"I know," he said. "It just . . . isn't the same."

He helped her on with her coat and she helped him on with his. The apartment was very quiet and warm.

"It's so nice," she said.

He looked at her a moment as if in question, then, hurriedly, he picked up the suitcases and opened the door.

"Come on baby," he said.

At the door she turned and looked back. Abruptly she walked over to the record player and turned it on. She stood there motionlessly until the music sounded, then she went back to the door and closed it firmly behind them.

"Why did you do that?" Les asked.

She took his arm and they started down the path to the car.

"I don't know," she said, "Maybe I just want to leave our home as if it was alive."

A soft breeze blew against them as they walked and, overhead, palm trees swayed their ponderous leaves.

"It's a nice day," she said.

"Yes, it is," he said and her fingers tightened on his arm.

Bill opened the door for them.

"Hop in kids," he said. "And we'll get rolling."

Jeannie got on her knees on the front seat and talked to Les and Ruth as the car started up the street. Ruth turned and watched the apartment house disappear.

"I felt the same way about our house," Mary said.

"Don't fret ma," Bill said. "We'll make out down thar."

"What's *down thar?*" Jeannie asked.

"God knows," said Bill, then, "Daddy's joking baby. Down thar means down *there.*"

"Say Bill, do you think we'll be living near each other in The Tunnels?" Les asked.

"I don't know, kid," Bill said. "It goes by district. *We'll* be pretty close together I guess, but Fred and Grace won't living way the hell over in Venice the way they do."

"I can't say I'm sorry," Mary said. "I don't relish the idea of listening to Grace complain for the next twenty years."

"Oh Grace is all right," Bill said. "All she needs is a good swift kick where it counts once in a while."

Traffic was heavy on the main boulevards that ran east for the two city entrances. Bill drove slowly along Lincoln Boulevard toward Venice. Outside of Jeannie's chattering none of them spoke. Ruth and Les sat close to each other, hands clasped, eyes straight ahead. Today, the words kept running through his mind: *we're going underground, we're going underground today.*

AT FIRST nothing happened when Bill honked the horn. Then the front door of the little house jerked open and Grace came running wildly across the broad lawn, still wearing her dressing gown and slippers, her grey-black hair hanging down in long braids.

"Oh my God, what's happened?" Mary said as Bill pushed quickly from the car to meet Grace. He pulled open the gate in time to catch Grace as one of her slipper heels dug into the soft earth throwing her off balance.

"What's *wrong?*" he asked, bracing her with his hands.

"It's *Fred!*" she cried.

Bill's face went blank and his gaze jumped suddenly to the house standing silent and white in the sunshine. Les and Mary got out of the car quickly.

"What's wrong with . . ." Bill started, cutting off his words nervously.

"He won't go!" Grace cried, her face a mask of twisted fright.

They found him as Grace said he'd been all morning—fists clenched, sitting motionless in his easy chair by the window that overlooked the garden. Bill walked over to him and laid a hand on his thin shoulder.

"What's up, buddy?" he asked.

Fred looked up, a smile starting at the corners of his small mouth. "Hi," he said quietly.

"You're not going?" Bill asked.

Fred took a breath and seemed about to say something else, then he stopped. "No," he said as if he were politely refusing peas at dinner.

"Oh, my God, I *told* you, I *told* you!" Grace sobbed. "He's *insane!*"

"All right Grace, *take it easy.*" Bill snapped irritably and she pressed the soaked handkerchief to

her mouth. Mary put her arm around Grace.

"Why not, pal?" Bill asked his friend.

Another smile twitched momentarily on Fred's lips. He shrugged slightly.

"Don't want to," he said.

"Oh, Fred, Fred, how can you *do* this to me?" Grace moaned, standing nervously by the front door, right hand to her throat. Bill's mouth tightened but he kept his eyes on Fred's motionless face.

"What about Grace?" he asked.

"Grace should go," Fred answered. "I want her to go, I don't want her to die."

"How can I live down there *alone?*" Grace sobbed.

Fred didn't answer, he just sat there looking straight ahead as if he felt embarassed by all this attention, as if he was trying to gather in his mind the right thing to say.

"Look," he started, "I know this is terrible and . . . and it's arrogant —but I just can't go down there."

His mouth grew firm. "I won't," he said.

Bill straightened up with a weary breath.

"Well," he said helplessly.

"I . . ." Fred had opened up his right fist and was uncrumpling a small square of paper. "Maybe . . . this will say . . . say what I mean."

Bill took it and read it. Then he looked down at Fred and patted his shoulder once.

"Okay pal," he said and he put the paper in his coat. He looked at Grace.

"Get dressed if you're coming," he said.

"Fred!" she almost screamed his name. "Are you going to *do* this terrible thing to me?"

"Your husband is staying," Bill told her. "Do you want to stay with him?"

"I don't want to *die!"*

Bill looked at her a moment, then turned away.

"Mary, help her dress," he said.

While they went to the car, Grace sobbing and stumbling on Mary's arm, Fred stood in the front doorway and watched his wife leave. She hadn't kissed him or embraced him, only retreated from his goodbye with a sob of angry fear. He stood there without moving a muscle and the breeze ruffled his thin hair.

When they were all in the car Bill took the paper out of his pocket.

"I'm going to read you what your husband wrote," he said flatly and he read: *"If a man dies with sun in his eyes, he dies a man. If a man goes with dirt in his nose . . . he only dies."*

Grace looked at Bill with bleak eyes, her hands twisting endlessly in her lap.

"Mama, why isn't Uncle Fred coming?" Jeannie asked as Bill started the car and made a sharp U turn.

"He wants to stay," was all Mary said.

The car picked up speed and headed toward Lincoln Boulevard. None of them spoke and Les thought of Fred sitting back there alone in his little house, waiting. *Alone.* The thought made his throat catch and he gritted his teeth. Was there another poem beginning in Fred's mind now, he

thought, one that started—*If a man dies and there is no one there to hold his hand . . .*

"Oh *stop* it, stop the car!" Grace cried.

Bill pulled over to the curb.

"I don't want to go down there alone," Grace said miserably, "It's not fair to make me go alone. I . . ."

She stopped talking and bit her lip. "Oh . . ." She leaned over. "Goodbye Mary," she said and she kissed her. "Goodbye Ruth," and kissed her. Then Les and Jeannie, and she managed a brief, rueful smile at Bill.

"I hate you," she said.

"I *love* you," he answered.

They watched her go back down the block, first walking, then, as she got nearer to the house, half running with a childlike excitement. They saw Fred come to the gate and then Bill started the car and he drove away and they were alone together.

"You'd never think Fred felt that way, would you?" Les said.

"I don't know, kid," Bill said. "He always used to stay in his garden when he wasn't working. He liked to wear a pair of shorts and a tee shirt and let the sun fall on him while he trimmed the hedges or mowed the lawn or something. I can understand him feeling the way he does. If he wants to die that way, why not? He's old enough to know what he wants." He grinned. "It's Grace that surprises me."

"Don't you think it was a little unfair of him sort of . . . *pushing* Grace into staying with him?" Ruth asked.

"What's fair or unfair?" Bill said. "It's a man's life and a man's love. Where's the book that tells a man how to die and how to love?"

He turned the car onto Lincoln Boulevard.

THEY REACHED the entrance a little after noon and one of the hundreds in the concentrated police force directed them to the field down the road and told them to park there and walk back.

"Jesus, would you look at those cars," Bill said as he drove slowly along the road that was thick with walking people.

Cars, thousands of them. Les thought of the field he'd seen once after the second world war. It had been filled with bombers, wing to wing as far as the eye could see. This was just like it, only these were cars and the war wasn't over, it was just beginning.

"Isn't it dangerous to leave all these cars here?" Ruth asked. "Won't it make a target?"

"Kid, no matter where the bomb falls it's going to smear everything," Bill said.

"Besides," said Les, "the way the entrances are built I don't think it matters much where the bomb lands."

They all got out and stood for a moment as if they weren't sure exactly what to do. Then Bill said, "Well, let's go," and patted the hood of his car. "So long clunk . . . R.I.P."

"In pieces?" Les said.

There were long lines at each of the twenty desks before the entrance. People filed slowly by and gave their names and addresses and were assigned to various bunker

rows. They didn't talk much, they just held their suitcases and moved along with little steps toward the entrance to The Tunnels.

Ruth held Les's arm with clenched fingers and he felt a tautness growing around the edges of his stomach, as if the muscles there were slowly calcifying. Each short, undramatic step took them closer to the entrance, further from the sky and the sun and the stars and the moon. And suddenly Les felt very sick and very afraid. He wanted to grab Ruth's hand and drive back to their apartment and stay there till it ended. Fred was right—he couldn't help feeling it. Fred was right to know that a man couldn't leave the only home he'd ever had and burrow into the earth like a mole and still be himself. Something would happen down there, something would change. The artificial air, the even banks of bulbed sunshine, the electric moon and the fluorescent stars invented at the behest of some psychological study that foretold aberration if they were taken away completely. Did they suppose these things would be enough? Could they possibly believe that a man might crawl beneath the ground in one great living grave for twenty years and keep his soul?

He felt his body tighten involuntarily and he wanted to scream out at all the stupidity in the world that made men scourge themselves before their own whips to their own destruction in one endless chain of blind sadisms. His breath caught and he glanced at Ruth and saw that she was looking at him.

"Are you all right?"

He drew in a shaking breath. "Yes," he said, "All right."

He tried to numb his mind but without success. He kept looking at all the people around him, wondering if they felt as he did this fierce anger at what was happening, at what, basically, they had allowed to happen. Did they think too of the night before, of the stars and the crisp air and the sounds of earth? He shook his head. It was torture to think about them.

He looked over at Bill as the five of them shuffled slowly down the long concrete ramp to the elevators. Bill was holding Jeannie's hand in his, looking down at her without any expression on his face. Then Les saw him turn and nudge Mary with the suitcase he held in his other hand. Mary looked at him and Bill winked.

"Where are we going, papa?" Jeannie asked, and her voice echoed shrilly off the white tile walls.

Bill's throat moved. "I told you," he replied. "We're going to live under the ground a while."

"How long?" Jeannie asked.

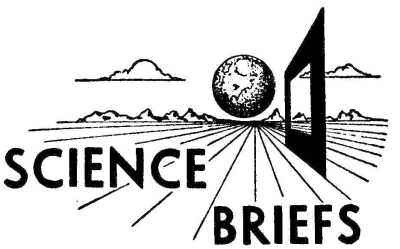
"Don't talk anymore baby," Bill said. "I don't know."

There was no sound in the elevator. There were a hundred people in it and it was as still as a tomb as it went down. And down. And down.

• • • THE END

Answers to OUT OF THIS WORLD

1—c, 2—g, 3—j, 4—h, 5—i, 6—d, 7—b, 8—e, 9—a, 10—f.



Evolution

THE STUDY of evolution has always been a rather hit or miss affair because it's such a long, slow process. But now, with the help of bacteria—of all things—science is making giant steps in a field that has been practically static since Darwin had his say 100 years ago.

A bacteria generation takes only twenty minutes, and in two years they grow through more generations than man has in the million or more years of his history on earth. Lab men have found that submitting a bacteria group to a drastic treatment selects resistant forms for survival; and these resistant forms go on reproducing indefinitely until another drastic change is introduced—to weed out the unfit again. Although mutants, stronger types always arise among the parental bacteria and overgrow and eliminate all other mutants. New mutants then arise among the stronger type and are eliminated in turn by an even stronger ones. The continual appearance of surviving types keeps the number of mutants down and stabilizes the parental stock. Incredible as it seems, there is no end to improvement, and the stronger bacteria seem to go on indefinitely in adapting to a new environment.

Man's progress may be slow in comparison, but if we can accept the facts established by this experimentation with bacteria the idea of "Superman" isn't too farfetched, after all!

Space Pilots

ONE OF the things that an astronaut space-pilot of the future won't have to worry about is the effect that weightlessness might have on his physical and mental abilities. Although the tests to date are still inconclusive, the no-gravity situation has been under study by both the Air Force School of Aviation Medicine and the National Advisory Committee for Aeronautics for some time now.

Experimenters have been able to produce the no-gravity factor for jet pilots by having the planes flown through the sky in carefully worked out patterns. And the men in the planes have been able to reach and maintain as much as forty-two consecutive seconds of weightlessness.

Although a certain fuzziness in both speech and sight was the first reaction, later tests with the same men as subjects produced no effect on them at all when the no-gravity state was in existence.

Big Brain

A MACHINE called the Oracle—and, incidentally, with more answers than the ones the ancient Greeks used to consult ever thought of having—is the newest member of the staff at the Oak Ridge Laboratories.

The first big new feature of the Oracle is an internal memory system that can retain and process as many as two-thousand and forty-eight twelve-digit decimal numbers. This is more than twice the number that can be handled by any other "brain" of this type. The second feature that makes it notable is the remote-controlled auxiliary memory system that can store four million words on magnetic tape and memorize them. Third, this new computer can multiply one twelve-digit number such as 999,999,999,-999 by another twelve-digit number and come up with the right answer in less than two-thousandths of a second!

Given five or six years and the use of standard electric calculators two mathematicians might be able to come up with answers to a problem that it would take the Oracle only about one-half hour to solve.

This simplification of problems doesn't obviate the human element though. It still takes two mathematicians to feed the question tapes into the brain, and countless other personnel is kept busy keeping the computer's 3500 electronic tubes, 20,000 resistors and seven miles of wiring in smooth running order.

Painless Hypos

THOSE HYPOS that make strong men weep and the weaker ones faint are practically a thing of the past. Dr. H. L. Mueller of the Children's Hospital in Boston has found a way to give painless hypodermic injections.

By incorporating a freezing unit into the hypodermic equipment, the doctor is able to reduce the skin temperature of the injection site and so make the insertion into a numbed area. Freon gas from a cartridge flows into a hollow chamber of the needle and cools the tip in about five seconds flat. After that, the tip is held against the skin for about forty-five seconds and when the skin in the area has cooled to fifty degrees the needle is inserted and *Presto!*—a painless injection.

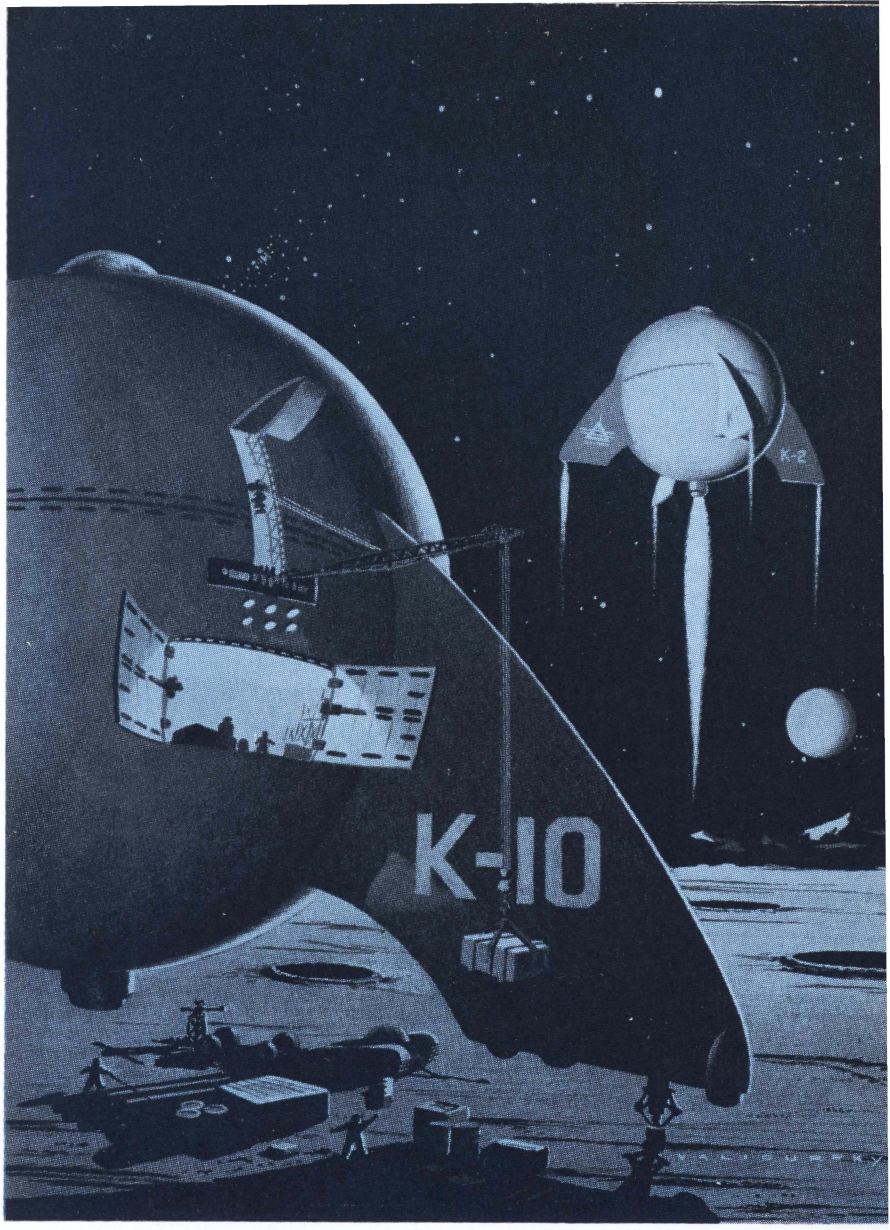
Magnet Stunt

KIDS WHO use magnets to make toy cars move as though they were magic have nothing on Dr. Alexander Kolin of the University of Chicago.

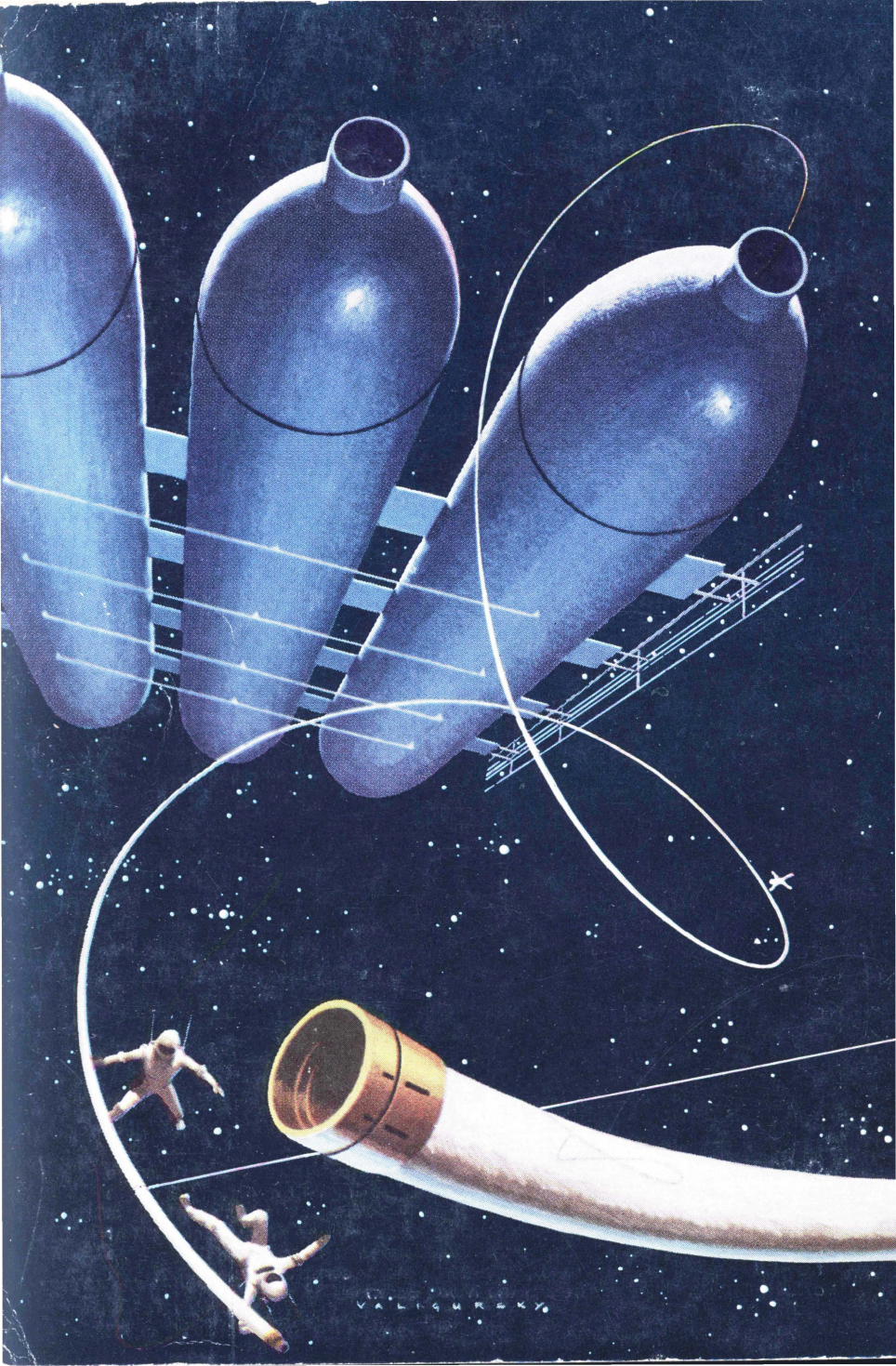
The tongue twisting electromagnetokenetic phenomenon which Dr. Kolin found reveals that particles, which are electrically neutral, migrate in a magnetic field that is transversed by a current. Using mustard seeds and the eggs of a whitefish suspended in a conductive liquid of sugar and water, Kolin supplied current and the proper magnetic field and found that the eggs and the seeds moved in opposite directions at the rate of one-half inch per second.

These tiny cells of living matter can also be made to move in opposite directions or to stand still, depending on the relation of their conductivity to the conducting liquid in which they are suspended.

Medical pathologists and biologists are hailing Dr. Kolin's discovery as the answer to their prayers for the study of living tissues and isolated living cells.



CARGO DISCHARGE—The ship in the foreground is discharging its cargo (notice the huge cargo capacity), while the second ship is coming in for a landing, using its rockets to ease it gently down. Just before it touches the surface jacks telescope from the fins and keep the ship vertically erect despite uneven terrain. When cargo is unloaded it is transported by huge tractors, with caterpillar treads, to site of base or construction. (Next month artist Ed Valigursky takes us to the Moon base.)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