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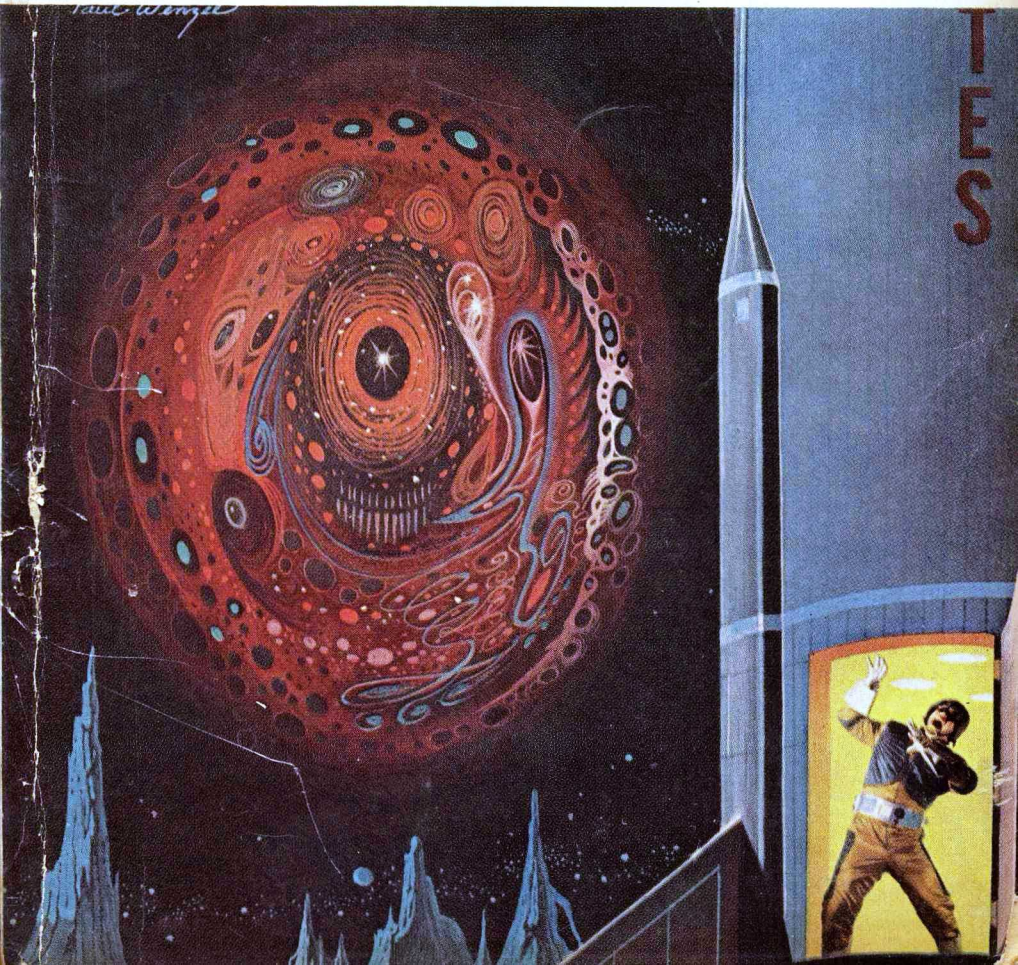

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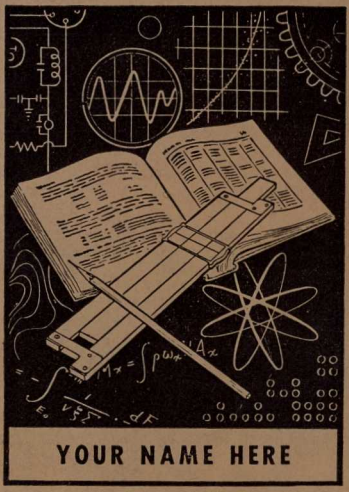

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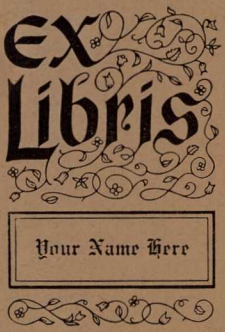

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ALL NEW STORIES

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FAITH HEALING

One of our favorite Congressmen — James Howard, 3d District, New Jersey — has recently introduced legislation calling for a "full and fair test of Krebiozen".

We're in no position to say whether Krebiozen is any good or not. The U. S. government, which is in such a position, has clearly made up its mind that the stuff is of no particular value in the treatment of cancer; for which reason it put a number of the persons involved in the development and distribution of Krebiozen on trial and was much embarrassed when they were acquitted.

Of course, a court of law is not a competent testing laboratory either, and the verdict doesn't mean much. Conviction would not have made Krebiozen worthless; acquittal does not mean that it is of any value. Our own opinion, for what it's worth, is that whatever the merits of the juice itself, the people who are most urgently advocating its adoption would seem to be motivated by reasons which have nothing to do with those merits. Many are cancer victims, or relatives of cancer victims, and what they want is hope. A dubious hope is far better than none at all — and none at all is what the rest of medical science can offer many of them. Many others are chronic opposers of The Establishment — if They think Krebiozen is no good, then the opposers by Pavlovian reflex automatically jump to its support. And for still others the motives would seem to be money.

Certain the Krebiozen people have assiduously made their position as untenable as they could, by shrouding the affair in mystery, acting more like C.I.A. operatives than like scientists. It lay within their power at any time within the past several years to prove the efficacy of their product once and for all. Possibly a soda-pop manufacturer is justified in protecting manufacturing secrets; someone who has, or claims he has, the secret of life or death for thousands certainly is not.

Nevertheless, we wish Representative Howard all luck with his undertaking; we think Krebiozen should get its "fair trial".

If it works, the personalities of its developers are of no particular importance. If it doesn't work — well, then perhaps it is even more important than ever to find out about it. For there are people who think they have been cured of cancer by Krebiozen. If they have not been cured, we should know that for sure. If they have been, let's find out how. Spontaneous remission of cancer is not unheard-of. There seems to be some evidence that it correlates with the psychological makeup of the patient. It even seems that confidence and a cheerful disposition are essential to remission — and if Krebiozen does no more than give those things, perhaps that is enough!

THE EDITOR

HEAVENLY HOST

by EMIL PETAJA

Illustrated by GAUGHAN

He couldn't live on the planet — but maybe he could live inside it!

I

KIRK flopped face down on the raft, gulping in tank air and bubbling with loco laughter. He couldn't help himself. His sinewy young body hurt down to the bone. He was all alone on a dung-brown rag of a world, hell and gone off in uncharted Deep. But he roared with laughter and pounded his hard fists into the alloy of the hollow float under him.

It was that look of utter surprise on Captain Jules Quine's face when he socked him. Right in the middle.

Right in front of God and everybody. That is to say the whole crew. For once that smug, tight-lipped, I-am-the-Almighty expression dropped. For once the dapper martinet got his. Knocked flat on the afterdeck, his pretty uniform (after the first month in Deep nobody else bothered with gold braid) all mussed.

The grins on the crew were blissful. Kirk had done what every single one of them wanted to but didn't. They relished Kirk's carefully chosen vocalization just before he delivered the punch, too. It was what any one of them had thought a hundred, a thousand times. To hear it out loud was sheer joy. And that smashing right. It brought twenty-eight gasps.

Lying there, oblivious to a lonely castaway's death, Kirk savored his big moment.

CERTAINLY raw exploration in unknown Deep demanded implicit military obedience to rank. For three years Kirk had been a brash top gunner, catching the tail end of the long drawn out Colonial Wars. He knew. Now, in X-Plor, he itched for action, of which for the past eight months there had been none at all. Maybe that had *something* to do with it.

Deep Space was one great gulp of nothing. Most of it. It was months between anything at all. Thirty men encased in a steel box can get mighty restive after eight dry months.

Captain Quine, like any Deep captain, had to keep a tight rein. He had to be tough. Kirk understood that. He wasn't stupid. A Deep Captain, like in the Wars when a split second's vacillation or a hairsbreadth error brought instant death, was a symphony conductor. His crew had to intuit every gesture almost before he made it. No second thoughts. No individual shading. *Do it!*

Kirk knew.

But Captain Quine. He was something else. For twenty-nine years Quine demanded and got it. It was habit, sure, but more. It was an obsessive neurosis by now, eating away at his aging brain. Quine was warbred. He had taken his lumps. Now he was giving them and going too far about it. Somewhere in all those screaming battles, all those time-lurches and all that sudden death, the capacity for considering his crews as human beings, not war robots, got lost.

He had to chew somebody out for something every day, every hour. Something *had* to be wrong to prove that he was Captain. A careless button. A shred too much hydroponics carrot in the stew. An untrig bunk blanket.

Tough stringbean Old Lars, the ship's cook, had a way of sidetracking Quine's obsessions his way. Of Quine's vintage, he seemed to understand him and take the abuse in stride as the younger bucks could not. Especially Kirk. Kirk's Irish father had a temper like a tornado and his beautiful dark-eyed Mexican mother had swung a mean *cacerola.* She never missed.

Contemptuous of what looked like toadying on the part of the lanky Norwegian cook, Kirk about-faced and found him a rare friend when Lars explained.

"Take him this way, son —"

"I'd like to take the bum, with this! One of these days —"

"Take him this way," Lars said. "He is a product of Man's ambitions in Space. It's the old days all over again. Grab a planet here, there, everywhere. If the locals don't like it, crush 'em. Hell, it's not that simple — but for the most part that is what it amounts to. Jules Quine was made to be war-tough, to watch planets stripped with steady eyes. He didn't know it himself, but all that got to him. Now he won't let himself be a man. He's a machine, putting out what he was conditioned to put out. There's no war — at least right now — so he puts it out in picayune ways."

"Half the crew is climbing the walls. Little Ensign Gregg. *Camotes!*

The kid wets his pants every time Quine puts the bead on him."

Lars grinned. "If the kid'd stand up to him just a little—"

"And what he did when he found the dried apricot joy juice we stewed up!" Kirk's black brows met before he exploded in a brittle laugh. "Jumping in and spoiling our first tiny spree in eight months! . . . he says he likes a tight ship!"

Hunkered down on his bunk, Lars pulled down *Huckleberry Finn* from the row of tattered books he read and reread to keep reminding himself of happy long-gone worlds. At least those old book-worlds weren't weighted down with technical complexity and cynicism.

Kirk started to leave when, over the ragged book, Lars fixed him with a cool blue-eyed gaze. "Take it easy, son. This is likely to be the Captain's last trip. I think he knows he's had it."

"Good!"

Lars' shaggy eyebrows puckered. "It ain't easy for an old spacer to drop out, go back to Earth for good. Terra's a strange, bewildering place these days. For a man who's used to stars and elbow room."

Kirk shrugged impatiently.

"Take it easy, Kirk. You know what I mean. It won't be so long."

Kirk grinned and nodded. Content with having put a cork in the ship's most vulnerable human explosive, Lars sighed and joined Huck on his Mississippi raft.

KIRK meant to try. And he did. He tried hard. He kept out of Captain Quine's way. Even when he himself got the treatment for taking an unauthorized space-walk to save one of the scooper-upper science-techs who, in his enthusiasm, had wandered too close to the lifeless brown hunk of planet over which they hovered.

"He saved my life, Captain," the tech pointed out.

Quine gave him the blast, too.

Kirk's wide amiable mouth quivered with wild words. He choked them back, locked his jaw rigidly.

In the end it was pint-sized Ensign Gregg, Quine's favorite target. Quine evidently took sadistic enjoyment in the youngster's stinging eyes and twitching mouth. The morning it happened Kirk walked in on Quine dragging Gregg out of the toilet, bare butt, where he had fled just in the nick of time.

Cumulative, of course. Eight months watching this. His own unjustified chewing-out. Now—Gregg's scarlet face, his sobbing babble . . .

II

After a while Kirk sat up and looked around. His sharp green-brown eyes searched the landscape through the raft's bubble—searched for something else besides that monotonous dung-brown vegetable matter on which the liferaft floated. There wasn't anything else. From the ecology report there wasn't anything else on this planet, period. It was another dead-end. A nothing. This whole area of minor Andromeda suns would be crossed off the X-Plor fleet charts and given a wide berth. It was unlikely that any ship, terran or alien, would blunder this way ever again. And if they did, by some improbable odds, they would never spot the raft under the shroud of purple clouds that alone kept that too-close sun from shriveling the liferaft and Kirk to a dry cinder.

While he looked up at that overlarge blurred eye and away, fast, his mind clung to last memories of fellow humans . . .

Lars was the only one who had the guts to brave Quine's rage and visit Kirk in the brig. He was the only one who could, by culinary bribes, work his way past the armed guards.

"I begged you not to, boy!" Lars rasped.

Kirk grinned while the lanky Norwegian wedged sit-room on the minuscule hard bunk. "What's that under your arm?"

"Brought you a book to read." Lars' gaunt face was glum with worry. "Quine wants to kill you. You know that."

Kirk grinned. "Wouldn't you?"

"No. But that's beside the point. In twenty-nine years nobody ever did that to Captain Quine. He can't forgive it. Not ever. To a man who's been God Almighty all those years, he can't live until he has done the only thing he can do to regain his crushed ego. Killing you ain't enough, but it's all there is."

Kirk picked up the time-chewed copy of *Legends of the Old Plantation* and rippled the pages.

"Will he do it? Just shoot me down, cold turkey?"

"You know he won't. He's too disciplined for that. But he won't wait for the Space Board to let you off with five years hard labor, either."

Kirk mused. "If this was war time—"

Lars nodded. "Sure, he could get by with it. Insubordination. As it is, you've got friends on this ship. They'll stick up for you." Lars slapped his shoulder to knock off Kirk's slow grin. "Don't worry. He'll find a way to make you pull something that will justify cutting you down."

"So—?"

Lars bumped his gray head on the bulkhead when he lifted. Outside a guard was coughing significantly.

"First he'll have to let you out of this can. We take off early tomorrow morning. Since it's a time-jump the crew'll use the cocoons. That's his chance to free you. He *wants* you to pull something. Remember that!"

"I'll remember," Kirk grinned.

"Like hell you will!" Lars stared at him tightly, hunched in the low steel doorway, where the guard was scowling and rumbling frets. "Kirk!"

"Yeah?"

"When you start tearing Captain Quine to pieces in your mind, think of yourself in thirty years. I knew him when."

"Huh?"

Lars swore, shrugging off the guard's heavy hand. "Ah, what's the use? Read your book!"

That Captain Quine had Kirk dragged out of his cell to take his place in the creche-like cocoons for the almost unendurable time-thrust that would carry the small ship a vast jump closer to home-base seemed like a humane touch. Kirk hadn't needed Lars to warn him it was not. Letting him die in the brig was sure to bring down the wrath of the Powers That Be on Quine's head; anyway, as Lars said, the Captain always went by the book. No, it had to be some other way.

He moved up the ladder between his phlegmatic well-armed guards in silence.

Moving down the out-corridor, Kirk wrenched free for a hungry look out of one of the ports. Two weeks in the brig, while the techs finished their negative appraisal of the brown planet below, had about driven him nuts. He ached to see something besides close metal walls. Also, it was as if something was needling him toward action. Something Lars had said — or something.

All he saw was a mass of dark clouds and a vague brown smudge below. He dragged in a deep breath. Kirk couldn't take restraint. That was why he had leaped into the insatiable Terran Space Army in the first place. To get away from the stifling, strangling Cities. Living many months in an X-Plor ship was hard to take, sure. But there was always the hint of something rare and wonderful, just over the horizon.

Out there was freedom of a sort. Even if Captain Quine didn't find a way to kill him. Even if he held back his temper so that there would be no excuse to cut him down. Even so, there was the Board and a long prison stretch to look forward to.

Kirk ran his tongue over his dry lips, tasting *out*.

A ten-minute warning siren blared.

Ten minutes.

"Let's go Irish." One of his guards grabbed his arm. He wasn't polite about it.

Kirk spun around, shrugging him off. He blinked out and down. Down there was a brown unsavory mass, like a round damp sponge. From here the sombre little world had the inimical look of a spiney animal.

Or a briar patch.

The concept kicked up out of forgotten depths.

There was a murmur of voices drifting out from a side corridor. From Captain Quine's cabin. Kirk recognized Lar's thick slow drawl.

"Captain, I'm glad to hear you say it. You wouldn't put a man out on a brown wart of a planet like this one. It would not be human to actually *cast* a man into—"

"Don't worry." Quine's sharp voice had a jubilant note, somehow.

"The guards have their orders. So they do carry keys to the raft room. So the rest of the crew are all in the cocoons by now. He couldn't possibly—"

A closing hatch cut him off.

Kirk turned to his guards. They had moved back a couple steps and they were smiling. There was something secret behind the smiles they exchanged. It irritated and jarred Kirk. Something within him went *click*.

His fist lashed out. Number One crashed back.

"Hey, what'd you think you're—"

But somehow his attention was misdirected by his buddy charging at Kirk in a bullish rebound. And somehow Kirk grabbed up the ring of keys on his belt and ran.

The guards wouldn't follow, Kirk hoped. It was too close to take-off. Maybe there wasn't time to do it, but, hell, he had to try. He had to. A back glance while he sped in the direction of the raft room hatch reasurred him on the first point, at least.

He made it. Captain Quine himself had triggered him into trying. That wild slamming leap down into the boat room. Running the practiced emergency routine in record time. The automatic airlocks. The drift motors. The drop. Setting the anti-gravs. Checking the bubble seal, the air tanks. Zigzagging to a float landing . . .

Kirk climbed up on his feet. He plunked them wide apart against the rolling undulating movement of the brown crest of not-sea, but what seemed to be a primitive vegetable mass. It was weird, the way it had happened. So fast. A series of vaguely related happenings. And now he was down here, and the starship was gone. Gone forever.

Kirk's twists, as he made a rapid check of the raft instruments, made something plop out of his rear pocket and slap the metal at his feet. He reached down. It was Lars's book, which he had absently shoved in his tunic when the guards came for him.

He found himself fumbling out a passage he had read last night because it was dogeared. He stared at it, scowling. Then he grinned. Wide.

"Lars!" he cried. "You old Norwegian fox! You knew I would never make it to the Board! Dunno how you did it, but . . ."

He whooped with laughter. He read it again, out loud.

"'*Skin me, Brer Fox,' sez Brer Rabbit, sezee, 'Snatch out my eyeballs, t'ar out my ears by de roots en cut off my legs,' sezee, 'but please, Brer Fox, don't throw me in the—*'"

Captain Quine was like Kirk in thirty years.

What he was told not to do, he did.

He threw Kirk in the Briar Patch.

III

After a while Kirk stopped laughing and took a good hard look around him. Brer Lars had finagled him his freedom, sure. But just what did that freedom amount to?

The dark cloud-bags indicated H_2O and that spiky monotony all around him was some kind of vege-

tation. Edible? No telling but the liferaft was equipped with the means of finding out. Its basic assessment and analysis devices were already reading the atmosphere of the Patch, finding it similar to Earth, if subtropically warm and muggy.

Kirk upped the plastic hatch.

He breathed.

He staggered back, gagging.

"God Almighty!"

The putrescent smell! It hit him in a malodorous tide, sent him down on the raft bench, strangling down the desire to upchuck. It was too much to take. Clamping a hand over his mouth, he groped to yank down the hatch and reset the air tanks.

After the conditioner had thrust out most of the Patch stink he was able to grope dizzily to his feet. His training told him he would have to get used to it. The air tanks would not last him many weeks.

"How in the hell can a man ever get used to living in a cesspool?" It was that bad and worse.

He thought about Grandfather Valdez. Something the old diehard had said to Kirk a million years ago. After his father and mother were killed when Kirk was twelve, killed in a bombing during one of the nagging local wars while Kirk was in school, he ran off to Sonora, Mexico to find his mother's people. He found Grandfather Valdez in one of the last-ditch *indio* villages off in the folds of the scrub-covered Sierras. Grandfather Valdez spit on the big cities and everything they stood for. His hands and his heart dug the good earth.

Kirk was disappointed that he couldn't be a *bandido* and ride a big palamino (burros were all the little ranchito could offer) but he came to love and respect Grandfather with a fierce passion. There was a whole universe behind those eagle's eyes, cupped within those gnarled overworked hands.

Grandfather Valdez used to say: "*Nieto*, the ground of our little farm is *duro*. That's why nobody else wants it. But hard work and hard ground are good for you. Everything is of El Senor and everything is good. A man can get used to anything. Anything. If his lot is to live on a dung heap and shovel steaming manure all day long, he will get used to it." He always added, with a twinkle, "*Si*. And after a while he will come to like it!"

Kirk grinned, remembering Grandfather.

El Senor had decreed it and it had come to pass that now Kirk's lot *was* to live on a manure heap. And since there was no likelihood of his ever getting off the Briar Patch he had better start getting used to it.

"But I won't like it," he grumbled. "Never, Grandfather! Never!"

After he had checked the survival gear, ripping open a foil of food concentrate and gnawing it down with some tepid water, he reached his look far across the undulating brown. Heat mists lifted cloudward where the tangle was thickest and dented from gathered moisture. Also he noticed puckered holes here and there where gases, faint blue and trembling, disturbed the air. As if the planet breathed through these orang-

ish pores where the "briar" couldn't grow.

The alien sun was well up now. His dung heap would get hotter and hotter. He had best get out and cover the transparent bubble with the tarps, to hold in the controlled temperature. The air conditioning wasn't doing much of a job, and eventually it, too, would fizzle out completely.

Kirk ripped off most of his clothes. Shorts, soft boots, and a wide leather toolbelt would suffice.

Suiting up against the fast-mounting heat and the stench, Kirk made a preliminary thrust out onto the Patch. He found that by nimble running and sticking to the mustard-hued dry places, he could keep on top and when a foot slipped through it was stopped by the tangle below. How far down did it go? Was there drinkable water down there? It was eerie, rather like a sailor maneuvering across the deck of a sailing vessel in a brisk squall. The surface quaked and pulsed constantly.

Kirk's tough survival training in X-Plor would serve him well. And Grandfather Valdez, scratching out a scant existence on that minuscule Sonora bush-farm, had taught him a trick or two.

Grimacing, he lopped off some of the more tender-looking ends of the vegetation, and skipped back to the ship to put them through the food tests. The idea of eating this bad-smelling guck was hardly an attractive one, but the raft's provisions wouldn't last long. Better to wean himself away from them a little at a time. Air, too.

He snapped on the raft's motors, lifted some two hundred yards up, for a hopeful look. Everywhere the Patch was the same. It would do him no good to waste precious power circling the planet. The ship's techs had already gone over it with a fine-tooth probe and dip-ups from many different places.

No.

He'd be a fool to waste what little power he had. He dropped gently, picking the hardest, yellowest piece of crust he could find. The floats would keep the raft on the surface indefinitely, short of some unguessable disaster down below.

By the time that great blurred eye in the sky had reached midpoint Kirk had solved another vital problem. The tender ends of the briar were edible. His tests gave them a surprisingly high vitamin and nutritional content. The first bite was awful, but cooking reduced the smell somewhat. Hell. Back on Terra they still ate limburger cheese and *lutfisk*.

"Not bad, Grandfather," he grinned.

He woke from his afternoon nap to find the sun down and the evening rain pelting down on the tarp. The water pools in careless folds at the bottom of the wide tarps solved another problem. Water. Rain water. It needed only a precautionary antibio pill in each tank to be safely potable. And there were no insects on the Patch. For this he was duly grateful. The cooling rain cut the stink some, too.

As weeks tumbled by, Kirk got to confiding his troubles and assuaging his loneliness by talking

things over with Grandfather Valdez. Somehow Grandfather was here. This lonesome stretch of nothing was quite a bit like those Sonnora deserts. And Grandfather's astute primitive psychology had hit the nail on the head. Grandfather had never even dreamed of taking a space trek, yet much of the outworld privations which Space colonists endured had been his all of his life.

Man's capacity for adjustment, physiological and psychological, was more than just remarkable. It was miraculous. Kirk had observed many strange metamorphoses in his six space years. Now he was *it*.

He cooked the brown vegetation, mashed and dried it, then fashioned it into round tortillas. He drank the rain water, and after a while he forgot to put in the bio pills. He took exploratory jaunts between the widely spaced pore-holes. He got used to the smell of the Patch. His youthful body lived off the Patch until it became a part of it.

Loneliness was the worst thing. It clutched at his insides when night fell and the inevitable rain hissed on the bubble. He used up all the bromides in th med-kit, he cussed out Captain Quine and the whole wide-flung race of man. Even Old Lars. Even Grandfather.

The need for more violent exercise and for something new in his life became an obsession. He had to get out. Away. Someplace that was different. If he found death, well and good. He couldn't take the lonely monotony one more day.

Early tomorrow morning he would set out on a long trek, in the only direction that promised him something different.

Down.

IV

As he swung his lithe all-but naked body down the nylon rungs of the ladder, he felt the thrust of adrenalin in his veins. His shaggy neck-hair prickled. For what it was worth, this was adventure.

"Look, Grandfather," he grinned. "No suit."

He touched the items dangling or sheathed in his wide belt. A canteen. A handtorch. Food capsules. A sharp knife like a machete, for cutting through the tangle. And a tubular sidearm blaster.

"There must be something down there, Grandfather."

Grandfather spoke. It was the first time. And, as might be expected, it was a warning.

"Something wicked, maybe. Something that will eat you."

Kirk laughed. He moved in a practiced beeline for the nearest of the gaseous pores. Elsewhere the tangle was so thick it would take forever to hack his way through. The orange-lipped pucker holes were less dense on the surface and widened out even further thirty yards down.

Excitedly, Kirk slipped over the lip, down. The vine-like "briar" was less slippery where the warm gases came up, and his hand-under-hand descent was faster than he had anticipated. Sometimes he would hit a single strand like a length of clear rope and slide free for many minutes

before a cross hatch of vines jolted him to a sudden stop.

After an hour he rested and snapped on his torch. The circle of light overhead had dwindled and winked out. In the torch-glow he saw that the vegetation was losing its color. Below him the seemingly endless thicket was bone-white against a grave's darkness.

He bit into a food capsule thoughtfully.

"Better call it a day," Grandfather said wisely. "It's a lot harder going up than down."

"But I haven't found anything yet!"

"What do you expect to find? The ship's ecology crew probed nothing. Nothing at all."

Swigging from his canteen, Kirk scowled. Something—hope, maybe—had been chewing at the back of his brain for a week, insisting that the science boys were wrong. There *was* something down here. Something the computers couldn't tag, or maybe the probes hadn't reached down far enough.

But after another hour of dropping, easing his arch into a spectral vine crotch for another rest, Kirk wondered himself if he hadn't better concentrate on the weary climb up, save his energy. The planet grav pull was less than on Terra, but all the same his muscles were a little soft from disuse.

He sighed and took another pull at the canteen.

"Okay, Grandfather. I've had it for now."

It was cool down here. Kirk spent ten minutes trying to figure out a way he might get the raft down a hundred yards or so into the briar, away from that scorching sun. Sucking in a deep unsavory breath for the up-climb, he glanced down.

He gasped.

"Look, Grandfather!"

Below, far down the shaggy shaft, was light. Blue pulsating light. Moving light.

"Forget it," Grandfather told him.

Kirk couldn't even hear him. Curiosity had him by the butt, pulled him down for a look. Whatever it was down there was big and it was moving in a kind of blind mindless shamble along the pore-wall.

"I'll be damned."

"That," Grandfather warned, "you might be if you don't get out of here in a hurry!"

Kirk only grinned and moved down. Toward the light.

He had to find out what was down there. He would never get any sleep if he left that wonderment unsolved. Something lived down here in the black depths, down away from the blistering heat of the too-close sun.

First sight of it produced a wild yell. His nerveless grip loosened.

He tumbled, backwards, into the hole.

Right at *it*.

Involuntarily he made grabs at the few sagging roots that endured the gases and lopped clear across the hole. He caught one, but, weakened from the updraft of gas, it snapped. Kirk's clutch was not a sure one. Again he fell. His screaming panic echoed down the shaft, telling *it* he was coming.

When, in his gyrating drop, his chest thunked against another sagging root, he clung to it, praying. The impact pushed out all the breath from his lungs. He panted, sobbing, digging his nails into the ropy briar-root for all he was worth. The lamp at his wrist made wild patterns on the skeletal round of labyrinth.

For a moment he dared not move. Or look down. With aching slowness he inched a leg over the root. As he did it fibers within it creaked and snapped and he twirled to hang underside like a slain animal on a pole. Only the pole wasn't rigid. It swayed with him and more fibers snapped. If it broke now he would surely fall and this time right on *it*.

He held his breath until the root stopped vibrating, and while he waited he couldn't help glancing down.

The thing was closer now. It was moving sluggishly up the wall, having heard or scented Kirk. It was monstrous. A giant translucent worm. Like something in a wood-rotted grave, barreling at him on a thousand sticky larval feet. Inside the translucent repellent blueness of the thing he could see its simple digestive organs contract and dilate. Juices pushed mouth-ward in a preliminary drool.

Grandfather was right. As everywhere, it was eat or be eaten. Terra was more subtle about it, but the end result was the same. For all man's cleverness, the graveworm claimed him when all his own dog-eat-dog was over.

If only he could reach the hand blaster!

He gripped tighter with legs and left arm and moved his right in a dart toward his belt. He nearly had it when the root snapped with a resounding crash of echoing sound.

He fell, screaming.

His left hand alone held him now and it was slipping.

"Grandfather!" It was kind of a prayer. Grandfather's El Senor had got mislaid somewhere along the warpath.

His fingers clutched and held onto the frayed end. Long enough, just long enough to slam him against the sidewall of white roots a scant ten yards above the blue worm. With a grunt that was also a child's wail he let go at impact point.

He slapped the less-dense thicket and grabbed wildly. He tumbled down, but inside, where there were roots to break his fall after a few tendon-tearing jolts.

Scrambling for a decent foothold, Kirk felt a fetid, putrescent push of gas-air on his back. He wrenched an over-shoulder look. He screamed. The worm's dilating mouth was mere feet away.

It must have been war reflex. It must have, because Kirk's mind was petrified with blind horror. His hand dipped the blaster out of his belt, while his other limbs glued him to a thick spectral root. He let the monster have it full in the eyeless face.

The stench was deadly. Kirk vomited his guts out and clung.

Funny how he was so cold. He shivered, yearning for that eyeball in the sky. When he could move at all he swabbed the cold wet off his

face and downed three fast-energy capsules. Two were supposed to be the limit. His trembling fingers managed the cork on his canteen and his teeth clattered on the metal neck while he drank.

The pills and his brief rest bucked him to the point of casting fearful glances back toward the open hole for more worms. There weren't any at the moment, but he glimpsed vague blue nimbi and thought he heard subterranean slurpings.

The thing to do was to move further into the thicket where they couldn't reach him.

So he did it.

He waited some more, in a root-crotch, while the energy pumping out of glands and through his aorta made action and thought feasible.

"Up," he heard Grandfather tell him, out of the ghostly finger-trees. "Get back up to the surface. You don't belong down here. This is for worms and *muertos*."

Twelve years old again, Kirk meekly began the hand over hand ascent. It was plain hard work. The root-vines of the briar were slimy and they got denser as they began to show dirty beige color. After while the tangle became impassable. A last energetic up pull wedged him into a foetal crouch from out of which he couldn't budge.

"I'll have to go down a ways," he told Grandfather, who knew when to keep his mouth shut.

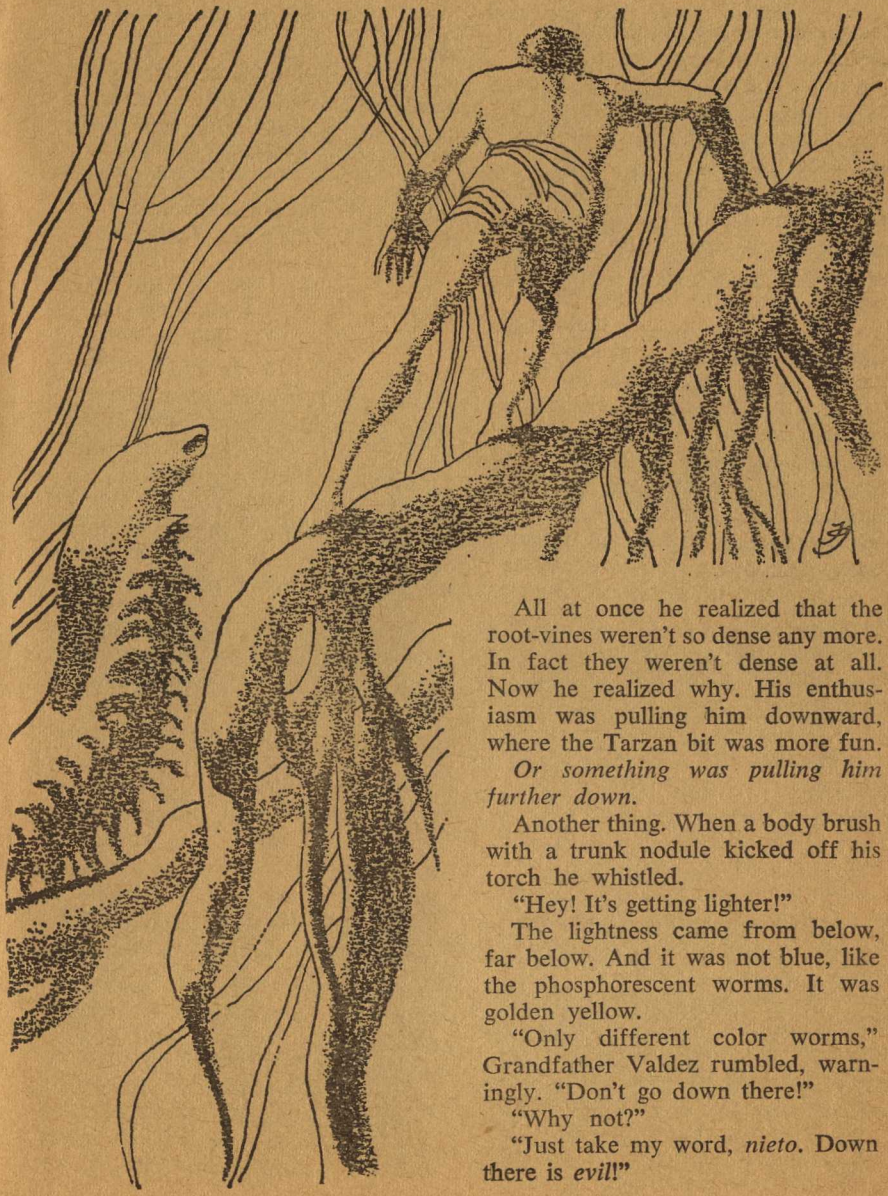
Unbuttoning himself from his cocoon, Kirk slid sinuously downward until the twisting pale shapes around him thinned out again. But now—which way was the hole?

Grandfather Valdez didn't know either.

The only thing he could do, he decided all by himself, was to move down just a little more where the Tarzan-swing technique could be employed. He would crisscross until he reached the pore-hole he had come down, or another. He was bound to hit one sooner or later.

The winking light at his waist made him a muscular firefly, scrambling, swinging, getting more deft and surelimbed by the moment in his eldritch underworld. When he uptilted his canteen and found it dry he refilled it from Patch rainwater in a hollowed-out crevasse. He swallowed more capsules.

"He floats through the air with the greatest of ease!" he sang, plunging blithely forward.



All at once he realized that the root-vines weren't so dense any more. In fact they weren't dense at all. Now he realized why. His enthusiasm was pulling him downward, where the Tarzan bit was more fun.

Or something was pulling him further down.

Another thing. When a body brush with a trunk nodule kicked off his torch he whistled.

"Hey! It's getting lighter!"

The lightness came from below, far below. And it was not blue, like the phosphorescent worms. It was golden yellow.

"Only different color worms," Grandfather Valdez rumbled, warningly. "Don't go down there!"

"Why not?"

"Just take my word, *nieto*. Down there is *evil*!"

Grandfather lately had the habit of using words and expressions Grandfather Valdez of the ranchito would never have used. His wisdom was great but it was non-technological. And sometimes it came out more like Old Lars. But, however it came out, and Sigmund Freud bedamned, Kirk was grateful for Grandfather. Even when he gave him an argument and went too heavy on El Senor.

"I've got to move in just a little closer," Kirk protested. "Find out what gives down here."

"Don't do it!"

"Why not?"

"Whatever it is, it's devil's work!"

"Sorry, Grandfather," Kirk grinned.

He pulled the blaster off his belt and swung ahead.

The air was cold and—was he smelling things?—he kept striking zones where the characteristic stench of gas and briar dwindled and his grateful nostrils caught the tang of flowers. *Flowers!* He'd swear it! Tantalizing winds wafted up from the wan beckon of golden light. The raw heady fragrance of gardenia and lilac and crushed rose petals.

"I don't believe it, Grandfather!"

"Stay away from there!" Grandfather growled. "I'm warning you! It's a trap!"

Living among Gila monsters and rattlers and scorpions, Grandfather's nature was caution. Kirk's brash curiosity and got-to-know came like a set with his Irish temper. Something was tugging him down toward that light. Something was sending up that mind-tilting scent of mingled flowers. It wanted him to come down there and he had to go. A trap, maybe. Still, he had to go.

The glow brightened, became ethereally, hauntingly beautiful after the dirty browns and mustards and sick purple clouds. His eyes leaped with mounting wonder, his heart with hope and joy. When it burst out in prismatic glory from between a dark pocket of briar he gasped, almost sobbing with incredulous hunger.

He forgot that he was hunting for a hole back up.

He moved toward the alien transfulgence, like a moth toward a glowing sweet-smelling flame.

"*Kirk!*" Grandfather's shout hit his aural sense weakly. The others overshadowed it. "*Kirk! Run!* Go back before it is too late!"

"Back?"

Back into that black and white stench? Grandfather did not make good sense, but he would humor the dried-up old man.

"Gad! The relief to smell something nice, after all that time on a manure pile! Don't you understand, Grandfather? A man can get used to a bad smell. But he can never *like* it. Know why a man hungers after a pretty flower smell? Because it identifies in his mind with a—"

She appeared, right on cue.

V

At first she seemed to be a part of the light itself, a green-gold shadow dancing on the shimmering meadowland of pale fire so bright after so much darkness that Kirk's

optic nerves ached from it. She danced to unheard rhythms. Moving nearer, she was a starblaze of gold-green that took hold of Kirk's nerves and glandular outpour so that he forgot that he was a tree-animal and let go.

He toppled. Right into the shining meadow. It was soft, silken soft, like the dream of heaven.

Gulping, he lifted half up to watch her dance. Her long golden hair was spun out of dreams. Her oval face was beautiful, with pale rose lips and flashing seagreen eyes. Kirk hung on his elbows, gaping.

"Grandfather!"

Grandfather Valdez wouldn't answer. He was angry, Kirk knew. He didn't like any of this. The girl was too radiant. The meadow was too silky soft, the lights too bright. Such beauty must necessarily be evil . . .

While she displayed her body in her joyful dance, Kirk stared, not daring to blink his eyes lest she disappear. He knew, without permitting himself to admit it, that Grandfather's voice came from inside his own head. But her! The shining soft meadow. The perfumed breeze. The dazzling color. It must not be a dream. He wouldn't let it be.

He waited, climbing to his feet, watching her finish her dance in an agony. The thing that gave him hope was that she was incredibly unlike any girl he had ever seen before. Grandfather Valdez was Grandfather Valdez, with maybe a little Lars mixed in. But Kirk's mental images contained no glorious ballerinas. He was the non-art type, strictly. So she *had* to be real!

She finished her intricate performance with a low to-slipper bow. Then she ran to him, laughing.

"I'm so glad you've come! We've been waiting. What kept you?"

She took his arm and led him across the Daliesque field.

"Who are you?" he blurted. "You're like a bright shadow! But you aren't a shadow—you're real!"

"Of course, Kirk. My name is Sombra."

"Sombra . . ."

"And I'm yours! Hur has decreed it!"

"Hur?"

She nodded while she made an obeisant sign. Then, with a breathless laugh, she tugged him across the bright field into a membranous swathing of silky draperies that parted at her touch to allow them to pass through. The odd tri-dimensional curtaining closed behind them.

Kirk found them now standing on a plastic-like dock, blinking out across a wide emerald sea. Under a great gulf of sky that seemed to be a selflit opaque web shimmered, in the distance, a city. A city of green and black and silver towers, baroquely extravagant towers that were utterly unlike the steel and glass Levels of Terran cities. These fluted, rococo towers were livable, but designed for beauty, like everything else Kirk saw around him. A series of graceful arches rose up out of the silver-waved water and here and there were green gondolas floating among them like ornate melon wedges. One of these gondolas was moored at the ramped lip of the dock on which they were standing.

Kirk gasped, awed. Kirk was a fighter and, on occasion, a lover. But he was no artist. His sketchy education was a mishmash of Grandfather Valdez's homely philosophy and rigid war training. There hadn't been much time for frou-frou, and little inclination.

Now, between Sombra's ballet and *this,* he found himself flung into an art culture. Wholesale!

It bothered him just a little. He didn't belong here. Grandfather was right about that, at least. Not that Kirk was insensitive to beauty or anything like that. The saffron glory of a desert sunset had struck him dumb more than once, as had the splash of new stars through the aft port of a spacer.

After the manure heap, this haunt of radiance was almost too much. It would take a while . . .

He came to when Sombra touched his arm and urged him into the boat's cushioned seats.

"Shall we? Morl is waiting to give us his blessing."

Kirk climbed in, parking his slimed, benicked body gingerly on the embroidered yellow pillows.

"Morl?"

"The High Priest of Hur."

"Oh."

Kirk looked down at the deep green water, rippled silver where the gondola's rocking made gentle waves. He started to dip a hand down.

"Don't touch it!" Sombra cried.

"Why not?"

"Never mind just now. Kiss me."

Kirk obeyed. The boat rocked. His mind rocked, too.

"That's enough," Sombra laughed. "For now. Sit back and enjoy the trip. Syylva is beautiful, no?"

Kirk admitted that it was extremely beautiful. He might have added a little wild for his taste, but he didn't. Another part of him wondered how the boat was propelled. There was no gondolier, like in the ancient Venice. No evidence of controls or motors. The boat was an artistically carved green shell. No oars. No oarlocks. No poles. Nothing.

Sombra flashed him a happy smile as she lifted a thin yellow tube coiled in hiding behind her cushions to her lips. She spoke sharply into the tube. The boat moved swiftly away from the dock at the web-curtain's edge. It sped toward Syylva, leaving a dazzling ripple of silver in its wake.

"What have you got down there?" Kirk grinned. "A school of trained fish?"

Sombra shook her head, smiling.

"Later, darling. Take it easy. You will find out everything there is to know about the Syylvi eventually. For now, just concentrate on me. Please?"

"A pleasure."

He moved in close. The gondola was made for amorous dalliance. So was Sombra. Right now she pushed him away gently. The way she wrinkled her nose told Kirk why.

The Syylvi loved beauty and Kirk needed a bath.

He scowled ahead at the elongated arches through which the gondola was gliding. There was a lot of

promise behind Sombra's smile. Curiosity nagged him into blurting out some of his more obvious questions.

"Who are the Syylvi? How did they get here? How did you know I was coming? Can't you tell me something?"

Sombra sighed.

"Just that we are human, like you. The Syylvi are the descendants of one of the early colonial starships. The ship crashed into the — the —"

"Briar?"

Sombra shrugged. "We don't know much about Up any more. We never go Up. We have everything we need here. Our lives are dedicated to artistic endeavors — and love." She laughed. "We have some of the old music on tapes. There was an opera called *La Tosca*. She sang an aria about it. That her life was dedicated love — and to Art."

"Just before she stuck a knife in the basso," Kirk muttered thoughtfully. "You mean to tell me that the Syylvi don't have to work? To cultivate food? Build their houses? To —"

He broke off at her blank pained look. The pain part was because she didn't understand what work was. Kirk realized it by a kind of empathic glimpse behind those lapis lazuli eyes. Sombra was completely dumbfounded by the concepts of toil and honest sweat!

"I've read some of the old books," she told him. "I am permitted because I am a Chosen. I *know* how hard they worked. But when it isn't necessary and . . . Isn't it nice to be able to just play? Create beautiful things? Perform beauty, like my dancing? Isn't that a good thing?"

"Dreamy," Kirk admitted. "There has been a lot of rubbish talked and written about hard work. Even Grandfather . . . But why not a Utopian paradise where everyone puts his drive into creative beauty, and gives his libido a break? If a civilization has, like yours, somehow licked the survival gig, why not just sit tight and have a ball? Why go out and kill yourselves conquering new stars — like Terrans keep doing? Where's the end to it. Maybe you've got it made right here. Maybe . . ."

His eyes glazed on the strange towers rising out of the emerald and white fire. Sombra's hand on his arm made him jump a little.

"I'm glad, Kirk. I'm so glad you understand. I was afraid you —"

Kirk found himself pushing her away. It was as if Grandfather Valdez was trying to put an oar in, warn him that Shangri-Las were not always just what they seemed. Total happiness did not come that easy, if ever.

"I'm not sure," he told her. "I've got plenty more questions."

Sombra's face was marble-tight, her eyes clouded.

"We're almost to the Temple," she said. "High Priest Morl will answer them. He will make you understand who and what we are. Then you will be really mine — I hope."

VI

The green gondola moved more slowly through the last archway and along the watery streets

toward the high central Temple. In other boats and on convex docks at doorways they passed, Kirk saw other Syylvi. They were beautifully, extravagantly dressed in colorful clothing of a Rennaissance Italian cut. The architectural style of the pastel buildings was, as well, bizarre and overblown, yet there was an overall pattern. All branches of this culture-vulture civilization had gotten together to produce one overall effect. He hoped it was a passing trend. It was too much.

A murmur into the yellow tube and the gondola moored itself gently at the mosaic dock between two green and black striped poles. Up a series of wide concave steps flanked by wild sculpturings was the imposing door to the Temple. As Sombra led Kirk up and through many esthetic chambers and corridors, Kirk noticed that machines of all kinds were absent. No elevators. No switchboards or move-ramps. It was shank's mare all the way up to the High Priest's private audience chamber.

High Priest Morl's sanctum door radiated a smoky opalescent light and Kirk could have sworn that all the walls of the Temple — an opaque dustless shell-hard material — exuded the mingled flower scent that had tugged him to Syylva.

Two pale, pink, bald servants ushered them in, then vanished.

Morl sat on an ornate ivory-like bench, on soft green velvet. The coral walls of the round room pulsed with translucent, soft light. Behind the High Priest a curve of high balcony gave onto a hauntingly beautiful vista of silver towers and a series of arches rising out of the emerald water and leading to a labyrinth of floating gardens beyond the city itself.

Nor was there anything of the ascetic about Morl himself. He wore a closefitting doublet and hose tunic of alternated turquoise and bitter-green stripes, a tossed back cloak of velvet black, lined with turquoise silk, and his dyed reddish hair was crimped into tight Roman curls. His powdered amber face had an ancient combed look.

Those brooding leaden eyes leaped joyfully when he saw Kirk. Behind the artfulness was concealed something Kirk right away disliked. It was as if, to Morl, the others were laughing, gamboling children. His own primping and posturing was all on the surface.

"We were beginning to wonder if the scavengers had got you in spite of —" his eyes flicked Kirk critically from head to toe — "the good report."

"The blue worms are scavengers?"

Morl nodded. "They take care of the trash." He seemed to study Kirk's every eyeflick. "You may go, Sombra."

The girl clung to Kirk's hand.

"Before I go, Sire —"

"Yes, child?"

"The Blessing, Sire! I was next Chosen!"

Morl's mouth curved slightly at her breathless tone and the flash of triumph in her eyes. "The young man?"

"I guess I can speak for myself," Kirk told them both. Sombra's wide-

eyed look and intake of breath made him grin. "Come to think of it, Barkis *is* willin'."

"Of course."

Morl beamed on them paternally as he moved down from the carved bench and knelt on the polished floor. His movement was an oft-repeated one, Kirk could see, and now he took careful notice of the floor. It was uncarpeted, like all of the floors, translucent as opal milk, and fraught with an intricate design of vines, large ones and small ones. The colors ranged from pale pink to blood red. There were violets and blues, too. Kirk was reminded of something and guessed it was the tangle of briar upside. The design was amazingly three-dimensional, and at intervals, where the curlicues ended, were small scarlet blooms that seemed almost to push up out of the floor itself.

There was one just at his toetip.

Kirk stared and a swift upsurge of revulsion made him leap back. But Sombra was kneeling before one of the larger flowers, too. And both she and Morl were waiting for him to do the same.

"We simply want Hur's blessing," Morl said testily. "It only takes a moment."

Sombra said, "Please?"

Kirk sighed and shuffled, then joined them. The yielding warmth of the scented floor against his bare knees bugged him. Morl's invocation of Hur was a brief fervent whisper, after which he kissed the red bloom. Sombra followed suit.

Kirk tried, but he couldn't. *When in Rome,* he told himself. It would make Sombra very happy, and what did it amount to, anyhow? But he just couldn't. Maybe Grandfather knew why.

Following a luxurious hot bath and a ten hour sleep, in an overly arty but otherwise comfortable room, Kirk was brought breakfast. One of those deadpan Baldies set it down by his opera-prop bed.

"Hey!" Kirk blinked wryly at the carafe of cider-like liquid and the matching goblet on the gold tray. "Is that all I get? After pills and briar tortillas I was hoping—"

The pink blank-faced servant moved out like a zombie.

Kirk poured out some of the yellowish liquid, sipped. It was delicious. Pure nectar. He drank it all and in ten minutes he knew why that was breakfast. The strength of a bull shoved through his veins, along with the fierceness of a fighting cock. Now he knew why all the Syylvii enjoyed such magnificent health and made love like so many minks.

Morl saw him, but briefly. Kirk could tell he was miffed at him for not following through with the floor ceremony. He waved back Kirk's barrage of pertinent questions.

"If you expect to live with us and enjoy all the privileges Hur grants us, the very least you can do is—"

"Pay Hur lip service?" Kirk quipped. He grimaced. "I couldn't. Not just now."

"Later, then?"

"I suppose so. We spacers have our own kind of religion. It's vague, but it's nearly always there. The further Out we go the more there is

to wonder about. Most of us admit that there must be some kind of Force." He shrugged. "But I've run the gamut. Grandfather's El Senor. The Venusian's plant-gods. I know every race has to have something bigger than itself to look up to, and generally does. Your religion goes right along with your Art, seems like. And —"

"And Hur is real. Very real."

"To *you* — sure. After centuries down in this hole."

"Is that how you think of Syylva? A hole?" Morl started off in a huff.

"Wait! I didn't mean it like that! Your floating city is beautiful. The most beautiful place I've ever seen, I guess. But — if you could explain just a few things. Maybe then I'd fall into the mainstream of your life better." He scowled down at the red flowers in the translucent floor. "You seemed glad to see me, at first. You need new blood, I guess. Is that it?"

Morl nodded.

"Hur — that is, we — find that virile new genes keep our race strong. We want you, yes. But it must be on our terms, not yours."

"What's you mean exactly?"

The High Priest's lead-gray eyes poked out sharp needles. "You must worship Hur as we do."

"What if I can't?"

Morl made a shivered gesture up. Kirk thought about the blue worms, the Syylvi trash-disposals.

When Morl turned briskly away, Kirk grabbed his arm. "Is it all right? About Sombra and me?"

Morl nodded. "Provisionally. But you must pass the final test."

"Test?"

"In a month's time we have our yearly Glorification Festival. You will participate and learn everything. All there is to know about Hur and the Syylvi. Meanwhile, Sombra is permitted to show you all of our wonderful art. The floating gardens. The museums. The performances, opera, theater and ballet. She hopes that you will come to love our way of life and never wish to leave." Morl's coolness relaxed a little. "So do I, my boy."

Kirk followed him to the door.

"Can't I ask one question? Just one?"

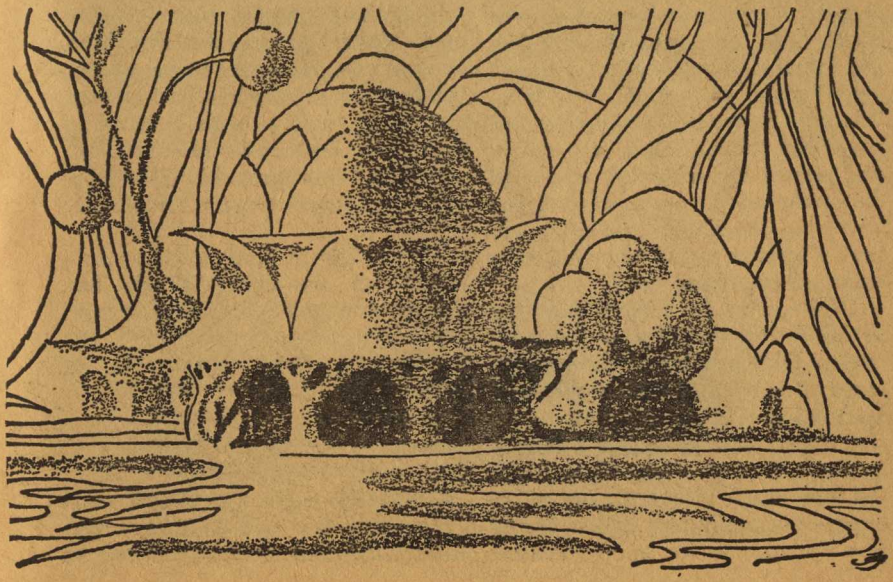
"You can ask."

"How did you find out? I mean, about my landing on the Patch and living up there on the surface? How did you *know?*"

The High Priest's eyebrows tilted. "Hur, of course. Hur told us."

With Sombra the weeks soared by. Every day was a gift-wrapped package of new delights. Kirk was no great art lover, but Sombra's blazing enthusiasm was contagious. He found himself wondering where all this had been all his life. All the patterned complex beauty that thrust itself into his senses and fed them with intermingled color and sound and texture as they had never been fed before.

Sombra did it, sure. It was a joy to float through the carefully cultivated and arranged gardens in their green gondola, listening to the music of lutes and pipes coming from nowhere and everywhere, with Sombra in his arms.



But more.

Everyone he met shared her happiness. Maybe it was the golden elixir. Maybe it was getting to him, too. At first their overlarge way of riding their various art-gigs made him wonder if they weren't just a little off center. But he soon found out how wrong he was. No. It was just that, over the centuries, generation after generation, with no menial outlet for their boundless energy, they turned to Art. With a Capital A. It had happened on Terra, too. Bountiful, warless eras had fostered bursts of brilliant creativity on the genius level. The Syylvii had genius, in spades.

It was natural, too, that their art related closely to their religion. That long-ago lost Earth colony had given themselves up for dead, up there in the briar which broke their limping descent. Miraculously they had been saved. And, more miraculously, they had found this underworld ocean and the wherewithal to build their fabulous city. Instead of death they had found the paradise all Terran colonists prayed for, colonists who fled the coldly mechanical, overcrowded Levels of the Cities, willing to endure almost any kind of privation in exchange for elbow room.

Down here in their Eden, the Syylvi worshipped Hur and demonstrated their gratitude, while at the same time feeding their souls, with all manner of creative beauty.

It made sense. While the days spun by in a glorious blur, Kirk forgot the questions boiling hotly out of his always curious mind, and accepted Sombra and all she stood for as if he never wanted to know what lay behind that glowing webbery arched over this emerald sea.

Forget it. What difference did it make. Who. Where. Why . . .

Not Grandfather Valdez.

He came back, in the middle of the night. He nagged at Kirk. His rough voice rolled over Kirk like a burred tumbleweed.

"You've got to get away, nieto! *Before it is too late!*"

"Grandfather —"

"Callate! Get up, right now! *Go!* Leave this devil's place. Go back where you belong — back to El Senor!"

"Back up into the bad smell and loneliness? Is that what El Senor wants for me?"

"This place is evil. The beauty is an illusion. The god they worship is the Devil!"

Kirk lost patience with Grandfather Valdez. It was the first time. Before now, like when he was twelve, he had kept his lip buttoned and accepted El Senor — with a barrel of salt. Now he told Grandfather off, until the harsh admonishments dwindled away and vanished back into lost time.

"I can't leave Sombra," Kirk muttered into the dark. "I love her. Besides — the Festival is tomorrow. And I've got to know! Don't you understand, Grandfather? I've got to!"

VII

Preparations for the Glorification Ceremony took the whole year. Kirk had heard about the weaving of

the Veils, the specially grown flowers for the garlands, the elaborate costumes. Evolved beyond the necessity of earning their daily bread, somehow or other, the Syylvii put all of their passion and energy into their art — and their art coelesced and cummulated into this one great Day of glorifying Hur.

Kirk was striding his room impatiently when the Baldie rapped on his door and entered.

"Where's the elixir?" Kirk demanded.

The servant's odd waxy arms were empty.

The Baldie just beckoned for him to follow.

Grumbling, Kirk had a vague back-thought about churches and how you didn't eat before special ceremonies . . .

Following the Baldie down hall, Kirk noticed something about him. Up to now the very blankness of the pink ones had made him consider them to be like part of the building. Now he noticed that the Baldie's splayed feet, as he lifted them ahead of Kirk, had suction-like cups on the bottoms, cups with holes in them, and that he walked very carefully in line with a row of pinkish flower-buds in the floor.

Kirk whistled, touching the blaster he'd tucked in his tunic.

"Damn it, they *are* part of the building!"

Everyone in the sea-city participated. The nave of the temple was ablaze with pageantry and brilliant color. The music was magnificently happy. Cymbals crashed. Reedy pipes sang sonorous chants. Voices proclaimed the glory of Hur. The scent of a billion flowers filled the temple. The high-vaulted chamber seared Kirk's eyes with kaleidoscopic light and color.

Kirk hung back in wonder, fighting a sneeze from the flowers. The great banners and veils that the Chosen wore, he noticed, shimmered with a jeweled replica of that intricately intertwined vine-and-bud motif in the Temple floor. It seemed to personify Hur, somehow. Also it tantalized Kirk with its familiarity. His brain flicked back to when he was in school. Something about charts at the front of the classroom.

His mind had no time, nor room, to pin it down. All of his capacities for sensation were being titillated by the wild bacchanale of sound and color and organized movement.

High Priest Morl's preliminary invocation completed, a profound reverent silence turned the enormous gulf of space into a vacuum. Not an echo interrupted the hush. Then —

Kirk looked where they were all looking. At the front of the nave, at a tremendous scintillating mosaic that covered the entire end of the chamber. A mosaic of pink and red and violet and blue vines and buds. What else?

While they watched eagerly, the mosaic split down the middle, revealing a wide ramp leading downward. The pitch was steep; the ceiling was festooned with silken banners embroidered with vines and buds, and the terminus of the long tunnel could not be seen from distance.

A joyful smash of cymbals and the procession began.

High Priest Morl was at the head, holding a long ornate staff with a rosebud ruby at the tip. He touched the staff to the floor from time to time, as he led the singing, dancing, capering worshippers down the tunnel.

The Chosen girls came next. Kirk glimpsed Sombra, her face radiant with the same ecstatic, overpowering emotion that all of Morl's flock were displaying. She wore a sheath of silver and a cobweb of veil.

Behind the Chosen was a group of young men and not so young men who were different, somehow. They weren't Syylvii, Kirk decided. No. Something about them, a lingering toughness in their faces. Like Kirk, they were outworld. They were from Up. Like him, they had somehow got lost of the Patch and had wormed their way down here to become absorbed in the Syylvii. They were the Chosen of the Chosen who, no doubt, represented the crest of the young Syylvii maidens.

Kirk pushed his way through. If only he could talk to one of them.

He grabbed one youth by the upper arm. "Tell me—"

The young man brushed him off coolly. His fixed smile dropped when he faced Kirk. He jerked away and glued it back on quickly. His eyes worked hard at the fanatical fervor, too.

Kirk toddled along after them. Oh, well. It would not be long now.

The long tunnel terminated finally in a large round chamber like an inverted cup. In the center of this chamber, under an opaque membraneous ceiling shot with a network of vines and buds, was a down-drop of some kind with a wide two-foot lip around it. It was vast. The whole thing was fantastically *big!*

The procession, under Morl's benevolent direction, moved around this lip, making a series of queues. The worshipper at the head of each queue knelt at the lip of that cavernous drop.

Kirk was beginning to get ideas and the ideas and hints were beginning to mesh. He reeled back, dizzied by what those ideas were. His hands pressed the wall behind him.

The wall behind him gave. It was warm, and it pulsated gently.

He jumped away. His eyes glued themselves to Morl. The High Priest was standing on a half-round podium; his face was fanatically aglow, his arms were outspread, his unctuous sermonizing had his congregation under a spell. To be permitted to enter *here*. To be permitted to worship Hur in this hallowed place . . .

Kirk's hand touched the blaster hidden in the folds of his iridescent green-blue tunic. His fingers itched.

Morl lowered his arms in a gesture of benediction.

While those in behind chanted and the lutenists plucked out romantic cascades, those at the front bowed their heads close to that altar lip.

Kirk found himself moving closer, between the lines of chanters. Nearer, he saw that the perimeter of the round altar or chancel-railing was spaced off by small indentations,

like cups. While he watched, while the communicants moved their lips closer, the cups raised and filled up from underneath.

With the yellow elixir.

Kirk's yell was a dream-thing, strangled off by what was choking his throat.

But he had to see it all.

He had to get the full treatment.

He brushed through the lines of chanters waiting their awesome turn at the actual elixir source. There were gasps of indignation, but this was a holy moment and surely this outsider wouldn't —

But he did.

Moving in a drunk's stagger, or as if he had been poleaxed, he swept communicants out of his way until his thighs struck the altar. His palms slapped down between the built-in cups as he bent over for a look down. Like the chamber's wall, the altar yielded to the touch and was warm, warm like a cow's udder.

And down below.

Kirk's scream was also a childish whimper. He was refuting what he saw and knew for sure, now. He screamed again and this time his screams turned into colorful space oaths.

He pulled out his blaster, pointed it down at the whole pink-yellow mass of writhing anatomical stuff and fired. Over and over. Until something whipped out of the floor and the ceiling with lightning speed and sheathed him in a gelatinous embrace. And squeezed.

There were blurred visions, coming back to life. Sombra's beautiful face, tortured by tears for him. Morl's face, dark with righteous anger.

"Come away, child," Morl was telling the girl sternly. "Your intercession as a Chosen saved him, but it's my conviction that he is hopeless. Some of them are, you know."

"But it was such a shock!"

"Not so much, after all. Do Terrans not, after all, worship 'Mother Earth' all of their lives? In the old days she gave them life, out of her bosom, as Hur gives us life. Even now they have her to thank for existence. In our case the gifts and the obligations are more obvious, that's all."

"I still feel that if we could tell them more gently —"

"Gently! How? No, child. Our priests have deliberated and pondered for centuries on these matters. There is only one way to tell them and that is to *show* them. First the idyllic weeks of learning what we do with our lives, the beauty and joy we create. Then the knowing. Either they accept or they do not and the worms get them. After all, what is life but a choice? No, child. He must accept it as it *is* or . . ."

"Let me talk to him!"

Morl hesitated. Kirk's fast-mounting awareness stung from the High Priest's ascetic indignation at what Kirk had done. To have interrupted their most sacred yearly ceremony. In the Holy of Holies! To have actually tried to destroy . . . That it was impossible did not expunge the intolerable guilt. Hur was too generous.

"No." Flatly. "I must talk to him

first. I will answer all of his questions. Lay it on the line. Then—"

"May I try, afterward?"

There was no spoken answer, only Sombra's sobs dwindling before a door closed.

VIII

Kirk hiked up on the cushions and met Morl's stormy gaze evenly. When the High Priest proferred him a goblet of elixir he shook his head, shuddering.

"You've already had sustenance, thanks to Hur's benevolence and Sombra's pleas in your behalf. Whatever you think right now, our life-elixir is not drugged or pro-Hur in any manner whatsoever. We Syylvii are not slaves. Not even to Hur. We worship Hur out of pure gratitude and understanding."

Kirk contrived a weak grin.

"Did she spit me out?"

Morl's steel-bright eyes burned holes.

"No more levity, Outsider. Remember that you are talking to Hur's High Priest, the last of a—"

"Of a long line of fanatics, who keep their race of parasites busy dreaming up art and music all year long to glorify a big blob of a planetary host while Hur synthesizes life juices out of Hur body to keep Hur parasites well and happy. I wish I could laugh!"

Morl ground his teeth but held back. After all, if Hur could forgive, he must. Kirk watched him pace, sweeping his gold-embroidered robe back, staring fixedly down at the rosebuds in the floor for strength. Kirk stared, too. And knew. The arterial red-and-blue pattern within the opaque floor was not a pattern at all. It *was* Hur, and the rosebuds were nerve-endings. The Temple was an upthrust part of Hur, the sea was fluid from Hur body. Even the ceiling over his head and that infinitely large selflit membrane over all of Syylva was part of Hur.

Kirk snapped shut his eyes. Everything! *Everything* was Hur or synthesized benevolently out of Hur for the benefit of her symbiotic parasites.

When he spoke, Morl's voice was shrill with suppressed anger at this presumptive infidel. But it warmed as he spoke on and on, out of well-learned scriptures.

"Try to see that starship of ragged, halfdead colonists landing in what you call the Briar up there. Decades in blind space. Inbred and half-insane from the long impossible trek and inconceivable horrors of all that nothing out there. Try to empathize. What were their feelings?

"First of all, by now they despised Space. They loathed the very idea of sky and stars. They had had too much nothing. Moving out of the ship that had become like their tomb, they were grateful just to be alive, to be permitted to cling and move about in the vegetation. Just that was enough. And the Briar was food for them, too. It strengthened their gaunt, hungry bodies.

"They were so grateful to be alive and out of that horrible ship they knelt and gave thanks to this planet. For life itself. That was all they asked, for now."

The High Priest brushed his eyes.

"It is all on the Holy Tapes. How they began to explore. Their wars with the Worms. Saint Kenneth's first contact with The Mother. The stirring interest in Hur's benevolent Soul. The eventual liason between what became the High Priest Cult and Hur. Mysteries forbidden to the rest, but involving great benefits to them. First the Elixir. Then the building of our city. Our Temple to Hur."

Morl whirled sharply.

"Don't you understand *why* we pray? *Why* we worship Hur?"

"Because she gives you everything you need? Because she is able somehow to create these things out of the raw materials in her body?"

"That, of course!" Morl's voice was husky with emotion. "But don't you see? If we don't pray to Hur and please Hur with ornaments —"

Kirk whistled.

"I get it. If she becomes displeased with you for any reason — for even such a thing as *me* and what I pulled — she can squeeze you all out of existence!"

Morl collapsed shuddering onto a silk-cushioned bench.

"We do not speak these things. Only our High Priests dare *think* such things. The others go blithely along."

Kirk filled in the details. The Priests didn't even want to burden the populace with fear that some day their planetary host might become bored with the whole colonial sac on Hur belly and send an army of leucocytes (or equivalent) to snuff them out. No. Better that the people think of Hur as all-gracious and all-loving — everlastingly bountiful. Hur was that. And, Kirk had to admit, Hur was generous and forgiving. Generation after generation Hur gave all, asking only a little gratitude in exchange. Many another god could take lessons from Hur . . .

His ecclesiastic lecture completed, Kirk went back to his room to roll it all over in his tetering mind. He sat down on the wondrously soft bed and absently poured out a goblet of his dinnertime nectar.

He sipped. It was still delicious. It still filled him with tingling energy and verve.

He pushed it away from him with a groan.

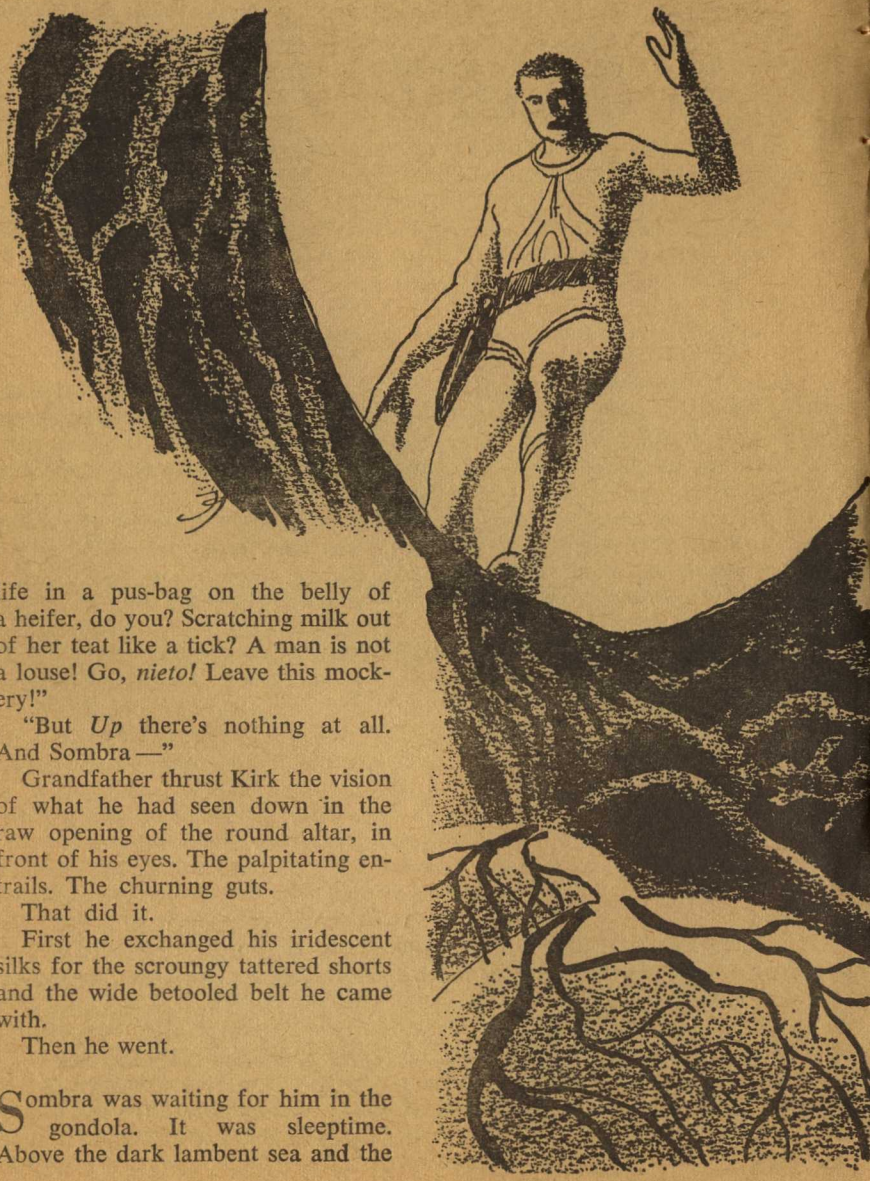
He wondered about Hur. Where did Hur come from? Beyond the known universe, probably. Strayed, in some incredible way, out of Hur's inconceivably huge frame of existence. And, alone here in this strange lonely place, unable to procreate with her own cosmic kind, she made friends with her parasites, as a lonely dog might make friends with its fleas.

Kirk presumed to feel sorry for Hur. Hur was lonely, too. And to such an outsize creature, years and centuries went by in blurs. Eons were Hur time-steps.

In the muddled middle of Kirk's ambivalent emotions, Grandfather Valdez stepped in.

He reminded Kirk that El Senor was God and that all others were paste; or at best, reflections of Himself. Then he chided Kirk with horny-handed scorn.

"You don't want to live out your



life in a pus-bag on the belly of a heifer, do you? Scratching milk out of her teat like a tick? A man is not a louse! Go, *nieto!* Leave this mockery!"

"But *Up* there's nothing at all. And Sombra—"

Grandfather thrust Kirk the vision of what he had seen down in the raw opening of the round altar, in front of his eyes. The palpitating entrails. The churning guts.

That did it.

First he exchanged his iridescent silks for the scroungy tattered shorts and the wide betooled belt he came with.

Then he went.

Sombra was waiting for him in the gondola. It was sleeptime. Above the dark lambent sea and the

silver-etched towers and arches, the 'sky' was sprinkled with shimmers of colored light against the dark, like some remembrance of an artful Christmas tree. Frowning up and out, on the curved dock, Kirk remembered now that the Syylvii hated Sky and Space. Those first hard-pressed colonists had grown to detest Up and Outside and taught their children to fear and hate it. They loved the artificiality of their cosy womb world. It gave them the kind of instant and constant security Terrans remember in foetal memories, and long for when the going gets too tough.

"Get in," Sombra told him. "I'll see you to the End."

Kirk climbed in the boat.

"That what you call it — the End?"

"What else is it?" Sombra's whisper was toneless with pentup emotion. "For we Syylvii there is nothing else but *this.*" She gestured at the glory surrounding them. "We make it as beautiful as we know how. Then, when we tire of that, we remake it." She smiled. "You know how it is when something new appears on the scene and stirs things up. Things change. You did that. I expect that within a year our art trend will reflect *you.*"

"Thanks."

Kirk's face went tight. He was determined not to let Sombra's talk or her love influence him. She had all of this bred into her and, as a Chosen, she was in on some of the Mysteries Morl had hinted at as well. Kirk loved the girl, sure. For her beautiful body and her talents. But something deep inside of her must always repel him. They were light-years apart.

He tried not to look at her while the gondola moved in a silver-wake tangent across the jade sea.

"What are they?" he asked. He pointed at the water.

"Some kind of creatures living in Hur's body. Like us. They are conditioned to respond to our speech." She spoke easily, as if indifferent to what he thought or that he was leaving her.

It hadn't occurred to Kirk that Sombra had a brain. She was too beautiful to waste time thinking.

"I'm a Chosen," she laughed. "We are permitted access to the study-tapes. We learn quite a lot about Hur's life processes. With reverence, of course."

"Of course."

She flashed him a swift look. "You can't accept, and you find it hard to understand how we can. Right?"

"Impossible is more like it."

Sombra smiled.

"Every civilization has its gods, hasn't it?" she said lightly. "People need them, don't you think? The emptiness when life goes is too much to take, for most people."

"And you?"

"We Syylvii are wonderfully lucky. We *know* our god is real and that Hur loves us. Hur gives us all we ask and we adore Hur for it openly and gladly. We—" Kirk was shivering at what he had seen down in the hole and Sombra knew it— "we see Hur with different eyes. What we see gives us new confidence and recharges our love . . ."

IX

It was a long brutal pull to the surface but the sight of that great eye of the sun blazing behind the purple sack-clouds was worth it.

Kirk sank to his knees, sobbing. This was it. He belonged up here in the sight of open sky, not down in the guts of some crazy outrage in nature. Man belonged on the Outside of his worlds. Ever since the first grunting Neanderthal had shambled out of his cave and puckered his hairy brows up at the stars in wonder, it had been like that. Grandfather had said it.

Kirk was a Man, not a louse.

After a few hard-to-take days in the raft, Kirk was glad when Grandfather Valdez came back to grumble I-told-you-sos. Everybody knew Hell was straight down and Kirk had escaped eternal damnation in the nick of time. Up there beyond those bursting cloud-sacks was where he must look for help, and he knew from whom.

He pushed back memories of Sombra, of the floating gardens and silver-edged towers. He shoved them down into that altar-hole. He endured. That was all.

Then Grandfather's promised miracle happened!

One dreary predawn he woke, frowned from the fly buzzing in his ear. Only there weren't any insects on the Patch. He listened, incredulous, while it grew into a wavering chop-chop noise. He leaped to his feet.

He clawed the steamed-up bubble, then snapped the hatch open and jumped out, yelling. Staring wide circles into the melencholy mauve, he sobbed in unbelief when he saw it.

A starship's gyro-boat. Still miles off to leeward, its laser needle was crisscrossing the shadowed terrain, searching. Kirk screamed at it, disbelief transmuting to horror that they wouldn't spot the raft. He grabbed up a rag of nylon tarp and ran around it in maniac circles, flapping it and yelling, "Here I am! Here I am!"

For half an hour he knew the poignant agony of hope.

Then, moving directly overhead, its gray-silver hull caught the muted glare of the morning sun as it lifted above the dark horizon. Kirk's knees

went weak when the ship's beam swung slowly toward him and the raft. That rising sun had caught hold of the raft's bubble, too.

"It's El Senor, my son," Grandfather said. "I *told* you."

The beam winked out.

Kirk was sitting on the hatch-step with dangling arms and lunatic eyes. sure the gyro had seen him but had left anyway. They didn't want him. He wasn't worth the trouble of a landing.

It wasn't until the whirring chop of the gyros mounted to a roar and the wind from the blades fanned his face that he dared to believe he could really consider himself saved. His Robinson Crusoe loneliness was over — the ache of being apart from his kind, a galactic discard.

"Lars!" he cried.

He would recognize that lanky son-of-a-space-cook anywhere, even suited up and picking his way across the briar like a juiced-up mountain goat. The gyro hovered, idling now.

"Kirk, my boy!"

Kirk gulped and swore and wrung his hand. He pulled Lars into the raft and kept holding onto him so he wouldn't vanish. If Lars was in his mind, like Grandfather, that would be too much to take.

"We haven't got much time." Lars's eyes clobbered up at the way Kirk drank him in and clung. "The Cap'n won't hold tight much longer."

"Hey! You came here on purpose! To find me!"

Lars nodded. "That was my idea all along, of course. I had to pull a lot of strings, boy. A lot of buttering to swing it. Took a hell of a lot longer'n I figured." He gripped Kirk's shoulders and dug a deep hole in his eyes. "How are you, son? What'd a year on this endhole of creation do to you? Did it —"

"No." Kirk knew what Lars meant. He scowled, thinking about Grandfather. "At least I don't think so. A year! God! Seems like twenty."

Lars gave him a smoke. Kirk devoured it in swift gulps.

"Well," the cook grinned. "You can forget all about it, now."

"Quine?"

"You can forget him, too. He's dead. The way he'd been acting, he was asking for an arterial stroke. He got it. The log writeup about your insubordination was minimized by the crew when you were tried *in absentia*. You're clear, boy!"

Kirk gulped.

"You got 'em to make a trip hell and gone out here, just for a nobody like me?" It was still El Senor, pulling for him. Terran space law wasn't exactly altruistic. The men and money involved was staggering.

"Not quite. Like I said, it was my plan to come back and pick you up. A coupla quickie wars interrupted. Now there's a big one. A real big one. Terra needs all the top gunners she can get. Our ship's on the way to a rendezvous point now. Captain Tolliver can't hold put long so —"

"Let me tell you what I found here," Kirk broke in. "You won't believe it!"

Lars' eyes sharpened. "We haven't got much time —"

But now Kirk was splitting wide

open with the need to tell somebody about Sombra and Syylva. He just had to. In a torrent he blurted out the whole thing. Grandfather Valdez and his warnings. The worms. The shining city. The Ceremony. Morl. What Hur was. And most of all, Sombra.

Lars fed him cigarettes and heard him out. Grimly.

"Lucky we've got a psych-med on board," he muttered under his breath. Kirk didn't need to hear him. The look in his eyes when he stood up abruptly — that was enough.

"You don't believe me!"

Lars sighed and slapped Kirk's arm. "Sure I do. I believe you had a crazy-loco dream. God knows you had to have something to keep your mind busy." He swore shaky curses.

"You don't believe it really happened."

"Don't you see, Kirk? It all figures. This brown cover is like the hide of some stinking animal. That, and your need for people of any kind — especially a woman — did it. You went down there. Sure you did. It was strange. Weird. You've been eating that stinking briar. Maybe it's some kind of locoweed!"

Kirk felt a cold prickling on the back of his neck. A coiling snake constricted his stomach. Could what Lars was saying be the answer? Was the briar some peyote that shot fantasies into his brain? Was Sombra . . .?

"Don't think about it, son. Let it lay. Right now this planet is inside of you, in your veins and your brains, too. You've been living off it, becoming a part of it. A few sessions with a head-shrinker and a few weeks of my home cookin' and you'll be your old ornery, tough self." He snapped down his visor and pushed Kirk toward the idling gyro. "Let's get fogging before Captain Tolliver takes off without us."

Kirk moved across the briar in stormy silence. Lars was rattling off some dry-wit stories about crewmen Kirk knew and liked, but none of it registered. He roved a restless look back at the raft. Odd, that he didn't have one single memento of Syylva that he could show Lars. Take back and get misty-eyed about in the middle of the battleridden nights, thinking about Sombra.

Not one damn thing. Yet — it was strange, after all? Hashish fantasies don't leave footprints.

Kirk gestured for Lars to go up the dangling ladder first. Lars' brittle lips lifted at the ends. He understood. Kirk wanted to take one last look. One *long* last look.

Hand on rung, Lars turned. "You know, there's one thing about your Sombra story that makes it a phony."

"Yeah?" Kirk's voice was a rasp.

"That Morl. The High Priest. He told you those blue worms were their scavengers. He indicated that any Terrans who got down there and didn't want to play ball got disposed of. A sort of precaution against off-worlders finding out about Syylva and Hur. How come they didn't eat you, boy?"

Kirk stared hard into the mist rising sunward out of all the pores in the quivering briar.

"I think I know why."

"Well?" Lars grinned down.

"Sombra interceded with Hur. Like she did before. She really loves me. She didn't nag me to stay, if I didn't want to. That's —"

"Come on!" Lars snapped, moving up-ladder briskly. "Drop it and get up here!"

Kirk took a tight grab on the first rung. But his legs wouldn't budge. His worn boots were sinking ankle deep in the oozing brown muck. But he couldn't make himself budge.

He was saved. Lars had sweated blood to save him. Terra needed top gunners for the new galactic war. Lars was cupping himself in the controls seat and beckoning, shouting.

"What the hell are you standing there for, boy? You've had your last look at this brown endhole!"

Kirk squinted up.

"You don't believe anything I told you, do you, Lars?" he shouted up.

"Hell, no!"

"None of the others would?"

"Course not, boy. It was a wacky dream. This Patch of brown stink is bad medicine. You've proved that. From now on our fleet'll avoid it like the plague. The stench alone is enough to keep us off. C'mon! Get up here so I can —"

Kirk's mind was gyrating like a crafty whirlpool. Nobody would believe him. Of course not. How could *anybody?* And the intolerable stench that covered the whole planet, along with the muck. Camouflage.

"Sorry, Lars," he mumbled.

"What's that, boy?"

Kirk grinned wide. "I said I forgot something."

He galloped across the briar with practiced impala swiftness. Lars hollered after him, blinked.

Kirk was there, waving a last wave. Then he was gone.

Lars swore some more, until the ship's radio started swearing at him, telling him to get his tail back to the starship. He swallowed hard three or four times, said, "Aye, Sir. Right away, Sir."

The gyro engines growled, lifting. Kirk was already out of sight, looking for the pore that would return him to the god within the planet — and the world that lay ready to be taken.

Hur had had only willing worshippers. What would Hur make of a *man?* END

Immortality Through Freezing

A discussion of Frozen Death — and Eternal Life!

(This discussion is taped and abridged from the Long John Nebel radio broadcast on WNBC and WNBC-FM, New York.)

LONG JOHN: Well, here we are back again with guests, and I think we're going to have really a very, very interesting discussion this morning. A few years ago — in fact, we were just trying to settle whether it was two or three years ago — I had the pleasure of meeting a man by the name of R. C. W. Ettinger. I was introduced to Mr. Ettinger by the editorial director of Galaxy Publications, Fred Pohl. Fred Pohl at that time had purchased an article about Frozen Death from Mr. Ettinger and we did a show. I was on another station at the time . . . and we received considerable mail.

When we say "Frozen Death", you may be a little confused — and I certainly was confused about it — but we have the man with us tonight and we'll be talking with him. In the May issue of ESQUIRE there's an article by Mr. Ettinger, and it's titled *New Hope for the Dead.* When you hear this, you'll think that Mr. Ettinger, is either off his rocker or you'll think that he's got the greatest idea that's come down the pike in many, many years.

We've invited Fred Pohl to be with us, and Dr. Joseph Lo Presti, ophthalmologist; Shirley Herz, public relations consultant; and I'm delighted to have a gentleman named Victor Borge, who does a little piano-playing on the side to make a living. In fact, he does it very successfully.

Victor, you've had a chance to read the article in ESQUIRE — I think that's the first time you've heard about Frozen Death.

BORGE: No, it is not.

LONG JOHN: You've heard about it before?

BORGE: Yes. I read the article with great interest. I read very slowly, because the language used is very beautiful, but it contains so many words you have to weigh and evaluate so I read it very slowly. I have not yet finished the article. However, in — I think it was in 1936, in Chicago — a woman was found. So far as I remember, she was found in an alley. She had had a good time, apparently, and fell into some snow and died, and was frozen. And — I think she's still alive today, to make a long story short.

ETTINGER: Actually, I think it was more recent than that —

POHL: 1960 or '61, I think.

ETTINGER: Yes, it was only a few years ago, and she was not frozen, she was only cooled off a bit.

BORGE: So I was very far from being right.

ETTINGER: Well, not quite right, anyway.

BORGE: But it *was* a woman!

HERZ: Yes, it was a woman!

ETTINGER: And she was severely frost-bitten. And it was Chicago.

BORGE: You see, we're getting closer now.

ETTINGER: Frost-bitten, but she was by no means frozen solid. And she recovered, that's true.

POHL: Her body temperature was down to something like 65, though; much colder than people usually get.

ETTINGER: Yes, very much hypothermic.

BORGE: Well, how cold do people usually get?

POHL: And stay alive? Well, Dr. Lo Presti can probably answer that.

LO PRESTI: No, I can't. I really can't. I think it depends on the rate of cooling. It depends on a great many factors; I honestly don't know if we really have produced the coldest that an individual can get. I don't know if we have good enough criteria. Now, for example, by that I mean the technique may be altered. Some of the things Mr. Ettinger has already proposed may or may not be used. They need not be in a *permanent* way, such as you suggest — that is, for permanently cooling the body to a temperature as low as you say. Certainly many intermediary steps I can envision — chemical means; where a heart-lung machine can be used, for example; where anticoagulants can be used; a few things like that, which will either postpone or completely alter those changes which we find are more or less irreversible — won't make an individual come back. I'm sure we don't know the answers. But the temperature is somewhere in the 60s.

ETTINGER: But humans have now been brought down practically to the freezing point under hospital conditions and then successfully revived. Ordinarily, without special medications and special assistance, I think the body temperature seldom falls below about 80.

LO PRESTI: Then of course, again, Mr. Ettinger, it brings up the problem: What is the body temperature? What cavity do you put the thermometer in, and where and when and so forth? What do you mean by body temperature?

BORGE: Well, you don't have many choices, I guess.

LO PRESTI: Well, you'd be surprised. We're pretty ingenious, Victor.

ETTINGER: I think maybe we ought to back up a little bit and fill in our audience on just what we're talking about. We really haven't made it very clear.

LONG JOHN: Yes, I think we might. I just wanted to get an opinion from a gentleman who, to my knowledge, was completely unfamiliar with the idea, and that's why I asked Victor what he thought about it. Suppose you tell all of us what you mean by Frozen Death, and what you hope to accomplish with this theory.

ETTINGER: Basically it's extremely simple. I propose that as soon as possible after people die, they should be frozen and stored at a very low temperature to prevent any further deterioration of the body for, practically, an indefinite period, in the expectation that sooner or later it will be possible to cure these people — to cure them, number one, of whatever it was that killed them; to cure them, secondly, of any damage done by the freezing process itself; and cure them of the effects of a short period of clinical death.

When I say cure them of the disease that killed them, this includes old age. If we can do all these things it will then be possible to give these people renewed youth, although retaining all their memories and personalities, and give them indefinitely extended life. In other words, it will eliminate natural death completely — even though accidental death, of course, presumably will always be with us.

LONG JOHN: How long do you think a person could live? Would you say five hundred years? A thousand years?

BORGE: You mean, could live *dead?* Let's get this straight first. You die a natural death — clinical death.

ETTINGER: Yes.

BORGE: Which means that in the hospital, for instance, you are given up. Now, do we consider this death? Or when you then are frozen, are you still alive? Or are you dead?

ETTINGER: Well, at the present time, if one is frozen, then he is dead. Even if he weren't dead, the freezing process would kill him, because it's imperfect at present. Of course in the future it will no doubt be possible, perhaps in a very few years, to freeze people without damage. In that case they can be frozen before death, and will not be dead but in a state of suspended animation.

However, I think what John was getting at was how long we can expect to live once we are revived and cured and so on.

LONG JOHN: Suppose you did this two or three times. In other words, let's say a person died of a cardiovascular disease, and in five years from now you bring them out of the freezatorium and you defrost them and you call up to the supply department, you know, "Send down a size 6-7/8 plastic heart." And you put it in, and you pat the guy on the backside and he's back in ac-

tion again. Now, he dies twenty years later again, of a faulty kidney. And you put him away again, and it takes three years and we've got an artificial kidney. How many times could this be done?

BORGE: Until you can not die from anything else. The kidney, the heart, the bladder, everything.

ETTINGER: I would guess that most people would be frozen only once, because most people would die of old age, or else of some disease closely related to old age. And if old age is the most difficult of all diseases to cure, as I guess it will be —

LONG JOHN: Is old age a disease?

ETTINGER: I think old age is coming generally to be regarded as a disease, yes.

LONG JOHN: You mean a person actually has it listed on the death certificate, "Died of old age?.

LO PRESTI: Deterioration, isn't it?

ETTINGER: This is not the common practice, no. But I think increasing numbers of people are beginning to take the view that old age is indeed a disease, in the sense that it is not inevitable. That is, it is a condition, a morbid condition, that is susceptible to cure. We don't know this for certain, of course, but nevertheless, as I say, increasing numbers of scientists are coming around to this view.

LONG JOHN: I'm not debating this with you, I just want to learn. Isn't it true that a person of seventy, eighty, ninety years of age may die, and the doctor puts down on the death certificate, "Heart", "Lung", "Kidney" — whatever it may be.

ETTINGER: Right.

LONG JOHN: Now this is not old age. Now can't this person be frozen so that when we have an artificial heart — in five years, or six months from now — you defrost him?

ETTINGER: If somebody dies at ninety, he dies in almost all cases essentially of old age. Even if the direct cause of death is the failure of some organ, nevertheless this failure was brought about, usually, by his generally debilitated condition.

What I do say is that I expect, and some other people expect, that sooner or later it will become possible to prevent, and even reverse old age, and therefore to give these revived people not only renewed life, but renewed youth. Then they can live indefinitely thereafter, except for accidental death.

Incidentally, I read an interesting statistic the other day. If there were accidental death only, we would have a life expectancy of about 600 years.

I assume we could improve this, of course, because many of the accidents that cause death are not so severe that the damage could not be repaired by future technology.

POHL: Did you see the other article in this ESQUIRE on Dr. Lev Landau? I know Bob Ettinger knows about it, because we've talked about it before, but Dr. Landau was a Soviet physicist who was killed in a car smash, I think, in Leningrad.

ETTINGER: Yes, I discussed this too, in my book.

LONG JOHN: The book that Doubleday published, *Prospects of Immortality*.

POHL: Anyway, Dr. Landau was killed in an accident in, I think, 1962 — I'm not quite sure of the date — and he was dead on arrival. He had suffered severe contusions, rupture of most of his internal organs, massive bleeding; all of the bones on the right side of his body, I think it was, were smashed. The skull was broken. There was brain damage — loss of tissue of the brain. He was dead. But partly because he was Lev Landau, who was a world-famous physicist, and not only was a celebrity but knew a great many scientists all over the world who were anxious to do all they could for him, and partly because the Russians seem to be a little ahead of us in this respect, they were able to put him in a hospital and rebuild him. After, I think it was about a year of surgery and therapy of various kinds, during the course of which he died three more times — he was clinically dead three additional times, in the general sense that you could write a death certificate for him, since there was no heartbeat, no breathing — he was released.

Because there was brain damage, he suffered some memory loss, and some other problems. One of them was that he lost his languages. The first language he remembered was French, not his own Russian, and as he began to remember Russian he didn't remember all the words. There is a story that somebody told him, "Dr. Landau, you are getting the Nobel Prize in physics this winter." And he said, "How nice. But — what's 'winter'?"

LONG JOHN: Does this sound practical to you, Dr. Lo Presti?

LO PRESTI: Yes. Of course, the things I keep thinking about are medical criteria. I think anybody engaged in the practice of medicine knows that the word "clinical" is really a word that means "practical". It means things are not measured quantitatively. It means things which depend a good deal on judgment, and depend on a good many assumptions. We're talking quite glibly so far. I know that in your book you certainly have a good exposition as to what you mean by "death", and I thought that before we get too far now — and so I won't make so many grimaces while these things are going on, because these things do disturb me when the word "death" is used loosely — Mr. Ettinger, why don't you start giving us a few definitions?

You know, I'm an ophthalmolgist, and it seems that when people talk about "blindness" everybody knows what they're talking about except the poor ophthalmologist. The word "blindness" is a terribly unknown word to me — even though I'm concerned with vision and this is my primary interest.

BORGE: So a dead person wouldn't know what they were talking about when they say, "He's dead."

LO PRESTI: Exactly! When you write down a death certificate, you use certain rough criteria. For example, the person may still be emitting brain waves. His heart may have some action which is not perceptible by the gross clinical meth-

ods. You put a stethoscope in, and if he has a great big thick chest, or if the heart is just barely functioning, the man may miss it. Let's not make a paragon of perfection of the interne, or of the experienced internist who may be examining the patient at that time.

That's why there are certain safeguards. Very seriously, clinical methods are not always accurate — and we admit they're not accurate. That's why they have to be very often substantiated by various types of laboratory data, by various types of quantitative measurements. And then when we put these things together, then we can arrive at a safe diagnosis of what is biologically actually happening, physiologically occurring, and what is predictable for the future. After all, "death" is a diagnosis of prediction, isn't it?

LONG JOHN: Dr. Lo Presti, I must ask you this question. Are you suggesting that it's possible that any competent doctor could make a mistake about whether a man is actually alive?

POHL: It isn't a mistake. It's a prediction.

ETTINGER: It's happened many times. Many times a patient has sat up in the coffin.

HERZ: Not by the time they were embalmed, they haven't.

POHL: John, let me tell you about a doctor I know on the West Coast. He's working on a program for the Air Force, and one of the things he's doing is working on reviving accident victims. He was one of the pioneers in closed-chest heart massage. He told me that he had actually worked on several persons who were victims of drowning or electrocution. At some point he had to make the decision to stop hammering on that chest. He's got to make that decision. He can't be sure it's the right decision. But there has to come a point when he has to say to himself, "My arm is getting tired. I physically can't keep this up much longer. There has been no response. It's possible that if I were to continue it there would be a response and this man would live — but I, in my best judgment, am going to stop now." And he stops.

HERZ: It would be awful if he were tired the day he finds you.

POHL: That's right. But he's got to make that decision.

ETTINGER: To get back to Dr. Lo Presti's question, we've talked about several kinds of death. The most common kind, of course, is what is frequently called "clinical death" or sometimes called "somatic death" or ordinary medical death. The criteria for this are no heartbeats, absence of breathing, and they often bring in a third criterion, namely the absence of brain waves as indicated by the electroencephalogram.

POHL: Isn't pupillary contraction one of the things they look for?

ETTINGER: Pupillary contraction, sometimes they look for that too. These are the main things.

Then, of course, there's another kind of death. Some eminent scientists have defined what they call "biological death" as "that condition from which the body as a whole cannot be revived by the pres-

ent resources of medicine." And this is an extremely interesting definition, you see, because it tells us that whether a man is dead or not depends not only on the state of his body but also on the state of medical art. So that a man who would be a cadaver by today's criteria would be a patient by the criteria of tomorrow.

POHL: That's what Dr. Lo Presti meant when he said that death was a predictive diagnosis.

LO PRESTI: Yes, exactly. This is just the point I'm making. But this is not unusual. You know yourself a lost arm five years ago was a lost arm. But an arm that's wrenched from the socket — and you have heard, I'm sure, and read in the newspaper — is not a dead arm any more. So this is a condition which applies not only to the entire body but to parts of it.

ETTINGER: Right. And this is fundamental to my thesis. I'm saying that if people are biologically dead now, they are not biologically dead in the future provided we can prevent their condition from getting any worse. We can do that, essentially, by freezing them.

There's also a third type of death that we sometimes speak of, "cellular death", which refers to irreversible disorganization and deterioration of the cells. This ordinarily is not complete for many days after clinical death. In fact, we can grow cells in a culture days later, or even make a heart beat.

BORGE: May I insert a thought here? I am of course completely a layman in this discussion.

LO PRESTI: In this discussion we all are.

BORGE: Well, but I can't use your language. I wish I could because it is immensely impressive; I don't understand half of it. However, if science keeps on with the strides which is has now gone ahead — perhaps there is no death. Could that be possible?

ETTINGER: We don't know, really, whether there is in principle any such thing as irreversible damage. Most scientists believe there is. At what point it may occur is a different question, and this we don't know. Most scientists would say, for example, that if a man were burned up in a fire it would never in principle be possible to repair him.

POHL: Or at least it wouldn't be economically practical to repair him. It would be easier to start a new one.

BORGE: But couldn't we call that destruction, rather than death? — if a body is destroyed by fire, or eaten up by fish or whatever?

ETTINGER: What we mean by "death" is a certain kind of destruction.

LONG JOHN: I see a figure of $50,000 mentioned in your latest article — I don't know if it is your figure, but is it true that there are people today who are prepared to take a person and put him in a freezer, and that $50,000 will do it?

ETTINGER: I wrote this article for people who might want to freeze a dying relative today. Right now.

LONG JOHN: And you really mean this? Right now?

ETTINGER: Right now, today. Preferably with advance preparation — but if necessary this very evening. I wrote the article to provide step-by-step procedures for doing this, and the cost I estimated to be anywhere from a few thousand dollars with relatively crude methods up to a rough maximum of perhaps $50,000 with nearly ideal methods.

Now, in my book I estimated that the cost might come to perhaps $8500 per person for preparation and perpetual maintenance, in the same way that cemeteries, for example, provide it. I am glad to say that since I wrote the book independent estimates have tended to confirm that this is roughly the right figure.

HERZ: I think this is so far-reaching that it will require rewriting the laws of the country.

ETTINGER: No, there are ways in which we can do it within the framework of existing laws.

HERZ: Everything will be a test case in the Supreme Court, with your insurance companies, with the marital laws, with your trust funds that will have to carry on from generation to generation if you're going to be on ice for a number of years —

ETTINGER: These things have already been figured out. I agree some heirs may be put out a little bit.

LONG JOHN: There's a question in my mind, Bob. When the person is in this frozen state and we don't know how long it will be before this defective organ can be replaced — it may take six months from now, or longer —

BORGE: "Don't call us, we'll call you."

LONG JOHN: And it may be years. Well, what about your wife?

BORGE: She might be there first.

LONG JOHN: How do you handle these things, Bob?

ETTINGER: Well, when this comes up I usually say that this is one of the two or three problems that I haven't completely solved yet.

POHL: Actually it was solved many years ago in India. It's what they call suttee.

HERZ: What about the life insurance companies? They're not going to be happy about paying out.

ETTINGER: No, no, no. They're going to sell much *more* insurance. My wife and I have each bought an extra policy to pay for the expense of freezing.

LONG JOHN: You mean you were able to buy this policy?

ETTINGER: Of course. It's a regular life insurance policy, that's all.

LONG JOHN: Yes, but I don't understand how you can collect. You're not going to be dead.

ETTINGER: They pay off on clinical death. They pay off when the death certificate is signed, and they are neither cheating nor being cheated. Everything works out exactly right. The actuarial basis of the insurance has not been changed.

LONG JOHN: And you can come back in two years and start all over again?

POHL: You have to buy another policy, that's all.

BORGE: They might not trust you next time.

ETTINGER: Several organizations

have been formed, with different emphases, to help implement this project. There's one in Washington, D.C., called The Life Extension Society, with a branch in New York at 103-55 97th Street, Ozone Park, New York.

LONG JOHN: That's very interesting. I was looking around the table, and I noticed that everyone has a pencil, everyone has a pad — and nobody was writing down that address.

BORGE: I went to Thule this summer to perform for the armed services, and they have these marvelous ice caves there that could be used.

ETTINGER: I don't think that would be practical; the temperatures required are so low that I don't think anything would be gained.

But I would like to get back to another question. I think it is a very important point. There are several reasons why I insist that we must have a practical program immediately, and why we *are* going to to have a practical program immediately. First of all, obviously, the people who are dying now cannot wait for future advances. They must be given the advantage of whatever chance they will have by being frozen today. What degree of chance they will have we cannot say for sure, but nevertheless some chance. Number two, these dying people will be given some degree of hope, and this alone is worth the price of admission. Even if it turns out that the pessimists are right and they never are revived, they won't be any worse off. After all, they were dead anyhow and had very little to lose — and a great deal to gain.

Number three, and this is also important, if we begin at once, we will give an immense stimulus to research which is at present proceeding very slowly. I have it on excellent authority that there are only about a dozen people in the entire country who are engaged in this research full time. If this is achieved, then most of us who die in later years will have a certainty of revival rather than a hope of revival.

BORGE: I have another question. How long do you think a person can be frozen? — I can't help smiling when I say this, it sounds so ridiculous.

ETTINGER: I would estimate that the only limit that I can see would be radiation damage, and I think that radiation damage would not be critical for at least something like a hundred thousand years. In my book I estimated thirty thousand years, but I neglected to take into account that radiation damage is reduced at low temperatures.

BORGE: That means you will have to buy new clothes and everything when you come back? And you are not prepared for the new society, and — that's going to be awfully messy.

But may I say that your writing is one of the most informative things I have read in a long while? I have been trying to find loopholes, but everything has been covered so satisfactorily that I just want to thank you for the opportunity. END

Deliver the Man!

by RAY E. BANKS

Illustrated by NODEL

Their voyage was certain to fail. But mankind was doomed unless they — somehow! — managed to succeed!

I

I knew it was going to be a bad trip from the moment our expedition hit star speed. My name is Phil Ramsey; I was the ATO, Assistant Technical Officer, aboard the *Penguin*. Our job was to deliver one (1) superpolished United World-type diplomat to the Galactic Symposium, seventy-five light years from the solar system.

"Ramsey!"

I jumped when the voice stung my ear from the intercom, when the rectangular face of the Captain appeared on the screen. Yes, he had a face that was absolutely angular, a cocky man with a big head and big shoulders placed on a small body, a caricature of all the mediocre space commanders I'd ever served with. Someone must've once told him he had a strong face and he'd worked on that military look all of his life. He had it down well now.

"I can't give you any more speed, Captain," I said. "I've got four units to kick us along. Only three are operational."

"Where's your boss?"

"He's down working on the A

unit now, sir," I said, hoping my face didn't show the lie. He wasn't down working on the A unit. I had known he was a wrong one from the first and had picked my own crew for that work. He was in his cabin.

"We're being serenaded," said the Captain.

I listened with a sickening feeling to the slight "pings" that could be heard above the rushing sound of the star engines. We were being shot at all right.

"Martian cowboys," said the Captain. "We could outrun them if we had that A unit working."

"Yes, sir, I know that, sir," I said in resignation.

The Captain leaned his face close to the screen so I could see his searching eyes. "Mr. Ramsey, how long have you been in space?"

"Fifteen years."

"Your estimate of our situation?"

I stared back coldly at his Colorado Springs Academy facade. But he was the boss. "We're off course in a limping spaceship, dropping a week behind schedule in normal time every star minute, and we're being shot at by Martian White forces who'd love to capture the *Penguin*."

"Pretty bad, eh?"

I studied the Academy face with its aloofness.

"No, sir. I'd say normal for an economy expedition like this." All the time I could feel the sweat beginning as I saw the red lights on my panel from the attack damage to the ship.

Was that a twinkle in his eyes?

"Just so, Ramsey," he said. "I may have to order a scramble. Wait. I'll tell you."

He nodded and his screen went blank. I whipped across to my viewer and looked down on the interior deck of the *Penguin*. All the fish were there, the young adventurers who had to go out in the small scout units and attack our attackers — if a scramble were ordered. They averaged twenty-five, tall young men with shining faces, bright eyes, smart-aleck shoulders, trim in their youth, bright in their new uniforms. The women were that strange combination of sly, stringy but bold kind of girl that simply wouldn't stay home.

A scramble at normal speed is one thing. A scramble at star speed is something else for a green crew on their first big trip. I watched a handsome young chap showing off before a blonde, pushing his buddy against the wall in high spirits, the girl's teeth flashing as she laughed at the action. I couldn't hear them from my lofty perch.

I could see them, but I couldn't know them. Couldn't admit they were humans, like sons and daughters of my friends. If I'd had a son he might almost be old enough for that crew. But they had to be thought of like the ship's machinery by us officers.

I swept the gauges with my eyes. The enemy ships were getting to us with their ugly short rays. If they knocked out the B unit, we'd be finished before we started. I glanced again down at the colorful roomful of youngsters, like so many playful monkeys in a cage. I read the com-

puter. It told me that we were taking too much damage. My hand came up and hit the button for Britt's cabin. To hell with it; let my boss decide. That's what he was paid for.

I buzzed for half a minute without an answer, rang the damage crew on the A unit, found no Britt and went back to my main console. My feet ached. I had a headache. Britt, the Chief Technical Officer, was stumbling around somewhere in the shadowy corners of the *Penguin* with that bulging bottle on his hip, that too-bright look in his eyes.

I distrust fat people. Nobody has to be fat if he doesn't want to be.

I hit the Captain's button and told him the facts of life. In seconds the scramble siren was going and the kid-circus in the ship's belly turned into a racing party as the young warriors and warrior maidens dashed for their tiny scout ships. I glanced only once with a heavy sensation inside and whispered to the big handsome lad and his blonde girl, "Be heroes!"

I opaqued my screen. They were not people. They were units in a grand design. I had to remember that.

I couldn't sit down at the console. I jerked open the corridor door and plunged across into the darkened cabin marked "Navigator."

She sat in her permanent twilight like some ghostly queen from a far-off remembered fairy story. Her face was quite round, her eyes were blue with large, dark irises. She had a large but shapely nose and a fairly good figure. But she wasn't young. She looked tubercular to me and wore a long, greasy ponytail of yellow hair. Navigators are almost always pixies, but this one was the oddest yet. She sat hunched up like a middle-aged yet somehow lovely witch, hugging her knees. I could see her well articulated lips singing some screwball song as her eyes moved between the star screen and back at her instruments.

"We were supposed to miss Mars," I said. "We almost dug a hole in it."

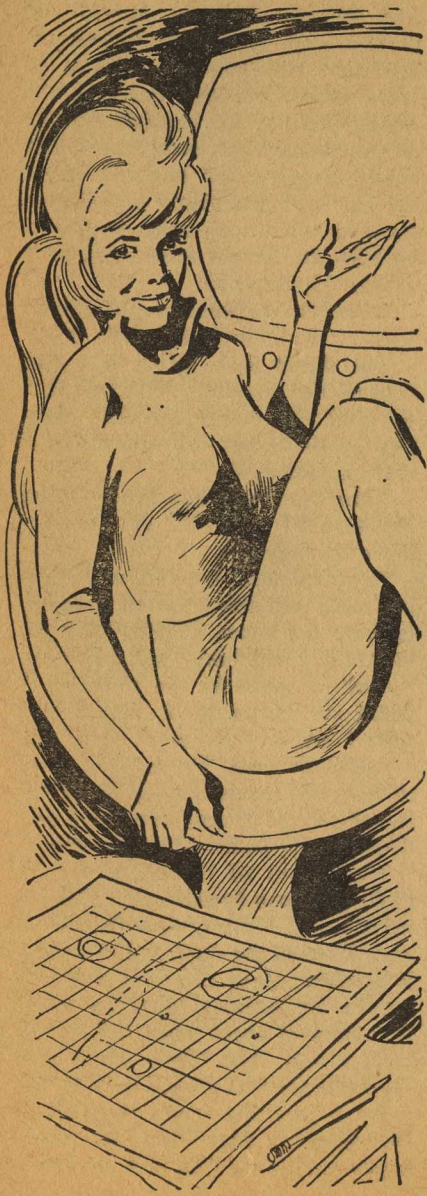
She didn't look up at me. Just flipped her ponytail. "Intentional," she said. She dabbed her big, manlike hands at her instruments as if that explained all.

"The Martian White Force is also intentional!" I yelled, surprised at my own anger.

"Unfortunate," she said, withdrawing back into her hunched position, gripping her knees, hugging her body to itself, going back into her song.

Out in space in the darkness I could see pinpoints of light. Each time I saw a pinpoint of light, one of our kids died. Twenty-five years of love and tenderness to be ended in one second of screaming pain and death in the dark-cold of star space.

I saw four of them die while I took one deep breath and sighed. I went out of June Longden's cubicle and slammed the door, but of course it wouldn't slam. She was right, of course. By buzzing Mars we saved thousands of space miles, lost by my bad A unit. The White Force was "unfortunate." It all got back to my lousy A unit that was making all of the trouble. Men and machines, hopes and fears, light and darkness,



it all hung together in our tight expedition world, and it was going to be a bad trip all right.

II

I went from the high bridge where the brass lived down into the depths of the ship to the locked room where our precious cargo lay.

The medics had him in suspended animation, resting in a coffin under what looked like two feet of water. He was tall and very distinguished looking. He actually wore the diplomat's costume, the gray trousers and a cutaway coat. There was a touch of gray to his hair. His features were blurred under the life-fluid, but I had seen faces like it all my life on the news-TV, the serious angular men who called the tune for the rest of us mortals. There were over one thousand of us aboard the *Penguin* and each of our lives was pledged just to deliver this single man to the Galactic Symposium — where among the frogs and toads and beasts of other civilizations he could whisper a few cliches about the hope and ambitions of our solar system, win approval with words that would disappear down some foreign wind into space nothingness.

The face was out of focus under the water, but everything was superior about him, superior to the Academy granite Captain and to the bright dime-a-dozen kids dying out there, and to the half-lovely ghost in the navigator's cabin, to fat Britt — and to myself.

Delacey Dennis had once been a yelling, squalling brat in his mother's

arms, like the rest of us. Now our lives were pledged to him, his to the Symposium, and the whole galaxy of civilizations to some tentative intertwisting life-drive that affected billions of living creatures on a trillion planets.

I could've been Delacey Dennis, or fat Britt, or the Captain. Or one of the beautiful, bright kids that took their lives in their hands and raced breathlessly to adventure and death.

But I was Phil Ramsey, ATO, fifteen years in space, with a feel for machinery, and a liking for the slow, twisting movement of the stars, the whisper of strange planet winds and caress of unknown grass on my bare feet . . .

I turned and ran up to the Ready Room. I jerked out a spare space uniform and hustled into it. I remembered the words of the one man I'd respected, father, uncle, best friend and drinking companion, Locksley, dead these many years. "A good spaceman always has one foot on Earth, Phil. A good spaceman is always there when there's laughter and crying and drinking and dying. When you don't care about sharing the danger with the people any more, walk out of the airlock. Forget it."

The old familiar pain of the jerk into star speed in a scout craft. The pain of life and living. The pain of going out into the danger again, as I had always had to go out where the danger and dying were. I couldn't stay high up on the bridge in the console room. I had to follow the laughing, bright kids into their blood and pain and death . . .

What did it feel like, there alone in space, riding the scout craft towards the enemy.

I was frightened. But yet it felt good, the surge of power of the engines, the anger at the Martian Whites with their century-old stupidity of attacking Earth ships, attacking the people who were their own forebearers, twisted as they were from humanity by their strange, dusty planet. I felt competent in my machine, and I knew the great secret of human function — to do things with my hands and brains and nervous system, to accept a great danger for a worthy cause, where I could directly influence the action.

Two white ships were boxing in one of ours. I sensed immediately that it was X-124.

Why did I remember that number? The bright young kids in the military department were supposed to be apart from us, beneath us. Living meat, not quite as valuable as one of our computers. The mission was to deliver a man to Altair to the Galactic conference. The box he went in was the *Penguin*. The people who kept the box running were important, the technical and command crew. The space soldiers, male and female, were the least important although they made up a huge number of our company. They were merely the shield for the box, to be burned off as needed in friction of battle so that the *Penguin* got through.

Among the military this nameless young girl, X-124, the pretty blonde kid was a minor cog. True, she had a thing going with the hand-

some youngster I'd seen kidding with her from my high perch within the TV console room. But I had no relation with her.

I sensed the general battle plan even as I swept out from the *Penguin*. The kids were holding their own only due to their greater numbers. The White ships were good as always but too few. The Whites had already lost and knew it. They were making their maddening, teasing withdrawal while they kept killing even though it didn't matter.

X-124 was a good example. The two white ships were toying with her, would harry her from one side and the other, draw her from the *Penguin* and finally shoot her down, then return home satisfied. She deserved to die. She was incompetent, or unlucky — either of them fatal to space soldiers.

But my hands trembled as I roared toward her sector. If you see two boys on a street senselessly killing a dog you stop them.

I TV'd her. "Break off. Go home."

Her face was drawn. There was blood where some flying equipment had grazed her cheek. The kids learn late to tie down all gear when they go into the acrobatics of battle.

"I c-c-can't," she cried hysterically.

A baby, a child in space. A brave one, doing and derring until beauty wasn't enough, luck ran out, jokes wouldn't help and she hadn't the skill for the job.

Already her two opponents fired at me. I felt my small craft jerk at the near misses and took some hits. They were ancient wolves, crafty in battle, excellent marksmen. I too fired, almost unconsciously, and I saw them slow at the realization that I was seasoned.

"When I make my circle break and run," I told the girl.

"Can I m-make it?" she asked.

I didn't answer. There was never any answer to that question here or elsewhere in life. "Can I make it?" the world asks, lover and husband, child and father, boss and employees. Everybody in the world asking every other body whether they can or can't. I started to make my circle sweep which was all I could do for her. and hoped she would stop asking questions and perform.

It was going to be rough. It was rough.

The White on my left held the firing point, satisfied to trade my life for his, as I was to trade his for mine. Two rangy wolves who knew the chances and would gamble. I felt the inarticulate cry of my ship as it took his punishment and burst partly open; at the same time I could see his ship dance at my attack. His partner moved in to make me his kill. I paid no attention to him. He was faking me from a weak position. He could divide the girl's attention with those tactics, ruin her attack, but not me. To me he was a helpless fly buzzing. My attention was where it belonged on the main opponent.

We forced out at three thousand yards. The White had a bad day, exploded, became a death pin-point of life on the Navigator's screen back at the *Penguin*. I came around crippled and starting to burn. The sec-

ond White made a pass, hit me, shot the small weapon computer across the cabin into my lap, and I sat there with a silly grin feeling the painful insult of the metal slammed into my chest. Couple of ribs cracked and probably internal hemorrhage for me. The pain-sickness swelled over me, and I phased in and out of a faint even while completing my return curve to the *Penguin*. The second White had an easy kill if he wanted it.

He didn't. He was not quite smart enough to know he had me, and rushed on home, disappointed. A weakness in a space soldier. I knew I was going to vomit in my space helmet and faint, too, probably crash into the side of the *Penguin*. Smart aleck Ramsey, showing off, according to some screwy space credo.

I blacked out then.

I stood on the deck of the *Penguin*. I was aware that someone had lifted me out of the ship and some one else had taken off my space helmet. I had not vomited. Nor crashed into the *Penguin*. Fifteen years of space, meeting the dangers, getting up front and out into things had brought me home safely, even though not conscious.

Then I was aware that the young military walked around me and stared. Whispered. I knew with an embarrassed ache that a large number had seen the rescue of X-124 and others were hearing of it. To complete the image I was even torn up a bit from that silly computer banging into me.

"You didn't have to go out there, sir," said the handsome young man wearing the Major's insignia.

"Ain't it the truth," I said.

Something hit me in the front and I winced. A young mouth sought my lips. I felt the whisper of blonde hair, the breath of youth, the caress of a young skin, as X-124 kissed me.

"Thanks," she whispered.

Painfully I held her away from me. "Lady," I said, "I appreciate the kiss but you really shouldn't hug a man with two broken ribs."

Then I fainted into the young Major's arms.

III

"We will have no more heroism," said Captain Locke. His blunt face jutted forward at me. June Longden sat curled in a big, white leather chair, like a graceful middle-aged cat, now staring out of the star port, now watching me with amused blue eyes, now tossing her pony tail, and, no doubt, humming one of her strange navigator's songs to herself. Britt sat with bowed head. Young Arnold, our Operations Chief, shuffled his feet, looked nervous. He didn't get called into the Spec Room very often.

I nodded. We would have no more heroism, I thought, feeling the still-tender spot under my ribs. I was completely healed. It takes only twenty minutes in the bone-splicing machine to cure a broken limb. The only problem was I'd been in that machine so many times that I felt a bone-ache for weeks afterwards. Even with such a marvelous machine,

the day comes when you can no longer enjoy its effects. You have a suspicion that something in your spirit gets broken — that no machine can soothe the wince you have to give against too much pain, too often inflicted.

"Our mission is to deliver Delacey Dennis to the Galactic Conference," the Captain went on. "Successful space operations require brains and efficient machines, not brute strength. The Technical Officer, the Assistant Technical Officer, the Navigator, the Operations Chief and myself will hold ourselves aloof from situations of personal danger. Is there any question about this?"

June Longden ran her tongue around her teeth and grimaced. She had probably seen as many second-rate expeditions as I, as many odd-balls.

"I thought he was a tiny bit heroic," she said. "It wouldn't hurt some fat, lazy space captains I've seen to go out into combat once in a while."

At that I thought the girl had a cute way with her. There was a streak of amusement in her eyes as she looked at me. Britt and Captain Locke looked at each other, shocked. Young Arnold shuffled his feet, looked nervous.

Captain Locke cleared his throat to reprimand her; decided against it. The whole tribe of navigators feels perfectly at home in space and has been known to go the long way round out of a fit of pique, never mind problems of supplies and engine fuel. Instead, the Captain pulled out a folder. It was a brilliant red.

I had only seen three of them like it in all my space career. The only person in the universe who uses that kind of a folder is the Chief, Space Operations, Earth. You either start out your expedition with one, in which case it isn't second-rate, or the document and the folder are transmitted by microwave-material transmission, which costs a tremendous sum of money, since the actual document is broken down into energy, recreated at the other end.

I knew Captain Locke had not had such a folder when we left Earth. I felt a faint singing in my ears, that shock you get from sudden cold water in a shower. June Longden's lips pulled in; her face looked gray.

It was Captain Locke's turn to smile cynically. "Before we left Earth, someone in Space Operations underestimated the importance of this expedition to the Galactic Council," he said. "The error has been corrected. Earth has had a star-transmission direct from the Galactic. The other civilizations of space were annoyed that we didn't send a man last time. This time they expect our man. If he doesn't arrive, Earth will be colonized."

"Can they do that?" squeaked young Arnold caught by surprise.

"They can do it," I said dryly. "They have weapons and techniques no homo sapien ever dreamed of — a hydrogen wind that gently turns all our oxygen into water, in case somebody needs a nice water supply, never mind our people or our continents. Sometimes they want a fair amount of nitrogen and pump it off a planet in large quantities. This

would make it fairly hard to breathe on Earth after about five minutes."

"We'd die!" cried Arnold.

"When Galactic classifies you as only sub-civilization, nobody cares," I said.

"The fools!" said June, referring to Space Operations. "They ought to send a first-class ship instead of this can with Delacey Dennis in a bathtub."

"They have," said the Captain biting down on his teeth. "In fact, three of Earth's finest. Only problem — we're a star-week in the lead. Red One, Blue One and White One may arrive too late."

Britt spoke for the first time. "They better make it all right. We won't. Not with that bad A unit."

"They can't possibly make it," said June. "In the star-week we've been going, we've made the Galactic trajectory. They can't catch up to the trajectory."

"Star transmission," said Britt. "Let them apologize, say the expedition is late."

Now the Captain dropped his bombshell. "It seems," he said, "that one of the other civilizations wants Earth. The Lepids. Late is too late."

There was a silence of anxiety in the room. Presently June Longden got up and went off, humming one of her songs, frowning. Her navigation had better be right. Earth depended on it.

Young Arnold went, gulping and swallowing. Britt lumbered out right after. Captain Locke detained me.

"That bad A unit," he said. "Have you considered that Britt might be a Lepid in disguise?"

Of course I had. The man had bothered me from the beginning. There are lots of minor inconclusive ways you can tell. There is one major way. You push your man into the acid pool of a battery when the cover is off. If he dissolves into a skeleton, screaming, he is not a Lepid. If he turns into a Lepid, leaving a disguise carcass behind, he is a Lepid. The only thing they have in common with men is that they want to go on living.

"You'd better find out," said Locke to me. I gave him the salute and left.

As I lurched down the corridor, noticing that the Chief Engineer had picked up speed, it occurred to me that Captain Locke, Britt and the rest could also suspect that *I* was a Lepid. I dropped on my bunk in fa-

tigue. Jackassing around playing hero as I had done was a good way to cover up if I were a Lepid. Which I wasn't — but what were the others thinking about now? "The trip could get under my skin," I said. "Under my fingernails," I said softly to myself.

We got as far as the Thirty Planets. These are a large number of planets, part human, part alien, of various sizes and importances. They can be fascinating to a sociologist who can study them like the dancing color patterns in a kaleidoscope wheel — always changing, always shifting to new meanings. To an economy expedition in a hurry on the way to the Galactic Council they could be a gray stone wall.

We got by Ajax with only a small battle; we lost fifty of the kids there. We got by Bend when Captain Locke decided to pay the landing fee, which we paid even though we didn't land. The sight of the huge, rapid-strike ships made it easier for him, I thought. They could've blasted us out of existence, like the tap of a finger on the light switch. We even got by the Vestalians who are ordinarily extremely curious about ships passing their perimeter on star business. All they did was send out a minor magnetic field to slow us up, to see what we would do.

I heard this whimpering kitten sound. There was fat Britt crawling into my cabin on his stomach. His eyes held all of the horror of a man who has just seen his mother struck down. "Ca-can't. Caaan't," he whimpered, his voice shreddy.

I got up off my bunk and pitched forward like a battleship dropping off a wave in a tornado. My stomach contracted; my leg muscles began to pull and twitch. I began to see everything in yellow, my whole body responded to the Vestalian magnetic field with a deep fibre ache that made my mind seek blackness.

"Muh-magnetics!" I managed.

The brain carries a weak electrical current. If you want to tamper with it a little bit you induce the proper amount of psychosomatic magnetism. The *Penguin* was shielded against this, of course. But there are intensities which overcome resistance.

"What — we do?" whimpered Britt.

I looked at his beefy face, the sweat and the terror, and I felt stronger in my pain and weakness. What kind of straw man had they put in the Technical Officer spot? What kind of misadministration left us with a leader like this?

"We t-turn on Aunty Mag," I said, crawling past him down the corridor.

Against the disturbance of those searing magnetic storms, human balance was impossible. I remember my disorientation, looking at my index finger, trying to flex it, instead flexing the little finger of my other hand. I fainted for a minute, from the pain and annoyance of those billions of tiny magnetic storms the Vestalians had cast inside our ship.

Somebody had to turn on the gyroscopic diesel-controlled anti-magnetic unit. Then the ship would go and hold its course to the end of

time, no matter what nasty little Vestalians with nasty little machines tried to do.

The anti-mag unit was in our control room. Naturally Captain Locke had a man standing by as we approached hostile planets, so any minute now the gyros would take hold.

Wouldn't they?

Down the corridor half out of his austere cabin, I saw the thick shoulders of our space academy Captain. Also crawling the corridor.

"Where's — man?"

"Deelacey guard," came the Captain's distorted voice. Yes, Captains too have their limitations, make their bad decisions. He had reckoned that with the red-sheet instructions now Delacey Dennis rated a twenty-four hour guard against our soldiers, those young fish in the hold who were sobering and growing now, who had seen eighty of their number die, who had been known to go berserk and destroy everything against the unfair arithmetic of space.

There was no one to push the necessary button in the gyro control room.

Down the hall I could see the hand of Phil Arnold. He had only gotten as far as his door. Not used to the weapons of space he would be of no help. Against the pain-racking sensations in my body I inched down the corridor. Captain Locke inched. Britt fussed behind me.

There was no one to get to that Aunty Mag and turn it on, and we would crash into one of the Vestalian planets. They would have their

curiosity satisfied and Earth at the Galactic Council would be ranked a sub-civilization, be turned over to the Lepids.

Heroes do not always come dashing, boldchested on two feet with a gun in each hand. Sometimes they merely crawl.

She came out of her cabin like a beautiful worm, June Longden, hunching along in a peculiar whole-bodied way that would've got a laugh at any party on Earth. If you train yourself to do the Aunt Mag crawl for ten minutes every day for ten years, you can be ready for just such an emergency. June Longden happened to be one of those nuts who believed the Space Manual and had been doing the Aunty Mag crawl every day for ten or more years. Probably for a low motive, like keep-

ing her figure. But there she was.

"God — bless you!" cried Captain Locke.

"Ge-roni-mo!" I managed.

She went on undulating down that corridor, even wasting the energy to turn her head and grin back at me.

"Anyone for tennis?" she asked as she rounded the corner.

IV

But it was in the Southern planets, the friendly Southern planets, that we got into the first serious trouble of the expedition. There we lost Captain Locke.

"They're having a celebration. A goddam tricentennial, or something," he said.

"So we'll shoot off a rocket for them," I said. "We'll fly around, jazzing our rockets and waving the local flag."

"They seem to want a bit more," he said.

The diplomat, Bowes, from Caroland wore sideburns, had a small mouth, a nasty smile.

"We're grounding all ships for a week," he said. There was a touch of awe in his voice. "Just think. For three hundred years there has not been a day when our skies haven't been filled with pro-wheat trading ships, or machinery ships from Mars, or prisoner ships, or military rockets. Beginning at midnight tonight no ships of any sort or kind may take off or land. What a tribute!"

"We can be well away from your skies before midnight," said Captain Locke.

Bowes shook his head. "We're counting on you at the opening banquet of the celebration. It just happens your ship is the last one in — and from the most remote location — Earth. It's that final little surprise that'll make the celebration perfect."

"There's the matter of survival of Earth," I said dryly.

"This ship has to get through," said Britt.

June Longden came into the Master Control. "After all, a thousand centuries ago your forebearers came from Earth."

"Earth!" It was almost a titter from the diplomat, Bowes. It said "Earth, who cares!" But he studied the girl. So did we all. She'd been shopping in the short few hours we'd planned to stay here. She wore a skin-tight black Caroland outfit, from the hands of master weavers. The cloth set off her figure. Her lips looked very red and young. Her eyes looked large and soft. Her hair, that magnificent river of hair gleamed, with the challenge and competence of the woman, a master navigator engaged on most important flight man had known.

I saw the droop of the diplomat's lids. Everyone knows about the Southern planets.

"You need something to bargain with," he said.

Captain Locke said the words that had to be said. "But we do have a little something?"

"I could sell the lady for one hundred thousand dollars," said Bowes with that curious insensitivity of a man from the Southern planets. "A mistake could be made. I would lose face. I would be demoted."

We were all conscious of the flame on the soft cheeks of our navigator. "I've heard about your pleasure villages," she said. "Men from all over the thirty planets come to visit the pleasure villages."

Bowes bowed as if she'd paid him a compliment, and she curled her mobile lips.

It was Britt who went to the panel and shot the covers to reveal our military play-pen. "We need our navigator," he said. "But we have very beautiful women down there. *Young* women."

Captain Locke shot him a venomous look, but Bowes shook his head. "I have seen them. On your ship and other Earth ships. Silly young girls. Women, yes. Ladies, no. Those below are worth perhaps twenty-five thousand tops. Say the blonde X-124 you have. But this lady—easily a hundred thousand!"

"Forget it," I said. "Forget it!"

Bowes bowed and smiled. "I shall send you plans for your activities here on the ground in the coming week. We shall expect you tonight at the banquet, Captain. Good day."

He left but not without a last, lingering look at our navigator.

Captain Locke, Britt and I looked at each other.

"Ramsey could navigate," said June Longden. Her voice sounded tight. Her knuckles closed white on the edge of the table. I looked at her face; she looked like the mother of all mankind, knowing what she had to do.

"That's a fact," said Britt brightly. "Ramsey could navigate."

"I've got to go to the Readex," said June suddenly. "Phil, you decide." She slid out of the door.

"We could come back later and get her," said Britt. "Earth would buy her back pretty quick, I bet."

Locke turned on Britt. "Mr. Britt, will you kindly leave my bridge? At once!"

Britt looked puzzled, turned to me, swung away even more puzzled. He shrugged sloping shoulders and left. I took a deep breath. But Captain Locke merely closed the panels on our fish and said: "I'll go to the banquet. They won't be watching. They won't expect you to leave without me."

We looked at each other. I felt like a small boy, humble. I straightened as straight as I could and I saluted him although I'm not a military man, with all the respect that I possessed. He saluted back and went to get his dress uniform, walking to a sure death, once the temperamental Carolands discovered he had goosed their three-hundred year centennial in the name of an Earth they cared nothing about. That was the block-faced, square-shouldered Colorado Springs Academy man, perhaps mediocre, but knowing the moment when it came and the nature of the sacrifice to be made without question.

I went into Navigation and dropped the takeoff order on June Longden's desk. She looked up at me, her face ghostly, dream-like, incredibly beautiful in the pale blue reflected light of her scopes. "I would've stayed. You could've gotten there without me."

"We're trying to save Earth in an Earthian way," I said. "The men up front. Not by selling the bodies of our women."

Her hands trembled in reaction. When she looked up her eyes had filled with tears. She slid out of the room — I think she went to kiss Captain Locke.

Captain Britt! You could feel the sag in the morale of the ship from the moment we left Caroland.

We did not get off free. One of their smaller attack rockets scored a hit in the rear of the ship; the bloated bodies of our dead soldiers floated lazily past the portholes. One fragment even burst open the chest of the soldier on guard in Delacey Dennis's private cubbyhole. It turned us all into frightened children. But the soft body of the soldier seemed to have protected our diplomatic burden.

This attack, coupled with the ascendancy of the new Captain, made everyone less cheerful. But the rules were clear. At the death or incapacity of the Captain the Chief Technical Officer assumed command. Britt held that title. So now he was Captain Britt.

I was the new Chief Technical Officer, but I spent more time in the Master Control room than with the machinery. Britt fussed with me, he fussed with June, with young Arnold and with the soldiers.

"It's silly to run the *Penguin* at top speed," he told me. "We're bound to shake apart long before we reach Galactic Center."

"We might," I said. "We might not. It's a chance we are going to have to run."

"I've ordered us down to eighty per cent of star speed," he said.

"Did you get a clearance from Earth on that?" I asked. "Remember we're running on the Red Form."

I could tell that he hadn't from the misery on his face. "I suppose I should," he said. "But we'll get it. After all, there are three better ships than ours on the way. Red, White and Blue, remember?"

"White exploded shortly after passing Saturn," I said. "Earth lost some great men then. Red and Blue are far behind us."

"They're faster."

"Let George do it," I said and started to go back to my machines.

Bone ache, finger weary, I had my head and my shoulders, most of the rest of me in the A unit. We had decided to take it apart and rebuild it, which is not the easiest job in the world, traveling at star speed. The days and nights were a blur for me now. At least I didn't have to worry about Britt and his massive problems. Whenever he called for me I'd learned to send young Arnold.

But on that particular day I felt the long, smooth fingers of June Longden on my shoulder. "Britt wants you," she said, sliding inside the cupola of the dismantled rocket engine.

"More trouble?"

"Big trouble."

She was all tomboy today, her hair pinned in a tight, long pony-tail and wearing her navigator fatigues.

"What did we do wrong to deserve this expedition?"

She shook her head silently. She lit two cigarettes and passed one to me, and we sat in the cupola in silence, like a couple of friends who have been together too long to have to talk. We could hear the sing of the machinery, the exciting pull of the star-drive, the fat mother-chuckle of the computers and housekeeping devices. Our little nest was warm and comfortable, like a place away from the world, smelling of light machine oil.

"What will you do when this is over, June?"

"Go back to the Navigator's academy. Fifteen years is a Ph.D. back there. They'll give me a big house, a large salary and a hundred young kids that'll look up to me with shining eyes. How about you?"

"I'm almost forty. I have a few dollars. I'm going to buy a satellite home circling the earth and go into the importing business. Maybe marry a waitress with a cute figure. Someone soft and beautiful with no complications and no knowledge of space."

She grinned. "Ramsey and his waitress . . ." She got up. "Better report to the Captain."

I got up too, and we were face to face in that little cubicle.

I hadn't exactly planned to kiss her, part of me hadn't. I just reached out to give her a hand up. But there it was. No sooner had I finished the kiss than I felt like a boob. I tensed against the inevitable rejection but it didn't come. Instead the blue eyes with the startling black pupils danced with humor. She didn't say anything but just presented herself soft in my arms for the lifting out. As she went I heard her humming one of her tuneless tunes, apart and dignified, yet accepting and understanding, and I called to mind the middle-aged kitten curled up in her navigator's seat, big hands lazily slapping at the dials, lost in her star concentration.

Young Arnold stuck his head over the lip of my retreat. "Captain wants to see you, Phil. Hey, what the hell are you grinning about?"

I wasn't grinning for long after I reached the Captain's cabin. He stood straight as his heft permitted him to stand, with an outraged look. Major Black stood across the cabin, just as still, just as angry. The pretty blonde lieutenant that I'd saved stood between them.

"Mr. Ramsey," said Britt, "will you please confirm to Major Black of our Security Forces that as Captain of this expedition I may make any assignment that seems wise to me?"

"Inform the Captain," the young Major told me, "that under no circumstances does Security have to provide messenger girls for the Captain's pleasure."

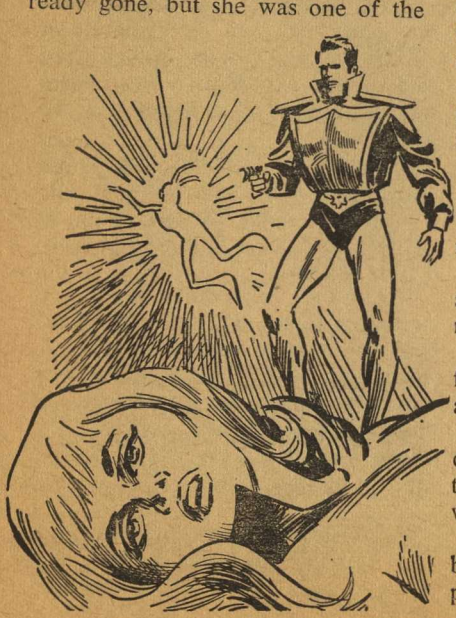
"Ramsey," said Britt, "there are countless forms and records which must be kept in such an important expedition as this. Even your clever machines cannot be programmed to handle them. I have assigned Lt. Marie Cosgrove here, out of Security, to be my aide."

Apparently my new duties as CTO included go-between for the Captain and the Security. "What's

it all about?" I asked the girl, deciding that she could give the best answer.

"The Captain needs me to help him in the maintenance of the ship's records," said the girl. Her lovely blue eyes wouldn't look directly at me, but at a point beyond my shoulders. There was a slight blush on her face. "Major Black maintains that he is too short of patrolmen to release me."

I had seen it before in space; it would happen again. The Captain had a yen for the girl; the girl had a stomach-full of death and dying down in the fish-tank. She was young, she was beautiful, and she wasn't as brave as she had thought she was. In the brutality of life down there, the weak ones were mostly already gone, but she was one of the ones who would never be brave. She was a girl that should've been home, making some handsome young clerk happy.



"The Captain can do anything he wishes to assure the success of the mission," I told Black. "Which is to deliver a man to Altair. You know that, Major."

"It would be a most unwise decision on the part of the Captain," said Black.

"You want her down there so you can paw at her," shouted Britt.

I thought Major Black would hit him; I caught his arm.

"Ramsey, take note that the Major threatens me!" cried Britt.

"Captain," I said, "I think we should all cool down. It's customary when you have a special duty to consult the Major and if you have to take one of his people, to let him make the decision as to which one."

"Mr. Ramsey," said Britt, eyes glittering. "Am I Captain, or am I not."

"You are."

"I am — what?"

"You are, sir." The last word almost didn't make it out of my throat.

"The girl stays up here as my aide," said Britt. "That's it. Dismissed."

Major Black surged towards the fat man, but I kept hard hold of his arm and pulled him out of the room.

"That lousy bum!" he said in the corridor. He was breathing hard, tensing his muscles. "What's wrong with Marie?"

"It happens, Major. It's tragic — but when they lose nerve, it happens."

There was an agony in his eyes that was painful to watch. "I thought I was in love with her."

"You were. You didn't see the real girl. She doesn't belong out here. Back home she'd be fine."

He stood in the corridor, swaying. "That fat slob!"

"We'll get through in spite of him."

"He may be a Lepid!"

I looked at him. "I made a test the other night," I said. "I put a very narrow laser beam through him, size of a needle. It cooked real meat. He jumped."

"That's not conclusive."

"Major, he's real meat," I said. "An ordinary human."

"She gets pulled up to a fat, easy assignment while the others get shot at. That's great for discipline!"

I could tell the difference between real anger and military grousing.

"We all have our problems, Major," I said, giving him a push towards his fish-tank. He went, big shoulders sloping. The revolution was over — but not all of the trouble.

That night we had a meteorite alert. A nice big race of meteors, popping little flash fuzzes on the outside of the ship. When the alarm rang we all poured out of our bunks and hit for the Master Control room, which is where you have to be in case of trouble and also it's safer. June Longden, myself, Phil Arnold, the Chief Engineer and the Chief Medic, all were there, all in our sleepsuits that could convert to spacesuits. Captain Britt and his new

aide were there too. She huddled in a sheet, he had on a bathrobe. That was all. The rest of us stared at them. My eyes met those of the former X-124, and I think I never saw a more embarrassed woman. But they both settled down for a determined long stay. The rest of us beat it out of there when we saw there was nothing to do but rest our case in the hands of fate.

"What think?" I asked June Longden.

"I think he's in love with her. I think she's confused. I think it will all end badly," said June.

She was right. Two days later while Lt. Marie Cosgrove traveled the dark corridors of the *Penguin* on some errand that Britt thought up for her, somebody put two bullets in her brain.

V

We were going through the Wickenham planets now. These were a body of planets over fifty light years from Earth, named for the space explorer, Lewis Wickenham. Some of them were primitive indeed; some held strange forms of life that hardly existed for us, as we for them. But some were mongrel and humanoid breeds, and some of those had a first class technology. They were insular, inward-looking planets for the most part like Earth itself in the early centuries of its human development, more concerned with internal matters than the skies above. After all, our own planet had not put forth a disciplined space effort until 1957.

We planned no stops, but both June Longden and I knew what to expect. So did Major Black. The dreaded sleeper missiles that they would launch to hover in magnetic fields or drift in space like so many vampires waiting for the heat or light of a moving spaceship to zero in, their job to keep away all foreigners.

You could not evade the Vampires once they got up speed. You could shoot a counter-missile across their trail, however. This counter missile, traveling at near star speed toward the Vampire would cause it to veer and would engage its murderous attentions, causing a harmless explosion while the mother ship escaped.

Normally our counter-missiles were completely automatic, but the *Penguin* had begun as an economy expedition.

Back on Earth some astute mathematician had noted that by leaving out the four counter-Vampire missiles we could add 16 security soldiers to our crew. Then if we had as many as four Vampires attack us, four soldiers in ordinary patrolcraft could perform the function, leaving us an extra twelve soldiers beyond what we could carry if we had the four automatics. It was good mathematics, although a little weak on the psychology side.

I had rigged up four of our escape craft to perfom this function but I really didn't have the proper electronic gear to kluge together a satisfactory guidance system.

"We can make it heat-seeking and shove it in the direction of the Vampire," I said to Britt when I explained our danger before the incident with X-124. "But the best defense would be an infra-red detector and a human hand on the controls."

"See to it," he ordered. "Have Black assign four men."

"Which four?" I said caustically, angry that I had given him a chance to increase the troubles for our haggard security forces. But there was no help for it. Major Black assigned four men on a rotating, Russian-roulette type of duty for the Vampire patrol.

We had our first alert in the middle of the funeral for Lt. Marie Cosgrove.

I shall never forget the scene, the by-now thin ranks of the security force at attention, the ship's officers and crew that could be spared, Captain Britt, slope-shouldered in his uniform like a dangerous pig deprived of his slops, Major Black in

ramrod determination, the sullen faces of everyone, the soft religious tones of June Longden who was our assigned spiritual officer.

They had put Marie to rest in her little patrol craft X-124 and locked her in. June was saying the final words. The recorded music had swelled. Then came the jarring sound of a siren in the midst of solemn beauty as my automatic alarms gave a deep-throated roar.

VAMPIRE.

The men were well-trained. Almost before anyone could react three of them broke ranks and sprinted to the counter-missiles to fly out and draw off the threatening warhead. It had to be a sprint. After the warning we had 120 seconds to launch and about two hundred and forty seconds to track if the missiles were to save us from destruction.

Three of the men made it. The fourth was Major Black. He shoved aside the fourth man and hit the last ship in the line. "I left a tape on your desk, Ramsey!" he shouted as he shoved home his patrolcraft canopy; then the four ships were gone.

The remainder of the funeral assembly stood awkwardly at attention no longer thinking of death, but thinking of life, now, our lives if the decoy missiles didn't work. Three minutes can be an everlasting half hour.

Then it came. The mighty roar of one of the decoys meeting the Vampire. The nearby concussion shook the *Penguin* from front to rear, then the big ship slowed to allow the return of the three who had not had to meet the Vampire in death.

June touched the button that sent Marie's small spacecraft on its lonely eternal vigil. "I commend thee to space," she said, "and those who die after."

But it was Major Black's lucky, or unlucky day. It was one of the other men, not he, who had met the Vampire and saved us. Thus he returned to the ship and everyone knew what would be recorded on the tape capsule he had left on my desk, especially Captain Britt, who watched him with hate-filled eyes.

Captain Britt had arranged his desk like a judicial bench, slightly raised above the deck, above the officers gathered in the Master Control room for Black's court-martial. Britt sat there now, the rest of us ranged around him, myself, June Longden, Young Arnold, Captain Medwick, who was next in command to Major Black, the chief engineer and even the Mess Officer. For some of them it was their first time up here.

"The charge is murder," said Captain Britt, for once looking military behind that raised desk. "The murder of Lt. Marie Cosgrove by her own superior officer, Major Kenneth Black. The evidence shall consist of a taped confession which the Major himself made and called to my attention, in front of witnesses."

"Captain," I said, "this isn't a regularly constituted court-martial. We lack—"

"Shut up, Ramsey!"

It was only the second command I'd ever heard him give. I was so surprised I shut up.

"I've read the manual," he said. "This is a hearing. Under emergency conditions like this expedition, my duty is clearly to hold a hearing so that the evidence may be noted by all officers aboard for later study and trial. This hearing can arrive at a conclusion."

"I shot her," said Black, his voice low. He stared directly at the Captain. "My only mistake was in not shooting you."

"Let the Recorder note that comment," said Captain Britt. "Major, I am your commanding officer. You have threatened violence."

The girl was dead, but the hate was very much alive. I knew of course that humans have limits, that sometimes even in the highly trained the limit is passed, yet I had to admit surprise at the deep hate in Major Black, the disintegration.

June Longden ran the tapes as Recorder, shot a surprised glance at me to match my own. What sort of condition was our pitifully small security force in, when their commanding officer had gone so far off the deep end.

"Major," I said, "we still have a pretty important mission to fulfill. Hadn't you better take control of yourself?"

Black didn't answer me; just stared at Britt. "I loved her, you stole her, I shot her, I should've shot you."

Britt stood up. I thought there was a singularly ugly triumph in his voice. "You didn't love her well enough, Major. She chose me!"

Major Black leaped at him; then Britt did a strange thing.

There was a glass of water on his desk. He threw it at Major Black and it stopped him. The huge, barrel-chested Major pulled up short as if Captain Britt had fired a gun in his face. He stood there gazing down on the fat man in the ill-fitting uniform, but the man with the superior smile on his face. Then he collapsed, one of the most fierce, highly trained space soldiers I'd ever seen. For whatever the reason she had picked the Captain, Lt. Marie Cosgrove had proved that there was something deeper than all of the military emotions, pride, ferocity, strength. She had, after all, chosen Britt. As they stood there, Britt was the Captain and Black was an officer who had been pushed beyond his limit and had collapsed.

When we finally got out of that horrible room, I followed June Longden to the navigator's cabin.

"Have you ever seen anything like it?"

"Have you ever really met a superman?" June asked. "Really?"

I sat in the darkened room while she checked her gear that had been on automatic. The blue cathode screens reflected on her face and arms. I have never seen anything so beautiful as the long-haired girl in my life. I watched her large but lovely hands as she lit two cigarettes and gave me one.

"Once we're past the Wickenshams—" I said.

"We'll get at least one more," she said. "It's that kind of an expedition."

We got it about four o'clock that afternoon. Once again the

alarm, the rush to the mocked-up counter missiles, the terrifying suspense, the sound of the explosion when the counter missile took the shock that had been meant for us.

I didn't feel much like going to Officers' Mess that night. I had the A unit working again. Finally. But I didn't want to be alone, so I went. Captain Medwick was there when I got there. So were most of the others. Captain Britt was sitting proud and erect in his fatherly spot at the head of the table. The rest seemed unnaturally silent.

"I was telling the others, Ramsey," said Britt. "Major Black went out and took that Vampire for us. I think he should've. Don't you, Ramsey?"

"Yes, Captain." I looked at Medwick.

"I let him go," he said. "I had to do that."

"Sure," I said.

"We'll make it through," said Britt. "I'm sure of it. We'll do our job. Have you got those units top-speed, Ramsey? Are you pushing us?"

"All the way, sir," I said, amazed at how the last word came naturally to my tongue.

We ate in silence and then suddenly Britt began to talk, almost as if we weren't there. "I never was tops," he said. "I know that. Nobody has to tell me that. I was just a guy with machinery, that's all. I could make friends, too. I got to know some pretty high politicians. Sure, I know what you all think. How did I ever get to be Chief Technical Officer? I made friends; I didn't scare anybody that I'd ever be good enough to take their jobs."

We looked at each other embarrassed.

"But she chose me!" said Captain Britt. "You bloodsuckers realize that? She chose me!"

He flung down his napkin beside his half-finished dessert and stood up straight. At that moment the warning buzzer rang. "Ship following: Ship following!" called the prerecorded voice, and we all scampered for the big control room.

VI

I shall never forget that scene. The cluster of officers at the large space window staring out at our wake, Britt in our midst. The sweep of stars behind, the store-window glow of our lights out behind the *Penguin*. And the tiny scout craft that followed us. Drawn by our gravity, held by our gravity, tiny and dainty, the lettering on its side peeled from an ancient battle ray scar near Mars. "X-124". Occasional backdrafts from the periodic rockets of our big ship shot a dark cloud past the small craft, but this was jerked away by our smooth star speed.

Lt. Marie Cosgrove, dead, sat petite and beautiful at her controls. She looked directly at the view window where we stood, a half-smile on her lips, a smile dignified by its eternalness, erect, lovely, remote . . .

Young Arnold cried out, Medwick cursed, and June Longden touched my arm.

"What happened?" I muttered to her.

"I must've jiggled the controls to a wide sweep when I launched her," said June. "We were interrupted by a Vampire, remember?"

But if we were stunned, the impact on Captain Britt was crushing. He stood there transfixed, as a man who has been beyond death.

"Clear the bridge!" he cried. "Clear the bridge!"

"I'll shoot a small charge at the craft, veer it away," said Captain Medwick.

Captain Britt gripped his arm. "You'll do nothing of the kind. You'll return to your post, say nothing of this!"

It was after midnight. I had paced the evening away.

I couldn't get the thought of it, the sight of it, out of my mind. The perfect, dainty little ship following us, like a pilot fish follows a shark. I had run a dozen routine checks. Everything was fine on the *Penguin.* There was nothing to do but think.

I jumped when the buzzer sounded. It was June Longden. "He's out there. Went in his space suit. Sitting beside her in the ship."

I was in the control room in seconds. I pulled the big blinds to stare out again. June came into the room just behind me. I made a wild gesture at the little patrol craft that followed us, Captain Britt jammed in beside the dead girl. But his voice cut in on the radio. "Forget it, Ramsey. She chose me. I shall never leave her."

"You're nuts, Britt! She's dead. Get back here!"

But his hands had already activated the rocket and suddenly the small craft began to fall back and away. His voice faded with the doppler: "—chose—me—"

In ten seconds the *Penguin* was once again alone in space.

"Why?" I asked June. "Why?"

"Would there ever be another for him like that?" she said. "Even if he went home a hero."

"But she only picked him to begin with because he offered safety."

"Are you sure?"

"Of course I'm sure."

June Longden closed the blinds in a manner that showed her displeasure. "People in space live close to each other. They're supposed to learn so much more about one another. But I wonder about you sometimes, Phil Ramsey. I really do."

"You mean to tell me she really preferred that old, fat slob?"

June Longden went to the door, gave me a cool look. "It is just barely possible, Captain Ramsey. Just barely possible." She went out, hooking the door closed behind her.

I shot the blinds again and stared out into space at the big fat stars wheeling around us and the afterglow of our ship. I sat alone in the dark pondering. It was almost an hour before another part of June Longden's speech made itself heard in my mind. "Captain Ramsey."

For a moment the whole universe stood still.

I was in charge of the *Penguin* now.

We were on the last lap. Within twenty-four hours we would get to Galactic Center. We would re-

vive Delacey Dennis; he would stride down into the great arena among the beasts and men of space and say his words which would assure Earth a permanent place in the Council.

We had lost over four hundred military patrol men and women, more than fifty crewmen and two Captains to deliver this man to the meeting. It would be the *Penguin* after all, because White had exploded, Red was missing, Blue was too far behind to make the schedule.

It was a time of void as if after all of our trials we were to be given a respite. We passed through neutral territory. My military forces—now trimmed down to the strongest, who had been honed in blood and battle to high efficiency—were no longer needed. It's ironic both in space and on Earth so often when you've suffered the pain of learning a hard job, the job is over.

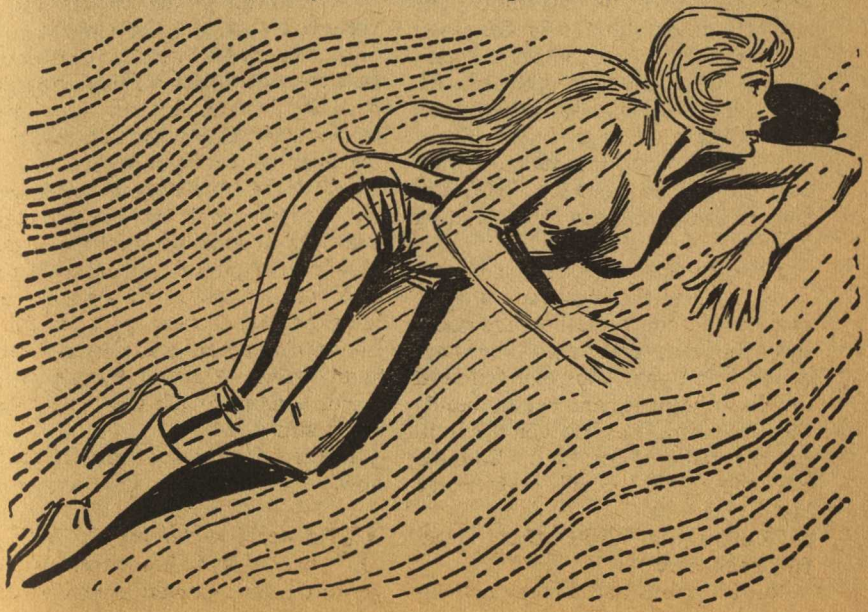
Something had happened to Young Arnold. He commanded his machines with authority: he no longer looked scared.

Captain Medwick, who was the ranking officer of the military since the death of Major Black and also the Chief Medical Officer, came to me in the wardroom at dinner.

"We've won a great victory, Captain Ramsey. The men and women are pleased, too, that we will arrive with yourself as our Captain. We thought on this last night we might have a little banquet . . ."

"The time for victory banquets is after we arrive, Captain."

Captain Medwick looked annoyed. "You won't come? After all, when we get there, no one will want to



hang around the *Penguin* in port. It's been a rough trip."

"I won't come."

Medwick went off, looking decidedly unhappy. When I went back to Master Control, June Longden was there, dressed in her navigator's ceremonial outfit.

"Pretty hard-nosed, aren't you, Captain?"

"I think it's fine if they want a banquet. Their job is done. Mine isn't."

"Or are you just afraid, unable to trust? My job isn't over either, but I shall go. You know there's the kind of man that can stand any kind of adversity but not success. They fall apart when things go right, for a change."

"Don't bicker with me, Navigator. I've decided to marry you when I retire, instead of a comely waitress."

I hadn't expected it to come out like that. I guess she didn't either; she stood there frozen, not knowing what to say.

"Well, you've known," I said.

"Of course." She relaxed, came forward, the blue eyes with the dark irises glinting with tears. "Maybe I'm the one who's been working too hard."

The kiss was the kind you don't often get or give. The tension was over; she babbled, to cover her emotion, about her kid sister. Could I believe it, the girl was the navigator on the Blue expedition that followed us. There was a blush on her face, a softness to her body. I hadn't realized before that she, too, had trouble with emotions; each of us had been too much alone in the dangers.

I checked out my machines and my duty men. Twelve more hours to go.

We'd arrive in the morning. Everything was under control and operating well; the *Penguin* had relented after its hard trip; the skeleton crew felt mellow, sipping stolen drinks from the big banquet down in the fish tank. I opened the blinds and looked down from the bridge into the fish-tank at the festivities. Captain Medwick, Arnold, the ranks upon ranks of surviving security men and women, off-duty crew. I felt an understandable lump in my throat as I contemplated my veterans . . .

But when I closed the blinds I was troubled.

She bothered me. She had not reacted properly. No man ever proposed to a woman and surprised her. A woman is ahead of a man at all times in this respect. Also, June Longden was not down there at the banquet table.

I felt a stunning paralysis in my mind as I seized the laser gun and plunged down the corridor. But the navigator's cabin was empty, the machinery humming and clicking.

I went down into the hold of the ship as fast as I could go. But I did not go fast enough.

The guard at Delacey Dennis's compartment lay face down in a pool of his blood, where she'd shot him. When I whipped into the room she had just raised up from the passenger apparatus. She gave back as I came in, hand wet almost to the elbow. I looked into the life-bath in which our diplomat rested, met the final adversity of our expedition.

She had plunged her knife into his chest up to the hilt. The life-waters that had gentled him now bubbled with blood. The unwomanly force of the blow must've literally cut the man's heart in two. He was past recovery.

"Lepid!"

There was a hollowness to the look in that beloved face, in those blue eyes. I pushed the lever of the laser gun, but there was a weird ripping sound as the Lepid deserted its host, the walking dead corpse of June Longden, who had been possessed some time before our trip had ever begun. No wonder her songs sounded so strange! No wonder she had seemed so remote!

The thing that had possessed her scurried in fright and speed to find a safe symbiosis in the metal, in the frame. But for a second the Lepid was exposed, white like a rat, small like a dog, insect-like in its fibrous antennae.

My thumb flipped the laser to the proper pre-set, and I fired. The rat-like thing burned to a crisp at my feet, meeting its Lepid death. There was only a dry, rattling sound, yet a scream by a living thing can always be sensed.

The beautiful torn corpse of the real June Longden expired without mind or memory. June Longden had not really existed since the Lepid took her over. I never knew her.

Alarm bells were ringing like mad, but I just stood there foolishly with my gun in my hand. In shock, horror and misery. In the final blood-test of the expedition we had failed. We would not deliver the man after all.

They took me upstairs, and Medwick gave me a shot. The machines whirred, the ship moved in comfortable safety. But the entire company of men and women whispered to each other in syllables of shock. June Longden had been popular . . .

Ten hours later we arrived safely and on time, impotent and useless to the purposes of Earth.

VII

The Procession of Delegates was the most impressive thing of its sort I'd seen in all my years in space. An incredibly long broad avenue led through the central city of the host to the arena where the Delegates met. The avenue was lined with metallic plants that glowed and flashed in red, green, blue bright and soft tones of rich colors. Banners of the Galactic members added further color, along with bizarre geometric designs. The hosts were a humanoid people who lined the sides of the avenue to stare at us in awe. Each Delegation marched on foot or flew or crawled in native costumes to the place of assembly.

I marched in Delacey Dennis's unused frock coat and striped pants, wearing the ceremonial tall hat on my head. Beside me marched Captain Medwick and Young Arnold in their respective uniforms.

"Ugly!" I heard a Sauretian young shudder to its mother as it watched us.

"Repulsive!" said the mother, rolling its young back into its mouth so it would not be further exposed to the fantastic earthmen.

I did not care. Our final defeat lay ahead, in the arena. I would certainly not be certified as the official delegate since I was not Delacey Dennis. The Lepids would take care to see to that.

Even if I were allowed to speak I had no training for it; even if I read Dennis's speech it could make no impression. I had not the skill to argue our cause. I was a Technical Officer of spaceships, temporarily made an ordinary small-ship Captain.

So I marched amidst the shouts, squeaks, rustles, whistles, cries and screams of the alien civilizations, absorbing all the blaze of colors, the symphonies of sound, yet seeing the ghosts march ahead of me: Captain Locke, Marie Cosgrove, Major Black, fat Britt and June Longden, of the flowing hair, the big hands, the startling blue eyes with black irises. We would play the sad comedy to the end because there was no other choice. Behind us marched a select few of the *Penguin* company without a smile, like soldiers going to their execution.

In the arena we were given seats back from the platform, a place of no importance. The Delegates rested, the roll was called. The Chairman was a huge toad-thing as big as an Earth house. The Vice-Chairman was a small vulture-looking bird.

When they came to new applications for Council membership and called "Earth" I picked up Dennis's fat speech and marched down the long corridor to the stage, center of attention for the massed civilizations of space. I felt my knees trembling, I felt the enormous weight of the papers in my hand. I set the papers on the podium, stared out at the huge multitude—and revolted.

"Earth applies for Galactic membership, regrets she missed the last meeting and further applies for colonization of all the Lepid planets."

That last slipped out from anger. I bowed to the Chairman, started off the platform.

There was a huge stir of the multitude. "Wait!" came the mechanically translated voice of the frog Chairman.

"Yes, Mr. Chairman."

"You have no speech. You have no reasons?"

"To give reasons provides matter for argument. We are an adequate civilization, we don't need others to tell us this, and while we hope to gain advantages in Council membership open to all, we will brook no debates, resist all trials of arms."

"The Lepids belong to this Council. You do not. How is it you claim their planets for colonizing?"

Out of the corner of my eye I could see the consternation among the white dog-sized worms. "They've shown an uncommon interest in our planet," I said. "It appears to us that we might find profit in their lands, if they can find it in ours."

"The floor!" the Lepid demanded.

"I have the floor," I said. "You are out of order."

"Please don't usurp my function!" cried the huge toad Chairman. "You are most arrogant."

"Still, most useful civilizations are," said the Vice-Chairman.

"He has no speech!" insisted the Chairman.

"Saving us time and boredom," said the Vice-Chairman. "This shows a certain subtle mind."

"How many other planets have the Lepids tried to steal in and out of this Council?" I called out.

There was a stir across the assembly. It was obvious that there were several. "Perhaps the Lepids are too civilized even for this Council," I said.

"You will step down," ordered the Chairman. I left the platform. I was conscious that the strange roll of sound appeared suspiciously like laughter. The Chief Lepid had the floor. "This man Ramsey is not even the official Earth delegate!" he cried.

"Your answer?" The Chairman called to me.

"The Lepids murdered our original delegate. I am now the delegate."

"This is most unusual," said the Chairman.

"On Earth if the first man cannot perform, the second must, and if not him, the third, down to the last of us."

"You will be in a difficult position if you fail approval of the group," said the Chairman. "Do you rest your case on this slim performance?"

"Life for us has always been difficult, Mr. Chairman. We have struggled for it across our centuries, against one another and with the elements. We struggled for it across the sweep of space which brought us here. We struggle now. And if we are refused we shall struggle against all your fearsome forces. I bring no fine words, only the sentiment. In essence all your members could plead no more. I call for a vote."

There was an absolute dead silence. I sensed that I had moved things rather more rapidly along than was customary. Even the Lepids seemed astounded. The Chairman waved a toad-paw; we were retired to a soundproof room under the stands to await the voting result.

"That was pretty rough," said Medwick. "I don't think it was so wise."

But Young Arnold said. "It was great. I was proud of Earth the way you stood up to them."

"It was all I could do considering we failed to deliver the man," I said.

"No, we delivered the man," said Young Arnold.

The large bird who was the Vice-Chairman came into the room. "You passed," he said. "The Lepids were defeated. Of course they also rejected your plea to colonize the Lepid planets." His multi-faceted eyes scanned our faces, not without humor. "We must have dinner one day soon, Earthmen."

I heard no more. I had fainted.

It was a week later. I'd handed our pretty new certificate to the Chief of the Blue Expedition which had arrived with plenty of brass. I gave them the bill for the initiation fee plus the notification of various Council taxes. That would keep them busy enough, stop their embarrassing congratulations.

She came through the door of the *Penguin* Master Control, a younger

version of June Longden, gold hair, blue eyes with those startling dark irises, reserved, with awkward big hands. She stood there in unaware magnificence.

"I came to ask about my sister, Captain, if you don't mind . . . Sir —is something wrong?"

"Nothing is wrong," I said reverently. "Nothing is wrong in all space."

END

The Most Delicious Foe

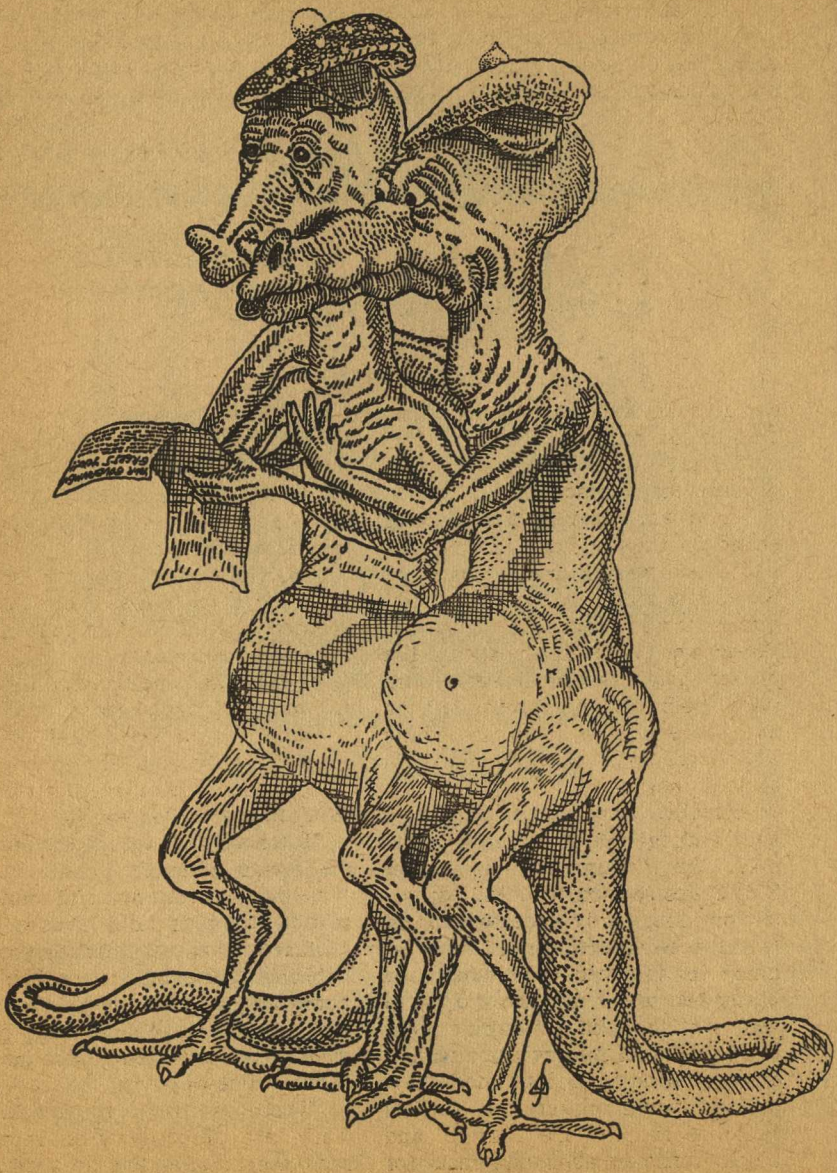
by LAWRENCE S. TODD

Illustrated by TODD

The two races that shared this weird corner of the galaxy loved each other — as something to eat!

I

Heinrich Krauss was waiting. In a few minutes a government agent would be coming up to his office to explain an assignment which might mean a contract for his company, and he aimed to get it. He was a tall man, thin but strong, with a long gaunt face and close-cropped hair. His thinness was somehow emphasized by the looseness his silk blouse hung on him with, and the extreme tightness of his pants made him look taller than he was. His entire body was wrapped in muscles that were long, thin and hard, and had a constantly knotted look to them. He looked like a half-young business executive, and he was. Quite some bit, for he was president and chairman of the board



of Available Jones, Inc., the company that would do anything for a price. On its main office's frosted glass door was a motto in neat gold print:

Dry Babies, 10c
Wet Babies, 15c

The Company was named after an ancient Terran folk hero, Available Jones of Dogpatch, who would do anything for a price—much the same as the eons-later company which was to bear his name. Krauss had founded the company a few decades earlier on a wild hunch. It had paid off. Now he might get his first government contract.

There was presently a row being raised on Capitol Earth, a row that had been waging great battles of words and sentiment high in official circles. It was concerned with a tiny star-cluster far out in the sticks. The cluster held two small space empires, both of whom were hot on each other's tails about something ill-defined. War between the two seemed inevitable.

Actually, war would be hardly very bad for either of them. However, the Terran Organization of Star States seemed to hold a different position, partly because it hated to see possible members of its great union in war with each other, and partly because if the two *did* go to war, a million little minority political groups, all hungry for attention and royalties from interested magazines, would picket the Capitol Building in Rio De Janeiro and block traffic of alien diplomats for hours. It would also make the senators and representatives late for dinner and the usual rounds of high-society parties. So war was undesired.

From the looks of things, it would be that the government had gone slowly batty trying to work out a solution, and had finally decided to look at money-hungry private enterprise for a solution. And Krauss had been notified of this.

Krauss looked at the tiny screen set in the pearlwood veneer of his desk. His receptionist had turned it on. It showed a short, heavy-set man in a gray government business suit, holding a briefcase and scratching his chubby red face as if he were investigating the possibility of strip-mining cheekbone.

"Mr. Krauss, this is the gentleman from the Bureau of Foreign Affairs. Shall I let him in?" asked the unseen secretary.

"Yes, by all means. Let him in. Let him in." Krauss stood up as the iris-door spread open and offered his hand to the man who entered.

"Heinrich Krauss at your service. What may I do for you?"

"Ritcher Matheris, of the Bureau of Foreign Affairs."

"How do you do, sir? Have a seat." The agent did. "Now, Mr. Matheris, what may I do for you?"

"First, allow me to explain my purpose in being here. I'll start with an explanation of the races which have managed to stir me out of my office to yours.

"There are two, as you know. They are respectively a reptiloid race, the Luralim, and an arthropod

race, centipedeans, called the Rischim. They lived in the star-cluster known as Ossian's Dandelion, which is about 1½ light years across and holds about four hundred suns. There are around five thousand planets in it, and I'd say that well over half are capable of harboring some life-form or another. So far as we have been able to determine, there are twelve intelligent races in it, three having star-travel. One race seems to have discarded it millions of years ago, and they are only found on seven planets, all dry and aged and dusty. The other two are the Luralim and the Rishchim.

"They both have had space travel over three thousand years and have ventured to nearby stars in Ossian's Dandelion in huge, ion-driven craft. They never developed a real star drive, simply because they never needed one, until about three hundred years ago, and never met each other until seventy-five. You understand that using an ion drive as they did in a small star-cluster would enable them to traverse the distances between their stars in just a few months.

"Both the Luralim and the Rishchim are water-based oxygen breathers. They can eat the same foods, though both say that would prove nauseating. However, both have one thing in common concerning eating habits. They enjoy each other's flavor."

He sat back with a foolish grin on his face, steepling his fingers and waiting for a reply. Krauss gave none, and he went on.

"Both have three subject races. But they have no taste for any of them, and simply have been offering aid plans to them in hope of raising them to be healthy fighters, so that they can send them into enemy territory to bring home freezer-ships full of food. That brings us to our point.

"Neither race wants to be eaten, but both want to eat the other. That makes for a touchy condition. War might break out at any moment. The TOSS wants somebody to solve this dilemma, and you were chosen as a first offer. Would you like to accept?"

"That I would, but I will require being paid. I have never been too much of a patriot."

"You will, Mr. Krauss. We have no doubts that this will run into a high price, and we cannot really say how much. I doubt you could, either. What we're going to do, though, is give you an advance and then, after the work is done, pay you the deficit and twenty-five percent profit."

"Sounds almost acceptable. I would like it higher." Krauss stated this with a deadpan face and a flat voice that offered no hope of compromise. Giving the agent a look of cavalier disdain, he said: "Thirty-two and three quarters per cent profit."

"That might be pretty steep, Mr. Krauss."

"It may be, but it's my price."

"Very well. I suppose then I'll have to swing it."

"The government will accept, since they're never anxious to go to

another company which charges mountains more. Will that be all?"

"For now. We'll send an auditor around, bring your vital employees to office A-5678gh tomorrow evening for a briefing."

"Have your auditor go to office eighteen . . . financial matters. My man in there has orders to whittle the price up a bit higher, so you had better prepare your man for that."

"Very well. Thank you."

The agent left quietly, and Krauss sat back and contacted his secretary.

"Liniu, I want you to take these two names down. Luralim and Rishchim. Look them up in the Directory of Alien Races, and find out all you can about them. When you've finished researching bring your findings up to me. I want a preconceived notion before I go out to find out the present truth. Thank you."

Krauss then picked up a newspaper and began to read.

II

The briefing was simple and concise, and merely brought Krauss's former knowledge more up-to-date. Krauss and twelve other employees were present at it, soaking up what was given out about both races, and then hatching plots to stop the approaching war.

After the meeting all left for the spaceport's eighteenth private section, where the five Available Jones, Inc. spaceships were hangared. There were five ships, and each was

different, for they might each have a different job on a different day. One day it might be evacuating a crew of scientists from a doomed laboratory on a star-cinder, another might be mercenary activity, yet another assignment might be cargo-hauling or guarding a planet or escorting a cargo-freighter.

Krauss stopped his car in front of the old, red-hulled *Pantagruel,* a retired Cunard Starliner, and had the cargo lock thrown open. He drove the car into it, then left it and went up to the bridge. From his vantage point he could see the other ships, all of which were being used. There was a huge battleship, a cargo-saucer, a spy ship, a courier ship, and their servicing trucks, running over the tarmac like a hive of ants turned by a spade. The Available Jones employees were arriving out in the parking lot. All came through the hangar which served as check-out post before walking to their assigned spaceship. A few gave good-bys to their families and friends. Most merely walked out onto the field and boarded the craft.

Before takeoff, Krauss ran a call through to the government building requesting a frequency to communicate with them on, so that late reports on how the job was going could be sent. It was assigned, and the time had come. With a fluttering groan the *Pantagruel* floated from the ground and vanished into the blue skies of Terra, heading for a distant star-cluster.

Ossian's Dandelion was a glittering brooch of untwinkling whiteness, for most of its stars were of B or A class. It was on the very edge of a rift, and looked out across ten thousand light years to a distant shore of stars, dim and pallid.

Despite its first impression of being another peaceful star-clump, it was the base of much discontent. The Luralim desired roast Rishchim, and the Rishchim desired roast Luralim. This had developed from an incident some twenty-five years earlier, which was now lauded in local history books as the beginning of the era of the "full dinner pail".

The Luralim and Rishchim lived near the center of Ossian's Dandelion, but had never met each other, though their planets were scarcely twenty billion miles apart. Both their colonial drives had gone out in different directions and did not intersect. They were slow, complete colonizers, taking a good long time to settle each planet before going on to the next. For that reason, neither had bothered with a star-drive. It was a complete accident that both discovered it at the same time. Both had sent out expeditions to the extreme verge of their cluster, expeditions which took twenty years going and coming. When they reached the edges of the Dandelion they dispatched smaller ships to do individual explorations of stars, leaving the great Luralim concrete globes and the girder-and-bubble Rishchim mother ships in orbit of different stars.

The edge of the Dandelion had been colonized long before by an extinct race of turtles, creatures from a star further up the spiral arm the Dandelion bordered. These

creatures had left ruins all along the outer shell of the star cluster. The ruins contained, among other things, diagrams for star-drives, and both races found them. They took them home, and they were used. Now it was a one-year trip to the verge, and more ships visited.

A group of Lauralim landed on a red planet of a yellow star. So did a shipload of Rishchim. The Rishchim had the lamentable habit of mooching about without any gear whatever, a habit which made them look like nothing so much as a troop of unintelligent centipede-creatures. A squad of joking Luralim, mounted under jet belts and tam-o-shanters, found them and shot them. That night they had a very fulfilling meal, and the Rishchim missed their friends.

A quick search the next day revealed seven sleepy reptiloids writing reports about how good the food was on this planet, the search also uncovered, at the lizards' camp, four exoskeletons, eaten bare, and the bodies of three other Rishchim, impaled lengthwise on sharp sticks. Putting two and two together, the Rishchim deduced the lizards were responsible for this outrage and proceeded to shoot and eat four of the seven. The other three hastily discovered their previous night's meal had been sentient and hot-footed it away in their ship.

However, they still told how good the Rishchim tasted. And the Rishchim found the flavor of roasted Luralim irresistible. Subsequent meetings built up an appetite for the other race, and soon everyone wanted a taste of intelligence. After the home planets and the colonized planets of both races were well known to each other, war threatened.

In fact a battle did break out, but a lack of war materials brought it to an inconclusive end. Terran Organization of Star States visited then, and both races decided to enter so that they could get the war supplies they needed. When the reasons for their entry were discovered, however, their pleas were quickly refused and they had to build up their own armament. Now they had done just that. While they still wanted entry into the TOSS for more weapons, they could fight it out alone, too. The Organization realized this and decided it had to be stopped. There was one way to do it—Heinrich Krauss.

The *Pantagruel* slowed her motors and the warning siren hooted. Krauss got up from his bed in his private suite in the ship, dressed and headed slowly for the bridge. There he beheld the interior view of Ossian's Dandelion, and reflected that the ship had better go pretty slow.

The stars were glittering in every direction, harsh blue-white, with a faint blue aura limning their edges. The entire sphere of space had a deep blue color to it, imparted by a surplus of hydrogen in it, and there were enough meteors to make the whole place dangerous to be in. Many of the stars were, instead of being dimensionless points, disks; and all could be disked in a moderate-sized telescope.

Below floated the majestic blue globe of Lural, pearly with pallid clouds and scooped with the round bays of water carved from meteors striking its vast surface area. It was easily forty thousand miles in diameter, but was unnaturally light for a planet with an oxygen atmosphere and water oceans. It had been well-cheated when it came to heavy elements, but the frequent meteor showers that had pelted it from its earliest days had more than made up for that. Besides, they had carved long, looping bays and smooth, shallow round seas that gave the planet a wild, beautiful look. Few other worlds could boast of such natural beauty. It would probably not be long before some wise entrepreneur decided to run a passenger line through Ossian's Dandelion.

The red hull of the *Pantagruel* swam into the atmosphere, the decorative wings whistling with the song of an alien atmosphere. It set jets for the largest city on Lural, Cosif, where the TOSS consul was located and the spaceport Krauss was to land at spread itself across a twenty-mile crater.

As he flew his ship personally over the range of mountains that formed the crater rim, one of his copilots pointed out a distant forest of huge bulbous growths. Closer inspection revealed these to be huge, heavy spacecraft, great squat globes bristling with heavy guns, missile racks and forcefield plates resting upon thick, cylindrical boosters. These ships were hulled with concrete—a rather unusual substance to shell a spaceship with but a good one. They were obviously intended to visit only once, that time being now, their take-off period. They would then shed their boosters and range about searching for Rishchim. None were complete, though, and they looked as if they wouldn't be for a month.

That was plenty of time to work in, figured Krauss.

With a mechanical sigh, the *Pantagruel* settled into a girder berth and set the stone port floor under it to creaking and cracking. Gangplanks slid out, hatches flew open and weather stations sprang from the ship's top. A port car rolled up, its thin tires screeching across the spaceport. The officials it disgorged checked over the *Pantagruel's* certificates and demanded that Krauss pay port fees. He withdrew a government checkbook which had been handed him to take care of all expenses and signed out the appropriate amount. The sum was hardly as high as in more civilized areas. After a quick customs examination Krauss and his crew were ready to go about their business.

Krauss took a valise with important papers in it and strode from the port into the stone and fungus city of Cosif, there to do business with the bigwigs involved in the Luralim side of the dispute. Standing on the curb of a metal highway he hailed a cab, which shot over his way propelled by a propeller at either end. It had no wheels, being suspended by its lower surface which had a north polar magnetic charge. The surface of the iron high-

way, made up of huge permanent magnets fastened together with plastic, also presented the north magnetic pole to the air and the resulting unlike-charge repulsion served to keep the cab floating between an inch and five feet above the highway. With a stentorian thunderclap of suddenly activated breaking airscrews, the cab drew to a whopping halt in front of Krauss. The cabbie, an aged reptilian whose lack of scales on his wrinkled skin proclaimed him over a standard century old, stuck his head out and asked, "Wanna ride?"

He spoke his native language well. The slowness imparted it by his old age allowed Krauss to better understand it, for three hours of language tapes played in a psychoeducator were hardly sufficient.

"Yes. I would like to be taken to the War in Space Building."

"Yep, I thought so. All Terrans do. And I betcha gonna try and talk the Warmaster out of killin' off the bedamned Wigglies, huh?"

"I am to succeed."

The cabbie had a healthy laugh, then said, "You'll never do it. Not in a green sunset. We're gonna whop them Wigglies so damn hard . . . You see the spaceships at the port?"

"Yes, I did. The warships, you mean."

"Yeah. Pretty impressive, huh? They fly in three weeks. That's a standard month to you Terran diplomats. You know why we're gonna whop the Wigglies?"

"No," lied Krauss, anxious to find out what the general populace had to gain from the war.

"Well, I'll tell you." The cab shot up a ramp that spiraled twenty times around a huge stone obelisk, and passed gardens and sundecks on its ascent. The cabbie was quiet while concentrating on his task. When they leveled off a half a mile higher, speeding along a narrow bridge between the towers of the stone skyscrapers, the driver resumed his chat. "We're gonna whop those Wigglies because they're good to eat. You wanna know something?"

"What?"

"I was on the third expedition to taste Wigglie. Their meat is pink, and soft and nutty flavored, with the slightly powdery yellow veins of blood vessels running through it. It's delicious. Anyhow, there's gonna be Wigglie in every supermarket in a coupla months. Everyone's waiting for it to get there. Look over there." He pointed at a lower level where a gleaming marble cube had raised a sign that said, in native sine-wave writing, "Wigglie meat coming soon." It was written in green paint with little red rocketship figures on its sides, a typical market-type window sign.

"How come you want no war?" the driver, slowing his cab as it passed through the middle of a building.

"My business."

"Mine, too. Bard of the Hills said, 'through your business, I might better know thee, and better help thee.'"

"Good for the Bard. But I don't need his help, do I?"

"Not if you're dealing with the

Warmaster. He thinks the Bard of the Hills is sheer balderdash, and wishes that he'd go get eaten by a Wigglie."

"I see."

"Yeah, well anyway, what do you want to stop the war for? You should know it's hopeless for you, because there is gonna be one. So why bother?"

"It personally doesn't make one bit of difference to me, but I was hired by the TOSS to divert it. They seem to think if one occurs there will be such disasters as traffic jams in Capitol Earth, pacifist pickets, riots and assorted mudslinging. The government wants nothing of this, so they hired me to stop the war. I'm simply earning my salary."

"Okay. Yea, you ought to be real fond of the Bard. You were just agreeing with that quote of his I gave you while back. That one about meddlin' in other people's business. Hell."

The cab was gliding to a slow halt on an ascending ramp which terminated in a glittering golden palace of gentle towers, spires, walls and buttresses, hanging with gardens and fastened firmly atop a mile-high building. It was glittering in the sunlight, and from it flew a huge flag with a white sun sinister on a field of blue scales. It flapped with thunderous pops and the cabbie stopped, saluted it and drove on slowly to a gate where waited four big-jawed, little-brained guards. He hailed one of these latter custodians, who took a short leap that landed him next to the cab.

"Terran to see the Warmaster. Want me to let him out here, or do I drive him into the motor chamber?"

"Take him to the Chamber. We got a new addition in it for Terrans, and he can get a robot guide there. Okay?"

"Yes. What do I do, charge his ride to the Government?"

"Yes. Not his . . . ours, cabbie. Warmaster gets a big kick out of seeing these Terrans walk the walls trying to talk him outa fightin'. Well worth taxi prices. Don't overcharge. Big penalty . . . like having to drive for that slob Moneymaster. Go on through." The passing statements of the guard concerning the Warmas-

ter's vulnerability to being talked out of war didn't reassure Krauss.

This was not going to be as easy as it seemed. If public opinion was for war, and the government position backed it, chances were the only help Krauss could get would be nut groups. Nut groups never helped anyone—especially themselves.

IV

The small robot guiding Krauss drew to a halt in front of the Warmaster's innner sanctum, and stuck a plug into the wall. The door slid open by retracting into the floor. The Warmaster looked uneasily at Krauss.

He was also aged, his blue scales faded to a dusty gray, and he had very few scales remaining on his creased hide. He had tried to offset this alarming absence by painting little gold-rimmed blue spots all over him, but these made him look all the older. He seemed to know it. He wore a red and blue tam-o'-shanter, but whether it was red with blue or blue with red spots was open to controversy. His fragile-looking twelve-foot body was creased with an elderly stoop. In one clawless hand he clutched a polished walking-stick.

He waved this at Krauss and threatened in a weak voice, "Hurry on with it. I haven't got all day."

He chuckled, and Krauss said, "Hardly funny, Warmaster. I would like to ask you if you've given any thought to the fact that some of your soldiers will most certainly go to the Wigglie's larder?"

"We know it. It's an unfortunate side-effect of the battle for food. Ever since we were tree-men we ventured down to do battle with the huge hell-dragons and the bastard-stompers. Naturally, for every one that fed a tribe, about seven warriors were lost to the hungry animals. But those who were left ate. What's any soldiery for, huh? Protecting the populace and staying alive if possible, but dying if necessary. Ours are even above that. From way back in our history, our soldiers have been food-gatherers as well as city-protectors. So we'll kill off the Wigglies, who aim to kill us if they can. And while we're doing it we'll ram them into refrigerator ships and ship them home to the hungry populations of the Luralim Planets. We'll also catch as many alive as we can and take them home to breed. They lay a clutch of eggs every few weeks, and these we can eat as eggs or hatch into young Wigglies and eat that way. Domestic animals. The more intelligent ones we can train to do work around the house."

"Slavery is not only unethical, it's illegal! So is eating sentient beings."

"That's in the TOSS. Neither is illegal here. Among reptile races, and insects, and piscoids, avians, arthropodians and all the rest, such things are perfectly legal. You see?"

"No, I don't. I'm afraid it still rubs my fur the wrong way."

"Nonetheless, there isn't anything that you can do about it. I'm afraid you'll simply have to accept it the way it is, Mr.—um—what is your name?"

"Krauss. Heinrich Krauss."

"Very well, Krauss Heinrich Krauss, you see many other races have such things as cannibalism, which we find very sickening", and I understand some non-TOSS human races have it as well. So . . ."

"Well, as I understand it, you desire to get into the TOSS."

"That's true," admitted the Warmaster. "As members of the TOSS, we could request *and* obtain aid in our war against the Wigglies."

"You had better brush up on your laws, Warmaster," Krauss replied loftily. "If you are in the Terran Organization of Star States you may not declare war upon any non-member race without majority consent of the Thousand Planets Council. I sincerely doubt that they would consent to it. I also doubt that the Rishchim . . . the Wigglies . . . would be foolish enough to attack a member of the TOSS. If they were to, then you could request, and for all I know get, military aid in fighting them off. But I still think eating them would be out of the question."

"Supposing we were to conquer the Wigglies first. We could then join the TOSS?"

"I doubt it. There would be a lot of anti-Luralim feelings raised if you went and did that, from the Reptiliod Council, the Arachnid Council, the Pacifist Party and even the Reptiloid League—who, as you know, is another great trans-galactic power. While they are generally reptilian, they would tend to frown upon this modified cannibalism. Being as proud as most of them are, they would not want your race to shame them. That's that."

"Hell. You're sure I can't get us in, then, if we go on with our war?"

"Positive."

"So we'll forget the TOSS. We'll go on with it anyhow. Thank you, Mr. Krauss Heinrich Krauss. It's been a great pleasure. You can leave now . . . thank you . . . please come back . . . sorry you weren't successful . . ." All this while the Warmaster and two heavy, strong-jawed, dull-witted guards hustled Krauss out. Before the door slid up again, though, Krauss managed to get a parting statement out.

"I'm going over to the Wigglie's planet next. Maybe I can talk *them* out of this, seeing as you've been most uncooperative. And then they can join TOSS and you won't be fools enough to fight them."

The door slid into place. Krauss adjusted his clothes and left the building, calling his waiting cab to take him back to the spaceport. The cabbie gave him a long-horse-mouthed grin.

"Tolja you wouldn't get anywhere. Betcha he hustled you outa there when he lost interest. Tough luck, Mack."

V

Under the *Pantagruel* floated the cloudy disk of Rishchi, tossed with colored bands of wind-borne vegetation and murky flashes of volcanic activity. Its clouds were generally a dusty, swamp yellow. It had rings, three moons—and a host of warships being constructed outside its atmosphere.

The *Pantagruel* droned dully as it settled into a pit full of soft moss, and the port activities were taken care of by spy-rays. After a few minutes of probing with these impalpable snoops, the port gave Krauss the all-clear to go out and do what he could. They even dispatched a car for his use. The car was an aged Rolls-Royce, driven by a rusty orange centipede five feet long and nine inches thick. The creature had glistening chitin drilled with holes in which were stuck ornaments and candles and a few electric light bulbs, and its face, which had two huge, protruding eyes, the same kind as vertebrates had, was graced with a lower mouth apparatus which bristled with antennae, mandibles, handlers, tongues, rippers, masticators and other hardware which made it look as though this creature chewed computers for vitamins. It silently ushered Krauss onto the car, and drove it over hard pavement that ducked and leaped across hills and valleys, all of which were filled with lurid, pulpy vegetation.

The muddy yellow of the whole scene did not do wonders for Krauss, who slouched deeply in his seat and tried not to watch the unpleasant color scheme of the hot, humid planet outside. The car drove into a packed dirt dome and through several tunnels, and finally drew to a halt. A line of centipedeans, lit with a Christmas-tree arrangement of electric bulbs, surrounded him and escorted him into a stone-lined tunnel. It was disagreeably low. The dank stone was always moist, sometimes weeping beads of cold water, sometimes encrusted with niter. The dim illumination made Krauss glad he had his escort along to guide him. He could not really tell for sure there was a door in front of him until it opened.

The room which he was given access to was quite a bit more brightly lit. Inside was a layer of gray-yellow moss on the floor. Dominating the room was a large armed tank, an iron lung which contained a red centipede bedecked with all manner of ornaments and tools. This apparition looked at him, then dismissed the guards. A grating voice said:

"I am the Warlord. Would you wish to converse in Terran or in Rishchi?"

"Rishchi will be fine, thank you. I am Heinrich Krauss, acting for the Terran Organization of Star States."

"Please state your business."

"I am here as a representative of the Terran Organization of Star States, requesting your race not to enter combat with the Luralim. It is with extreme distaste that the TOSS looks upon intelligent races engaging in hostilities, especially if simply for the purpose of obtaining food. The TOSS does not wish this war. We have millions of trade items which would undoubtedly surpass the taste of roast Luralim. Would you wish to engage in trade rather than lose many of your race in this senseless enaction of battle?"

"You do not understand our view of the Luralim, nor do you understand our religious views. The Luralim, as you understand, are intel-

ligent. It is a quality of our race that we take a philosophical understanding of the things which our meal may have seen while it lived. It is much the same as your own race's pre-consumption prayers to an omnipotent being, but we meditate upon our meal's possible life. Then we eat, much more greatly appreciating that which we consume. An intelligent creature would have so many more things to have seen and partaken in and understood and meditated upon than an animal that we cannot but help to prefer the exotic flavor of a sentient being. We cannot make an animal that tries to find a place in the universe without making it intelligent also—and then it is our handiwork. For that reason it would think much the same as our own race. Therefore a race which had developed on its own, so many of our qualities as to make it stodgy yet not so alien as to be distasteful, is much preferred. The Luralim fill this bill excellently; hence we wish to consume them. You see?"

"I see. But why must you still go to war?" Krauss wished suddenly he hadn't wasted the breath on that question. He knew the answer.

"Because the Luralim won't give themselves up to be eaten without one. I think that's perfectly good logic on their part, for we aren't any more willing to give ourselves up for them." Then he added, perhaps as an afterthought, "You see?"

"I see."

"Good. I wish to ask you a question concerning the TOSS. Would they be willing to allow us into their organization so as to give us the weapons to conquer the Luralim? We needn't stay in any longer than to defeat them, and then would retire ourselves from it to live in peace in our empire."

"I'm sorry but they wouldn't. You'd have to forego your desire to exterminate the Luralim before that would be allowed. And if the desire should come back after you had been allowed membership you would either be rejected or taken under martial law."

"I see. Thank you for your time. Good-by."

Krauss left. The *Pentagruel* took him back to Luralim. He realized that this was to be a hard egg to crack. He would have to do some really serious thinking. It might take quite a while to do, also.

The Luralim Warmaster gradually grew extremely annoyed at Krauss's constant visits, especially since Krauss had not changed his position an iota. The Warmaster had not altered his stand any, either, so the two got along only through diplomatic courtesy. The Warmaster finally changed his office reference, leading Krauss to a room empty but for a tape recorder, which outlined the plans of the Warmaster and gave ten stereotyped arguments to why he would not accept anything less. Krauss made it a habit thenceforth, to take a novel or a magazine into the room with him, to read while the tapes reeled off their monotone one-sided disputes.

The only reason Krauss kept attending was to see to it that the Warmaster would know he was very

persistent. Several times he had demanded to see the Warmaster, on threat of several biological impossibilities, and these times he got to see the aged basilisk. But even this was wearing out, and there was no change in position.

Time was running out, and the Luralim warfleet approached completion.

Krauss had similar luck with the Rishchi Warlord, who grew quite perturbed about him. Neither was going to give up their stand, and so Krauss decided to try a different angle.

He went about interrogating the man in the street of both races, and discovered nothing to help him. The citizenry of both Luralim and Rishchim were emphatically in favor of the warfare. This was especially noticeable around grocery stores. The Luralim supermarket advertised "Wigglie coming soon", "Whop the Wigglies" and "Two Wigglies in every pot". The Rishchim Houses of Philosophical Consumption, which were huge, public temples, had similar sentiments posted about their walls, and the Rishchim and Luralim both were hungry for the flavor of the other. A full dinner pail was the popular sentiment, and everyone stuck by it. Even most of the nut groups were in favor of war.

Periodically Krauss received calls from the TOSS asking how things were going. Great peals of consternation were broadcast through space when he had to report things were going lousy. The government was getting impatient.

Well they might be, for it was their money that would pay for Krauss's expenses, successful or not.

Then came the war. Krauss was approaching Luralim after spending a week out in the sticks of both empires, and he noticed that there was considerable smoke and dust enshrouding the starport. Something was cooking below. And if it wasn't Rishchim it soon would be.

As he jockeyed the ship in by hand, he passed a formation of stubby globes poised atop rustling columns of blue flame. War was in the air. Within a week the battles would explode like fireworks.

He had to try a last, eleventh hour throw, and did so by gunning his antigravity sled up to top speed and demanded to see the Warmaster. When introduced to the tape recorder, he kicked down the room's door and hollered at the guards that he wished to see the Warmaster himself, not a mechanical stand-in. Force and foul tongue won out. The annoyed Warmaster was shown the equally upset Krauss.

"What is it, Krauss? Make it quick. I've a celebration to make a speech at."

"You! Call those ships back at once! I've sent a message to the TOSS saying your war is about to start and told them it looks bad. They know it. They're in a worse pet about this than I ever thought! They say if any blows are exchanged they'll come in with a fleet and force the war to stop and declare martial law over everything! You want that?"

"I am very sorry, Mr. Krauss," replied the lizard with sauve assurance in his voice. "That which you have just told me is a complete fabrication. There is not a true word in it. You see — " he tapped the big TOSS rule book that stood on his desk — "I have been reading this. That action which you have just so clearly outline to me is plainly illegal, for it would require a two-thirds majority vote in the Thousands Worlds to put it through. A vote of that size is only applicable to a battle which directly concerns TOSS members. This battle does not. Will they let us into TOSS yet?"

Krauss wheeled and left, stomping out the door like a fiery-tempered pile driver. He spat on a guard, climbed into his sled and boarded his ship to go to Rishchim. He used the same threat.

"Mr. Krauss, I have not been unactive," replied the centipedean Warlord. "I have studyed the rules of TOSS for many years now, and that action could not be carried out. Political nut-groups, who drag more emergency weight around than you seem to know, would serve as wedges to impede such action. We shall go to war.

"Mr. Krauss, unfortunately you have been unsuccessful. Do not take it hard. We Rishchim would be vastly honored if you were to watch the first victory. Will you?"

"I will." Krauss left, but not before he was obliged to tell the Warlord that TOSS was still unwilling to let them in.

The *Pantagruel* sped through space and caught up with the Rishchim fleet. They were heading toward a showdown with the Luralim, who had told them where they would meet them. The Rishchim ships looked powerful, well capable of holding their own. Each was encased in a smooth, transparent shell of force, and this enabled them to land on planets despite their weird shape.

Each was roughly a thousand feet long, shaped more like a huge spacegoing cannon than a spaceship. The gun, which was mounted in a huge swiveling bracket atop the ship, humped with generators and bristled with shields, range fingers like foghorns and smaller guns. The cannon was easily the length of the ship itself, and half its weight. The rest of the ship was a narrow conglomeration of gun-humps, astrodomes and fuel tanks, and at its posterior was a huge parabolic reflector which gave the ion beams that propelled the ship in its slower-than-light battle. They were black iron and glistened with blue and white highlights from the myriad suns.

Krauss shuttled between the two fleets the whole week, hopelessly trying to turn them back. Both were most uncooperative.

A week passed, and the fleets saw each other.

For a while both circled a sun glowering at each other, waiting for the other side to make the first move. The Luralim did, sending a knotty swarm of little round ships in, blasting apart the heavy

guns of the Rishchim. They grew guns from gun-shields. Force-fields threw their nets about them, and the squatty spheres grew squattier as they flashed about in violent battle. Luralim "can-openers", spaceships which would crack open, disabled Rishchim ships, began pouncing upon their victims — and the battle was suddenly over.

Krauss boarded the Luralim flagships, which had received the lion's share of the defeated Rishchima, and was treated to a sickening spectacle. The corridors were full of the fragrance of roasting meat. Spacemen lizards squatted over little atomic spits roasting their hapless victims. Here a lizard pulled the legs from a corpse, there one bashed a rattling, half-dead Rishchim, already beyond panic, against a wall. The screams of centipedeans begging mercy held a horribly surrealistic note, but the Luralim were as deaf, even laughing at the death throes of a suddenly not-so-formidable enemy. Krauss was sick to the bottom of his soul.

The Admiral was munching the boiled head of a centipedean, carefully extracting the brains with a long wooden spoon. He offered some of the pasty dead intelligence to Krauss.

"Please . . . no!" Krauss gasped, sweating copiously. "This is a victory?" Krauss swallowed, then said a trifle more strongly. "This is a victory. You kill and eat your captives, when you could exchange them for your prisoners!"

"Nix, buddy. They'd have eaten ours long before we could exchange, and they didn't take any of us prisoner anyway. We didn't lose a man. Why not eat theirs?"

Krauss left, dragging his bloated sickness in his heart and stomach, mind and soul, through the torture-pit corridors and into his ship.

He bowled through the airlock, his face deeply etched with a disgusted scowl, not untouched with illness and unease. He knew he had failed, and perhaps the government knew by now. This place was a trouble spot, probably swarming with agents and rumormongers. Nothing much to do now . . .

The ship was flying back to Luralim slowly, as if it were in a funeral train. Krauss sat in his control room, moaning inwardly but talking outwardly with his pilot, Morgan Hyman.

"The TOSS will still pay your operating costs, won't they?"

"Yeah, and they'll still pay me all the profit I contracted for too. But I dont think it'll be too much of a secret that they'll try and tax it all back. They're like every government. They don't look kindly on unsuccessful hirelings. Hell."

"Hmmm . . . you really worked on this, too."

"Yeah. I know. It seems to me that I'm the only one who really did a lot of work on this, with all due respect to the rest of you. I seem to have been the only one trying to hatch plots . . . don't look woebegone, Hy, I never asked your opinion, and I should have. It seems that I got so weary of trying to think out new things that my brain

just kept revising the old stuff that didn't work."

"Hank, can I say something?"

"Huh? Go right ahead."

"Fine. You said you never asked any of us. Like you said, maybe you should have. We all felt you were going to succeed so we kept our mouths to ourselves, but now is the time for an eleventh-hour attempt. Hank, I've been a pilot, and a captain, and most of all ranks below that, and I've been pushing around space a good three hundred years. And I've learned a great deal, so I believe.

"The Luralim fall into the category of Reptiloid Beings. There are about fifty sub-categories of them, and about ten sub-sub-categories of each of those. I'm going to place the Luralim in category A — tall, thin bipeds with balancing tail, complex digestive tract, mind centered about food.

"And then I'll go on to say that these Luralim follow a basic pattern; they eat food which has an esthetic form. Now I don't think you'd go out and eat a tarantula, even if it were well prepared and tasted good, if you knew it was a tarantula. Nor do I think a Luralim would eat a cow. They are basically an insectivorous race, which means they would much rather eat insect-forms than anything else, because of this esthetic form. I believe this is why they like Wigglies. They are basically insectivorous, and the Wigglies are insect-shaped. The Wigglies also have a strange exotic force over the Luralim in being alien creatures, let alone intelligent. It's my belief that we could pass off to a Luralim what amounts to a Rishchim ape as a Wigglie, and he wouldn't be able to tell the difference. Lord knows it's been done before. So much for the Luralim.

"The Rishchim are our next problem. They don't eat the Luralim because of esthetic form, indeed they try to pass the physical qualities over and look more at mental and spiritual ones. Hence, we have a different case altogether. You've told me that they like to wonder about what their meal may have done during its life, haven't you?" Krauss nodded dumbly.

"All right, then try this. The Luralim would soon wear off, because if the Rishchim made them a captive race, then they would have a general idea of what the Luralim did during their lives. They would know a good deal about Luralim, and I'd wager that the flavor wouldn't take long to grow empty and stodgy. But you could pass off another animal — say, a kangaroo from Sydney II — to them, and not tell them where it came from or what it was, and just let them guess those factors . . . I'm willing to bet that they'd have a devil of a time just trying to think these out, because of their abysmal ignorance in this case. See what I mean?"

Krauss was grinning deeply in his face, a half-scowling smile, and suddenly he looked up and shook his fist gleefully.

"You just may have it there, Hy! At any rate, I'm going to give it a spin!"

VI

There was jubilation in the streets of Lural City as Krauss tore over in his antigravity sled. A million gaily scarved and caped figures danced in the avenues, dropped confetti from sun-palaces and threw perfume to the winds. Songs of the flavor of spring Wigglie rattled among the buildings. And business was neither unmoving, or as in the cases of novelty dealers and restaurants, organ grinders and hot-food peddlers, making rapid progression toward retirement funds for these individuals. That first battle had hardly more than fifteen thousand Rischim dead, so there was no real hard loss. And anyway, both sides were rebounding for another battle in weeks to come.

The Warmaster rested out on his porch, giving a speech to his aide. Both were grinning widely.

"Warmaster, I don't think the people'd give a damn either way, if your speech was lousier'n hell or better'n heaven. They just want a speech. Hey, look! That Krauss is back again." Krauss certainly was back again, his sled crushing a bed of fine flowers and him leaning out the door.

"Mr. Krauss, I would be very pleased if you took that hardware away from here," snarled Warmaster, stepping toward Krauss and trying to make his thin-limbed, potbellied figure look menacing.

"Warmaster, how would you like to have a nice source of Wigglies, as many as you could ever want, delivered to your doorstep?"

"What? You mean they've surrendered already? Very good!"

"No, not quite. But would you come with me to Rishchi?"

"I gotta speech to make," the old lizard protested.

"Do you want a lot of Wigglies or not?"

"Yes . . ."

"Then get in . . . you too, what's-your-name." He indicated the aide.

"Well, all right."

"Good. I'm glad to hear you agree with me for once." Krauss jammed the sled into full and shot off for the spaceport, refusing to answer any of the Warmaster's countless questions.

The *Pantagruel* rested in her berth, her engines quivering for takeoff, but her hatches all open. Far down the field a small figure on a motorcycle came rushing up and drove into the airlock, waving a few red-papered packages. The *Pentagruel* lifted.

"I got twenty little birds here. I had to pay a price that was highway robbery for 'em; some Luralim wanted them too, and it got to be outbidding. These three cheap things cost me a full hundred twenty credits." He opened the package, then held a sodden looking black hairy thing out. It was soft-bodied, but still an insect of sorts. "Actually, they're not birds. They're tarantulas, local variety. Think they'll do, Hank?"

"Yeah, they'll be fine, Hy. I got the Warmaster and his aide sitting on their tails in my suite. How soon'll we be on Rischi?"

"Three hours."

"Good. Now let's put our heads together and think of a line to feed the Warlord. And get the cook to prepare these things . . . deep-fat fry 'em."

Rishchi lay below the *Pantagruel* and swam up to meet her, the ship homing in on the beacons. Once they had landed, Krauss saw the whole port was draped in green, the color of mourning, the color of Rishchi blood. He had to call for a port taxi. Into it he shoved the protesting Warmaster and his sputtering aide, and had it head off for the Warlord's building.

The Warlord was distraught, his room lain with green moss, his lights entirely green, and green cloth draping his scuttling form. Krauss was escorted into the office by an aide, and the Warlord asked, "Yes, Mr. Krauss?"

"You suffered a defeat, Warlord."

"Don't grind it in!" snapped the creature.

"I'm not. Take your mind off your troubles for a moment, will you?" He offered a silver tray. Under it were four crisp orbs of fried flesh. "Will you try this?"

"Where is it from? What is it?"

"I won't tell you. Guess. All I will tell you is that it is safe for you to eat. Do a bit of that spiritual guessing that's so important to you."

The Warlord ate a bit, grew distant, disturbed, ate a bit more, the working of his mandibles, slow and sporadic. He chewed off some more, the breading crunching as he masticated. He ate two then spoke.

"It *is* good! Why, where is it from? What is it? Why did you give it to me?"

"You spent five minutes on that first one, seven on the second. How long would you spend on a Luralim, as an average?"

"About five to eight minutes."

"All right, but you know a good deal about those Luralim, do you not? And hence it doesn't take too much mind-straining to come up with a satisfactory idea of one. Have you a satisfactory idea of this creature?"

"Not yet . . ."

"All right! Then is this not more satisfying than a normal Luralim?"

"You know, to a certain extent it is! The flavor *is* better . . . Luralim is somewhat greasy and it made me think . . . you see?"

"I most certainly do see. How would you like to have an unending supply of these surprise-package creatures delivered to you? All kinds? Do you think it would be better to have these or to have Luralim, all of the same kind?"

The Warlord went into deep thought and finally ventured an opinion. "This would be better."

"I'm glad for you. I can assure you if you agree to my terms, you can get this. But you must help me. Now, I would like to have you answer a few questions. What is your local animal which closest resembles you?"

"A krishpic."

"Have five of them prepared to be eaten, and get them here as fast as possible. I have the Luralim Warmaster and one of his aides in the

outer office waiting for a wigglie to be delivered to them. Get those things here as fast as you can."

"If they want surrender terms."

"They do, but forget that. Get the krishpic here as fast as you can."

"Okay," sighed the centipedean.

"I tasted Wigglie before, and this is the best Wigglie I ever tasted!" stated the Warmaster, looking at the heavy, slightly hairy husk on the platter beside him.

"I'm glad you think so. Warmaster, that wasn't wigglie."

The Warmaster looked dumbfounded a moment, then his eyes picked up a sparkle.

"I get you. It was a local animal doped up as a wigglie."

"It was a local animal, but it wasn't doped up. It was only its shape, and from that it seemed to taste very good to you. I can get as many of these delivered to your planets as your people can eat, and many other of the same types of creatures. Think that's as good as the wigglies?"

"It damnwell is." The bony face grew thoughtful and deep. "But this would be through peaceful trade with the Wigglie government—and then there would be no war."

"I know. I don't want a war."

"I do!"

"Why?"

"If there wasn't a war, I wouldn't have a job! My government doesn't approve of featherbedding. It's not my people I'm looking after, it's old number one. I have a good paying job, and I would like to keep it!"

"I realize this. Warlord, come in here." The green-draped centipede entered slowly, reluctant in the presence of these tall lizards.

"I would like to discuss an idea of a mutual trade agreement between you two races. It satisfies both your yearnings as races and individuals, I hope, and if it goes through, while both of you officials might be out of one job, there is another open to you: Mutual Food Tradesmen."

And so Krauss talked. And far into the Rishchi night the representatives of three races schemed and plotted, and the next morning, it was out. No war. Krauss, tired and pale from the activity, and the Warmaster, exhausted but grinning broadly, shuffled onto the *Pantagruel.* Available Jones, Inc. had succeeded again.

Krauss and Morgan Hyman dropped themselves on the bar-stools in the lounge.

"That was a beautiful idea, Morgy!" Krauss simpered, his arm over his friend's shoulder.

"That was a bit of tricky play yourself, Hank. I mean, how you managed to squeeze the trading rights out of those two Warlords. Now Available Jones, Inc. has the sole shipping rights between the Luralim Food Corporation and the Rishchim Exporters. Now you can sell it for a fortune!"

"Yeah," drooled Krauss.

"And that was—" they toasted to each other—"an outright dirty trick! The kind of trick I admire."

"Ah hell, Morg. It's in the company motto. 'Dry Babies, 10c Wet Babies, 15c.' This case was a wet baby. We had to pick up the extra nickel some place!" END

TOM SWIFT and the SYNDICATE

by SAM MOSKOWITZ

If there were no science-fiction magazines, here's what you might be reading right now — instead!

If, as claimed, the link that holds the chain of memory together is association, many thousands of those viewing and even participating in a demonstration of the video telephone at the building of The American Telephone and Telegraph Company at The New York World's Fair, held during 1964 and 1965 in Flushing Meadows must instantly have recalled *Tom Swift and his Photo Telephone*. Tom Swift was but one of over 300 separate series of low-priced books of adventure for boys, and they formed a conspicuous and nostalgic part of the literary scene in the United States from the turn of the century until the Great Depression.

Of all types there probably were over 800 separate series of juvenile books, roughly divided into the categories of boys' books, girls' books and tots' books. The boys' books were the best sellers, and the best selling series of them all was Tom Swift.

A substantial number of the Tom Swift stories, which dealt with the creation and exploits of a young inventor, were science fiction. Launched in 1910, no less than 29 titles, selling into the millions, had appeared by 1926, the date of the publication of the first science-fiction magazine, AMAZING STORIES. The almost instantaneous success of that magazine may in some degree

be attributed to the indoctrination of American youth, through Tom Swift, in the wonders of scientific adventure.

Tom Swift and his Photo Telephone or The Picture That Saved A Fortune by Victor Appleton was first published in 1914 and was the 17th book to deal with the inventions of the youthful Tom Swift. By all odds it was also the most remarkable one. It is the longest single story ever written around the subject of a photo telephone and came to grips not only with the problem of image transmission but of automatically photographing the party during a conversation, while simultaneously making a voice recording. The author devoted several thousand words to scientific background which, while not convincing in light of present day knowledge, was quite overwhelming to a teenage youngster in 1914.

The Tom Swift books were published by Grosset & Dunlap by special arrangement with The Stratemeyer Literary Syndicate. The Tom Swift books were but one of scores of juvenile series handled by this "Syndicate," run by Edward Stratemeyer with methods similar to those used by Alexandre Dumas. The writing was farmed out to other writers after a plot outline had been agreed upon. The authors were paid a flat sum for their work and signed a contract disclaiming all rights in the production, which then became the sole property of the Stratemeyer Literary Syndicate. The stories were published under house names.

Normally the public was no more interested in the men behind these stories than they would be in determining who wrote the actual definition of any given word in a dictionary or who phrased an entry in an encyclopedia. In fact, it was claimed that revealing the author's identity might destroy the serie's image. But the extra-ordinary success and influence of the Tom Swift series put them into a class by themselves.

Upon the death of Howard R. Garis at the Cooley Dickinson Hospital, Northampton, Mass., Nov. 5, 1962, at the age of 89, THE NEWARK EVENING NEWS ran, as part of the obituary: "Besides the *Uncle Wiggily* books and stories, he wrote the *Tom Swift* and *Motor Boy* Series under pen names." Howard R. Garis was renowned as the author of *Uncle Wiggily,* a rheumatic twinkly-eyed old rabbit, who, dressed in a full suit and top hat, hopped and limped his way through 15,000 stories. At one time *Uncle Wiggily* was syndicated to nearly 100 newspapers and collected into 75 books that sold into the millions.

Reaction was sharp from The Stratemeyer Syndicate in East Orange, N.J., now run by Mrs. Harriet Adams, a daughter of Edward Stratemeyer, and Andrew E. Svenson, an editor and writer with an interest in the firm. They felt that the newspaper story gave the impression that Howard Garis had originated the series and written it all, whereas the facts were that the series had been originated by Edward Stratemeyer and the inventions and plot outlines determined not only

for Garis, but other writers who worked on the series. Under these circumstances, they felt it was as unjustifiable to term Garis the author of the series as to say that the carpenters and masons were the architects of a building.

They had reacted similarly when THE NEWARK EVENING NEWS had carried a report of the death of Mrs. Lilian Garis, wife of Howard R. Garis in their issue of April 20, 1954, which stated that she had written a number of the early Bobbsey Twins series, also a property of The Stratemeyer Literary Syndicate.

Yet, on the occasion of his retirement from THE NEWARK EVENING NEWS, Howard R. Garis had been *very* specific in reporting on series he had written and the number of volumes he had written in each. THE NEWARK EVENING NEWS for Oct. 1, 1956 published: "Among his creations are 35 Tom Swift books, 20 Motor Boys, 15 Bobbsey Twins, 6 Six Little Bunkers." The foregoing were under pen names, but under his own name they also seemed very precise as they recorded 7 in the Teddy series, 14 Curleytops, 5 Dick Hamiltons, 5 Two Wild Cherries, 5 Smith Boys, 5 Venture Boys, 14 Buddy Books and 5 Jack Armstrongs.

There was no reaction from The Stratemeyer Syndicate at that time, possibly because the various series were moribund and at that period it seemed questionable that they ever would ever be revived.

The Stratemeyer Literary Syndicate never denied that Howard R. Garis had worked on the Tom Swift series. Indeed it was acknowledged that he had written the majority of them.

What appeared to be involved was forestalling even the shadow of a claim to legal proprietorship. They wanted it made clear that in working on these books Garis had been composing "a work made for hire." Beyond that, there was the element of family pride. While Edward Stratemeyer obviously did not write every word of each book produced by his syndicate (over 800 in his lifetime), it was asserted he did generally plot and outline each of them. And it was felt that at least the first four and possibly more of the early Tom Swifts were completely his work. The opinion was also suggested that Garis did not enter their services until 1914.

What was the background of Edward Stratemeyer? Did it suggest that he was the father of the ideas and plot outlines of Tom Swift?

Edward Stratemeyer was born Oct. 4, 1862 in Elizabeth, N.J., of German parentage. His father, Henry Julius Stratemeyer, returned from the California Gold Rush of 1849 to marry Anna (Siegel) Stratemeyer, the widow of his brother, and open a tobacco store. Edward helped out not only his father but a stepbrother who also owned a tobacco store in the same town. He was reputed to have written his first story by hand on brown wrapping paper, an 18,000 word adventure juvenile which sold to Street & Smith for $75. The story, titled *Victor Horton's Idea,*

was serialized in four installments in the issues of *Golden Days* dated Nov. 2, 1889 to Nov. 30, 1889.

He did not immediately go into full time writing, but opened up his own stationery, tobacco and newspaper store on North Broadway in Newark, N.J. In between customers he pressed forward work on his fiction.

Impressed by his juveniles, Street & Smith hired him as editor-writer of GOOD NEWS, a weekly boys' magazine which began publication with the issue of May 15, 1890. He edited the magazine under the house name of W. B. Lawson, but the first issue carried an artist's sketch of William Wallace Cook, who wrote *Deadwood Dick* under the name of W. B. Lawson, as editor. This was a Street & Smith practice, since Nick Carter was listed as first editor of DETECTIVE FICTION. The position gave him the financial stability to marry Magdalene Baker von Camp, a Newark girl, in March 1891.

Stratemeyer proved an extremely able editor, securing as regular contributors to GOOD NEWS such famed names in the boys' field as Horatio Alger, Jr., Oliver Optic, Bracebridge Hemyng, Edward S. Ellis and Harry Castlemon. He contributed prodigiously himself, writing not only under his own name and that of W. B. Lawson, but also as Arthur M. Winfield, Henry Abbott, "Frank," Harvey Hicks, and "Jack." Stratemeyer's toughest immediate competitor was the well established BOYS OF NEW YORK, which ran an excellent array of series that had become boys' favorites, not the least of which were those of Frank Reade, Jr., teenage inventor extraordinary, whose creator, Luis P. Senarens, had managed to concoct an inexhaustible variety of ships, tanks, submarines and robots for his young hero to invent in time to meet deadlines, unfailingly, since 1879.

To counter Frank Reade, Street & Smith, during 1891, had come up with a character of their own, Tom Edison, Jr., whose scientific exploits, as related in complete novels, had run in THE NUGGET. Stratemeyer secured one novel concerning his exploits, *Tom Edison, Jr. and his Air Yacht: or, The Wonderful Cruise of the Sky Witch,* which he serialized in his issues of Oct. 24, 1891 to Dec. 12, 1891. By a remarkable "coincidence" this series, Street & Smith's answer to the Frank Reade, Jr. stories, was credited to one Philip Reade. A still more unusual fact about the stories was that they were written in the second person.

The real identity of Philip Reade has never been satisfactorily established, but that of Emerson Bell has. He was the author of the longest series of science-fiction tales that Edward Stratemeyer ran in GOOD NEWS, those featuring the achievements of Lad Electric, beginning with *The Electric Air and Water Wizard* (Nov. 18, 1893 to Feb. 3, 1894.) It is now known that these were the work of Gilbert Patten, who would become better known as Burt L. Standish, author of the Frank Merriwell series!

This was the first of Patten's stories to be published by Street & Smith, though not the first to be

purchased. Stratemeyer early displayed his business acumen by hammering Patten down on the price, from $250 to $150, for *The Boy From the West* (GOOD NEWS, June 16, 1894 to Sept. 8, 1894, published under the pen name of Harry Dangerfield), a novel on which Patten had submitted sample chapters and a plot outline. More than 50 years later, Gilbert Patten still had neither forgotten or forgiven Stratemeyer's "victory." Writing in his autobiography (*Frank Merriwell's Father*, University of Oklahoma, 1964) he said: "Edward Stratemeyer had made me dislike him, and I was well pleased when, not long thereafter, his position as editor of GOOD NEWS was given to Arthur Dudley Hall. Mr. Hall was a gentleman in the full sense of the word, and to him, as I will show later, I owe the fact that I was chosen to create the Merriwell stories."

For no obvious reason, Patten changed his pen name on the later Lad Electric stories to Barry Tallyho.

It was while editor of GOOD NEWS that Edward Stratemeyer laid the foundations for Tom Swift. First in *Jack the Inventor; or, The Trials and Triumphs of a Young Machinist*, published in THE HOLIDAY, edited by Edward S. Ellis (April 25, 1891 to June 3, 1891) in which he asserts a feel for the drama of invention, and then in GOOD NEWS in his novel *Shorthand Tom; or, The Exploits of a Young Reporter* (Feb. 3, 1894 to April 21, 1894), where the lead character is named Tom Swift!

Edward Stratemeyer took at least one plunge into publishing with BRIGHT DAYS, a monthly, selling for 5c, which in its 31 issues beginning April, 1896 and concluding Feb. 27, 1897 (it briefly went weekly) appeared to be in the major part filled with stories under his own name and his pen names; several of them were "science fiction."

Stratemeyer's idol was Horatio Alger, Jr. Despite a difference of almost 30 years in age, they were firm friends. Stratemeyer sought to emulate the Alger formula in his own fiction and succeeded when Lothrop, Lee and Shepherd, Boston publishers, issued his first hard-cover juvenile *Richard Dare's Venture; or, Striking Out for Himself* in 1894. The book was the first of the "Bound to Win" series which were interchangeable with the books of Horatio Alger, Jr. Stratemeyer became Alger's unofficial heir apparent. A year after Alger's death in 1899 he gained possession of and completed 11 "unfinished" Horatio Alger manuscripts under Horatio Alger, Jr.'s name with the addition of the line: "Completed by Arthur M. Winfield."

Horatio Alger, Jr. collectors and specialists, prominent among them Frank Gruber, have refused to accept these stories as authentic Alger, though they were purported to be the beginnings of stories with the endings outlined by Alger and then completed by Stratemeyer. Henry W. Ralston of Street & Smith came to Stratemeyer's defense, attesting to his integrity. This mollified some, at least to the point where they were willing to grant that Stratemeyer

might have worked from some early drafts or fragments. But they refused to concede that, as published, "an iota of possible Alger remained."

The series that for years Stratemeyer lavished the most attention upon and most of which he was alleged to have written himself was The Rover Boys.

The first of these, *The Rover Boys at School; or, The Cadets of Putnam Hall,* was published under the pen name of Arthur M. Winfield and issued by Mershon, New York in 1899. A wholesome atmosphere of school life, sports and adventure pervaded these volumes, and until they began to date badly in the twenties they led all series in sales. After their decline, Tom Swift became the pace setter.

One year after he started The Rover Boys, Stratemeyer attempted to establish a boys' invention series with Mershon Co., with *The Wizard of the Sea; or, A Trip Under the Ocean.* This novel, which followed the tried and true dime novel formula of the boy hero, a marvelous invention, and thrilling voyage and strange adventures, didn't take hold at the time. The story was published in book form under the name of Roy Rockwood but originally had appeared under the pen name of Theodore Edison in the Aug. 10, 1895 issue of YOUNG SPORTS OF AMERICA with the title of *The Wizard of the Deep; or Over and Under the Ocean in Search of the* $1,000,000 *Pearl.*

Stratemeyer was convinced that science-fiction or "invention" stories, as they were then termed, could enjoy a respectable sale in hard covers. He remembered what difficult competition Frank Reade, Jr. had proved. When he saw that series had again been issued as FRANK READE WEEKLY MAGAZINE, with full-color covers, dated from Oct. 31, 1902 to run for 96 numbers, he regarded this an achievement in an era when the "dime novel" was going out of vogue. Additionally, Luis P. Senaren's "invention" stories, centered about another youthful hero, Jack Wright, were still, as they would be for a number of years, the big draw of the weekly HAPPY DAYS.

Much more significant, was the example of John Trowbridge, who had been a contributor to the story papers of the 1850's and 1860's. Trowbridge had published in 1890 a juvenile titled *The Electric Boy* and then followed it with *Three Boys on an Electrical Boat* (Houghton Mifflin, 1894). Five years later the book had gone into its eighth impression.

The lead character, Edward Kingsley, was a boy inventor who escapes from a man who has raised him and his "cousin" since infancy but now intends to separate them. The escape is conducted in an electrically driven ice boat built by the boy. The opening chapters had the pathos of Horatio Alger, Jr.

The boys ship aboard a mysterious U.S. Naval ship powered entirely by electricity, with a number of secret electrical weapons conceived by Old George, a scientist aboard. A war with England is narrowly averted, and the two boys enjoy a happy ending

as they discover that they are actually both sons of a British general their ship was about to attack.

Not quite as near to that dime novel formula but close enough was *Through the Earth,* by Clement Fezandie, an extremely well done juvenile concerning a 16-year-old boy, whose widowed mother has been impoverished, and who nobly volunteers to guide a "car" through a tunnel drilled from New York to Australia. The book, published in 1898, did extremely well. Its author, Clement Fezandie, was a successful businessman who had written it for a lark. Science-fiction readers are familiar with him as the ingenious author of scores of Doctor Hackensaw's Secrets, a series of highly original short stories that ran in ELECTRICAL EXPERIMENTS, SCIENCE AND INVENTION and AMAZING STORIES from 1920 through 1926. (He refused to accept any payment from Hugo Gernsback, publisher of those magazines, returning all checks that were sent to him!)

These examples convinced Stratemeyer that it would be profitable to produce the first of what would become known as "The Great Marvel Series." This series, placed with Cupples & Leon and published under the Roy Rockwood name, came to fruition in the period when Stratemeyer found himself so busy that he began to engage other writers to handle his assignments. The first story in the series, *Through the Air to the North Pole or The Wonderful Cruise of the Electric Monarch* (1906), combines the Horatio Alger, Jr. and Luis P. Senarens themes to perfection. Two orphan boys, pudgy Jack Darrow and Mark Sampson, 16 and 15 years old respectively, are cruelly buffeted from town to town until they are befriended by a kindly old scientist and his Negro aid, Washington (possessor of one of the world's most grotesque vocabularies). The four embark on a trip to the North pole in an electrically powered dirigible the old man has built.

A second book, *Under the Ocean to the South Pole or the Strange Cruise of the Submarine Wonder,* followed in 1907, and the series gained momentum. The 1908 story, *Five Thousand Miles Underground or The Mystery of the Centre of the Earth,* was more imaginative, involving a "negative gravity" device for the airship and a descent into a hollowed-out world in the center of the earth, inhabited by a strange race. They return wealthy, with a store of diamonds, and the boys go to The Universal and Chemical College and become inventors.

A friend of Amos Henderson, a Mr. Santell Roumann, has invented a mysterious propulsive agent which he calls Etherium. They build a spaceship and journey to Mars in the volume *Through Space to Mars or The Longest Trip on Record,* published in 1910. They encounter an alien race, discover Cardite, an unusual material which seems to have radioactive properties, and return to earth.

The date 1910 appears to be one of special significance in the life of Edward Stratemeyer. It is the

date on which he is supposed to have founded The Stratemeyer Literary Syndicate.

There is considerable contradiction on this point. A great many references give 1906 as the date of the founding of his author pool, and some give it the title "The Literary Syndicate." The evidence is overwhelming that Stratemeyer had begun large scale farming-out of work to writers by 1906. It is probable that he did not actually form a corporation until 1910.

It was in the year prior to 1910 that he approached Grossett & Dunlap, who had been publishing reprint juveniles in hard covers for 50c each, and suggested that he could supply them with *originals*, especially tailored for their audience, that could be produced to sell at the same price. They took him up on it and he created for them the Tom Swift Series (also switching to them, among other titles, The Bobbsey Twins and The Rover Boy Series, which had already been established). The instantaneous success of the idea won Stratemeyer the title of "The Father of the Fifty Cent Books."

Judged on the basis of his literary history, Edward Stratemeyer had the background and experience to conceive, plot, outline and write the Tom Swift Series. Actually, their formula was very similar to that of The Great Marvel Series. The characters and format of the Tom Swift stories went as follows: a young inventor, Tom Swift; a father who is also an inventor with means adequate to maintain a pilot manufacturing operation; a humorous and courageous Negro assistant, Eradicate; and several colorful companions, including Wakefield Damon, a likeable, somewhat-later-than-middle-aged eccentric and Koku, the eight-foot giant picked up in the interior of South Africa in *Tom Swift in Giant Land* (1912), a title changed to *Tom Swift in Captivity* in later editions. Tom Swift invents a device in every story which serves to involve them in a series of adventures.

The *entire* set-up, *all* the standard props were lifted bodily from the Frank Reade, Jr. stories. What Stratemeyer had done was to give the "dime novel" respectability. Instead of children spending their precious nickels on Frank Reade, Jr. novels and reading them on the sly as not to incur their elder's wrath, now the parents, friends and relatives brought the Tom Swift stories in hard cover and patted the youngsters on the head for reading them.

It was customary to launch a new boys series with multiple volumes. Five Tom Swift books appeared in 1910. They were: *Tom Swift and His Motor Cycle, Tom Swift and His Motor Boat, Tom Swift and His Airship, Tom Swift and His Submarine Boat,* and *Tom Swift and His Electric Runabout.* There followed *four additional titles* in 1911, and all these, piled on top of at least a dozen other series with new titles Stratemeyer was producing at the same time, left little doubt, that despite his prodigious capabilities, he obviously had assistance.

Was that early assistance supplied by Howard R. Garis?

Howard Roger Garis was born April 25, 1873 in Binghamton, N.Y., son of Simeon H. Garis and Ellen A. (Kimball). His family were practicing Catholics, and his early life was spent on a farm.

The first literary job he obtained was as an editor on a mortician's trade magazine, appropriately titled SUNNYSIDE. This background, together with his skills at shorthand, prompted editor T. Edward Burke to employ him as a cub reporter on THE NEWARK EVENING NEWS, at a starting salary of $12 a week. His first day's work, Oct. 1, 1896 was almost his last. He was assigned to cover a speech at a political meeting which turned into a street battle, and he failed to file a story because nothing important was *said!*

At THE NEWARK EVENING NEWS he met Lilian C. McNamara who had come to work a year before as the first woman reporter ever hired by that newspaper. They were married April 26, 1900 at St. Michael's Church, Newark.

That was the start of a remarkable literary family. Lilian Garis quit work and eventually turned out 47 books between her domestic chores, including a number of Bobbsey Twins, as well as titles in the Girl Scouts and Gloria books. She had one series known as "The Lilian Garis Book for Girls," revolving around the experiences of girls in school, and two of them were about her daughter Cleo Fausta (*Cleo's Misty Rainbow* and *Cleo's Conquest*), Cleo (Claney), would author *The Orchard's Secret* as well as a number of girls' books. A son, Roger, wrote titles in the X-Bar-X Boys and the entire OutBoard Motor Boat Series. Later, a play of his, *The Pony Cart,* dealing with a sexual psychopath in a small town, opened and closed at the Theatre DeLys, New York, Sept. 14, 1955.

Howard Garis wrote his first book while assigned as a reporter to a Newark police station. It was an adult novel titled *With Force and Arms; a Tale of Love and Salem Witchcraft* (J. S. Ogilvie, New York, 1902). He attempted to write in the speech idiom of old Salem, and the result was awkward. Full of color and excitement, the novel was fundamentally just a rousing adventure story. Its lack of success was nevertheless a deep disappointment to him.

He had been writing a series of juvenile stories for THE NEWARK EVENING NEWS. These were collected and published as *The King of Unadilla. Stories of Court Secrets Concerning His Majesty.* (J. S. Ogilvie, 1903), with equally modest sale.

This turned him to short stories. Among the magazines he sold was THE ARGOSY, which published a quantity of his science fiction of a tongue-in-cheek variety. His earliest, *An Evaporated Bank Burglary* (May, 1905) revealed the secrets of the Johnson Annihilator, a liquid which when sprinkled on paper, exploded after evaporation. (The same issue carried a short story by Charles Fort of *Lo!* fame, *Jed's Big Scheme,* concerning the mystery of the pigs with human faces). The best of his science fiction was the whimsical Professor Jonkin's stories, and the best of that series was the delightful satire, *Pro-*

fessor Jonkin's Cannibal Plant (August, 1905) which indicated that Garis had read a number of stories in that vein, most likely *The Devil Tree of El Dorado* by Frank Aubrey (reputed to be the pen name of F. Atkins, ARGOSY writer, also alleged to be Fenton Ash, science-fiction writer) which was still going into new editions though its initial publication date was 1897. Another excellent example of Garis's special brand of humor was contained in *Professor Jonkin and His Busier Bees* (March, 1906), where the good scientist crosses bees with lightning bugs so they can see to work at night.

As late as 1914, Howard R. Garis still occasionally turned out a magazine story, as evidenced by *Let Us Eat,* involving social criticism of homes for the indigent aged. (THE CAVALIER, Feb. 28).

Garis resigned from THE NEWARK EVENING NEWS in 1908 "to devote full time to the writing of juveniles." He obviously must have sold enough of them previous to 1908 to find them financially promising.

What were those juveniles? None of his biographical sketches single them out. However, the 1946 newspaper writeup on his retirement specifically stated that he had written 20 of The Motor Boys series. The Motor Boys series was the property of Edward Stratemeyer, and 22 novels were issued in all from 1906 to 1924. Previous to 1906, Stratemeyer's skill at planning and selling books had already exceeded his very considerable ability to write them.

It is standard practice to introduce any new juvenile series with up to six titles in the first year. Garis lived only five blocks from Stratemeyer in the Roseville section of Newark. Rushing into print with a number of titles simultaneously requires the closest possible contact with the writer. There seems little reason to doubt that Howard R. Garis was writing The Motor Boys series for Edward Stratemeyer no later than 1906.

The very nature of The Motor Boys stories is especially noteworthy. They involved the adventures of three major characters, Ned, Bob and Jerry "in auto, boat and airship." The striking similarity of approach to the first three Tom Swift books, involving a motor cycle, motor boat and airship, becomes instantly apparent. The preparation of the Tom Swift books had to be done in 1909. Howard R. Garis was then available for full-time writing. Not only was he the logical writer to work with Stratemeyer, but it is conceivable that the opportunity to do five Tom Swift titles may have been the key factor in his resigning from THE NEWARK EVENING NEWS.

It was in 1909 that Howard Garis had published the first of six Dick Hamilton books with Grossett and Dunlap, *under his own name.* Stratemeyer had not sold to Grossett and Dunlap up to that time, and Garis may even have been influential in helping him secure the contact with that publisher that resulted in the agreement to publish Tom Swift.

Another test that might be made is an anlysis of writing styles. This is easier said than done, for the

writing in the boys' books is so formalized that similarities are easier to find than differences. Tom Corbett, Space Cadet, a juvenile series currently being written and published, reads very much like Tom Swift of more than a half century ago. Examination of Stratemeyer's *Tom, The Shorthand Reporter* (1894) and the first of The Rover Boys (1899), does reveal one little phrase of Stratemeyer's which also occurs in the Great Marvel Series, but apparently not at all in Tom Swift. That is the use of the connective phrase "put in" after dialogue: "Where did he go, put in Jack."

There is another factor which lends weight to the assumption that Howard Garis began writing Tom Swift from the very first book. In 1909 Edward S. Scudder, publisher of THE NEWARK EVENING NEWS, asked Garis for a daily children's feature for the newspaper. Recalling a dignified old rabbit he had seen in the woods of Verona, N.J., Garis innovated the Uncle Wiggily series of Bed Time Stories, a collection of which went into hard covers in 1910.

The characterization of Wakefield Damon in *Tom Swift and His Motor Cycle* reads distinctly like something out of Uncle Wiggily: "Why bless my top-knot!" exclaimed the odd gentleman. "If it isn't Tom Swift, the young inventor! Bless my very happiness! There's my motor-cycle, too! Help you? Why, of course we will. Bless my shoe-leather! Of course we'll help you!"

If Howard R. Garis actually wrote the first 35 books in the Tom Swift series, that would have brought him up to *Tom Swift and His Giant Magnet, or, Bringing Up the Lost Submarine,* published in 1932. The year 1933 found *four* books from Howard R. Garis in the new Rocket Riders series from A. L. Burt. This group dealt with rocket-driven vehicles of various types (sleds, dirigibles, boats and cars), and interestingly enough, Garis makes a strong case for liquid fuels being the only feasible ones for rockets, at a time when rocket societies were the only ones who understood the advantages. Garis's son, Roger, also had four books in the Outboard Motor series from A. L. Burt the same year. It would appear that Garis shifted from Tom Swift at this period for purely business reasons.

The relationship between Edward Stratemeyer and Howard W. Garis had been a warm one.

Daughter Harriet recalls that he visited often when she was a small girl. After she was presumably thought to be in bed, the two men would prance about acting out the ideas and scenes planned for their latest volume. "To me, Howard Garis *was* Uncle Wiggily," she recalls, "he was a kind, gentle man with a whimsical sense of humor and a wonderful way with children."

Other juveniles edged towards science fiction. One of the most unusual, a precursor of Operator #5, was The Conquest of the United States Series, by-lined by Hancock H. Irving, consisting of four volumes published in 1916 by Altemus. The Germans invade the United States, and each volume deals with the de-

fense of another major city, for example: *At the Defense of Pittsburgh, or, The Struggle to Save America's Fighting Steel Supply.*

There is also probably a story in the simultaneous publication by Grossett & Dunlap and A. L. Burt of two series, the same year (1922), *both* titled *The Radio Boys.* Grosset & Dunlap was supplied by Stratemeyer under the house name of Allen Chapman. Burt's was credited to Gerald Breckenridge, and its title was *The Radio Boys Seek the Lost Atlantis* (1923). In its records of the sunken continent are discovered in deserted ruins in the African desert. It is by far the most fascinating of them all.

The phenomenal success of the Tarzan stories led Edward Stratemeyer to come up with *Bomba the Jungle Boy or the Naturalist's Secret* (1926), the first of 20 volumes carrying through to 1938, which appeared under the Roy Rockwood name. Cupples & Leon published them because Grosset & Dunlap marketed the low-priced editions of the Tarzan stories. But Stratemeyer, who in 1929 acknowledged that new titles in The Rover Boys series were no longer likely, would never live to see the Bomba series concluded. He maintained an office on the 18th floor of a New York building for his "Syndicate" and still commuted from his home on North 7th Street in Newark where he died on May 10, 1930, at the age of 67, from complications arising from pneumonia.

Despite its size and complexity, the Syndicate had been a one-man business. His two daughters decided that they would not let it die. They moved the offices to East Orange, N.J., and editorial management passed to Harriet Adams, graduate of Wellesley, class of 1914, and art work to her sister Edna C. Stratemeyer. When NEWARK SUNDAY CALL feature writer Myra Montfort Thomas, sensing a human interest story, interviewed the two she reported: "Both women guard the business details jealously. For instance, one may not look at a synopsis. Nor may one know what books, under what bylines, come from their 'factory'."

First the depression narrowed the demand and then the paper shortage, born of the war, curtailed the print orders of hard-cover juveniles of the type popularized by Stratemeyer. When THE NEW YORK HERALD-TRIBUNE for April 14, 1946 headlined "Tom Swift Quit Inventing in '41; His Future Secret", they were referring to *Tom Swift and his Magnetic Silencer,* a Whitman Better Little Book (competitor to the Big Little Books). Actually the hard-cover titles had ended six years earlier in 1935 with *Tom Swift and His Planet Stone, or, Discovering the Secret of Another World* (which volume was not written by Howard R. Garis), though a few titles were kept in print by Whitman.

The 1954 announcement that Harriet Adams, together with Andrew E. Svenson, would revive Tom Swift was received by the trade with tolerance, attributing it to the misguided nostalgia of a sentimental woman who didn't seem to know

that an era had passed. Didn't she realize that with television, children didn't read that type of story any more?

Following the techniques of her father, Harriet Adams issued five of the new series simultaneously in 1954: *Tom Swift and his Flying Lab, Tom Swift and his Jetmarine, Tom Swift and His Rocket Ships, Tom Swift and His Giant Robot* and *Tom Swift and His Atomic Earth Blaster.* Tom Swift had married his girl friend Mary Nestor, and their son Tom Swift, Jr. was the hero of the new series. Quite appropriately the stories were credited to Victor Appleton II.

The new series proved far more imaginative than the old. Twelve years after their revival there were 28 titles and new ones scheduled at the rate of two annually. Merchandising methods had changed even more radically than the plots. Today the Tom Swift books, listed at 1.25, can be found on "special" at many supermarkets and discount stores throughout the country at 69c. It is not unusual to find several titles sticking out of a shopper's grocery bag.

The sales of the old Tom Swift books had always been greatly understated. By actual check, Harriet Adams now reports that the old series had sold, in all editions, the incredible total of 20 million copies. Bomba the Jungle Boy got to 10 million before it was discontinued. Up through 1965, the Tom Swift, Jr. editions had sold a total of 10 million copies and were moving at the rate of two million a year; the best-selling juvenile of their type in the world.

Harriet Adams still refuses to tell anyone who writes any of the stories or even the names of the editors working for her company, which also publishes The Bobbsey Twins, Nancy Drew and many other best-selling juveniles. She as implicitly believes in this business secrecy as she does in her story formula, working on the basis that she must be doing something right.

Certainly when Tom Swift's stereotyped dialogue is so universally known that it can inspire a national craze for making phrases called Tom Swifties — whose progress was only halted by legal action on the part of The Stratemeyer Syndicate when it became too risque—it must be making some impact on our culture. And when a slice-of-life story teller like J. D. Salinger writes a New Yorker story titled *Uncle Wiggily in Connecticut,* because the woman in the story has stubbed her toe and limps like the rheumatic gentleman rabbit, perhaps it heralds a return to the age of sentiment. END

Homogenized Planet

by ALLAN DANZIG

Illustrated by ADKINS

On the long voyage back from Mars they discovered that they were not alone — and never would be again!

I

"We counted on being disappointed," said Miss Creeth succinctly, "but we didn't expect a disaster."

The three men shifted uncomfortably—more a psychological necessity than a physical one in the weightless cabin. They glanced uneasily at Glassman, or what seemed to be Glassman, buckled into his bunk and further lashed into place with straps and ropes and breathing heavily in his drugged sleep. Captain Brill cleared his throat, but failed to deliver one of his usual barking comments. What more was there to say? Only Stocker tried to moderate the precise judgment Miss Creeth had pronounced on the Expedition.

"Remember, we found *something,*" he said to the zoologist. "Something more than those damn pebbles and the dust. Maybe we don't know just what it is, but when we get back to Base and they look Glassman over—"

"Don't be a fool," barked Brill.

"Please try to think, Mr. Stocker," said Miss Creeth primly, ignoring the captain's outburst. "Whatever we've got in that bunk, it isn't Mr. Glassman. Either he's developed para-human faculties, or something's inside his clothes mimicking him. Either way we've not got the members of the Expedition we started with."

It was a disaster, all right. Pierre Dodie, electrical jack-of-all-trades and youngest member of the group, watched Stocker's face subside into an unfamiliar careworn mask. Just a week ago, he remembered, Glassman was saying he'd give anything for a find. Well, it looked like they'd found it. What a price to pay! No, even disappointment would have been better.

For they really hadn't expected to find anything new. Probe rockets, 134 of them, had brought back to Earth samples of the surface of Mars. And the samples, 134 of them, had all agreed, though they represented an area of over two million square miles. There were powdered earths, pebbles, rocks—three kinds of rock, but each one appearing in nearly all the samples. There was one plant, a kind of lichen that seemed to live on mineral-fixed oxygen; it turned up in about a quarter of the samples. There was no trace of zoological life.

Earth-Base analysed, computerized, extrapolated and estimated "average conditions." Then they sent up the five-man team of FAME to see what was really there. The First Anthro-Martian Expedition was made up of Captain Brill; Miss Creeth, zoologist; Stocker, botanist; Glassman, geologist; and Dodie, in charge of equipment and cataloguing. And, as had been rather glumly predicted, they had found nothing *but* "average conditions." One handful of Mars was just like any other handful. It was a homogenized planet.

The first men to stand in the dust of Mars! But the initial excitement had quickly worn off. "'The lone and level sands stretch far away,'" quoted Stocker morosely on the third day. Except for an infrequent curious shimmer and heave of the plain, they found nothing to warrant having come so far. The earthwaves were interesting—but they were such minor phenomena, merely cracking the unrelieved pebbly surface to reveal more pebbles of the same kind.

"Probably due to expansion and contraction of a semi-elastic layer a few meters down," estimated Glassman. "Keeps the surface stirred up. That makes it just about certain it'll be the same right around the planet. Won't be anything different anywhere."

But he might, after all, have been wrong. When they were almost ready to start back to Earth, Glassman wanted to give it a try. He worked out a way to break the limit imposed by the need to recharge individual oxygen units every six hours at the ship's tanks. Dodie, proud to be at the center of things instead of merely ancillary, rigged up a private oxygenator on the front panel of the little dune-drifter, normally used


ADKINS

only for short forays from camp. Glassman had driven off jauntily, pebbles flying in his wake, with strict instructions for Brill that he turn back in two days, no matter what he found; his oxygen would last only for four.

There was no sign of Glassman after four days—or five. By the sixth they could only stare at the level horizon and wonder miserably what might have gone wrong. Dodie took it hardest; he was sure his workmanship had been somehow faulty. The captain suddenly announced they were leaving. Glassman couldn't be alive, after two days without oxygen. Immediate departure was necessary to conform with planned return trajectory. They began mechanically to prepare for the lifting.

Then, miraculously, Glassman had come back. They couldn't hear the clatter of the dune-drifter, of course, insulated as they were in their heavy suits and headpieces. Glassman zoomed suddenly upon them, one side of the dusty drifter crumpled and scraped. They leaped and capered, wild with relief, with joy at seeing him. Even Miss Creeth made some funny little hops toward the drifter.

Then they saw his visiplate was broken. He was laughing and shouting at them, pointing back over his shoulder. But he couldn't be breathing. A human being *couldn't* breathe on Mars.

Communication was impossible outside the ship, for Glassman's headset seemed not to be working. Impassively, Captain Brill led the way into the entry hatch. In the cabin, out of their suits, they faced the excited geologist. "There's life on Mars!" he blurted. "I had an accident—earthwave—ground just opened up in front of me, right under me, bashed in the drifter. I saw—no, I didn't see them; but I met—*there's intelligent life out there!*"

"What did you breathe?" demanded Brill.

"I haven't been breathing for three, maybe four days," Glassman answered genially. "You saw my visiplate. I can't explain it, Captain. All I know is I'm breathing now. But that's not the most important thing right now. Captain, do you understand? There's life on Mars!"

"But you didn't see them?"

"No, I haven't. Haven't talked with them either, I guess. But I know they're there. I could—well, *feel* them, when I was knocked off the drifter in the fall, sort of unconscious." Then, taking in their doubtful looks, Glassman added urgently, "Listen, guys, you've got to believe this. I'm not off my head. They kept me alive, somehow, without oxygen. I can't explain it, not yet, but when we go back there—we've *got* to go back there, Captain."

"We've got to go home," said Brill stolidly. "Planned return trajectory . . ."

"Damn the return trajectory!" shouted Glassman. "Don't you understand? Somewhere out in that sea of pebbles there's life; we've found life."

"Home," barked Brill. "Right now." The others shifted uneasily.

"I've got to go back!" Glassman insisted, his face set, and turned to the exit port.

"Come on, Stocker!" The captain and the botanist tackled Glassman from behind. Dodie pinned the geologist's feet as best he could. His face flushed and strained, Brill jerked his head toward the medicine locker, and Miss Creeth hastily took out a syringe, injected the measured narcotic into Glassman's arm.

At least that had worked. Glassman might not have been breathing, but his metabolism seemed to respond normally to the drug. He had not fought much, once he was tackled—which was just as well, for he was the biggest man aboard. He had just lain there with mournful eyes until the narcotic took effect. They strapped him into a bunk and lifted off with their inexplicable passenger.

Once in space they unstrapped themselves from their anti-G webbing, and Miss Creeth ran a series of tests on the form they still called Glassman. She found nothing unusual: temperature and skin conductivity normal, EEG conforming to Glassman's pattern, pulse steady but a little slow. His blood was—blood. There was nothing to indicate it wasn't the Glassman they knew; but they all knew he hadn't been breathing, when he came back to camp. They didn't have the same members the Expedition had started with. A disaster, all right.

"Now," barked Brill, taking charge again, "all of you get something to eat. Then you'll turn in for a rest. We haven't slept much for three days. I'll keep the watch. I've got to flash back to Base, right away."

"Captain," began Miss Creeth hesitantly, "I'd like to stay up a few hours, if I may. There are some more tests I could run on Mr. Glassman. And I'd like to work out . . ."

Stocker broke in. "Me too. I want to see . . ."

The captain cut them off. "I'm not talking for my health. Yes I am—all our healths. We've got a couple of months on our hands. No need to rush things. We're going to have a tough time as it is, even if everything goes like clockwork. You, Stocker, you can try it later, whatever it is. You too, Miss Creeth."

The biologist nodded primly. They all fell to, ate a cold meal from containers with a minimum of talking—food did them all good. Dodie felt much less downcast as he rolled himself into his bunk. He bound himself against the mattress—he couldn't really rest on it, of course, but at least he could feel he was lying down. And it was neater to stow their sleeping forms in bunks than to remain hovering about the cabin. As the captain flashed Base with their disturbing news, Dodie suddenly was asleep.

II

He awoke clear-eyed. Stocker was finishing a cheerful meal while the captain watched, tired yet evidently not at all unhappy. Glassman and Miss Creeth still slept. Dodie

loosened his straps and floated out of the bunk. "What's the time? Gangway, Mr. Stocker, I'm starving to death."

"Another county heard from!" cried Stocker, screwing his head around to watch Dodie. "Here; chew on this nice cold hash. Not exactly breakfast food, but it's satisfying."

Dodie squeezed himself some coffee. "You've slept eight hours, 22 minutes," said the captain. "Stocker here's been up nearly a half hour. Everything's in good order. Soon as you finish eating, check the gauges. Our lady biologist," he continued owlishly, "should be with us any minute." They all glanced at Miss Creeth, neatly zipped into her slim overall. "Ahem," said Brill, his face reddening.

The biologist soon joined them. Six hours later, she had found nothing from her battery of tests. The captain flashed the negative results to Base, and they sat around and talked, argued. But the one subject of over-riding importance to them all soon reached a dead end.

Without Glassman's high spirits, life in space was much duller than it had been on the trip out. They conscientiously went through the weightless exercises they had been taught during training. Dodie fussed with what machinery was available for his attention; the pressurizer was in perfect order, the oxygenator working silently as he attended to its oiling points. They watched two visitapes they hadn't yet seen and decided to keep the others for later in the voyage. The water for washing was still pure, only a little stale after months of reuse. The men shaved punctiliously, even Dodie who really didn't have to. Not Glassman, of course; Brill kept him permanently sedated.

The uneventful days passed—two weeks, three. They had almost stopped speculating on what might have happened to Glassman on his side trip. It was impossible to think of what kind of life might inhabit the pebbly waste. The infrequent communications from Earth had no more helpful suggestions of tests they might run. They would have to wait in their suspended limbo until they got home.

Then there was the accident.

They were yawning and dozing, without even the pretense of talking, when the cabin veered sharply around them. Weightless, they hung in the air as the bunks, the table, the lockers and gauges spun with an accompanying metal racket (an explosion?) that stunned and terrified them. The clangor was still ringing in their ears, when the captain dove for the instrument board, slowing after its initial lurch. They braced themselves for an additional jolt; none came. Brill was busy with dials and scopes. They watched him anxiously, until it was clear he had the ship again under control.

"Check the oxygen," he barked. Of course! Dodie double-damned himself as he whirled and bent to read the indicators.

"Flow normal," he reported. "Tank-level normal. I'll have the reserve tanks checked at once."

Six tanks, he knew, were already empty, their oxygen used on the trip out and for the stay on Mars. Number seven was three-fourths used. He switched the monitor to eight. It was full. He began to breathe more easily. But—

"There's no reading for nine and ten, Captain!" he blurted. "The monitor doesn't give me any indication at all. Hold on; there may be something wrong with the electric system. That knock, whatever it was, could have jammed . . ."

Muttering, growling half to himself, he began unscrewing the housing with fingers that would not move as fast as he wanted them to.

The four were grim as he finished his check. The electrical system was working.

"Then . . . then the oxygen—?" began Miss Creeth.

"There isn't any," said Stocker brutally.

"Shut up!" ordered Brill. "We've got a tank—a tank and a quarter."

"We'll never make it." Stocker was quieter but just as bitter.

"We'll give it a damn good try," said Brill tightly. His eyes bore into Stocker's, and the botanist wavered.

"Sure," he said after a moment. "Sure, we'll try."

"But—what happened?" asked Miss Creeth.

"Can't tell, exactly." Brill was gruff. "Asteroid, probably. Anyhow, we've blown two tanks. Pierre, I want you to check every one of the inner caisson seams, right away. We're just lucky those damn tanks didn't blow inward."

Miss Creeth's calm had cracked. "But how could . . .? Why didn't the self-seal work? Oh, Captain Brill—"

The captain swallowed several times. Stocker moved closer to Miss Creeth. "Look," he said gruffly. "No use trying to figure out what might have happened. What we're sure of is we've got a tank and a quarter, and the captain's got to get us down on that."

Brill nodded gratefully. Miss Creeth, with a great effort, controlled her rising panic. "Of course," she said tightly. "What shall we do, Captain?"

Brill was relieved. "See if Pierre can use a hand in his check-up. You, Stocker, turn down the oxygen flow—down to the lowest setting. We'll see if we can get by on that. The three of you will take your pills and go to sleep. Use less oxygen that way. I'll flash Base and take the watch."

They would all take their cue from the captain, act as matter-of-fact as they could. "She's down to minimum," reported Stocker at the oxygen regulator. And Dodie was surprised at how normal his own voice sounded, when in a few more minutes he gave a favorable report on the condition of the hull.

They belted themselves into their bunks and took their pills with hardly any further talking. "Goodnight, all," said Stocker with a hint of his usual harsh jauntiness. "Maybe things will be better when we wake up. They *can't* get much worse. "As Brill began his report to Base, the three of them were asleep.

Dodie awoke with a fuzziness about him. His head ached. He could hear breathing, labored but regular, from the bunk above him. For a while he had difficulty seeing clearly. He took quick shallow gulps of air as he pulled himself free from the bunk. He felt sick and automatically went into the anti-nausea procedure they had all been trained in. It wasn't a good idea to vomit in free fall.

"Here's Pierre." The captain's voice was blurred to his ears. He tried to smile.

"Hello, kid," said Stocker in a flat voice. "Feeling pretty lousy, eh?"

Dodie's head was clearing slowly. He focused his attention deliberately. The captain's face was as flushed as he felt his own to be. Stocker seemed to be in real pain, his mouth half-open, his eyes fixed. They all breathed raspingly through their mouths.

Dodie was trying to eat when Miss Creeth awoke. She seemed to be bearing up well. Brill reported the situation to her. She worked her way across the cabin to check on Glassman. Almost as soon as she got there, she turned and said softly, "He's stopped breathing."

"He's — dead?" Dodie asked.

"No," said Miss Greeth. "He's not at all dead. But he's not breathing either. Whatever happened before, when he had that accident on the drifter, must have happened again. His temperature is normal; he feels warm. His pulse is steady. He — he's *smiling*."

Miss Creeth was right. Glassman looked perfectly pleased with himself, Dodie thought, and in better shape than any of them. As they stared at him he turned slightly in his bunk, shifting the disposition of cramped muscles.

They listened to their own hoarse breathing for a while. "Anyhow — one less on the oxygen," gasped Stocker. Even this slight effort tired him. "I'm going back to sleep," he croaked.

"Wait. You eat something first," Brill snapped sharply. Stocker was persuaded to take a few mouthfuls before rolling into his bunk. For a time, the others watched Glassman. He looked so normal, it was hard to realize he wasn't breathing. He smiled in his sleep, moved from time to time. Then they took their pills and left the captain on watch.

III

Dodie awoke with the same hangover feeling. He shook his head a few times in a vain attempt to clear it. He could hear Stocker, on the bunk above him, laboriously breathing. Dodie moved foggily toward the center of the cabin. Brill greeted him: "We're almost down to tank eight. Otherwise nothing new."

In a quarter of an hour Miss Creeth joined them, then Stocker. He was in bad shape, though still game. The form in the sick-bay was peacefully inert.

But there was something wrong. Dodie hauled himself across to look at Glassman. He stared for a while, very carefully, to make sure. "Cap-

tain," he said as levelly as he could, "he doesn't look like Glassman any more."

Stocker and the captain sat motionless, but Miss Creeth rose in a leap. "I knew it!" she exclaimed. "I mean, I *thought* he looked — different — last time I went over him. But I thought it might just be me! You know, with the oxygen down so low. That's why I was eating this time before I checked him; I wanted to be on an even a keel."

"Pierre: what difference is there?" The captain was gruff.

Dodie forced himself to approach the bunk again. "He — well, he's thicker. And shorter." Miss Creeth nodded, her lips compressed. The captain began moving heavily toward the bunk. Dodie continued, "The straps are much tighter on him, see? And they don't go across him at the right places. The one we strapped across his thigh is below his knee now. He much be six inches shorter. And thicker all over. He . . ."

"I'll be damned," said the captain at Dodie's side. "He looks like Stocker."

"The hell you say." Stocker struggled to rise. But if the captain's evaluation was not exact in particulars, it was an accurate enough summation. Glassman's long body had compressed and thickened to Stocker's size. His craggy face with its big bones had softened to a fair approximation of Stocker's, fleshy and saturnine. Only the colors were wrong, for the hair, the bushy brows, the unshaven beard, were still Glassman's chestnut brown, and Stocker's hair was black.

The captain checked the straps across the sleeping form. "It's all right," he said encouragingly to the shaken Stocker, steering him toward a bunk. "Get back to sleep now. That goes for all of you; I'll take this watch." They were all panting in the thin air. But Dodie and Miss Creeth insisted it was their turn — Stocker's feeble claim they all ignored — and finally Dodie was left with strict instructions to wake Brill the moment it seemed advisable.

This watch was memorable. There was something to watch. Glassman's face, Dodie found, didn't change fast enough to notice. But if he forced himself to turn away for five minutes by the clock — ten minutes, it turned out, was even better — he could see it altering bit by bit, becoming more and more like Stocker's.

Several hours passed in a slow-paced spookiness, interesting though horrible. Little by little the skin texture changed, the nose altered, the hair color darkened to Stocker's own. What had happened to Glassman? Dodie, checking the straps at about the sixth hour, was somewhat relieved by the calm, even pleasant look on the face of the new Stocker. Or should he be even more disturbed by the alien's seeming enjoyment? Well, whatever he was doing, the stow-away didn't act like a ravening beast.

The strain must have been more than he realized, for shortly before the tenth hour of his watch Dodie fell asleep. It couldn't have been very long (later they figured

it out to be less than 25 minutes), and it was so light that it was little more than a doze. However short, however light, it was enough. Dodie missed the most important occurrence of his watch. For — when he shook himself awake — Glassman was gone.

The straps and webbing of the sick-bay harness lay neatly on the bunk. They had not been burst, and their buckles — Dodie could see clearly as the shock cleared his head — were still secured by the sheathing, locked in place on the underside of the bunk.

Yet Glassman — or the alien that looked like Glassman, until it had changed to Stocker — was gone.

He was nowhere in the cabin. Dodie surveyed the tight space in one sweeping look as he whirled in a wave of terror that spun him, wobbling like a slowing top. He seized one of the mooring handles he passed in his eccentric transit, stopped his rotation and scrambled to the captain's bunk. He made a sloppy job of injecting the waking fluid, but at last it worked. "Captain Brill!" he shouted as soon as he saw the man move. "Glassman's gone! I didn't even see him go."

The captain was with him as fast as he could heave from the bunk. Brill's energy and thoroughness soon had them rooting into every locker and bin on the ship.

"He couldn't fit into that one," protested Dodie, as the captain rummaged among the shallow-packed medicines.

Brill barked at him, "We don't know what size it is by now. Last time we saw it, it had shrunk six inches. Might be the size of a bottle of pills, by now. Might look like one, too."

Dodie, shaken, went back over every possible hiding place with a growing sense of futility. If the alien could change size and form it might be disguised as anything on the ship. He especially scrutinized everything they had two of — had there been two last time he had handled the item? His head ached; his breath came laborously. His shirt clung to him, back and sides, and he shivered uncontrollably.

IV

The nightmare search was over in little more than an hour, for the ship was not large, and they knew every inch of the interior. The two hung side by side in the center of the cabin, trying to fight the hopelessness overwhelming them. Their eyes darted along the open bins and the disarranged stores they had left in their search, and the only sounds were the fluttering wheeze of their breathing and the more even rasping from Miss Creeth's bunk.

The obvious thought struck them at the same time. They boiled over to Stocker's bunk with flailing arms. The pinched and wretched look was gone from the botanist's face. He was smiling faintly. He — it — was not breathing.

"What do we do?" asked Dodie.

"We watch. As long as it's quiet."

When Miss Creeth awoke, groggy, they roused themselves to activity, explaining what had happened.

Without a word the biologist turned to examine the still form in the bunk. There was nothing to show it was not Stocker, she reported, except he was not breathing. They had expected this news, of course.

It was out of the question that the normal watch schedule be resumed. No one was going to take another pill with that thing loose.

They stowed carefully all the stores disarranged in the frantic search. The mechanical action at least gave them the feeling of doing something. And it was comforting thus to prepare for their reentry into gravity. "Can't have this junk flying around our heads," said Brill severely. This disciplined preparation somehow made it seem more likely that they'd be there for that wished-for event. Was the hope illusory? Dodie shuddered, glanced unobserved at the other two and wondered if they feared so, too.

Brill gave no sign of increased disquiet as he flashed Base with the latest developments, but Dodie noticed the report was longer and more detailed than usual. Was the captain making sure all available information would get through even if they could not deliver it in person.

They ate, and their meal gave them some sense of physical well-being, though the sullen fear never lifted. At least Dodie's sweating had stopped; he peeled his shirt from his back and fell suddenly asleep.

He awoke more slowly, a couple of hours later. Nothing had changed. The captain allowed himself to doze; Miss Creeth was silent. Then the captain and Miss Creeth napped.

The situation began to seem normal as hour after hour passed. Brill came up with a plan. "I'm going to turn the oxygen all the way down. We've still got a long way to go. When we're ready to go into gravity, I'll turn it up again as far as it'll go, so we can come in with clear heads. We'll need to be especially alert for the landing. It may try something funny then. Meanwhile, if there's any monkey business we'll use this." He took an automatic, the only weapon on board, out of its wall housing. They looked at it gravely. Silently the captain loaded it. Then he turned down the regulator, and they settled in to watch.

The air grew steadily fouler. Dodie stretched his neck with each gulping breath. Miss Creeth's face grew strained, and she plucked at the collar of her overall. Brill, redder than ever, was obviously the most uncomfortable. But his expression remained set. He held the automatic slackly in his hand.

Their dozes became more frequent, short bouts with unconsciousness from which they awoke unrefreshed, slightly nauseous. In a reddish haze Dodie saw Miss Creeth lurch toward Stocker's bunk. He shook himself nearer wakefulness and followed slowly, almost colliding with Brill, who was struggling after her too. Stocker was changing again. The body lines were still bulky, but more muscular. The face was squarer. It was beginning to look like the captain's.

Brill raised his hand stiffly. His expression was fearful, his eyes glazed. He fired the automatic at point-blank range. But instead of disintergrating in a welter of blood and tissue, the head of the thing on the bunk simply split open neatly, like a melon; in the weightless cabin, a few globules of blood hung above the frightful wound. A thin trickle began to soak into the bedclothes, but almost immediately stopped.

The stinging smell of gunpowder cut across Dodie's fainting consciousness. He barely noticed the captain, snapped backward by the gun's recoil, slammed into the opposite wall of the cabin.

He could not say how long he hung by Stocker's bunk, panting, fighting waves of nausea and darkness. In his clear moments he watched numbly as the floating globes of blood moved slowly downward, back toward the split head. They were being reabsorbed. The blood which had soaked into the pillow and the blanket by Stocker's head retreated, thread by thread, until it disappeared into the gaping but terribly neat cleft. He thought he could notice a change there too; the gaping skull seemed to be drawing itself together.

Miss Creeth was the first to come to life. As she groped past Dodie on her way to the captain, she shook the boy. He roused himself to follow her. Each breath seared the dry membranes of his throat.

They could not tell if the captain was conscious or not. He breathed shallowly, with a congested face. The automatic hung in the air beside his limp hand. He made no response to their questions, though his eyes were open.

There was nothing to do. They huddled next to Brill and spoke in monosyllabic bursts between gulps of air. Mostly they argued inanely whether or not the shot had killed the alien. "Can't live with no head," Dodie repeated insistently, trying to ignore the memory of the globes of blood moving fractionally back into the cleft.

Miss Creeth gasped that they could not know if the nervous center of the alien was really where the head seemed to be. The conversation was pointless and exhausting.

When Dodie managed to get across the choking cabin, there was no sign of any damage. Only the bullet, partly buried in the bedclothes of the lower bunk, remained to tell of the shot. The re-formed face looked more and more like Brill's.

I've got to turn up the air, thought Dodie dizzily. With his heart pounding and a high-pitched ringing in his ears, he started for the regulator. He never made it.

Miss Creeth screamed behind him, a thin, piercing scream. Dodie whirled. The exertion was enough to black him out. He could not have been unconscious long, for when he came to he was still spinning slowly. He put out a hand, steadied himself. Brill still hung motionless in the corner. Miss Creeth was crouching at his feet,

babbling something in incoherent gasps. She laughed wildly, shuddered, and did not take her hands from her eyes.

But the captain — Dodie realized, as his heart pounded and his sight swam uncontrollably — the captain's face, lately so red and congested, had returned to normal color. And he looked at ease, even pleased. A quick glance at Stocker's bunk, empty now. *Again!*

Warily Dodie edged himself toward the babbling Miss Creeth, below the level of the thing's knees. His eyes turned upward warily as he reached out and touched Miss Creeth's foot. She kicked at him, screamed, kicked again, catching him on the shoulder. He went over backwards, coming up against the nearest bunk. But the recoil of her action sent Miss Creeth screaming toward the ceiling. She bumped and drifted obliquely toward the center of the cabin. Well, at least he had got her away from the zombie Brill, Dodie thought as he nursed his bruised shoulder.

He wondered, panting — red explosions going off behind his eyes — how to establish contact with Miss Creeth. Obviously this was more than a passing hysteria; perhaps she was mad. Who could say what horrors she had seen as the alien had swarmed over the defenseless captain?

He was dimly aware of momentary unconsciousness. Grimly he tried to think. He must turn up the regulator. *He must turn up the regulator.* And he must give Miss Creeth a sedative. Should he sedate her first, or perhaps the oxygen . . .? Yes, the regulator. But the injection . . . Shouldn't he . . . ? Helplessly he recognized the oncoming paralysis.

He awoke only once again, to see moving toward him haltingly, arms outstretched and twitching slightly with an ingratiating smile on the placid face — *himself!* With evident difficulty the similacrum enunciated, "Pierre! Together!" And it was upon him.

V

In the rich air of Earth the alien bloomed. Virtually invisible on its native planet, it had become a pale pinky-mauve, though still transparent in the clear sunshine washing the terrace that overlooked Lake Geneva. Waves sparkled below them. Over their heads and along the balustrades chestnut trees framed with their pink and white candleabra the massive buildings of the Congress of Science.

Crack French correspondent Georges Sinclair, conscious of his privilege as reporter of the first personal interview for all the international wire services, sat with them at a late breakfast. His initial questions had been designed to put them at ease, now he moved toward the more serious matter. "What about your relationship now?" he asked. "How would you describe that?"

"Oh, the closest. The closest possible."

"Of course, your friendship, you

mean. That goes without saying. But what I really meant, really, was the psychical relationship. Would you say there remained any trace of your physical bond?"

Glassman, as usual the spokesman for the group, glanced at the others. "Not really," he said slowly. "We remember it all, of course. We're each perhaps quicker to understand what the rest are feeling. But that's a learned response, from living so — close. We each know how the others operate, from the inside out, so to speak. But there's no remaining physical merging. Not a trace." The others agreed.

"Would you say, perhaps, there was still what one might call a 'mental community'?" Sinclair offered the phrase hopefully.

"Not any more than you'd find among almost any small group that had worked in particular intimacy for a long time. It would probably take a longer time to achieve our degree of understanding, but the end result would probably be much the same."

"No telepathic sense at all?" Sinclair was disappointed, though this fact had already appeared in the preliminary scientific reports.

"You could say we find a heightening of intuitive perception within the group," said Miss Creeth, trying to be helpful, "but nothing extraordinary." Sinclair looked grateful for even this much of a lead. Miss Creeth continued, "Of course you know there was for a time a complete mingling — physical, mental, psychic. But now we're sorted out completely."

"Was this sorting out difficult?" Sinclair tried a new track.

"Not at all. Like coming out of the water. The mingling was much harder to get used to, at first."

"Mingling, you call it?"

"Yes, that's our own name for what they've been calling 'intra-personal immersion.' Ours isn't a very exact term, but it's convenient."

"I shall use it, if I may. This 'mingling,' you find it difficult?"

"Well, unpleasant, at first. Pierre was the only one of us to be fully conscious, the first time, but we've all done it since then. It's the only way to communicate with Ankor, you see."

They all looked toward the nebulous mauve shimmer between Miss Creeth and Stocker. "He has a sense you could call sight, I suppose, though the mechanics are different. His other senses correspond only vaguely to ours. I expect you know all about this from what's been printed already."

Sinclair smiled pleasantly. "It makes it so much more real to hear it, directly. I'd like to know, if you could tell me, what it was like when you first — mingled."

Dodie answered at once: "It felt the way raw liver looks." The others laughed. "Or you could say it was like putting your hand into mercury. I mean, it felt like that all over. It's not so bad."

"Could you . . . Could I see . . . ?" asked Sinclair.

"I guess so," said Glassman, with a glance around. "That way Ankor can take part in the conference,

through our senses. It's a bit of a strain on him, so we don't do it too often. You won't mind if we don't *all* go in. Pierre?"

Dodie was already holding his arms open in an announcement and an invitation to the pinky-mauve shape. It elongated to Dodie's height and, moving toward him, assumed a roughly human form. It pressed to him. Wherever it touched him it disappeared. Soon it was gone.

"That's it," said Dodie in his normal voice, turning toward Sinclair. "Ankor says hello."

"That's it?" asked Sinclair. He seemed disappointed.

Glassman laughed. "It doesn't look like much, does it? That's because Ankor seems so immaterial, like a little cloud. On Mars he's not even that. But if you want something more spectacular — "

The big man stood up. Dodie's features wavered, ran together. He grew larger; his body filled out to Glassman's dimensions, and the face became the geologist's. Soon there were two Glassmans side by side. Sinclair stopped writing in his notebook.

"What he's done," began Glassman — the original one — "is to arrange his atoms, along with Pierre's, in a mirror image of mine. You'll notice he's a left-handed copy, so to speak. Like an identical twin. Hair curls the opposite way. Pocket on the suit's on the other side. Makes the minglings easier. Took some figuring out, which is why the first minglings, mine and Stocker's, took so much longer than the later ones. Now . . . " he turned to face his double, "all we do is mingle, atom by atom."

The two Glassmans stepped toward one another, their arms held out slightly. As they touched they slipped into one another, without a tremor, without a trace.

Sinclair dropped his notebook. The remaining Glassman smiled at him, then at the others. "See? Clothes and all. It takes some getting used to, I'll admit. Don't let it shake you up."

The correspondent breathed quickly; his face was pale, but his eyes were shining. "Pretty effective, hey?" barked Brill proprietarily.

Glassman went on, "It might make a good line in your article to point out that with Ankor two bodies do in fact occupy the same space at the same time." Sinclair picked up his notebook.

"Two bodies? At the same time?"

"Let me explain," said Miss Creeth. "What Ankor does — we have no idea how — is to mesh two bodies on the atomic level. They simply fit into each other, like the teeth of a gear. To the observer they simply become one organism. But they retain individual identity, though they share everything: atoms, memories — everything. Only the personalities remain discrete and can separate again. Not even Ankor knows how it is done; he just does it."

Sinclair found his page in the notebook and wrote quickly. After a page or two he looked up, smiled wanly. "I think I understand," he said. "But it takes an effort."

"It was even worse before we knew what was going on," pointed out Stocker. "Flora saw the captain go and thought he'd been eaten or something. And Pierre actually watched the rest of us melt right into him. It was mighty bad."

"Couldn't you explain it to him?" asked Sinclair. "After all, he was conscious."

"We tried to," said Glassman. "That is, I tried, and Michael." He indicated Stocker. "The captain was still bewildered at that time, and Flora — she was pretty much off her head, just then."

"Bob and I both tried to talk to Pierre," said Stocker. "Trouble was, we were both trying at once. We didn't have the knack yet of talking with someone else's voice-box. Ankor worked out the way to do it, once we had time to think."

Glassman put in, "It's still Ankor who's the leader in the whole process. He's a whiz; you'd think he'd been at it ever since he was assembled."

Sinclair looked up from his notes, surprised. *"Assembled?"*

Glassman's face ran together in a soft wave. His body dwindled; the now-blank face suddenly sprouted features, and Sinclair was looking across the table at himself. He gulped, then joined in the light laughter.

"Remarkable," he said. "Though it is unnerving to sit opposite oneself. It must have been terrifying for M. Dodie, confronted with himself on board the ship. And no one to explain to him." He kept his eyes uneasily on his image.

It said in Dodie's voice. "I don't think I would have been any less scared no matter who it looked like. I would have known it wasn't the captain, say, and I wouldn't have been likely to believe any alien's explanation, not at that point."

"I see — indeed a real problem," said Sinclair. "Could M. Ankor — er — switch to some other face? It's disquieting to question myself."

The face blurred, became Dodie's. Sinclair visibly relaxed. "Am I right in assuming that when M. Glassman returned to the camp he did not know of M. Ankor's presence within him?"

"That's right," said Dodie's voice. "Ankor himself was only just beginning to figure what had happened. The physical mingling was no trick, but the problem of communication was a tough one."

Glassman's voice took over. "Even after we made the first mental contact, it still wasn't complete. Ankor could tell us things, but we couldn't get through to him. And after we did, we still had to work out a system of priorities — who would control what and when. It wasn't until just before we landed that we really went all the way — on the unconscious level, I mean."

"What took so long," explained Miss Creeth, "was the total difference in structural principle between us; we're specialized and organic, and Ankor is homogenized and assembled."

"Assembled? That's the second time I've heard that term," said Sinclair. "Surely not like a machine."

"It's been in all the papers," blurted Brill. "You ought to know."

It's been announced in very technical terms, Frederick," said Miss Creeth conciliatorily.

"It's perfectly simple," growled Brill.

"Only because we've been in on it," smiled Miss Creeth. "It's rather startling to anyone else."

They smiled at each other. "Probably, probably," agreed the captain.

"Well," said Miss Creeth briskly, turning to Sinclair. "You know what Mars is like. Little free oxygen. Even less water — so little we can hardly refer even to 'moisture.' Added to this is a low average temperature. Life as we know it would depend on a high rate of metabolism. And because oxygen and water are in such short supply, that possibility is distinctly limited. We thought it impossible.

"Yet life like ours *did* evolve there, life with a hydrocarbon base. Though the basic chemistry was like ours, there of course had to be differences in the line of development by which the Martian organism adapted to its environment. Martian plants are fungoid and algaic, drawing oxygen exclusively from the soil. Animal life, too, conforms to this pattern."

Sinclair nodded. "I remember the reports. Soil-breathers rather than air-breathers."

Miss Creeth nodded. "Now, on Earth there were certain regions more favorable than others to the development of life — warm, nutriment-rich regions of the ocean, for instance. Once established, life developed enormous variety as adaptation to various particular conditions — marsh, plain and upland, for example. Tropical, temperate and sub-polar. And so on.

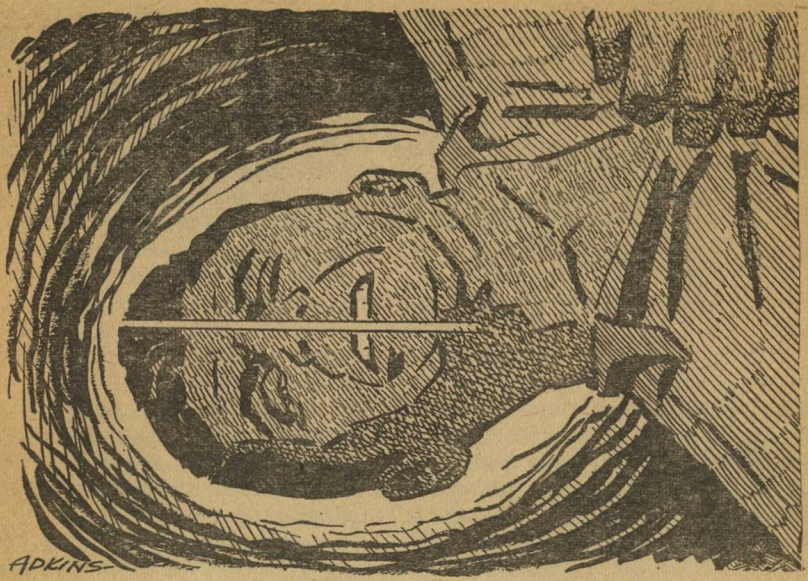
"But the Martian environment is homogenized. That's not really an exact concept," she smiled, "but it gives the correct idea. No bodies of water, just one planet-encircling plain of uniform dust and pebble with occasional dampish patches, subject to rapid dissipation and almost capricious restoration. There is little 'weather' aside from frequent dust-storms, and these don't change the environment so much as displace it.

"Even the climate is fairly uniform, planet-wide, for the temperature differential between winter and summer, or pole and equator, is about the normal change from night to day.

"The life that evolved was 'homogenized,' too. The easiest way to describe it is a 'dry-land amoeba.' That's not really satisfactory, I'm afraid, but we've put it more accurately in the Report to the Congress."

"I must say," put in Sinclair. "I read the report and had a most difficult time understanding it. It all seems much clearer now."

Brill beamed at the reporter, and Miss Creeth went on. "The earliest life forms were microscopic. Their ecology was virtually independent of the vegetation; it had to be since there was so little. They lived exactly like plants, by ingesting the



dust and extracting its oxygen and other nutriments. You probably have the details of this from the Report." Sinclair nodded. "Zoological life on Mars, like the planet itself, was homogenized. It remains at exactly this stage today. When we . . . "

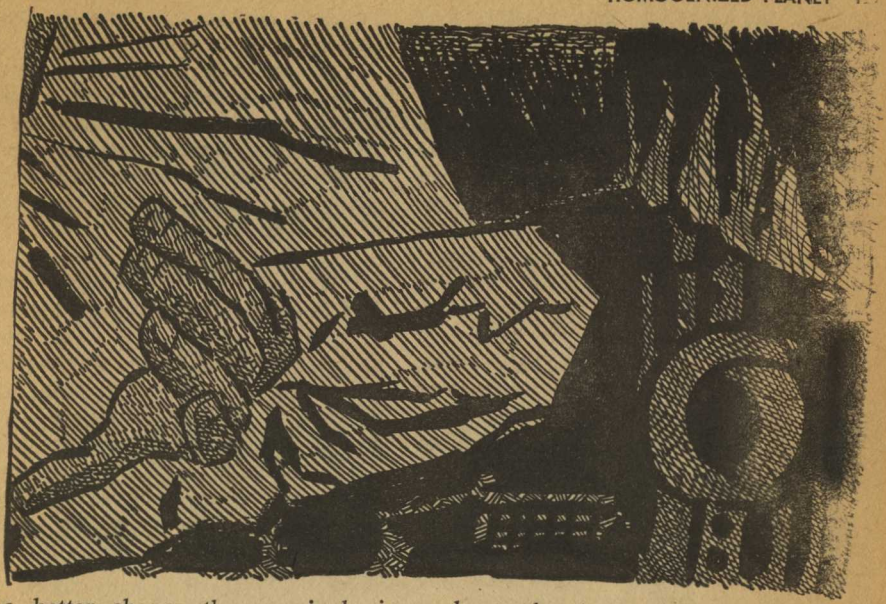
"But your M. Ankor," interrupted the journalist. "I saw him. He was as tall as a man."

They all smiled and nodded.

"Wait a minute; I'm coming out," said Glassman's voice. Sinclair watched tensely as the larger man emerged somehow from the smaller Dodie. "It's no trouble talking in immersion," he explained, "but the gestures are still something of a problem. And I'd like to take it from here."

"As Flora says, biological evolution stopped at a very early stage: a one-celled, non-specialized organism, which was completely homogenized as a living creature can be: every portion capable of performing the two main functions, eating and moving. Reproduction very occasionally, by fission. Excretion automatic; the waste simply falls out, or off — no inside or outside, properly speaking.

"Perfect physical adaption, at the simplest level — but that's not the end of the story. There was, really, no *competition* for survival, as there was on Earth; how could there be, in a homogenized environment? But there was a high survival value in *cooperation,* and organisms began to cluster. Survival of the fittest, on Mars, meant survival of the most chummy. By sharing information and food, a cluster of organisms had



a better chance than a single individual."

"Why didn't they eat each other up?" said Sinclair. "Why cooperate in the first place?"

"They probably tried to, at first. But who was eating whom? The entire organism was adapted for eating, remember; it would have been impossible to say who was ingesting the other. The first few million years of meetings, the organisms probably succeeded only in killing each other off. But then the important advance was made.

"That's the part we don't understand. It's got the chemists pulling out their hair. And the physicists gnashing their teeth. They'll come up with the answer, I suppose, but meanwhile all we can say about what happens is that it does.

"Briefly: Ankor does something peculiar to the atomic binding forces. They're what keep an atom together. We still don't know much about them, really — breaking them apart by force is the basis of atomic energy, of course. We've always assumed they were the same everywhere, for all matter. And they probably are, for inert matter.

"But Ankor's ancestors learned to relax the binding forces without permanently breaking them. It's as simple as that. I don't mean they thought it out, planned it. They were as mindless as one-celled animals on Earth. It just — happened. Mutation? Sub-atomic warp? We don't know. It happened. And the organism retained the knack of doing it. The bonds are so loose, that

in his normal state Ankor feels about as solid as the air in a steam room. But he weighs, they figure, about 250 pounds.

"Look at the advantages in a scarcity environment. An organism that can relax atomic binding forces can share a carbon atom, say, between two or even three molecules that are binding a hydro-carbon."

"You mean entirely separate molecules can use the *same* atom of carbon as a constituent particle?"

"Right. Not at the same time, of course; it only looks that way on the physical level. On the atomic level we'd have to say the atom was passing back and forth at unimaginable speed, serving several functions consecutively. It's as if four atoms of hydrogen were to pass one atom of oxygen back and forth, making two molecules of water — consecutive — but seeming instantaneous.

With Ankor the process is constant, reversible and easy; that is, it takes virtually no energy. In the absence of oxygen he can maintain life at a satisfactory level by incredibly complicated but automatic jugglings with matter on the atomic level. That's how he kept us all alive on the ship. Oxygen gave out when we were still two weeks out; but he linked up the available supply in double bond, and we came through in a kind of suspended animation.

"Do you see why we say Ankor is 'assembled'? He's not really an organism at all, rather an assemblage of cells in symbiotic union. He's homogenized, exactly the same make-up all the way through. Any part of him can take off and set up on its own. That's what happens if he grows too large to get around comfortably. He just splits into two autonomous communities."

"So in fact M. Ankor is not an example of biological evolution, but of social evolution?"

Glassman and Miss Greeth nodded. "Of course it's a bit more complicated than that," said the geologist. Viewed in one way Ankor is a state, a country composed of millions — billions, I suppose— of autonomous individuals. But his only individuality, at least the only one we would recognize, his personality, exists only on the corporate level. So in that way he's more like a single person."

"You see," put in Miss Creeth, "his constituent cells are all exactly alike, completely unspecialized. They don't have the slightest intimation of identity, or even consciousness. But at a certain point in the evolution of the clusters, there developed — mind. Not the property of any cell, remember, or any group of cells. They remain unspecialized. The mind was the product, or the function, of the cluster. Any cell may drop out, by death, or by drifting away; this last is very rare. But no matter what the turnover, the cluster mind goes on. There must be some lower limit to the size a cluster can shrink to and still support a mind. But it's only a theoretical case; Ankor knows of no cluster which ever seemed near that limit. And in the

thousands of years he's been alive, he's met most of the other clusters on Mars."

"But—mind without brain? Is it possible?"

"I know how you must feel," said Miss Creeth. "But it's really not such an upsetting idea. We know, roughly, how the brain works—transformation of nerve responses into energy and so forth. But nothing in our understanding of the brain's mechanical function can explain the concept of *mind*. All we can say is they're obviously related, throughout Earth's evolutionary history. The thought process has physical referents, in the brain.

"And with Ankor, too, thought produces and observable change in energy level, but throughout the whole cluster. From what members of the Congress could measure, we believe there's a slowing down of the atomic interchange and an increase of intra-cluster 'gravity' when Ankor is thinking hard; he certainly gains weight fractionally. Just as the human mind is the function of a specialized brain, so Ankor's mind is a function of the unspecialized whole of him."

"It will probably seem natural to me," said Sinclair. "At present it strikes me as logical but wholly inexplicable."

"So it is, man, so it is," cried Brill. Sinclair looked somewhat encouraged.

"It would be correct to say that Ankor is physically a group and mentally an individual, would it not?" he asked cautiously.

"That's right. And it's a neat formula," agreed Stocker. "If you want an analogy, the nearest thing to him on Earth would probably be an ant colony. Though of course Ankor's community mind is of an infinitely higher order. And his constituent cells are even less individual than ants."

"The physical well-being of the cluster is carried on instinctively by the individual cells, I suppose?"

"Right again," said Glassman. "A certain amount of Ankor's mental energy goes into physical planning and survival—that's how he found me in the first place. But by far the greatest amount he expends is on what philosophers traditionally regard as the highest human concerns: mortality, science, art, and humor."

"One moment, one moment!" cried Sinclair, scribbling furiously. "You raise so many questions. First, will you explain those four categories?"

"I'll try," said Glassman. "The first two are severely limited by Ankor's physical makeup. Remember, he's a corporate entity. There can be no problems of individual love, hate, justice, legality and will among the cells. OK?"

Sinclair nodded, taking notes.

"Well, the same is true between Ankor and his brother clusters. For whenever they meet, they form an indistinguishable whole. For example: not long before he came across me, Ankor had flowed into a cluster named No-Ammi. There was no need to exchange atoms, because each was well supplied with food.

But they could have if they needed to. However, they did share memories and information. After a while they separated — like what we did here just a little while ago. They each came away richer.

"With a set-up like that, there's no point to selfishness. Virtue is its own reward—materially. As to Ankor's ethics, the only real moral problem for him is how *best* to further life—all others' and therefore his own, since all life as he knows it is potentially one.

"Now this concern with benevolence, or charity if you will, is largely a matter of setting up the most effective distribution and use of the atoms that make him up. He can also work out ways to communicate information to distant clusters if they're in trouble or if he's discovered a rich source of useful atoms. These two problems, distribution and communication, limit Ankor's concept of science. His chemistry and physics are on a high level, but they're almost completely instinctual.

"He can't tell us, for instance, how he can tag each atom so as to sort us out again after we've mingled. Yet he seems to be able to. We can understand his handling of mechanics a little better. We know he sends out filaments in all directions. These are a single cell wide and maintain contact with the main cluster. They help him decide in what direction to move to meet another cluster or a source of food. They're not pseudopods, you understand. He maintains them in position by will-power. That's Ankor's science."

"And his art?"

"That, too, is largely mental—naturally."

"Of course. The plastic arts would be meaningless to him."

"Yes, his art is chiefly conceptual: verbal, musical, and mathmatical. He's breath-taking in the realm of pure math. For him it has no possible application, so we can classify it as an art. He values it for its sheer beauty. It also appeals to one of his senses and provides a pleasure as concrete as taste is to us.

"His music, too, is theoretical, an intellectual system of harmonics developed from his math. His verbals arts (can't call it literature, because it's not written down) are mainly on the order of science fiction. That is, he postulates forms and states of life different from his own and works out their probable characteristics. Naturally he has no concept of plot; the idea of an occurrence is impossible to him, because his idea of individuality is so fluid and so relative. But he's worked out some spectacularly complicated possible life forms. That's probably why he could adjust to us so easily.

"We were new ideas to him, he told us, ingeniously simple principles yet ones he had never imagined. We delighted him. We were an esthetic experience. He gave us several, too." Glassman turned to the others. "You remember that wild yarn of a sulfide culture with the reversible hydrogen bond?"

"And that graphite amoeba?" demanded Brill. "You remember that one? Boy, oh boy—"

"Which gets us to Ankor's humor," interrupted Glassman, laughing. "It's mostly verbal, as you'd expect. What we'd call his language—it's a kind of wave transference—is even more fluid than his physical make-up, and the capacity for punning is fantastic. When he learned to manipulate physical forms, a new field of practical jokes opened up to him. You had a sample a while ago—a kind of visual punning—when he faced you with yourself. We tell him he's pretty crude, but he says he's got plenty of time to learn subtlety."

There is at the same time much we can learn from him," said Sinclair. "Viewed as a community, I should say, he is the very model of a well-run state. The good of each unit is automatically the good of all."

"Hold on there," said Stocker. "I know what you mean; each cell does its job, with central planning for the good of all. Insubordination is unthinkable—just one united thought and will. It's perfect for Ankor. But just try to make the human analogy."

"What do you mean?"

"With Ankor the individual is nothing, the whole everything. It's perfect for him, because individual cells have absolutely no mind, or even consciousness. But in human terms it's the very model of a Platonic state, a complete totalitarianism."

Miss Creeth continued the idea. "In every human government there's conflict between individual and national will, individual and national interest. A liberal government is one which provides ways of moderating such conflicts. A totalitarian government enforces national solutions on individual problems. Ankor experiences no such conflicts, because all personality and all mind is 'national'; there simply isn't any will on the individual, cellular level."

Sinclair nodded and finished a page of notes with a flourish. "You said a little while ago, M. Glassman, something about how M. Ankor had found you. Can you tell me a little more about that?"

"Better than that—Ankor can tell you himself."

"Ankor? Oh, I see; by using M. Dodie's voice."

"Righto. Ankor's pretty good at it by now." He turned to Dodie. "It's all yours, Ankor."

"How do you do, sir. Ankor speaking." The voice was almost entirely natural, though it was not quite Dodie's own. The boy closed his eyes, concentrating on the proper relaxation to make Ankor's job of transmission as easy as possible.

"I had out my communication lines. I knew the earthwave was coming. They are good for us; they bring food to the surface. So I hurried to where the crack would come. It is not hurrying by your standards, I know. You are hurry-canes, in movement. I do not storm about, I move only blow by blow. All right, all right, Bob," he said hastily with a gesture toward Glassman. "Do not bob about stormily, I will talk without puns. Your language isn't made for them anyhow.

"I had hardly begun feeding

(though in fact it was not hard, but deliciously easy) when my filaments encountered some hydro-carbons. These do not occur in nature; neither was it another cluster. What manner of fish had I caught? I reeled myself up on my line; I reeled with amazement: there was a Bob on my tackle! Of course, I didn't know his name then. Nor did I know his drifter had fallen into the crack opened by the earth-wave and that he was airless and dying. But I explored.

"Passing among him I was amazed; he was a maze, a treasure house of not-could-be explained chemistry. Obviously he was an organism. But no mind met me! A contradiction in terms, a contradictory terminal (excuse me; you will not understand this reference to our physics). Such confusion, chemically! Perhaps, I thought, it is a semi-digested mass. Then despite massive indigestion of the intellect, I recognized the oxygen-principle. This mass was alive, but unable to amass life. It was dying for want of oxygen: alien life. And I could give it a lien on life. I had many oxygens, ready in temporary hookup passing from cell to cell. It is pleasant to pass it. Even when it is not needed, it has a pleasant taste—oxygen—like a dessert: oxyjello.

"So, the obvious. I bonded to the organism. Then I began, so excited you may believe, to explore this find. Before long I could feel forming again a mind, but what a strange one. And close to me. Where I touched the soil, I went on eating; but my main efforts were to understand.

"Then, I was no longer touching the ground. My discovery was moving, fast as the wind, on drifter like the wind, flying, flying. He flew like a bird. He flew among others like himself, new minds, new chains of being. It was for me a change of being—and all through this flying bird." Ankor patted Glassman with Dodie's hand. "This many-chambered chain-bird."

"Chain-bird?" asked Sinclair, struggling to get it all down.

"Bob-o-link," said Ankor dreamily.

"It loses something in translation," said Stocker. "It's tremendous when he thinks it directly at you."

"It must be strenuous," said Sinclair, "but exhilarating."

"I think you see the rest of it now," said Glassman. "He bonded with us, one by one. On the atomic level, he repaired cells damaged by oxygen starvation and by mechanical damage, using genetic memory from undamaged cells."

"He had quite a time when I blew the top off Mike's head," said Brill ruefully.

"That's not what really happened, of course," put in Miss Creeth quickly. "It wasn't simply 'Mike' in the bunk but Bob and Ankor as well, mingled. It was due to the greatly increased density that what seemed to be Mike's head didn't simply shatter. By that time, Ankor had worked out the mechanics; he could even reproduce physical forms fairly quickly. Bob and Mike could understand what was going on, though they

couldn't get through to Ankor yet. It was only when Pierre came in, with his mind clear and—to put it mildly—in an excited state, that one of us actually made contact. Then it was easy. They lived happily ever after."

"But the story doesn't end there, does it?" demanded Sinclair. "I believe, Mlle. Creeth, that you and Captain Brill are planning to be married. Am I not correct?" Dodie, Glassman and Stocker nodded enthusiastically.

"Hold on," barked the captain. "Does this have to be part of your story?"

"It was an unusual situation," apologized Sinclair, "and millions of people all over the world are anxious to learn as much as they can."

"Bad enough with just the four of them in on it," growled Brill, muttering something about privacy and the feelings of a lady.

"That was my question exactly," said Sinclair quickly. "Just how does a lady become engaged to someone she's dissolved in, so to speak. Or who's dissolved in her. For all the group, but especially for you, Mlle. Creeth, it must have forced an unusual degree of—intimacy." He looked expectantly at the biologist.

Miss Creeth took the captain's hand. She blushed and smiled a secret smile. "*Harumph*," barked Captain Brill. END

ISLAND OF LIGHT

by LAWRENCE A. PERKINS

Illustrated by ARKIN

Cascadia had no crime, but it had at least one criminal. A murdered corpse proved that!

I

Lieutenant Bob Cassidy, detective bureau, turned to Sergeant Harkness. "Okay, we know where the mugging happened. We can assume that the victim's watch broke when she fell, so that gives us the time. Have you run a computer analysis for witnesses yet?"

"Huh?" Frank Jessup, official visitor from his own force, was bug-eyed. Cassidy had just told him that there was not a single known lawbreaker at large in Cascadia. And Cascadia occupied a large portion of California and Oregon, with a little spillover into northwestern Nevada.

Cassidy turned to his guest. "Simple. Everybody has some sort of schedule. Some people overdo it, and you can set your watch by them. But even the beatniks have some

rough idea of what they'll be doing. We've fed the schedule of every resident of Cascadia to the computer. Now all we have to do is ask it who might have been in the 9800 block of Pomona Court at 4:35 today. Sure, we'll miss some possible witnesses, but the computer'll give us enough. You'll see."

Harkness had been respectfully waiting for a chance to answer Cassidy's question. "Twenty-six chief," he reported, handing Cassidy a slip of paper.

Jessup goggled over Cassidy's shoulder at the paper and saw that the paper was a neatly printed list. Each entry consisted of a name, an address, and a glop of alphabet soup.

"Now you see how important our schedule file can be," Cassidy explained, turning the list so that Jessup could see it better. "Don't get the idea that we snoop on Cascadians. We don't. But we encourage them as good citizens to report whatever schedules they have. They fill out questionnaires twice a year, and get a tax rebate for turning them in. In cases like this one, it's good information to have."

Jessup stared at the list as though it might bite him. "And the people don't resent this — this prying into their affairs? Knowing that at any moment your sergeant can punch a button and get them involved in something like this mugging? Why, it's—it's downright unconstitutional!"

Cassidy started to say something, reconsidered and swallowed. "Remember," he began again, "Cascadia decided to go all-out for crime prevention." He gestured with the list. "Using the old methods, we probably would have located some of these people, but we'd have wasted a lot of everybody's time and made a lot of people mad. Sure, Cascadians would rather have Harkness push a button."

"I just can't believe it," muttered Jessup.

Cassidy gestured with the list again. "Remember that none of these people may be actual witnesses. We may be as much in the dark as ever. We may have to fall back on other methods. I hope not, because we've got to get our hands on that mugger before he starts thinking he can get away with it and strikes again. But this list — it's just a tabulation of the people who might have been at or near the crime scene."

Jessup's face worked oddly. "You mean . . ."

"Right. The whole list could be a complete blank. Having a computer doesn't make us infallible. In the end it's always humans who do the work." Cassidy paused. "And that reminds me. It'll take the men at least an hour to round up the listees. Why don't we eat now? I don't know when we'll get our next chance."

Jessup smiled tightly. "My stomach's still set to Eastern Standard Time. I'm starved."

But Jessup ate pickily for a starved man. His afternoon had been eventful enough to spoil his digestion, although he'd been perfectly aware of the risk in stepping outside of any guarded building in the United States in this year of 1996. It was just that

he'd considered himself safe when he stepped out of the pneumotube exit at Cascadia Station.

The trouble had been that the pneumotube landing was a tenth of a mile outside the city. While he'd been walking between the bright orange warning stripes to the entrance station, a rat-faced little man had tried to bushwack him. Jessup had gunned down rat-face almost as a reflex act, but then he had to finish his trek to the entrance station, avoided by frightened fellow entrants, expecting a bullet in his back at any moment in the event that rat-face had had buddies.

Cassidy had met Jessup at the entrance station, clapping him on the back and congratulating him, and had popped him into the first available screening cubicle — ahead of a dozen indignant entrants already in line. And in screening Jessup had heard himself impartially described feature by feature, been mugged, and then been subjected to psychological tests that had left him shaking.

Jessup sourly cut a bite from his steak, remembering. Cassidy had met him again and hustled him to a bar, where Jessup had tossed off three double bourbons in quick succession. Cassidy had congratulated him again at the bar. "If 'rat-face,' as you call him, hadn't jumped you, screening would have had to dream up an episode that might have taken even more out of you."

"Episode?" Jessup had asked blankly.

Then Cassidy had begun explaining Cascadia's computer. "It has to know how everybody in Cascadia reacts to stress. Reactions are very different, you know. And criminals are usually under great stress as they commit their crimes."

"Stress," Jessup had murmured thoughtfully, ordering another double.

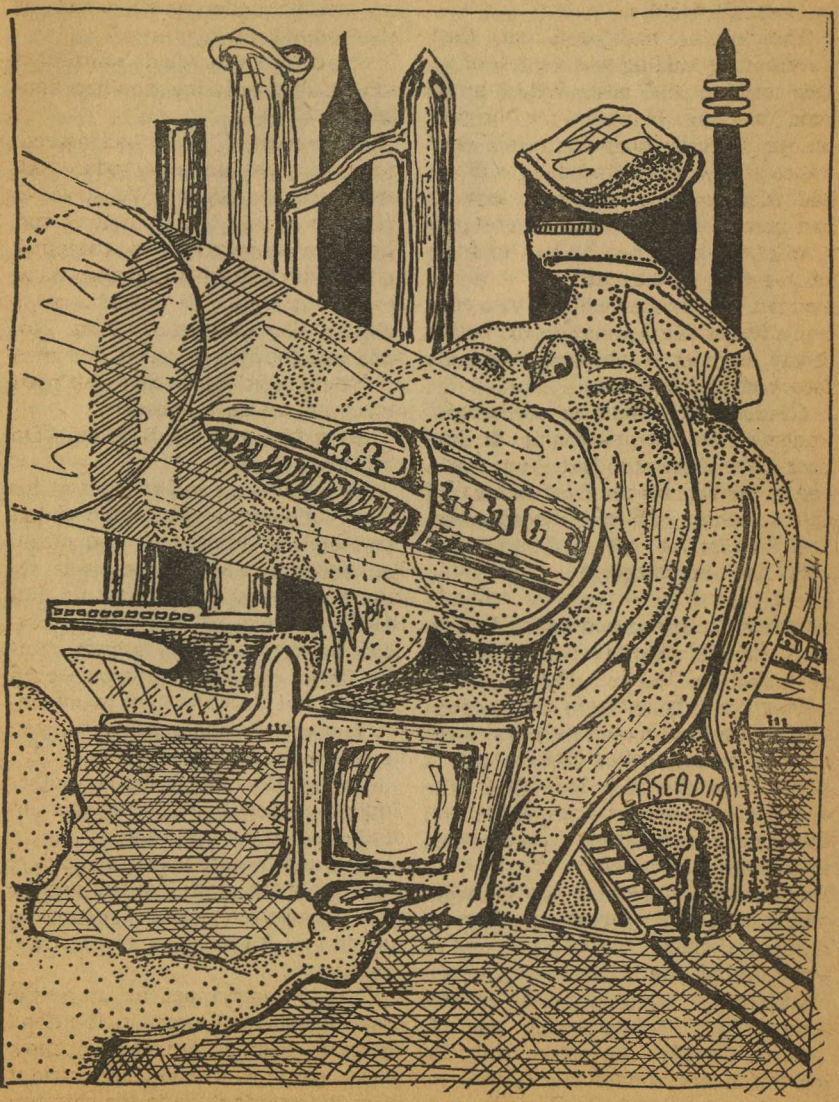
"Of course," Cassidy had agreed, ordering a Scotch and soda. "All computers are idiots. We have to tell them exactly what to look for. There's a story about a computer that was programed to arrange dates at a college dance. It picked a guy's sister as the one girl for him. Nobody had thought to tell it that men don't date their sisters. So — we need facts, and we have episodes."

Jessup had gulped his drink. "Do you mean to say . . ."

Cassidy had peered sharply at his guest. "Your 'rat-face?' We didn't plant him, if that's what you mean. By now our cleanup crew has removed the body and cleaned up, but that's the extent of our involvement. The entrance corridor attracts 'rat-face' types to a degree notable even in the United States. So many entrants carry portable property, you know, to the safety of Cascadia."

Jessup had rashly ordered another double and then tempered his indescretion to a single shot. "But . . . won't there be some sort of inquiry? I did shoot the man. I've still got the gun; your screeners didn't ask me to turn it in. And if you had official observers . . ."

Cassidy had clapped Jessup on the shoulder again. "Forget it. We don't object to guns as long as we know who's got them. And the corridor from the pneumotube to the entrance


CASCADIA

station is part of our periphery. Tenth of a mile deep, and the corridor is the only part of it not protected by our, uh, devices. We don't even allow airborne traffic to approach Cascadia nearer than 5,000 feet."

"I've heard about that perimeter," Jessup had replied, tossing off his drink and gazing regretfully into his empty glass. "We hear that people really get killed out there. How do you get away with it?"

"Sure they get killed. You just killed one of them yourself, didn't you? Anybody — absolutely anybody — is welcome to come through the corridor and submit to our screening. If they pass, they're in. If anybody else chooses to ignore our warnings, climb our ten-foot fence and try to sneak in — well, he announced that he has no good intentions. We act accordingly."

Then from somewhere inside Cassidy's clothing a buzzer had sounded, and he had dashed for the nearest visiphone booth, as an afterthought asking Jessup to come along. Jessup had watched Cassidy pop a coin into the slot and dial. The screen had swirled with color and then steadied to display a uniformed policeman.

Identifying himself as Sergeant Harkness, the man had unhappily reported, "Chief, we've just had a mugging in the eighty-first precinct. Niney-eight hundred block of Pomona Court. White female, age 63, name Angelica Moreno. She's in Mercy Hospital, still unconscious, in pretty bad shape."

"Have you run a sub on her yet?" Turning to Jessup, Cassidy had explained that a 'sub' was a substantive computer check for basic facts.

"Yes, sir," Harkness had reported. "On weekdays she had an 0.65 probability of shopping for a few groceries sometime between three and five p.m. I've got the list of the places where she traded. She never bought more than enough for one or two meals at a time. She would have had a probable $30.58 in her pocketbook, at least one pack of Abu Simbel cigarettes, and horn-rimmed spectacles decorated with sequins."

"Have you dispatched a team to cover the crime scene?"

Harkness had looked wounded. "Certainly, sir."

"Good. Very good. I'll be right over." Cassidy had broken the connection and turned to Jessup with an oddly resigned satisfaction. "We don't often have this sort of thing in Cascadia now, but at least you can watch us work on it. That should be better than any number of lectures."

Jessup had protested that mugging cases were hopeless and that cases in which the victim was unable to make a statement were worse than hopeless. Cassidy, listening politely, had urged Jessup into a local pneumotube. Twenty minutes later Jessup had watched Cassidy examine the clothing and effects of Angelica Moreno.

But Cassidy had learned little more than the investigative team had already established. The victim had been wearing a white blouse and navy blue skirt; her watch had stop-

ped at 4:35. Her handbag was gone. There had been no more details. Throughout the check Harkness had watched from a respectful distance, his face carefully neutral.

"What have you got from the medics?" Cassidy had demanded, turning his back on Angelica Moreno's personal effects and glowering at the crime-scene sketch that Harkness had given him.

"Severe contusions at the front of the neck, possibly involving the trachea. Lacerations of the scalp, with probable skull fracture. Three broken fingernails, and skin particles under all the others — except the thumbs, of course."

The sergeant's voice had dropped to a less formal tone. "I'd say she was yoked, and she reached behind her to scratch her assailant. Then, after she was unconscious, he threw her down and her head hit the sidewalk."

It was then that Harkness had come forward with his incredible list of possible witnesses, and Cassidy had declared this recess for dinner.

II

Jessup paused, fork ready to deliver another bite of steak. "You were about to tell me about your periphery when your Sergeant Harkness called you. Would you explain it to me? Officially? I've heard rumors, of course, but the purpose of my visit is to learn facts."

"Gladly, gladly. When our city government decided in 1975 that the crime rate demanded urgent local action, its first decision was that it'd have to know exactly who was aboard. The city then ran a census and for one year thereafter kept a tight check on all food and clothing sales to smoke out the sleepers. There were quite a few. At the same time, the entry control system was begun."

"Entry control system?"

"Simple. They allowed a single pneumotube landing and set up a perimeter so that there just isn't any other way to get into Cascadia alive. We even have antiaircraft. Oh, there's plenty of precedent for cordoning off areas, or even whole cities, in time of crisis. Cascadia just happens to be the first American city to consider the crisis permanent."

"But why?" Jessup speared a potato and waved it at Cassidy. "Why put up accordion wire and floodlights and antiaircraft installations so that you can wipe out anybody who tries to break in? My God, that's worse than the Berlin Wall back in the sixties!"

Cassidy sipped coffee until he felt that his voice was under control. "Our periphery is not at all like the Berlin Wall. The entrance station is there 24 hours a day, and everybody knows it. I can't imagine anybody with reputable business in Cascadia trying to avoid the entrance station. Anybody is welcome. All we insist on is information for our computer."

"Ah, the computer," Jessup murmured, turning again to his steak.

It was a quarter past six, Pacific Standard Time, when Cassidy guided Jessup back to headquarters,

where Harkness was waiting for them.

Couple of blanks, Chief," Harkness apologized. "Sophie Orway was on leave, so that ruins her schedule. And we can't find Max O'Boyle without putting out a general alarm for him. He lives in a bachelor apartment. Computer says there's 0.83 probability that he's there now — but he's not."

"Do you suppose he's your man?" gasped Jessup.

"Possibly," admitted Cassidy. "At this point, anything's possible. Remember, all computers are idiots. All ours can give us is statistical probabilities. Flip an honest coin, and say it comes up 'heads' 49 times. At the next flip the odds are still fifty-fifty. You have to remember that when you work with computers."

Harkness had kept each of the twenty-four listees separate. He had also set up an interview room for Cassidy, complete with a huge color photo of Angelica Moreno and a concealed microphone connected to a tape recorder and to earphones for Harkness. Cassidy quickly explained the setup to Jessup and then buzzed through twenty-four routine interviews. Each interviewed listee was taken to a waiting room where impressions were busily compared.

Jessup sat inconspicuously in a corner of the interview room. The first listee was Agustin Gonzalez, newspaper vendor, whose stand was at Pomona Court and 99th Street. He had seen nothing, he had noticed nobody, and he was thoroughly indignant about the whole procedure. Cassidy expertly smoothed the man's ruffled feathers and sent him to the waiting room.

Next came Max O'Shaughnessy, driver of the Parkway Express Limited, which the computer had placed at the corner of Pomona Court and 98th Street at 4:33 p.m. The driver dutifully stared at the picture of the victim. "Sorry, sir," he protested. "Except at the stops I don't never look at nothing but the traffic." Yes, he insisted, his bus had been exactly on time.

After O'Shaughnessy came the fourteen people that the computer had tagged as passengers on the bus as it had passed Angelica Moreno and her attacker. Cassidy scheduled them in reverse order to the time that they had boarded, so that the next listee was a man who should have just been settling down in his seat at 4:33. But Herbert Kroder was no help. He'd missed his bus today and ridden a local.

Sarah Meyer had been reading a magazine, and Elaine Murdoch hadn't been paying attention and couldn't remember one single thing. Cassidy thanked each of them and sent them on to the waiting room.

John Strong was the next listee. He studied the portrait thoughtfully and then nervously asked, "Excuse me, sir, but if you don't mind, could you tell me exactly where it was that this lady — that is, where this thing happened?"

Cassidy glanced at the list from the computer. "The assault was at about 4:30, at Pomona Court between 98th and 99th Streets. If you got on the bus at Lewis Street, and

the bus was on time, you would have been aboard — hmm — exactly eleven minutes when her watch was broken."

Strong breathed deeply. "You understand, I'm not positive. But I was looking out the window, and I think I did see this lady standing at an alley arguing with a man. At least, I thought then that they were arguing."

"Do you remember what the lady was wearing?" Cassidy asked with careful casualness. The photograph showed nothing of Angelica Moreno but her face.

"Wearing?" Strong shut his eyes and concentrated unhappily. "She had on a white dress. No, that's wrong; only the top part was white. The other part was black, or maybe dark blue. Does that sound right?"

Carefully not answering in any way, Cassidy expertly guided Strong through a *portrait parle* of the unknown assailant who had struck down Angelica Moreno at 4:35 in the streets of Cascadia. The verbal portrait of Alphonse Bertillon was invaluable to Cassidy's department. It was such a description that had stripped Jessup to a sensation of nakedness at the entrance station.

Quickly running through gross impressions such as weight, height and age, Cassidy began in earnest. "What color was his hair? Was it straight or curly? Long or short? Was it parted? On which side was it parted? What kind of eyebrows . . .?" Half an hour later, Cassidy thanked John Strong warmly and asked him to find a chair in the waiting room.

Not one of the remaining ten passengers remembered having seen anything of interest to Cassidy. He thanked each of them and sent them to the waiting room. In his corner, Jessup observed everything silently.

Next came the eight pedestrians whom the computer had selected. All office workers, their known quitting times from work and their computed walking speed along their respective ways had placed each of them close to the crime scene. Alex Crump, accountant; Alice Moran, typist; Bertha Simms, typist; Edward Block, lab technician; Frances Tyson, receptionist; Gertrude Clark, file clerk; Mike Jacobson, salesman; and Sophie Jones, typist.

Not one of them had any information for Cassidy. One by one, they found seats in the slowly filling waiting room, where whispers gradually swelled into subdued speech and then into animated discussion.

"What a waste of time!" exploded Jessup as Sophie Jones closed the door behind her. "Not one of your pedestrians knows anything. Except for one of your passengers, nobody gave you anything — and even the passenger wasn't really sure. Is this what I risked my life for out there in your entrance corridor? Back East, we thought Cascadia had something."

Cassidy raised a palm in restrained protest. "This crime happened less than four hours ago, and please note that this isn't one of those affairs where your criminal runs straight to the police to confess. Give us a few more minutes, will you?" Abruptly

motioning Jessup to follow, Cassidy strode through the doorway to the waiting room.

The room, with its rows of seats, looked like an auditorium, except that instead of a raised stage there was merely a clear space at the front of the room. Cassidy strode into this clear space, casually waving Jessup into an empty seat in the front row.

"May I have your attention?" Cassidy demanded politely. As silence eddied through the room, he continued, "Less than four hours ago, a dastardly crime was committed on the open streets of our fair free city, Cascadia."

The last swirl of silence washed over two women and silenced them. The listees began to fidget in their chairs. After a studiedly unbearable pause, Cassidy motioned, and two men marched forward to set up on an easel a larger-than-life sketch. One of the two men nodded questioningly at the other and then marched out of the room, leaving the other standing by the easel.

"Fortunately," continued Cassidy, his voice warming, "one intelligent and observant Cascadian saw part of the crime. A police artist, aided by Cascadia's computer, has used that Cascadian's description to draw this sketch of the criminal." Cassidy paused for effect. "Mr. Strong, is this a good likeness of the man you saw?"

Strong stirred nervously in his chair. "I don't know. It does look like him, sort of." He leaned forward. "I think it's the nose. The man's nose was a little narrower and came to just a little more of a point."

The man who stayed with the sketch stepped forward and worked rapidly with artgum and charcoal pencil. "Like that?" he invited, stepping back.

Strong leaned forward again. "That's it. That's about right. And now that you've got the nose right, I notice that the eyebrows were a little bit thicker than that." He attentively watched as more pencil strokes were added. "Stop. Stop. That's just right. That's him. That's the man." Strong settled back contentedly.

Several animated conversations had developed among the listees. Cassidy cut them off with a brusque, "May I have your attention?" Waiting with visible impatience until he had silence, he continued, "Now I want to ask those of you who were on the bus whether any of you remember seeing this man standing near the scene of the crime."

Nobody answered. "Thank you very much," announced Cassidy firmly. "Mr. O'Shaughnessy, you and your passengers are excused now. We'll get in touch with you if we need you again. Except Mr. Strong. Sir, would you mind waiting a few more minutes?"

Strong, who had been on his feet, dutifully sat down again. The dismissed listees filed out silently, several of them glancing wistfully back over their shoulders. The police artist stood quietly by his sketch, watching Cassidy intently. Cassidy watched the dismissed listees, not speaking again until the last of them had reluctantly filed out.

"Except for Mr. Strong," Cassidy told the remaining listees, "every one of you was on Pomona Court or 98th Street at the same time this man was." He gestured at the drawing. "Each of you has told me that you saw no part of the crime. But think. Think a minute. Less than four hours ago, any one of you might have bumped into this man. He probably was acting strangely. Think. Where did you see him?"

Bearth Simms's steel-rimmed glasses sparkled as she turned her head from the drawing to Cassidy. "I do believe that I saw a person very like that as I walked down 98th Street," she reported. "I really had gorgotten all about it, but he looked at me so oddly that for a moment I really was quite disturbed."

"Oddly?" prompted Cassidy.

"Well yes, oddly. He was rather lounging against the building, and he looked at me in a sidewise sort of way — as though he were pretending not to see me at all. Yes, and he was standing at the corner of a building just at a little alley where delivery trucks come in and out." Suddenly she seemed very agitated.

"Mr. Strong was too far away to see the man's eyes. Do you remember what color they were?"

"No, of course not. No, wait a minute, I do remember thinking that a basilisk must have that sort of cold stare, and I've always thought that basilisks must have gray eyes. Yes, I'm quite sure that he must have had gray eyes, looking at me and pretending not to." She drew herself up and sat straighter than ever in her chair.

Sophie Jones leaned forward, her ash blonde hair a beacon calling attention to her. She bit off a single speech sound, hesitated, and then burst out with, "But Mr. Cassidy, how can this whole thing be? Really, I mean?"

"I beg your pardon?" blurted Cassidy, staring at her in astonishment.

"I mean, Cascadia just isn't a place where things like muggings can even happen. And now you tell us that one did happen, right on an open street where every one of us was practically there. I know my father has told me about that sort of thing going on back East. But this is Cascadia! I mean, really!"

Cassidy sighed. "The actual attack took place in a narrow service alley between two apartment buildings. The first two floors of each building are completely functional, and windowless. The victim was eventually discovered by a maintenance man. You nine are the only persons known to have been outdoors and within fifteen minutes of the crime. Does that answer your questions?"

"I see," subsided Miss Jones.

"Actually, I'm glad you asked. I want each of you to get the picture. Cascadians feel safe, especially in daylight, and usually they are. But in a dense urban residential area like Pomona Court, there's almost nobody on the street except when a bus or a pneumotube discharges passengers."

Cassidy paused to survey and evaluate the listees. They were all listening intently. "There were a few pedestrians on the street, but a criminal is ready to take a few risks. And

this mugger is almost certainly a new arrival in Cascadia. He believes that he can catch his victim, drag her into an alley . . ."

His voice faded out.

Augustin Gonzalez, antisocially seated two full rows behind everybody else, reluctantly stirred. "I think maybe I see this man," he admitted in a pronounced Spanish accent. "But no at four-thirty. I come to Pomona Court at four o'clock to the bus stop. By six o'clock the people on buses, they already have evening paper, so then I . . ."

"Excuse me, Mr. Gonzalez. I realize that you go where you expect people to buy newspapers. But you said you had seen our suspect?"

"I was telling you," Gonzalez protested in an injured tone. "I take bus, too. I get off at six, seven minute after four — bus driver can say when. This man, your picture man, is at bus stop. Yes, cold gray eyes. I offer him a paper. He say, 'What do I want with a paper?' and walk away."

"This bus stop you're talking about is at the corner of Pomona Court, right?"

"Right."

"Do you remember which way he walked? I mean, in what direction?"

"I remembered only that he walk across street. Just then another gentleman ask for a paper."

"Was there anything unusual about the way he walked? Anything that you remember?"

Jessup, who had been staring stonily at Cassidy, turned to face the newspaper vendor. Everyone else had been watching him almost since his first word.

"Unusual? No, he just walk." Gonzalez pondered. "No, you might say that he walk a little slow for a man in the middle of a busy street. Like he expect that everybody stop for him. But unusual? No."

"One more thing, sir. What sort of voice did he have?"

Gonzalez wrinkled his whole face in his struggle to remember. "High, almost like a boy. And he run his words all in together, so I hardly understand. Sure, I know I don't speak so hot myself yet, but I understand okay. But maybe he talk like that because I ask him to buy a paper."

"Thank you, Mr. Gonzalez. Thank you very much. Your information will be very helpful, I'm sure." Turning slightly to show that he was speaking to everyone, Cassidy continued, "Three of you have seen our criminal. As we begin to see him more clearly, to know him better, more of us will recognize him. Now think again. Think hard." He gestured at the drawing. "Has anybody else seen him?"

Alex Crump nodded his close-cropped head. "The more I think about it, the more I think I saw your man. And I remember that he had something under his arm. It was big, but some pocketbooks are as big as that." Crump peered at the drawing. "I suppose it must have been him. It was him."

"Where and when did you see him?"

"It was about three blocks from Pomona Court, down 98th Street

away from town. I've been trying to remember things nearer Pomona Court — that's why I didn't think of this man until just now. He was in front of me, but he was a slow walker and I passed him. And just as I did pass him, he turned and looked at me — a funny, glancing sort of look."

"Now then, sir, can you add anything to our picture? Anything at all may help."

"Well, I'll agree with the lady that he had hard gray eyes. And one more thing. He was smoking a cigarette. It seemed to be hanging on his lower lip. At least it was dangling."

"Like this?" suggested the artist, placing his pencil on the drawing to represent a cigarette.

"No, on the other side. No, a little nearer the corner of the mouth. And not straight down like that, but out. Just dangling loosely."

The artist adjusted the pencil and then quickly used it to sketch in the cigarette. "Like that?"

"That looks about right. Of course I only got just that one quick look at him."

Cassidy reasserted himself. "Thank you very much, Mr. Crump. At this point, every additional detail is a great help." He shifted his stance again. "Now, does anybody else remember seeing this man? Either with or without the cigarette?"

There was silence. "Thank you very much." Cassidy continued in the same neutral voice. "You are all excused now. We'll get in touch with you if we need you again. Thank you."

III

As the listees self-consciously filed out, Jessup rose from his seat, visibly impressed. "Say, that's pretty good. Got a police artist already. Your Sergeant Harkness must have arranged that, listening to your interviews. Now when you run that picture in all your newspapers and . . ."

His voice trailed off as Cassidy slowly shook his head.

"Forgive me, Jessup. I know how it is in your jurisdiction. For the forty-nine suspects that get clean away, there are always a few lines in the papers telling what your fiftieth suspect wore—so that he knows which clothes to burn. And when you do have a little something on the fiftieth, you shoot the works. Police sketches on the front page and on TV, and a big blast of publicity to show how hard the police are working."

"Now just a minute, Cassidy! I know I'm a guest here, but . . . ."

Cassidy held up a forceful hand. "No offense. I just wanted to point out the difference. Unless some reporter happens to find out about this, there won't be any publicity. Not a line, not a word. Why should we alarm Cascadians? We don't have muggings here."

Jessup, who had been drawing breath for another blast, exhaled in surprise. "Not . . . no . . ." he gasped, and then began to smirk. "You mean you're kidding the people?"

"No!" snarled Cassidy. "We've got our sketch, our *portrait parle,* and four personal reports on our

suspect. The next step is to feed all this information to our computer and ask it to match the data with all persons known to be in Cascadia today. It may take a few minutes, so let's go to my office and relax."

Jessup allowed himself to be guided out of the room and down a corridor, hardly aware that he was walking. "Match the data?" he faltered. "Why, you must have over two million people here, counting tourists and visitors."

"That's why we need a computer, and all the data we can get. But I think we've got a pretty good identification this time. Sometimes we have to screen more than a hundred suspects to get a positive identification. Like I said, in the end it's the humans who do the work." Pushing open the door to his private office, he waved Jessup to a chair opposite his own desk.

Contentedly sinking into his own plush chair, Cassidy picked up a neatly typed sheet of paper. "Revised statement from the computer on the contents of Angelica Moreno's handbag." Not offering to display it, he tossed it into a desk drawer.

"Oh?" Jessup leaned forward slightly, too late to see the paper.

Cassidy leaned back comfortably. "By the way, I haven't really had time to fill you in on background. All of our routine work centers around our computer, of course."

"Of course," agreed Jessup.

Cassidy glanced sharply at his guest. "The computer has three basic sources of input. Number one is what we pick up at the screening station. Number two is what filters in from various sources—school records, vocational tests, and credit departments, to name a few. The results of our interviews might go under that heading. And number three is what Cascadians volunteer about themselves and each other."

"And each other?" Jessup looked incredulous.

"Oh, I see what you're thinking. Yes, we do get denunciations. But you have to remember that Cascadia is a very special community. So many people approve of it that we've had to expand our borders four times since 1975. We're already as big as some eastern states. But yes, twice a year we have questionnaire day in every office and classroom in the city. And each person reports on himself first. "

"Questionnaire day?"

"Simple. Making it a community affair assures us of almost complete coverage. Because of the tax rebate, as well as community spirit, response is good for individuals too. Angelica Moreno, retired and living alone, gave us on last questionnaire day the information we're using tonight. We don't get very personal. All we want are traits. How a person looks, what he does, where he goes, and when he goes there."

"I don't think I'd like to live in Cascadia," muttered Jessup.

"Your alternative is to live anywhere else in the country," snapped Cassidy. "We play down the grisly details here, but every Cascadian schoolboy knows what the crime statistics are outside. No law-abid-

ing person could possibly have anything to hide from our computer. And anybody above the age of sixteen years is free to leave at any time."

"Do they? Leave, I mean."

"No. Oh, some of the newcomers find out that they really can't get away with crime here and leave after about six months. And a few maladjusted teenagers — boys, mostly—leave on their seventeenth birthdays. But most of the kids come running back, and I suspect that even more of them try and can't make it. There's a dangerous world outside of our city limits." Cassidy shook his head sadly.

Jessup shuddered visibly. "I don't think I could stand being spied on all the time."

Cassidy bristled and then calmed himself before answering. "We don't think of it that way at all. Spying—no. That's an ugly word. With us, everything's completely in the open. Those questionnaires, for instance. If you fill in a questionnaire on me, I'm perfectly free to ask to see it. I may even make comments on it. Matter of fact, that's what happens in this office. No mature Cascadian feels 'spied on.'"

"I've spoken to a few of your, ah, teenagers who'd left Cascadia. I got a slightly different picture from them."

"What d'you expect from a silly kid?" snarled Cassidy, slowly losing his temper. "Of all native Cascadian deserters, I can't remember hearing of a single one who didn't do it within six weeks of his seventeenth birthday. Of course it's the unstable ones that go! Even at that, over half of them make it back within two years."

Cassidy was ready to say more, but just then Harkness rapped on the door and walked in without waiting for an answer. Glancing at the typed sheet of paper in his hands, he reported, "Thirty-one possibles, sir, but the only ones I'd call solid suspects are numbers three, seven, eighteen and twenty-one. I've put checkmarks by their names for you. The others just seem to be men who happen to match the description."

"Thank you, sergeant."

"Yes, sir." Harkness darted a quizzical look at Jessup as he strode from the room.

Cassidy pored over the list, his visitor forgotten. Jessup frankly stared at the paper, typed in a neat style which was becoming familiar to him, half rising out of his chair. The motion reminded Cassidy that he had company.

"Sorry," apologized Cassidy, his recent anger entirely forgotten. "This wouldn't mean much to you unless you knew the computer's abbreviations. But Harkness is right again." He smiled briefly at Jessup. "I've already put him in for lieutenant, and I suspect this case will clinch it for him."

"Would you . . . ah . . .?" implored Jessup, staring at the paper in Cassidy's hands.

Cassidy hesitated and then handed the paper to Jessup. "I've already warned you that every computer is an idiot. Ours took the *portrait parle*

that we fed it and gave us this list of every man in Cascadia who fits it. The fact that number seven on the list happens to be a man presently in traction with a broken leg didn't bother the computer in the least. But of course it faithfully gave us that bit of data."

"But the four names that your sergeant checked off?" insisted Jessup.

Cassidy politely recovered the list. "Simple. Each of them is an outsider who came to Cascadia less than six months ago. Each of them was rated as unstable at the entrance station. Not bad enough for automatic rejection, but unstable. And every one of them seems to be in financial trouble."

"Financial trouble?" Jessup's voice cracked. "How the hell can you tell that?"

"Simple. Every man's income is a matter of record. The computer also screens every charge account in Cascadia. As a matter of fact, as a public service, it prepares every monthly bill rendered in Cascadia except for a few shops too small to be able to use automation. And every Cascadian merchant is urged to record any cash sale greater than twenty dollars. And the computer also calculates every Cascadian's probable living expenses."

Cassidy gestured with the list. "These four are either on the thin edge or actually in the red—with no prospects of improvement."

"And that's all your computer has on them?"

Cassidy stared at his guest. "As a matter of fact, no. There's one more thing. The computer is unable to give a probable location for any of them at 4:35 this afternoon." He glanced at the list and thoughtfully read off the four checked names. "Francis Aguinard, Jerry Cattlett, Simon Raphael, Harry Yancey."

Jessup stood up. "And you actually intend to pick up those four men just because your computer can't guess where they were at four-thirty?"

Cassidy also stood up. "As a matter of fact, they're already being picked up. In Cascadia, we move. Harkness brought me the list so that I could countermand his orders at my discretion. But I agree with him. He's a good man."

Jessup sank limply back into his chair. "But arrest on suspicion is unconstitutional!"

"This isn't suspicion in your sense. Our laws give us the right to bring in for questioning anyone who comes up with a bad score on a computer check, and these four qualify. Every Cascadian more than sixteen years old has consented to such questioning as a condition of remaining in Cascadia. As a matter of fact, you consented at the entrance station. And this consent includes the questioning of minor children above the age of eight."

"Also as a condition of remaining in Cascadia?" Jessup's tone was not quite a sneer.

Cassidy smiled humorlessly. "That's right. You're getting the picture. Every Cascadian knows that we don't pick up people for questioning without good cause. The old-timers have had twenty-one years to watch

our system develop. And, I might add, twenty-one years to follow what's going on outside of Cascadia."

"Do you seriously mean . . ." Jessup began.

A peremptory knock on the door silenced him, and Harkness strode in with his hand on the shoulder of a man who might have sat for the police artist's portrait.

"Excuse me, sir. This is Francis Aguinard."

IV

Jessup surged out of his chair to stare at the man. "Do you mean to say that in the time since Sergeant Harkness last reported he was able to locate this man, pick him up, and bring him in?"

"Excuse me, sir," explained Harkness. "We know within 60% probability where any person will be at at any given time. The odds go up as it gets later and people start coming home. And our pneumotubes give us fast transportation." Harkness glanced at his wristwatch. "It's already nine-thirty."

Jessup slowly sat down as Aguinard disconsolately stared at the floor with his clouded gray eyes. When Aguinard spoke, it was in just such a torrent of unseparated words as Augustin Gonzalez had described. "Honest to Jesus, sir, I ain't done nothin' worse today than not bein' out job huntin' while I'm drawin' unemployment. I told the officer here, but he said I had to come anyhow."

Cassidy glanced briefly at his list. "Well, now, that's a crime too. But if you cooperate with us, I believe we'll be able to work it out. Has Sergeant Harkness advised you that you are suspected of assault and robbery?"

"Yessir, he has, but honest to Jesus, sir, I ain't done a wrong thing today except what I just told you, God my witness. And he asked me where I was at half past four, and the Lord's truth is I don't even know. I was on the street all afternoon, and I was in one or two bars for a beer or two, and I didn't even notice when it was half past four, whenever that was."

Cassidy glanced again at his list. "Mr. Aguinard, you came to Cascadia four months ago, and in those four months you've had six jobs—and out of work now. What's the matter with you, Mr. Aguinard?"

"Oh, I don't know, really I don't. Everything's so different here." Aguinard shot a diffident look at Cassidy and then resumed his study of his own nervously shuffling feet.

"How much money did you have last night?" barked Cassidy in a completely different voice.

"Eighty-five dollars," blurted Aguinard, looking Cassidy full in the face for the first time, startled and frightened.

"How much have you got now? Don't tell me—hand your wallet to the sergeant."

Harkness woodenly accepted the wallet and extracted a sheaf of bills which he began counting. "Seventy-two," he finished, replacing the money and handing the wallet back to Aguinard.

Cassidy waited until the tension was electric before he spoke. "Mr.

Aguinard, have you ever taken our vocational test?"

"Test? No, sir. I never so much as heard of it until now."

"Mr. Aguinard, there's another test I'm going to ask you to take for us now. We're going to ask you some questions using our deception tester. You may have heard it called a lie detector, but of course no machine can detect a lie. The machine measures your pulse, breathing rate, and your perspiration rates. It also records body motion if you try to cheat it."

"Honest to Jesus, sir, I won't try to cheat it. Like I told you, all I did wrong was what I already told you, and I'm sure real sorry about it."

"We'll ask you questions about Angelica Moreno. She's the victim. And only we and the criminal could possibly know the answer. Her age, for example. You answer 'no' to every question, and we mention 10, 20, 40 and 60. The criminal's pulse will pick up, his breath will shorten, and he'll sweat when we mention the correct age. But if you don't know, the machine won't give a reading. Will you take the test?"

"If the test will prove that I didn't do nothing wrong except what I already told you, I'd be right proud to take it, sir."

Cassidy stood up. "Good. Sergeant Harkness, please escort Mr. Aguinard to the test room. When he's through, please bring him back here."

Jessup was sputtering before Aguinard was out of the room. "You people still use lie detectors? We threw them out years ago! Courts never admit them in evidence. What's the good of something you can't use?"

Cassidy struggled again with his temper. "I'm glad you raised those points. The test takes a while—it usually takes a quarter of an hour just to get a suspect used to the machine and to calibrate it to him—so I'll have time to explain things to you.

"Taking your last point first, even if we never could get a deception test into court, the information it gives us is invaluable. Take the example I just gave Aguinard. If he's innocent, those ages are just numbers. But if he's the criminal, when we say 'sixty years old' he'll react—he can't help it. And the biomedical sensors will pick it up."

"What if his own dear old mother happens to be sixty, and he thinks about her as a mugger's victim? Wouldn't your lie detector get a reaction?"

"Probably. And I wish you wouldn't say 'lie detector.' That's why we need a whole set of questions. If we get a man who reacts to the victim's age, clothing, the part of her head that hit the sidewalk, the kind of cigarettes she smoked, the amount of money in her pocketbook and a lot of things like that, we've got our man. From there on it's just leg work."

"Leg work?"

Cassidy grunted in disparagement. "Simple. Once we've got a real solid suspect, we can't miss. He touched the victim, her clothing, her pocketbook. The laboratory will nail him

every time. But laboratory methods get very expensive, so we like to get our suspects zeroed in before we start spending big money."

"Money?"

"You'd be surprised how happy the city is when we save it. Yes, money. You have any idea what it costs to run a smell test on a crime-scene object and then prove in court that the characteristic odor of the suspect was present on that object? And that reminds me of your objection to our deception tests. In your jurisdiction, anybody who claims to have seen a suspect may testify in court—right?

"Of course he can testify. What?"

"Even if your witness is an old codger ninety years old who probably was asleep," interrupted Cassidy, "even if he can't see two feet without his glasses and admits that he didn't have them, even if he was taking medicine known to produce hallucinations, that man can testify —right?"

Jessup flinched. "Testify? Sure he could testify, but the defense would cut him to ribbons. Prosecution would be out of his mind to call a witness like that."

"But the point is that a man like that can testify. Even if defense can throw enough doubt on his testimony to disqualify it from consideration by any judge or jury, right?"

"Right," admitted Jessup uneasily.

"So then. If a senile, nearsighted, hallucinating man can testify, why can't a deception test operator testify? The court can decide whether to believe him. All we needed was a friendly interpretation of the law on confessions. And everybody in Cascadia, including both of us, has voluntarily agreed to take the test, you know."

"Are you trying to tell me that in Cascadia you can admit a lie detector test into evidence?"

"Please don't call it that! But yes, of course we can. This is a city totally dedicated to the eradication of crime, remember? Our judges certainly can't forget that. But of course we have to explain the test, and the relevancy of every question, so that each juror understands. If we have to go to court, that is."

Jessup almost fell out of his chair. "*If* you have to go to court?"

"Didn't I mention that? Simple. Whenever there's a chance to rehabilitate a criminal—and that's most of the time—we take it. Our job is to prevent crime, not to punish people. Take Aguinard. Personally, I think he's innocent—this time. But if we let him go, he'd be back. Matter of fact, in a couple of months he'd have shown up on questionnaire day anyhow."

"You mean . . .?" Jessup gripped the arms of his chair.

"You'll see," promised Cassidy, smiling oddly. "Sometimes we don't even need therapy. Suppose that Aguinard's vocational tests indicate six months of training and a year of subsidized apprenticeship. Say that the program straightens him out. Wouldn't that cost Cascadia less than holding a trial and then keeping him locked up ten or twenty years?"

"Umph," mumbled Jessup.

Cassidy glanced at his wristwatch.

"Aguinard should be into his test by now." He shifted his position in his chair. "I mentioned that we've heard things about your jurisdiction. Do you know, there's talk that Cascadia bothers some of your people?"

"Bothers?" Jessup's tone was definitely injured.

"You might say. Cascadia's already attracted plenty of attention, and it's growing fast. Not only are neighboring cities asking to join us, but there are also several jurisdictions thinking about adopting our system. The whole country might eventually go Cascadian, rewriting the constitution to agree with what we're actually doing. And the word is that some officials are extremely unhappy about it."

"Unhappy?" The echo was appropriate. Jessup looked very unhappy.

"Sure. The talk is that large sums of money are involved. Some of it reportedly finds its way to certain sticky fingers in your department. If our system spreads, all that would stop. So this talk says that if somebody could involve Cascadia in some really bad publicity, our system would stop spreading. The large sums would continue to circulate. Never heard about it, eh?"

V

At that moment Harkness knocked ritually on the door and strode in with an obviously relieved Aguinard in tow. "Completely negative, chief." Harkness grinned.

"Glad to hear it," smiled Cassidy. "Before you go off duty tonight, will you arrange transportation for Mr. Aguinard to his vocational tests tomorrow?" Turning to the ex-suspect, he continued, "Sir, Cascadia owes you something for this inconvenience. Whatever training the tests suggest will be paid for by Cascadia. I'll take care of the details myself. Good luck!"

A somewhat dazed Aguinard allowed himself to be guided out of the office. An almost equally bemused Jessup watched him go. "A hot suspect like that!" he burst out as soon as the door closed. "A guy with no alibi, and a bunch of witnesses ready to hang him, and you turn him loose. Not only that, but both you and Harkness acted downright happy about it."

"Of course we were happy. Why shouldn't we be? Two hours ago that man was headed straight for crime. With the scare we threw into him and the lift he'll get out of seeing that we really care about his vocational guidance, I'll be a monkey's uncle if he doesn't turn into a good citizen."

Another knock on the door cut off Jessup's answer. Through the doorway strode a policeman firmly gripping by the elbow a man who at first glance looked like Aguinard's twin. But this man's expression and general body tone were thoroughly different. "I'm Sergeant Dormley, sir," reported the policeman. "This is Jerry Cattlett. Resisted us all the way, he did. Almost had to put the cuffs on him a couple of times."

"This dumb cop told me right off that I didn't have to say anything unless I want to," squeaked Cattlett

in a voice half an octave higher than Aguinard's. "Well, I don't want to . What I want is a lawyer, right now."

Cassidy rose, suddenly bristling with authority. "I'm sure that Sergeant Dormley explained to you that you are suspected of robbery and aggravated assault, and that anything you say may be used against you. In fact, I'm quite sure that he made a recording of that warning, and your response. Right, sergeant?"

Dormley nodded, patting his pocket.

"However, Mr. Cattlett," Cassidy admonished," as a condition of your residence here, you signed an agreement to take a deception test if our computer ever named you as a criminal suspect. You also agreed that your failure to take that test would be grounds for your immediate commitment to rehabilitation. You corrected and initialed errors in that statement, in the presence of witnesses."

Cattlett glared wordlessly.

"Sergeant Dormley," Cassidy commanded, "turn on your recorder. For the record, I now announce that Jerry Cattlett, also known as Gerald Cattlett, born on May 11th, 1968, has been named by the Cascadia computer as a criminal suspect. Now take him to the examining room."

After Dormley had propelled the reluctant Cattlett out of the room, Cassidy nodded at Jessup. "I think I'll take a hand in this examination myself. Deception tests work best with no more than two people in the room with the suspect, but you can sit in the observation room. There's a one-way mirror and a sound pickup, so you'll be able to see and hear everything. Just don't get too near the mirror."

Cassidy popped Jessup into the observation room and hurried on to the examining room. Cattlett was shouting at Dormley and a fat little man in a white smock, but he broke off to whirl around and face Cassidy. "Look," yelled Cattlett, "I don't have to tell nobody nothing! I know my rights! I want a lawyer!"

"Mr. Cattlett," barked Cassidy, "we have your witnessed agreement to take this test. If you refuse, I'll have you on your way to rehabilitation before the hour's up. If you fail to rehabilitate, the pieces of your living body will be used as surgical replacements—and we just happen to need a healthy liver right now. Are you going to take the test?"

"What have I got to do?" demanded Cattlett, suspiciously eyeing the massive chair, the left arm of which was improbably widened to include the detection and recording apparatus.

"Sit in that chair. Let Corporal McGee attach the biomedical sensors. They won't hurt you." As McGee worked, Cassidy impersonally explained the machine. "You could spoil the readings by tensing your muscles. That's why we have motion detectors. Any question invalidated by motion on your part will be asked again. The computer is hooked into the circuit, and if it signals us that you are deliberately trying to cheat the machine—off you go to rehabilitation."

"What d'you mean by that?" snarled Cattlett, hardly noticing as McGee attached the sphygmomanometer to his right arm and pumped it tight.

"If you don't try to cheat the machine, you've got nothing to worry about. The computer can recognize the difference between ordinary nervous twitching and a deliberate attempt to fool the deception detector. But if it decides that you're not leveling with us, it stops the test and we commit you to rehabilitation."

Cassidy stepped back to let McGee take over, and noticed a bright fleck on the one-way mirror. Jessup must have been within inches of the glass, and some bright metal object —tie clip, fountain pen, wristwatch —was showing. Out of Cattlett's sight, Cassidy made vigorous pushing motions at the mirror. The fleck vanished.

McGee stepped forward. "I'm going to run a short test to establish your reactions," he announced casually, showing Cattlett a neatly printed sheet of paper. "The computer has furnished me with a number of known answers for you. I want you to answer 'no' to everything I ask, and . . ."

"The computer gave you the answers?" exploded Cattlett, as a buzzer shrilled and half a dozen lights reported his tensed muscles. "Computer, computer, that's all I hear. You guys got me railroaded before you even start. I know my rights! I ain't gonna answer any questions at all. Go ahead, send me down the river!"

McGee hastily stepped back, although Cattlett was firmly strapped into the chair. "Mr. Cattlett, please!" he protested. "The computer has reported verified facts to me, such as your birthdate and your mother's first name. Every one of them agrees with your own statements when you were screened to enter Cascadia. I can't give you a fair test unless we run a series of questions with known answers."

Cassidy authoritatively stepped forward. "At this point, Cattlett, your only right is to this fair test. If you'd rather not say anything, that's all right. We'll assume that your answer to every question is 'no.' Go ahead, corporal. Remember — "he fixed Cattlett with an iron stare — "that all of us know that ten seconds after every question he is saying 'no.'"

McGee began asking questions, pausing after each of them until the restless recording needles had traced a reaction and settled into a new equilibrium, carefully adjusting knobs on his console from time to time. He noted each question on the recording drum, and also indicated every change of setting.

Then, with no change in his absolutely neutral voice, McGee remarked, "We will now begin the test. Each of the following questions refers to the robbery and agggravated assault of which you are suspected. You will continue to answer 'no' to every question." The shrill buzzer sounded once, and a single light flashed briefly, although Cattlett seemed as motionless as ever.

Questions followed as to the victim's age, the manner of attack, the place of attack, the contents of the victim's pocketbook. The fleck of light appeared again at the two-way mirror, but nobody noticed. Very quietly, Cassidy walked around the chair and stood where he could watch the nervous needles tracing their intimate messages on the moving drum. The trace was bright red.

As the questions continued and the drum turned and the needles scribed, Cassidy glanced at his wristwatch and then very quietly slipped a notebook from his pocket, wrote, and then silently handed the open notebook to McGee.

The nature of the questions immediately changed. An observer with a rich endowment of gallows humor might have thought of twenty questions and similar parlor games.

McGee was asking now about the disposition of the victim's purse. No, it had not been thrown into bushes, it had not been thrown into a storm sewer, it had not been taken home, it had not been burned. Had it been thrown into a trash can? More questions, as Cassidy's silent notebook suggested locations.

And then a final set of questions. Had Cattlett committed the crime for money alone? Or of malice? For pay? Because he hated women? Pause for the restless needles. Had he been paid by native Cascadians? Newcomer Cascadians? Outsiders? Foreigners? And then there were no more questions.

Cassidy stepped forward again, gesturing to McGee and waiting until a switch was flipped. "For the record," he announced, "this deception test has taken exactly fifty-two minutes. Suspect has not, repeat not, been detained for more than one hour. Suspect Jerry Cattlett, also known as Gerald Cattlett, is herewith accused of robbery, aggravated assault, sedition and treason."

"Sedition? Treason?" howled Cattlett, as his wrists whitened under their straps. "What is this? I know my rights! I want a lawyer!"

Cassidy nodded to McGee, and suddenly four policemen marched through the doorway and began unstrapping the prisoner. "Your lawyer can visit you in your detention cell," Cassidy announced. "Did you have somebody in mind, or shall we appoint one?" McGee raced to finish removing the biomedical sensors before Cattlett was released. But Cattlett lapsed into silence again as the policemen lifted him from the chair and conveyed him through the doorway.

Cassidy followed the policemen through the doorway and hurried to the observation room, where he was not at all surprised to find Jessup hotly arguing with Harkness.

Jessup indignantly turned to Cassidy. "Your sergeant tells me that this Cattlett fellow is being charged with four crimes just because you and McGee didn't like his answers. And he didn't even give you any answers! I watched the whole thing. He never even opened his mouth after the questioning began. All he did was sit and look daggers at both of you."

"Excuse me," apologized Cassidy,

reaching for the wall telephone. "Didn't want to make this call in front of Cattlett." He dialed a two-digit number. "Cassidy here. Detective Bureau. Sure, I know it's late, but I need a pickup at the trash can at 92nd and Poplar. Woman's pocketbook, fairly big. Sure, I know that DSC has orders to bring in that sort of thing, but I want this one now and without any more fingerprints on it. And hurry."

Cassidy hung up and smiled at Jessup. "Sorry to interrupt you, but we have to verify at least one thing unknown to us which a suspect reveals in a confession. If we have to go to court, this one thing would clinch our case. But excuse me. I see that you've got a question."

"You bet I've got a question! This Aguinard you let go just because he beat your lie detector—just like that. But Cattlett, that didn't even open his yap, goes to the clink. What kind of a system is that?"

"I wish you wouldn't say 'lie detector'," protested Cassidy. "But—what kind of a system? It's the system that produces the only American metropolis with a crime rate so low that the FBI report hasn't even mentioned us in almost twenty years. And Cattlett hasn't gone to the clink, as you put it. He's gone to rehabilitation, which has given us a ninety-seven point two percent return of respectable Cascadians since it was set up."

Jessup's face reported that he was unconvinced.

"Will you please try for a minute to forget the old police concept of suspects to be convicted," pleaded Cassidy, "and let me tell you how we find the one person who really did commit a crime?"

"Well—of course," grudged Jessup.

"The deception test isn't entirely foolproof. Nothing is foolproof. But it does work marvelously well when you stop calling it a lie detector and look at what it does. It picks out people who have an emotional reaction to carefully selected questions. You've just seen Cattlett's reactions single out the very trash can where . . . ."

The telephone shrilled only once before Cassidy grabbed it. "Cassidy." Pause. "Yeah." Pause. "Um. Yeah." Pause. "Fine. Thanks." He hung up. "Lab," he explained to Jessup. "They found the handbag in that trash can, with Cattlett's fingerprints all over it. Does that indicate to you why we were right to hold Cattlett and let Aguinard go?"

"Unh," rumbled Jessup.

"But say that we make a wild mistake. Say that a lily-pure paragon says 'no' at the wrong time, and that we send him off to rehabilitation without any further evidence. It couldn't happen, of course, but even if it did—rehabilitation would find nothing to rehabilitate! He'd be released at once."

"But wouldn't he have this rehabilitation thing on his record?"

"Record? The only record in Cascadia is the computer. If a man goes into rehabilitation and is released as cured—he's cured. I wouldn't know this if Harkness hadn't mentioned it to me himself—none of my business, of course—but he's been through re-

habilitation. He's one of my best men now."

Harkness, who had been standing quietly aside since Cassidy had entered the room, coughed and reddened. Cassidy smiled, but Jessup ignored the sergeant and frowned in perplexity at Cassidy.

"But you told Cattlett that if he didn't take your lie detector test, you'd carve out his liver and then chop him up into surgical replacements. Did you really mean that?"

The smile vanished from Cassidy's face. "That's not what I said. I did tell him that his body would be used for surgical replacements if he failed to rehabilitate. And yes, I did mean exactly that."

Clapping Jessup lightly on the shoulder and imperceptibly urging him out of the observation room and down the corridor, Cassidy continued, "We do have a very few rehabilitees who can't seem to make it. Very few, not more than two point eight per cent. For whatever reason, they resist every known form of social therapy. When that happens—well, Cascadia is totally dedicated to a policy of crime eradication."

"I'm just beginning to realize what you mean by that," shuddered Jessup, his brow suddenly beaded with sweat. There was an almost audible shift of mental gears as he asked, "And you really believe that Cattlett was your mugger, eh?"

"How could there be any doubt? If we were to take him to court, we'd get an ironclad conviction that no superior court could ever overturn."

"If? What do you mean, if? That's at least twice that you've hinted that you don't give your criminals a fair trial. What do you mean?"

"In Cascadia there's only one penalty for any crime — death. And no Cascadian juror would think twice about rendering a verdict of guilty. That might sound a little harsh, but the fact is that every criminal can step right out of the whole juridical process by asking for rehabilitation. Every criminal always does. It's been years since anybody asked for a trial."

"But this thing about being chopped up into surgical replacements?"

Cassidy grimaced. "I've already told you that there are a few who can't be rehabilitated. A very few. They really do have defective personalities. Our finest experts can't kindle any sense of community in them. We could lock them up — a very expensive procedure with a net value of zero — and wait for them to break out. No prison is escape-proof. Or we could obey our own law and execute them. Is that really a choice?"

Jessup seemed to be sagging, although the walk from the observation room to Cassidy's office was not particularly long. The hand on his shoulder shifted to active support. Harkness, who had been following two paces behind, drew closer in case he should be needed. "Execution I can understand," wheezed Jessup. "But this chopping up — excuse me, I feel faint."

Cassidy slipped his arm more securely around Jessup. "Execution is such a waste. And we find that the prospect of being used for surgical

replacements, a piece at a time, has an effect on our more recalcitrant criminals that the fear of being hanged never approached."

"But . . . but what about the Federal guarantees?" stammered Jessup. "What about due process of law? The Constitution?"

Cassidy murmured something about the nearness of his office, firmly guiding Jessup. They squeezed through the doorway together, Harkness close behind, and Cassidy guided his visitor to a chair. Harkness quietly took a chair nearer to the door as Cassidy ensconced himself behind his desk and carefully lit his pipe before answering.

"If you noticed how we treated Aguinard and Cattlett," Cassidy mouthed around the stem of his pipe, "I think you'll recognize that we were extraordinarily tender with their Constitutional rights. But you've got to remember that Cascadia is a rather special place in a rather peculiar age. And our system is spreading." Blue smoke billowed. "I think about Cascadia as an island of light in a sea of darkness and death."

"But — surgical replacements! Isn't that cruel and unusual punishment? I can just see Cattlett waiting and waiting in his cell for somebody to come and cut the first piece out of him." Jessup shuddered again.

Cassidy drew on his pipe contentedly. "In the first place, I doubt that anybody ever cuts pieces out of Cattlett. He'll have every chance at rehabilitation, even if he's crazy enough to demand trial and get himself sentenced to death. But if he does wind up as a surgical, he'll get his due process of law. The thing is done as humanely as possible. The first step is permanent anasthesia."

"What's in second place?" croaked Jessup.

"In the second place, in spite of the Federal myth of a government of laws not men, each community has always administered laws to suit itself. Look at the concentration camps for the Japanese-Americans during World War II. Look at the way Southern Courts handled civil rights cases in the middle sixties. Law is what people want it to be. Cascadians want every criminal caught and cured or canceled."

"I just can't believe..." began Jessup just as Dormley rapped on the door and then strode in without waiting for an answer.

"Your reports," he announced, handing Cassidy a sheaf of papers.

"Wait a minute," Cassidy ordered, pouncing on the computer-printed papers and hurriedly digesting them, one by one. The only sounds were the rustle of the papers and the gurgle of Cassidy's pipe. Cassidy broke the silence by rumbling, "You remember that Cattlett revealed that he was paid to commit his crime. Most unusual in a mugging."

"Unh," grunted Jessup, realizing that Cassidy had been speaking to him. "I do seem to remember that your corporal seemed to have asked Cattlett something like that. But I couldn't tell what he responded."

"It was positive," Cassidy told him. "There's something else you couldn't tell. I'm afraid I've kept one secret from you until now."

"Secret?" Jessup's eyes widened.

"Just after we interviewed the listees, I received a very interesting preliminary report from the computer. I believe that I told you that it was a revised report on the contents of Angelica Moreno's handbag. It wasn't. As a matter of fact, the only time that the computer ever revises a report is when some new facts are presented to it."

Cassidy pulled noisily on his pipe, which had started to go out. "I asked the computer for a full report, and gave it a few facts. This—" he gestured with the sheaf of paper—"is the final report."

"Final report?" Jessup suddenly seemed much paler.

"I did tell you that we are aware that certain people in your department are connected with a scheme to discredit Cascadia, and that large sums of money are involved." He glanced again at the sheaf of papers. "The computer has prepared this final report after digesting all the facts."

"Facts?" husked Jessup, waiting for Cassidy to continue.

Cassidy continued inexorably. "The computer warns us that these people in your department planned to send us an official observer to arrive on the same day that an odious crime was committed in Cascadia. This observer was to hurry back East and tell the nation how Cascadia had deprived the suspect of his Constitutional rights and subjected him to cruel and unusual punishment."

"Punishment?" whimpered Jessup.

Cassidy seemed slightly embarrassed. "You've seen the computer work. And you might guess that it provided us with a partial description of this official observer. For example, it tells us that he has a habit of repeating key words in the conversation of the people speaking to him. We've described you to the computer, and it says the odds are ninety-seven to one that you're the man."

"The man?" Jessup whispered, so faintly that Cassidy barely heard him.

"I must advise you," Cassidy announced as Harkness stood up and both sergeants moved toward Jessup's chair, "that you are suspected of subversion and treason. You need not make any statement unless you desire to do so. I must also advise you that you have freely signed an agreement to take a deception test upon being designated a suspect by our computer, and that you have been so designated."

Cassidy sighed unhappily. "Take him, men."

After the two sergeants had half carried the feebly struggling Jessup from the room, Cassidy held the bowl of his pipe in his hand and stared at it. It had gone out; it was cold. He was oppressively aware that he had a great deal of work to do. But for the moment he stared unseeingly into the bowl of his pipe, trying to recapture his vision of the island of light, secure against all the storms of darkness. END

★ ★ ★ ★ ★

Could you write for television?

By Max Shulman

Frankly, I don't know. But this I *do* know: when I was running the Dobie Gillis show, I often paid $2,500 and more for scripts turned out by people who should have been arrested for impersonating writers.

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