THREADS OF TIME

Three Original Novellas of Science Fiction by

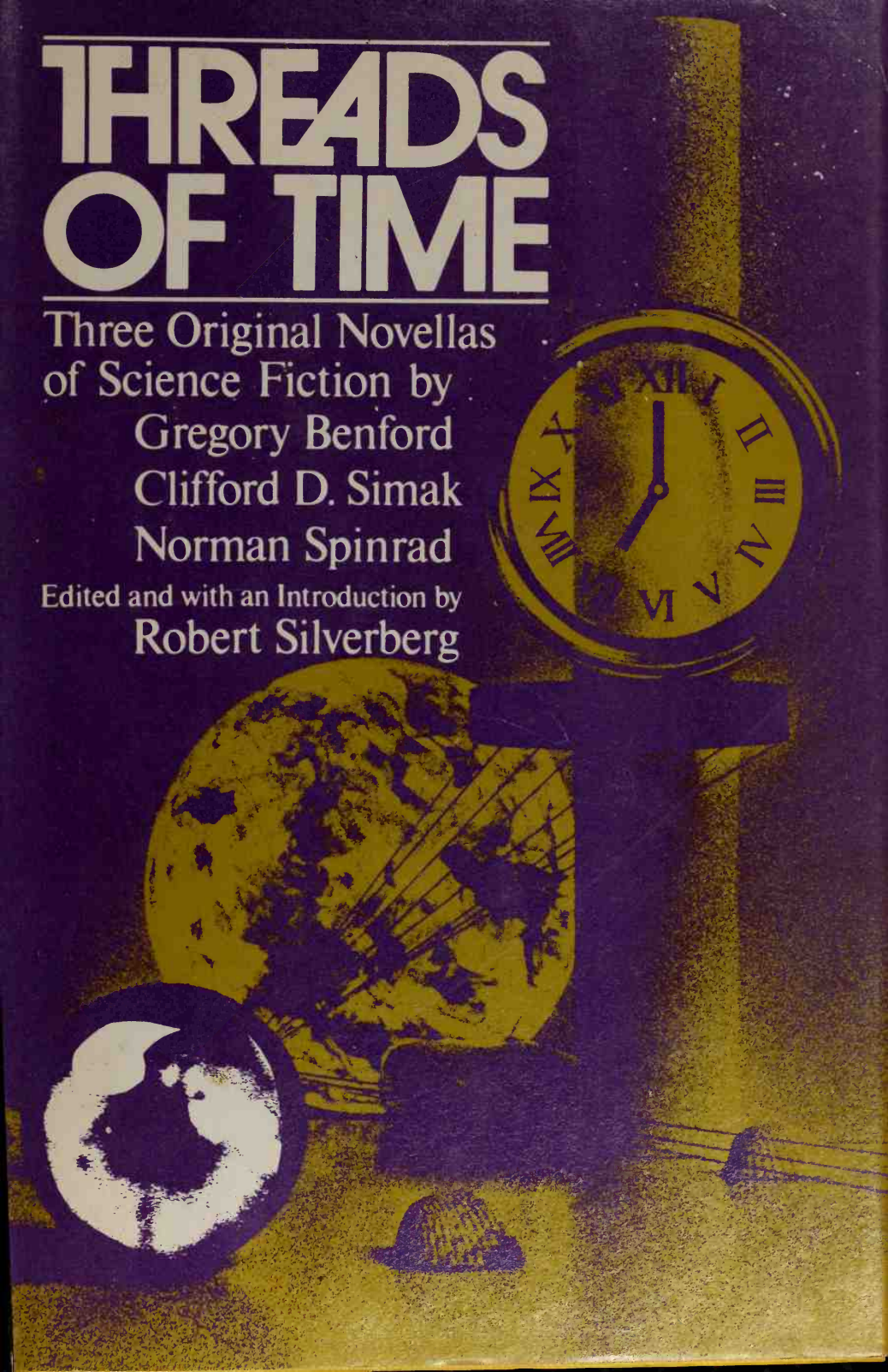
Gregory Benford

Clifford D. Simak

Norman Spinrad

Edited and with an Introduction by

Robert Silverberg



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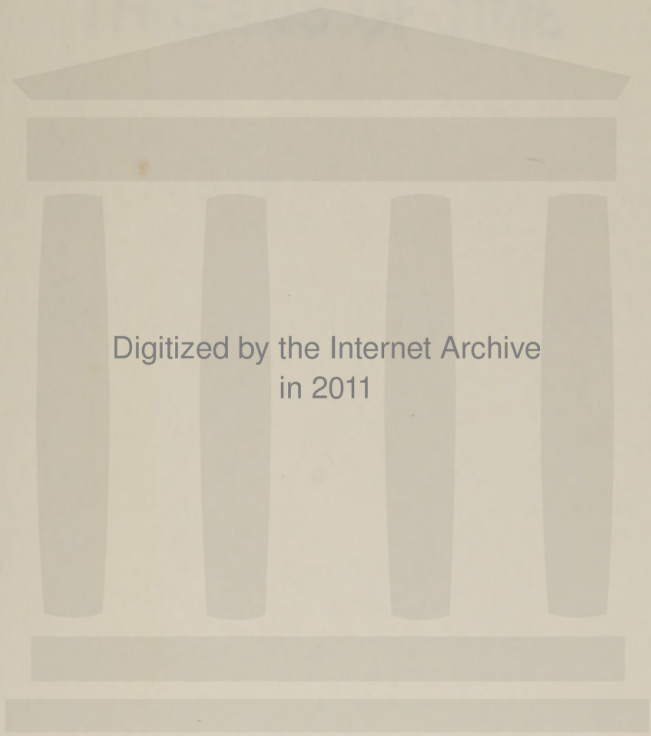
ROBERT SILVERBERG

THREE of the most gifted writers in the science-fiction field have pooled their talents to produce this exciting new collection of novellas. Longer than a short story yet shorter than a novel, allowing time for meticulous craftsmanship and careful characterization, the novella is an ideal form in which to present a writer's vision of a fabulous future. Whether it is the far-distant future or one we will experience in our own era, time is the element that binds all generations of mankind. Each of the writers represented in this book has used time as a theme for his story—either the physical changes it brings, the concept of alteration of ethical values, or just its separation effects.

In "Threads of Time," Gregory Benford introduces the reader to a crisis at a moon station, where a mysterious domelike structure has been discovered and threatens all who try to approach it. Veteran sci-fi writer Clifford D. Simak gives us "The Marathon Photograph," the story of two scientists who stumble on time travelers from four hundred million years in the past. And Norman Spinrad in "Riding the Torch," creates for us a world long sick of its own evil, which dies only to be reborn with a second chance to redeem itself.

Editor Robert Silverberg, himself a longtime writer of science-fiction stories, has commissioned these original tales from three masters of this creative and stimulating genre.

Book Club Edition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THREADS OF TIME

BOOKS BY ROBERT SILVERBERG

Revolt on Alpha C
Lost Race of Mars
Time of the Great Freeze
Conquerors from the Darkness
Planet of Death
The Gate of Worlds
The Calibrated Alligator
Needle in a Timestack
To Open the Sky
Thorns
The Masks of Time
The Time Hoppers
Hawksbill Station
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The Day the Sun Stood Still (*editor*)
Beyond Control (*editor*)
Deep Space (*editor*)
Sundance and Other Science Fiction Stories
Threads of Time (*editor*)

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INTRODUCTION

The term "novella" is a flexible one, embracing the entire range of fiction that is longer than a short story and shorter than a novel. It can be applied to any work from about 15,000 words to perhaps 40,000—stories that have ample breadth and scope but not the full intricate sweep of a true novel. Many of the masterpieces of world literature fall in the novella category—Henry James's *The Turn of the Screw,* Hemingway's *The Old Man and the Sea,* Faulkner's *The Bear,* Conrad's *The Secret Sharer,* Kafka's *Metamorphosis,* Tolstoy's *The Death of Ivan Ilyich,* and a long list of others.

The novella form seems particularly well suited to science fiction. One of science fiction's unique virtues is its capacity to create a vision of a detailed, richly inventive imaginary universe; but in a short story there is room for no more than a brief glimpse of the invented world, while in a full-length novel the requirements of plot and counterplot often become so great that the interactions of the characters eclipse the other aspects of the narrative. The novella, though, is an ideal length for that careful development of themes and ideas that constitutes good science fiction, minus the structural complications of the novel. The honor roll of classic science-fiction novellas is a lengthy one, beginning with H. G. Wells's *The Time Machine* and including such stories as John W. Campbell's *Who Goes There?,* Robert A. Heinlein's *Universe,* Lester del Rey's *Nerves,* Isaac Asimov's *The Martian Way,* Theodore Sturgeon's *Baby Is Three,* and dozens more.

Despite the artistic rewards to be found in novellas, they pose problems for publishers, since they are usually too short to be issued as independent volumes but too long to fit comfortably into the typical anthology of short fiction. One solution is a book such as this one—the length of a standard novel, but made up of several novellas by different authors. Three of the most gifted science-fiction writers—one an ac-

knowledged grand master of forty years' standing, one an established writer of the younger generation, and one just now coming into prominence—were invited to contribute long stories to this volume. The result is a trio of novellas never before published anywhere, which I think admirably display the special strengths and merits of this kind of story.

—Robert Silverberg

THREADS OF TIME

Gregory Benford

Gregory Benford was born in Alabama in 1941 but has lived in California for more than a decade. He is a theoretical physicist who holds a doctorate from the University of California at San Diego and is currently Associate Professor of Physics at the same university's Irvine campus, where the subject of his research is controlled thermonuclear fusion. Reading and writing science fiction have long been among his major recreations; his first short story was published in 1965, and since then he has published some three dozen more, two novels, and a number of articles on scientific subjects. He is the coauthor of a recent textbook, Astronomy and Life in the Universe, *and is at work on a new science-fiction novel.*

May 9, 2008, 9:12 A.M.

It came in an instant, neatly dividing her life.

A moment before Nikka had been serenely gliding over the crumpled, silvery moonscape. She was distracted, plotting her next course and chewing sugary raisins. Her sled was coasting through a series of connected ellipses, bound for nearside. She was looking forward to seeing Earthrise in a few moments.

There was a *thump* she felt more than heard. The horizon tilted crazily. She slammed forward into her harness and the sled began to fall.

Her clipboard spun away, there was the shriek of metal on metal; the sled was tumbling. She snatched at the guidestick and thumbed on the maneuvering jets. Some on the left responded. The right was dead. She brought them up to full impulse. Something was rattling, as though about to come loose. The sled lurched again, digging her harness into her.

The rotation slowed. She was hanging upside down, looking at the blunted peak of a gray-brown mountain as it slid by, uncomfortably close. She was still falling.

The sled was rectangular, all bones and no skin. She could see the forward half, and it seemed undamaged. Everything she had heard came literally through the seat of her pants, conducted along the struts and pipes of the sled's rectangular network. The damage, then, was behind her. She twisted around, got a partial view of tangled wires and a fuel tank—and then realized she was being stupid. Never try to do a job upside down, even if there are only a few seconds left. And she had minutes to go before impact, certainly. Whatever had happened behind —a tank rupture? a pipe blowout?—had thrown her into a new ellipse, an interception course with the low mountain range near the horizon.

She pulsed the maneuvering jets again and the sled rotated sluggishly. Something was forcing the nose down as she turned. She stopped when the forward bumper was nearly parallel to the horizon. She unbuckled automatically and turned. Impossibly, the right rear corner of the sled gaped open. It was simply gone—tanks, braces, supplies, hauling collar, a searchlight.

For a moment she could not think. Where was it? How could it have blown away? She looked back along their trajectory, half expecting to see a glittering cloud of debris. There were only stars.

Training took hold; she leaned over and punched the override button that glowed red on her console. Now the navigation program was disconnected. Since it had sounded no warning, apparently the circuits still believed they were bound on a geological survey, working toward nearside. She started the ion engine, mounted slightly below and behind her, and felt its reassuring purr. She checked the horizon—and found she was spinning again. She turned in her couch, somewhat awkwardly, for her spacesuit had caught on a harness buckle.

Yes; at the edge of the gaping hole there was a thin haze. A pipe was outgassing, providing enough thrust to turn the sled. She corrected with maneuvering jets and the sled righted.

She turned up the ion beam impulse and tried to judge her rate of fall. The jagged, pocked surface rose to meet her. She unconsciously nudged the control stick and brought the sled's nose up. Instinct made her do it, even though she knew on the moon no craft could delay its fall by gliding. No matter. On Earth she could have banked in with wings, but on Earth she would already be dead; the fall would have lasted only seconds.

The ion engine was running at full, but it could only do so much. She corrected again for rotation. The computer automatically kept the ion engine pointed downward, but it would only operate within a small angle. The outgassing was getting worse, too. The sled shuddered and yawed leftward.

She looked for a place to go down. The explosion—or whatever—must have deflected the sled downward, not to the side. She was still following her original course down a long, rough valley. The end loomed up ahead, a scarred, dirty-gray range of rugged hills. She corrected for rotation, surveyed ahead, then had to correct again.

There was a dull gleam ahead. Something lay buried partially in

shadow at the base of the hill line. It was curved, part of a dome crumpled against the hill face. An emergency life station? No; she had studied the maps and knew there was no installation anywhere near her route. That was why she was here, anyway—to chart some points in detail, study oddities, make borings for water tests. In short, to do the things photographs cannot.

She had been watching her gauges, so she was not surprised when the radar altimeter showed she was dropping too fast. The ion engine was not delivering full thrust. Yes, one of the missing tanks from the right rear fed the engine. She did not have even enough thrust to stay aloft. It was eerie, sliding along in dead silence, running down the long valley, like a bowling alley, toward the blunted, brownish hills ahead. The random splotching of craters below was sharp, clear; she would have to land soon.

Her course took her dead into the hill line. Two seconds ticked by—she was counting them now—before she could decide: drop into the valley, land on the flat instead of crashing into the steep slope above. Once made, the decision liberated her. She corrected for rotation again, checked her harness carefully, surveyed the damage one last time. The ground came rushing toward her. The dome—ah, there to the left. Damaged, broken, an incredible rubble at its base. It sat at the base of the hill like a copper decoration.

She picked a flat space and leveled the bed of her craft as well as she could. The damned rotation was too much; she spent all her time now correcting for it. Suddenly the spot she'd picked was there, almost beneath her, the sled was rotating, the nose went down, too far down, she—

The splintering crash threw her forward. She was straining so hard into the harness that she thought the sled was going to go end over end. It tilted, tail high. Everywhere there was dust, metal twisting. The tail came back down in the slow, agonizing fall of low gravity. There was a sudden fierce pain in her leg and Nikka lost consciousness.

May 9, 2008, 9:18 A.M.

It really was the old Telegraph Avenue, he thought. They really had preserved it.

Alexander Livingston ambled slowly down the broad walkway. Telegraph was still a broad pedestrian mall, the way he had last seen it in

the 1980's. On impulse Livingston hooked his hands into his hip pockets, a gesture he remembered from somewhere far in the past. There were few people on the mall today, mostly just tourists nosing about the memento shops near Sather Gate. A flock of them had gotten off the BART car with him and followed him up Bancroft. Chinese and Brazilians, mostly, chattering amiably among themselves and pointing out the sights. They had all stopped to read the plaque set in concrete where Leary died; some had even taken photographs of it.

A bird coasted in on the prevailing Bay breeze and fluttered to a perch in one of the eucalyptus trees dotting the mall. When Livingston was a student here in the late sixties, Telegraph had been still concrete, greasy restaurants and the faint tang of marijuana and incense. Well, the rich flavor of incense remained, drifting into the street from open shop doors. The dirty, noisy Telegraph of his youth had been an exciting place; great things had happened here. Now it was a more pleasant street, charming and soothing as it basked in the yellow spring sunlight. But the zest of the past was missing. The hub of student life had shifted north of the campus, and anyway Berkeley was no longer a caldron of the avant-garde. Now Telegraph was an embalmed tribute to its former self.

Mentally he checked himself: Was Telegraph living in the past, or only Alexander Livingston? At sixty-three such a question was worth pondering. But no—as he passed an open shop door the sounds of "White Rabbit" filtered out. Gracie Slick. *Surrealistic Pillow*. They weren't playing it right, either; that record should be so loud he could have heard it a block away. Livingston wondered what the Airplane would have thought of using their music to promote tourism. The Chamber of Commerce had done the same job on them that New Orleans did on Jelly Roll Morton. Livingston had flown up to Berkeley in the late seventies to catch the Soul Band just because it looked as though that same spirit were coming back again, but the revival never really got off the ground, in his opinion. Whenever the critics started talking about the Second Period he stopped listening.

Livingston shrugged and walked on, turning the corner onto Bancroft.

"Greetings of the day, sir!" a young man said to him.

Livingston realized he must have been concentrating on the Airplane more than he thought, or he would have overheard their chanting. Six

men and women were swaying rhythmically, singing in low voices and clapping. Four kept on; a man and woman broke off and came to join the man who had spoken.

Livingston recognized their clothes and emblems. "You're New Sons, aren't you?"

"Yes," the man said in a calm, self-assured voice. "We are here today to reach those who have not received the word."

"I have already."

"Then you are a believer?"

"No. I've been propagandized about it, though."

The woman stepped forward and said, "I am sorry the word has not manifested itself in the correct light for you. I am sure if you will but listen, we can bring you to the Integrated Spirit."

Livingston stopped listening to her precise words and stepped back a half pace. He let his eyes run up and down her slowly, in a speculative glance that could mean only one thing. It was an idle game, but he was interested to see if the look would embarrass her. The woman continued on in the same smooth tone, taking no notice of his glance. Well, Livingston mused, perhaps he had reached the age where his attentions would not even register with a young woman any more.

"Thus we proceed to fullness," she went on, and one of the men held up a card on which was written: *Universal Law. Absolute Guide. Eternal Truth. Golden Unity.*

"Look, you people have interfered with my life enough already," Livingston began. "I don't—"

"But, sir," the woman said, "we have but stopped you on the thoroughfare. We did not intend—"

"No," Livingston said wearily, "I didn't mean you alone. I mean all the New Sons who happen to be congressmen, senators, union bosses, and the like. You've gummed things up so much, an ordinary man can't run his life straight any more."

"We only seek to follow our own path—"

"Oh? Is that why my union is out on strike right now and I'm taking a forced vacation?"

"Oh, you are referring to the issue of prayer and meditation time," one of the men said. He smiled reassuringly. "Our Order requires us to spend these special hours of the day renewing our faith through times of quietness together. There remain some businesses which will not

allow us these times for our spiritual tasks. We are sorry this causes friction, but I would remind you that we do pursue our ends through peaceful means. The right to strike is basic—"

"I know, I know," Livingston said. "You think it's perfectly reasonable to ask for two hours off the regular work schedule each day. Don't you realize that will absolutely cripple industry, that's why this country is being sandbagged economically by China and Australia and—or doesn't that matter?"

The woman smiled at him and said warmly, "The things of the world have their place, but they must be seen in perspective."

Livingston grimaced. "Is that why some of your union goons beat up a couple of the fellows I work with? Jobs are scarce down in Orange County, and if the New Sons weren't so powerful, maybe this wouldn't matter. But this new rule of yours about taking time off from work—and making the businesses pay for it—is going to cut the guts out of our economy."

One of the men shook his head regretfully. "We have worked very hard in this country in pursuit of material things. It is time to put those aside and arise—"

Abruptly the four chanters turned toward Livingston and clapped their hands together smartly.

"Love you not God, sir?" they said in unison.

"Well—" Livingston began.

"God is the Father. We love the Father. We love the universe. The universe *is* love!"

"We love God," the woman said in singsong. "We love you, brother."

"We love him, we love him!" the chanters sang.

"We love *you*, brother. We love *you*."

They paused. Livingston remembered an old joke.

"Can't we just be good friends?" he said.

For a moment the New Sons didn't know what to say, and Livingston took advantage of this to turn and walk back to Telegraph. He was a wiry man who could move quickly when he wished; he walked around a small grove of slender redwoods that blocked him from further view by the New Sons. Livingston put the incident from his mind and concentrated on the moist scent of the redwoods, the gathering crisp heat of the day. He moved along, looking in the windows of shops. Behind him the chant of the New Sons began again. A block further on lay

the organic open markets, where small farmers from the surrounding areas displayed their garden crops. He stopped at a street stand and bought an artichoke frittata. The small nut-brown vendor offered an oily mustard sauce, which Livingston had never seen before. He tried it and found that it cut the fried taste quite satisfactorily.

Across the way another tourist shop was playing music. He recognized the melody as an old Stones number, but the lyrics were new:

> Idiosyncratically
> Most sympathetically
> Itchin'
> And twitchin'—

He gathered this was the work of one of the derivative bands, probably the Flamin' Gypsy Bandits.

He finished the artichoke, licked his fingers, turned—and saw her. A hand clutched at his heart. He froze in midstride, studying her jawline, the same sleek brown hair, the same delightfully curved nose, the slight upward turn of the lip. And then she tilted her head to look into a shop window and he saw that it was not Judith. It never could be, not any more. Judith had been dead four months, and he had seen her this way now three times, mirrored in the face of a stranger seen in a crowd. It was the only way he would see those features again other than in the frozen memory of photographs, for they had no children. Children. Yes, sometimes they are only a parody of their parents, but at least they form some fleeting connection, some bridge across time. He and Judith had elected to have none, an idea common in the sixties and seventies, which reversed in the eighties, when children suddenly became a major luxury. So odd, to run one's life by fashion.

"Something wrong?" The small brown artichoke-seller was tugging at his sleeve. Livingston blinked, murmured something and walked away.

He tried to focus his attention back on the Telegraph he remembered. He walked down side streets and studied the architecture—mostly California Eclectic—looking for places he could recall. There were precious few. He browsed through craft shops, studied lapidary work, skirted across the greenswards of the University. The buildings seemed to waver in the shimmering light. He located a few of the classrooms

where he had struggled to join the white-collar class. The rooms seemed impossibly cramped now, dark and cluttered, with floors of broken linoleum. He remembered learning things in such rooms, mostly subjects either trivial or unimportant to what he eventually became. Carpenters have little use for ancient history, but Livingston was rather glad he had learned it anyway.

He circled back to Telegraph and searched out the Michoacan Shop, R. Glickman, Proprietor. It was next door to a student restaurant that advertised, improbably enough, that one could eat oneself into a stupor for five dollars. The interior of the shop was dark and musty, as befitted its trade. He asked at the counter but Bob Glickman was out, on a buying trip. Livingston vaguely remembered Glickman as a convenient source in his student days. The shop, though, had little of the old Berkeley ambience. It was a tourist trap with dayglo Grateful Dead posters on the wall, the bins of imported marijuanas neatly labeled and overpriced, the air layered with expensive incense. In the back Livingston found a wine room—he remembered that Glickman had always been adept at playing both sides of the same street—which proved much more interesting. The canonical ensemble was well represented: Mayacamas, some Martini Private Reserve, some great Parduccis from the late seventies. Livingston smiled wryly. He remembered all these well, but he could scarcely afford to drink them now. The great days of California wine had ended in the nineties.

He turned the smooth dark bottles over and over in his callused hands, admiring the yellowing labels. Only the South Americans or the Australians could afford to buy these today.

He went back to the front of the shop and asked a salesman if there were any good, cheaper wines coming out of Oregon or Washington. The salesman looked at Livingston for a moment, as though judging his income, and then led him around to a dark cranny in the back.

"We have some excellent Saint Michelle vintages," the man said distantly, taking several from a wall bin. "The Yakima Valley is doing very well still, and some inland—"

"I didn't mean the very best of the area," Livingston said. "A solid Johannisberg Riesling, maybe, from a new house."

"I'm afraid we don't carry such things," the man said quickly, dismissing the subject and Livingston in one breath. He made a show of putting the bottles back and then edged away as he pretended to

straighten other items on the shelves. Livingston noted this, but it did not bother him any more; salesmen in places like this assumed that if you had the manner or the clothing of a manual laborer you were either stupid or poor or both. And anyway, he had better things to think about; he was distracted by the map on the wall. It was a tourist map of Oregon, a schematic display of the mountains and plains areas with inset photographs of waterfalls, trees, and sweeping horizons. Livingston's eye quickly picked out the lack of roads, the small size of the cities and towns, the twisted fingers of so many rivers. He remembered the long vacation he and Judith had taken there in the eighties, and how idyllic it seemed. Maybe that was what he needed now. There still weren't many people in Oregon.

He studied the map intently, until he noticed the salesman getting fidgety. Livingston deliberately took his time in leaving, and stopped to sniff several of the blends displayed in their lacquered boxes before ambling out the door. He turned up Telegraph toward the University.

"You seem troubled, brother," a voice said at his elbow. "Very much on the physical plane." It was a thin, wiry man of indeterminate age, with deep-set black eyes.

"I'm not really in the mood for—"

"I'm A. K. Main, brother, Mr. Main, the Main man. The personal and exclusive representative of the DNA code on the physical plane in this form at this very moment. Trying to shed my skin of fear and join in the cosmic river flow of ecstasy."

"Any relation to Harry Krishner?"

The man followed Livingston intently along the mall, speaking quickly. "No connection. Many of them have found the Knowledge, speak with us, have come to the New Sons of their own, but our beliefs are completely different. The Hares are not stopping the flow but they lie athwart it. They're the status quo semper, y'see. But you, friend"—he tugged energetically at Livingston's sleeves—"you can open your eyes, nose, mouth, ears—all your openings—and jump into the flow. God has given us the New Revelations. God seeks to become conscious of himself, acting through us."

"Almost anyone can become a New Son, can't they?"

"Friend, each of us is trying to manifest ourselves as a clean conductor of energy, signal to noise ratio nil. Nirvana and Samsara are the same, if that is your faith. As the Principal says, reality is not free—

you have to pay for it. What you pay is attention. Alter your set. The universe always gives you what you ask for. Why not ask for everything? Manifesting yourself—"

Livingston abruptly came to a halt. "I'll try not to be subtle," he said, smiling coldly. "Go away."

The man faltered for a moment, his lips half-forming words, and Livingston strode away.

He cut across the campus again toward the BART station. He had planned to spend the entire day in Berkeley, but he could see there was nothing for him here. This wasn't the Berkeley he remembered; that was dead. Without Judith there didn't seem to be anything left for him in California. He had come here to go to the University when the state was just opening up, about to become the kingpin of the whole western upsurge. Well, it had been fun. There was a lot going on here. But now it seemed to him California was degenerating into irrationality and self-satire.

It got its name, he recalled, from mythical maps. Calaphia, a beautiful virgin queen who ruled a fecund land populated by passionate Amazons. Spanish for warmth, oven. Probably—he nodded in tribute to the psychology building as he passed it—a Freudian symbol for mother, womb.

But the New Sons were running everything, had taken over the legislature, were pushing their pig-stupid ideas down everyone's throats. Livingston didn't know when he would be able to go back to work. The strike might last for months, and anyway there was damn little construction carpentry to be done. He couldn't support himself doing custom carpentry because people didn't have that kind of money any more. He had half thought that perhaps the Bay area would be better, but the same dark currents were running here. He sighed, thrust his hands into his pockets and slowed his pace. There didn't seem to be any place to run. California was dead for him. Maybe Judith had killed that. Better for him to go somewhere else entirely, live alone without all the familiar connections and strings. Somewhere up in Oregon, yes. He could do it. He had a good deal of money saved, Judith's insurance, a small payment due from her computer programming company, some Union Fund certificates for cash. Better to get away from this madness now.

He stepped up his pace again and felt better. He was going to do it,

it felt right. As he approached the BART station through the haze and smog he could make out a crescent moon high above San Francisco.

May 9, 2008, 9:27 A.M.

The scene played itself out for her again. That afternoon she and Todd had played tennis, as usual, then quick showers and a drink in a small bar nearby. But this time Alicia was waiting for them in the bar, and as Nikka looked on, she and Todd unraveled their story of deception, intrigue, snickering assignations in friends' apartments, all covered with a thin veneer of professed love, it's-all-for-the-best-Nikka, we're-all-adults-here, it's not really the sexual thing at all, you understand, and on and on and on. She came home afterward and carefully, neatly put away her tennis racket and clothes. She took another shower. She drank something warm and alcoholic, she couldn't remember quite what. Then she thought she would lie down for a moment, and she remembered well the sensation of falling onto the bed, of an absolute limitless time involved in the downward flowing toward it, of it seeming to take forever. The falling, that was how she remembered Todd. That was the end of it, the injured center of the self plunging down to absolute dark oblivion. She had stayed there three days, never getting out even for food or the doorbell or the telephone, sure she was sick, sure she was dying, hating herself for never saying anything in the bar, always being silent and pleasant and smiling. Nodding when they said it all, nodding, understanding, and all the time falling helplessly backward into that swirling black, falling—

"Alphonsus calling Nikka Amajhi. Alphonsus . . ."

Slowly she came out of it. The cobwebs of memory faded. She shook her head. Her leg throbbed and she moved it reflexively, which made it hurt more. She looked down at it and saw a sheared strut jammed against her thigh. The porous elastic mesh of the skinsuit was intact, though, so she probably only had a bad bruise. She fumbled—and the radio monitoring light went on with a reassuring glow.

"Nikka here. I'm down at"—she read the coordinates—"from unknown causes. Something blew the back off my sled."

"Injuries?"

"Don't think so."

"We got your Mayday some minutes ago. There's no sled near there,

but another survey craft has just changed course to reach you. It's pretty close and I think it can be there in a while."

Nikka noticed something on the dash and suddenly froze. "Hold on. I'm checking something." She worked quickly and silently for several minutes, unbuckled herself from the pilot's couch and awkwardly—her leg was throbbing—climbed halfway down the sled to check connections. In a few moments more she was back in the couch.

"I hope that survey craft hurries up."

"Why? What's wrong?"

"I just checked my oxygen reserve. I have about fifty-six minutes."

"Is that your emergency bottle? What happened to the rest?"

"It wasn't a very soft touchdown. My wheels blew and the front end pranged."

"Better check the front." The voice from Alphonsus had suddenly acquired an edge.

She got down, taking the general-purpose tool with her, and worked on the front of the sled for several moments. It was a mass of twisted metal and wire. Nikka could slip her fingers to within a foot of the oxygen bottles there, but no further. Her skinsuit gave her good manual dexterity, and she knew she could probably worm a few fingers closer to one of the bottles, but at that angle she still could not remove the seal. Most of the bottles had ruptured on impact, but two might still have positive pressure. For several more moments she pried at the front of the sled, rested a moment, and then tried again. Nothing moved.

"Alphonsus."

"Right. Survey craft 105 should be there within ten minutes."

"Good, I'll need it. I was running on direct air lines from the bottles in front. The line vacced just after landing—the cylinder I was using ruptured. I guess I blacked out. My console switched my line to the emergency bottle behind the couch and I'm running on that. The forward bottles are pinned in by tubing and the bumper. The nose is completely folded back over." Nikka looked up at the sky. "I should be able to see that—"

There was a brilliant, soundless flash. Something came out of the coppery dome on the hillside and arced away. Above the distant horizon there was a sudden yellow explosion, a ball that thinned and disappeared in a few seconds. "Something—" Nikka began.

"We've lost the survey craft, 105. Their carrier is gone." There fol-

lowed a babble of voices that went on for several minutes. Nikka stood silently looking at the great dome about three hundred meters away. It was immense, definitely artificial, a dull crushed ball clinging to the hillside. The sudden flash seemed to have come from somewhere at the base.

It was several minutes before Alphonsus spoke again. "I'm afraid something has—"

"Never mind, I know. I saw it happen. That ship is gone." She described the dome. "I saw it shoot at something over near the horizon, around coordinates"—she estimated the numbers and gave them—"and it made a hit. That must be what blew the back off my sled. The people in the 105 weren't so lucky."

There was a silence, punctuated by bursts of solar static. "Nikka, look, we don't understand what's going on. What is that thing?"

"Damn it, *I* don't know." She paused. "No, wait, there's only one thing it could be. Obviously we've never built anything like this. It's huge, and it looks like a sphere that crashed here."

"Maybe. Look, this is pointless. We've got to get something over there to have a look at it and pick you up. That's what I've been worrying about. With all the time we've lost, I don't think we can get any craft to you, even if we can be sure it wouldn't be destroyed."

"That's what I've been thinking. I have about half an hour left." Nikka said the words but she could not believe them. Half an hour was nothing, a long telephone conversation, the length of a news program, the time it takes to commute to work.

"God, there's got to be a way out of this. Look, the whole front end is designed to interlock. Can't you take some of it apart and get at the bottles?"

"When everything was *straight,* it locked. I've tried prying things loose and it's impossible."

"Those thirty minutes assume movement and exercise. That's only an average. Why don't you lie down and relax."

"I'll never make it. I might pick up another fifty percent that way, but how fast do you think my metabolism will slow down after something like this?"

"Good point." There was another drifting silence.

There did not seem to be very much more to say. The simple

arithmetic came out only one way, no matter how you did it. She wasn't carrying a torch, so she couldn't cut away the metal in front.

Alphonsus was saying something, but she couldn't focus on the voice. She sat and looked out at the rugged plain, dotted with boulders, cratered, sleeping silent in the glaring day. And soon—in less than an hour—she would join them. It seemed so incredible; an inch away, just beyond the plastiform faceplate, was total vacuum, total silence, total death. She was a bubble of vapors and fluids, musk and acrid saline tastes, muscles and instincts and *life*. Only a thin skin separated her from this dead world, and soon there would be even less distinction.

"Nikka Amajhi. Nikka Amajhi."

"I'm still here."

"We've been trying to think of something, but—"

"There isn't anything."

"Is there anything nonregulation on your sled? It isn't regulation, but you might have taken along a torch or some extra tools or—"

"No."

"Well"—the urgency crept into his voice—"look around you. There might be something—"

"Wait." Nikka thought furiously. "I can't possibly lever the front end off those oxygen bottles. You know why I was chosen to do all this survey work—I'm light, small, so I conserve on fuel. I mass about a hundred pounds. I can't brute-force my way into anything."

"Yes, I'm afraid—"

"Listen. I'm going to try to get into that crashed dome over there. Maybe it's pointless, maybe the damned thing will kill me, but that's all I can do. I'm going to walk over there now."

She cut him off before he could say more. Walk to it, no; she ran, knowing the difference in oxygen consumption was not that much. She felt a surge of energy, a quickening of the pulse. It was good to be on the ground again, free, not falling like a helpless wounded bird.

She was so carried away, so sure the coppery thing spelled salvation, that she was totally unprepared when she ran smack into nothingness. Her nose slammed into her faceplate, showering the helmet with tiny red droplets of blood. She fell in a tangle of arms and legs.

She sat up, shook her head. Something buzzed in her ear; her life-system, reporting the blood. She worked a control on the back of her

helmet, and a tape brought a coagulant pill around on a loop near her mouth. She took it, had some water, and stopped to think.

It was hard to focus on things. Her head throbbed and there was a gritty taste in her mouth. The impact had destroyed that bounding certainty in her, but she forced herself to get up and stand.

At first she thought she must have stumbled, but no—there were the marks in the dust where she slid backward. She must have hit something. But there was nothing there.

Nikka stepped forward, reached out and felt a definite pressure against her palm. She ran her hand up and down, to the sides for several meters each way. Something invisible—she almost laughed at the thought—was pushing against her hand. No, not pushing, just there. Solid, a wall. She pulled her hand away and looked at the palm. It had a curious mottled look, clots of brown and orange against the black plastiform.

Partly from caution, but mostly because she needed something to do while she tried to think, Nikka turned and walked back to the sled. The invisible wall was at least a hundred meters from the dome, and she began to have an inkling what it was. At the sled she selected a long piece of tubing wrenched free by the impact and went back to the wall. She thrust the tubing forward, made contact and held it firmly against the pressure. No, it was not a solid wall. She could feel a curious soft resistance to it; the pipe went in slightly and stopped when she could push no harder. She held it firmly, waiting. Nothing seemed to happen. After a few moments she drew it back.

The end of the aluminum pipe was blurred, indistinct. It had melted. Somehow this obstacle was delivering heat to whatever thrust against it.

Despite her impatience she felt a sudden cold fear. Holding the tube against the steady resistance, she turned and walked. The invisible wall did not come to an end. After three minutes of walking she stopped and looked back. Her footsteps described a large, gently curving arc with the dome at its center. She blinked back sweat, feeling it sting her eyes and wishing she could rub them. There did not seem to be anything more to do except carry on. She walked on, tracing out the curve of the invisible wall until she came against an outcropping of rocks at the base of the hill. She was no closer to the dome, and minutes had trickled by.

She turned and walked back toward the sled, stumbling in the gray

loose rock of the valley floor. She knew with grim finality that she was never going to reach the dome, never going to find anything to help her. Help was far away. She had no way to get to the reserve oxygen bottles, even supposing some of them were not ruptured.

A strange feeling of dread and despair rose in her as she looked back at the strange shattered vessel. Alien. Hostile.

She stumbled again, kicking up dust. Was that it—the first sign of oxygen loss? She bit her lip. The first sign was an excess of carbon dioxide, they said. Her lungs would react to that rather than to the lack of oxygen. She stepped over the lip of a small crater. A boulder had rolled into it, crushing the lip on one side. She sagged against the boulder and found a place to sit. She suddenly noticed that she was panting. There was a sour, acrid taste to her breath. She hoped it was a sign of fatigue and not something worse. How long did she have? She checked the time and tried to estimate her air consumption rate. No, she couldn't trust that. She had been running, working—she could have anything from ten to twenty minutes left.

She remembered the lectures and the diagrams about oxygen starvation. They seemed distant and unreal. Bursting capillaries, straining heart—just words.

She grimaced. There was nothing to do but sit here and pass the time, wait to die. That was why she was here anyway, because she waited for things to happen. If she had stood up and said she didn't want this job, they wouldn't have sent her out here. Her flight reflexes were excellent, and yes, she was light. They had checked all that and more. But she had always felt uneasy about it, as though she were missing some ability the others had. Maybe simple mechanical abilities—she was an electronic technician, really, not a mechanic.

But she was qualified. She could spot the likely sites for water boring from above and pilot skillfully around them for a better look. She was young and had endurance and was reliable. So she started the flights and got used to them, coming and going on her own schedule with the warm, smug feeling of being free to travel on a world where others spent their days in cramped laboratories, buried ten meters inside the moon's gray skin.

Come a quarter of a million miles, she had told her parents, to be locked inside? See so little of those cold hard mysteries around them,

have no adventure? So she thought, after a while, and forgot the danger.

It was easy to relax into the routine, just as it was so deliciously simple to say nothing when they said they wanted her to learn the sled's acrobatics, memorize the quilted green map, make herself ready.

It was the same with Todd back on Earth, before all this. She had sat there certain of her status, sure Alicia presented no threat, and the girl took Todd away almost without a nod. She had let Alicia take him, found it easier to be silent and pleasant and smiling, the same way she was forced into this job. And now she was going to die for it, gasp out her last breath because she recoiled from the heat of conflict, couldn't take that tight nervous clinching in the stomach—

Slowly, very slowly, she stood up. The idea was only a glimmering, but as she turned it over in her mind it became real.

But could she lift the sled? She'd never tried. Was there some way to do it? Alphonsus would know; they had more experience in these things, she could call and ask—ridiculous, no, there was no time for that. She turned and started walking smoothly, evenly, saving her energy. The dust crunched beneath her boots, and she studied the sled intently as she approached.

Black shadows hid some detail, but she was sure the knock-off joints near the couch were not damaged. The sled was made for quick disassembly, segmented into modules that separated for maintenance.

Lift it? Impossible; it massed nearly a ton. Nikka began to work. She disconnected pipe networks and wiring configurations and split off several of the supply flasks. She worked quickly, methodically, measuring each movement to conserve energy. Each valve seated firmly, each strut folded away. The knock-off joints snapped away cleanly and the sled broke in two. The tangled mass of the front was free.

The landing wheels were hopelessly crushed, but the front section was lighter than the other two thirds of the sled; the ion engine was most of the sled's mass.

Nikka walked around to the crumpled fender and found two good handholds. Even bent over in the light gravity, she could still get good footing by brushing away the blanket of dust beneath her boots. She set herself, got a good grip, and pulled. The sled section seemed to resist, caught up on a small outcropping, and then slid over the dust. She grunted, pulled. It slid farther. The dust was a good lubricant, and

once started, the sled section would slide for several feet with one pull.

Gradually, she worked it toward the hillside. It left a ragged track in the brownish dust. She lapsed into a rhythm—pull, take two steps, scrape dust aside so that she could get a good purchase on the rocks beneath, pull again. Her arms and legs strained and her back ached. Her air was beginning to foul, curling through her helmet with a weight of its own. It was a long, weary struggle to the invisible shield, but each step brought her closer, and after a while her euphoria made the sled section seem lighter. She almost thought she could hear the brass as it scraped over rocks, mingling with the crunch of dust underfoot.

She should have called Alphonsus. They should know what she was doing. But they would find the dome whether they reached her in time or not. She was absolutely alone; life depended solely on her own effort.

Nikka was panting heavily by the time she reached the invisible demarcation. She bumped into it, nose pressing against faceplate. She remembered the bloody nose and noticed the caked dry blood inside her nostrils for the first time. It seemed as if that had happened a year ago.

She stopped and studied the air bottles, rejecting the ones with obvious splits or burst seams. There were two at one end that seemed intact, but she could not read their meters because of the twisted metal wrapped over them. Stopping only an instant to judge, she detached a strut and wedged it under the sled section. By leaning against it she forced the front part of the sled against the invisible shield.

She couldn't be sure this would work. The aluminum pipe had melted, but the sled had steel and alloys in it that might not. She leaned against the strut, keeping the pressure against the part of the sled nearest the bottles. In higher gravity she would not have been able to lift the sled, even with the strut as a lever arm, but on the moon she could. Her shoulders ached and her back felt as though quick darts of flame were shooting down it. She could see no change in the sled bumper, but then it slipped slightly to the left. She adjusted her footing, moved the strut to support the sled's weight, and then saw that a dark fluid was dripping slowly downward from where the sled had been. It must be liquid metal, running down the face of the shield. Nikka tilted the strut forward, increasing the pressure.

After some moments the front face of the sled began to blur and run together. The twisted metal sagged at one point, then another. Slowly,

agonizingly, a thin stream of liquid metal began to run down the face of the invisible shield. A thin gray vapor evaporated from it, and the liquid metal collected in spattered pools on the dust below. The sled tilted, slid, tilted again—each time Nikka adjusted her balance, canted the strut to better advantage and kept up the pressure.

Through the film of perspiration on her faceplate she judged the shifting weight of the sled section and tried to compensate for it. Her air was getting thick and close. She had to struggle to focus her attention. Occasionally she glanced up at the crumpled copper dome above. An hour or two before she had never seen it, never suspected she would find something so strange and alien in the midst of a geological survey. If she ever got out of this she was going to find out what that dome was and why there was a shield around it. Perhaps it was all random, defense systems acting sporadically without knowing what they were doing.

The sled was tilting to the left again, and she quickly brought the strut around to correct its balance. The liquid metal now ran in a steady stream; a vapor cloud formed above the sled. The twisted metal slowly gave, rippled and flowed away; in one quick rush the last obstacle to the oxygen bottles melted and was gone.

Nikka dropped the strut and frantically climbed over the sled. She twisted at the oxygen bottles but they refused to budge. She leaned over, feeling the blood rush suddenly into her head, and struggled to focus her eyes. A pipe had lodged against them, pinning them in their mounts. She pushed futilely at the pipe and tried to dislodge it. It was stuck.

She scrambled back to the side of the sled and found the strut again. If she forced it against a rock—there, that was it—and tilted the sled, so. Yes, it rose up again, presenting the pipe to the invisible shield. She wedged the strut into place and then worked her way around, near the shield so she could use her body weight against the sled and tilt it further over. She strained against it, the sled gave a bit and then the pipe came up against the shield. Her hands were wedged firmly against the pipe, and she could see that her right upper wrist was being forced slowly against the shield. The weight of the sled shifted further and pinned her hand.

She had to decide—drop it and start all over, or let the shield work against both the pipe and her hand. She decided to leave things alone. The pipe was already hot; she could see vapor rising from it as the metal

boiled away. She shifted her hand as best she could to relieve the pressure, but she could not get it away from the shield.

She waited, adjusted her feet again, and studied the pipe intently. Its firm edges began to blur and run together. She could feel nothing in her right hand. Nikka tried to move her fingers and got some faint sensation as reward. She braced herself and pulled as strongly as she could against the pipe. It slowly gave, bending away from the shield, and an oxygen bottle popped free of its mount under the pressure.

She was gasping. She grabbed the bottle as it rolled across the sled and forced open its safety warrant valve. There was no answering reading on the smashed dial. She held a finger against the nozzle and felt no pressure. The bottle was empty. Without thinking, not allowing herself to feel any despair, she reached for the next bottle.

The pipe still forced it against its mount, but she wormed it away and the bottle popped free. This was it, she thought. There were no other bottles left not already ruptured. Nikka tripped it open and the meter registered positive. She swung it around to her back mount without hesitation, screwing the cluster joints into place automatically.

The gush of air washed over her in a cool steady stream. She collapsed across the sled section, unmindful of the invisible shield, the tangled metal that gouged her even through her suit, the glare of the sun above. The bottle was good for at least three hours. If she rested and kept still, Alphonsus might get through.

Something tingled at her wrist and she lifted her right hand to look at it. Against the mottled colors of the plastiform there was a spreading red patch.

The tingling sharpened into a dull, throbbing pain. As she watched, the blood ran down her wrist to her elbow. She lay absolutely still. She was bleeding into free space. Her suit fitted firmly against her skin, so the rest of her body felt no immediate pressure drop.

As she watched, a small group of bubbles formed in the blood and burst slowly. A thin veil of vapor rose from her hand as the blood evaporated.

She was absolutely frozen. Exposure to vacuum meant death, surely. How long did it take? A sudden pressure drop should force nitrogen narcosis. How long? A minute, two? She took a deep breath, and the air was good. It cleared her mind. She looked up again at the dome, seeming to loom over her. Her wrist was framed against it; blood against

metal, life against machine. She lifted her feet and rolled smoothly off the sled. Her ears popped; her body pressure was dropping. It was a hundred meters to the sled. In her repair kit there was tape, organic seals—something to close off the wound.

She took a step. The horizon shifted crazily and she almost lost her balance. A hundred meters, one step at a time. Concentrate on the one, only one. One step at a time.

Her ears popped again, but by now she was moving. Scarlet drops spattered into the dust. The pain had turned into a fierce burning lance.

She slipped and quickly regained her balance, and in the movement glanced back for an instant. The silent and impersonal dome loomed above her. In less than an hour it had done all this to her, brought her to the edge; perhaps it could do more. But she was in charge of her life at last; she wasn't going to simply let things happen to her. And she was damned if she was going to die now.

OPERATIONS REPORT, MAY 13, 2008 (FIRST DRAFT)

Ted, I'm sending this out as an informal letter rather than the whole formal song and dance because I just don't have the time to do anything more at the moment. As the Duke of Wellington said, "Sorry this will be a long letter but I don't have the time to write a short one." You know by now that Jacobson's idea about sending that light reconnaissance flier 89 was a good one. Three men took it over Mare Crisiun at exceptionally low altitudes. Nikka Amajhi's description of the—hell, I don't know what to call it, let's just say it's a ship and let it go at that—ship's position told us it had a blind side, since the hill it was lying on masked most of the sky in that direction. Number 89 landed a few kilometers away from the hill and just walked around it. It was dead easy. They got to Nikka in time, and although she was in shock she appears to be O.K. now.

Now the bad news. There is nothing left of 105. We haven't found a trace anywhere. I think something hit its fuel and simply blew it to pieces. Before we release this to the press I will personally call each of the men's families. Unless you'd rather do it.

O.K.—What is it? That damned ship has already killed five men, and Nikka only survived because she was smart and tough. The men in number 89 confirmed everything I mentioned to you before. It has some

kind of screen around it, apparently high-frequency electromagnetic, though we can't be sure. We're going to try a drone craft to see what sort of senses it has and find out what happened to 105.

This is potentially an incredible find. At the moment we don't know how old it is, who left it, how to even reach it—that screen is incredibly powerful—or how dangerous it is. Who knows, maybe it could shoot at the Earth itself, except by luck the thing crashed on the other side of the moon.

What I still don't understand is why we never saw it before. Even routine surveys should have picked up something that big and bright.

What I want from you is the go-ahead to try to get through that screen. I know it will take some time and you will probably have to go all the way through the NSF and the President to get permission, but I think that's what we're going to end up doing eventually anyway. I just want permission to start thinking and working on the problem.

The formal version of this will come along in a day or two; my secretary always rewrites this stuff anyway. Top secret, of course.

(signed) John Nichols

Enclosure: Mare Marginis Map and course of craft number 89.

October 17, 2008, 3:37 P.M.

The Many Paths Commune was larger than he had expected. Alexander Livingston had already found five tumbledown shacks, cabins, or sheds within two hundred meters of each other. Since the property extended at least a mile along the riverbed, there were probably many more such ruins.

Puffing slightly in the chill air, he angled down the face of a hill. The deer had worn their own vast system of interlocking trails. The hillside was wrinkled like a face, but the early fall rains had already blurred the paths again. Livingston had tried to follow the deer trails, but it was hard to keep each step along the way from starting small landslides. He worked his way down toward the river. Half hidden ahead was a large Fuller dome. Whatever had covered it was completely gone. The beams were of solid pine, but the joint connections were rusted and decaying, and several had broken away.

This must be the main cabin, where the patriarch had lived with his reported two brides. The people in Dexter who had rented him this site were full of stories about the rise and fall of the Many Paths, most of

them rumors about sexual excesses committed by the patriarch. Livingston still didn't have a clear idea why Many Paths had failed after twelve years. The most prevalent theory in Dexter was that the patriarch had had one revelation too many about the nature of expansive love. There were rumors of a murder or two that finally split the commune into factions.

Livingston stopped to rest by the dome. A rusted stove and some scattered brown bottles lay in mute testimony to the impermanence of man's things. Further away there was a pile of lumber that might have been a woodshed, and a lean-to outhouse near the river. The current was fast and deep now, rippling the cold water. The stream bed was filled with rocks and boulders of all sizes, and a tributary creek exposed high, layered walls of conglomerate soil.

Livingston studied the area. The cropland nearby was rocky and unforgiving. It seemed more likely to him that Many Paths had failed for economic reasons rather than social ones. Apples and a few other crops took to this sort of land, but he couldn't conceive of making a living by farming here.

Livingston made a trail through rotted leaves and loam back toward the cabin where he lived. He smiled to himself. The Many Paths people were probably city kids—(kids? He reminded himself they were probably his age by now)—full of idealism and guilt. He could vouch for the fact that they knew little of carpentry. The support beams in his cabin were inaccurately laid, and the shank fasteners were not driven in far enough. The rest of the cabin was adequate, though, so probably there had been somebody reasonably competent around when it went up. It was the only building left that was livable, mostly because Dexter folk had repaired it over the years and used it as a hunting lodge.

Livingston didn't hold very much with hunting, though he was no vegetarian. He hated seeing things die. It was alarming enough to note what an enormous effect your near passage had on the forest, an unknowing giant lumbering through web after fragile web of biological universes. Livingston studied the deep bed of moist leaves he was walking over. Every step he took crushed a world. Chop a log for firewood and suddenly a panicky swarm of ants is covering the axblade. Move a stump in your way and a hibernating black salamander finds himself in the middle of winter and scuttles away. Kick a rock and a frog jumps.

He stood by the creek listening, and something caught his attention.

A rustle of leaves, the faint snap of a twig. Something was moving along the opposite bank of the creek. A thick stand of pine blocked his vision. Livingston could see a dark form flitting between the trees. It was difficult to judge distance and size in the quilted shadows, but the form was certain: It was a man. Livingston brushed aside a fern frond to have a better look, and instantly the shadow across the creek froze. Livingston held his breath. The dark form among the trees seemed to slowly fade away, with no detectable sound or sudden movement.

After a moment Livingston could not be sure he saw it any more at all. It seemed odd that a man could disappear so silently. For a moment Livingston wondered whether he had really seen anyone there or whether it was his own isolation playing tricks with his eyes. But no, he had heard the sound, of that he was sure.

Well, there was no point in getting jumpy about shadows in the woods. He decided to put the matter out of his mind. But as he climbed upward toward his cabin, some uneasiness remained, and he unconsciously quickened his pace.

October 19, 2008, 10:07 P.M.

Peter Graves lay on the cheap motel bed with his thick leather boots hanging over the end.

"I don't care, wake her up. What's she going to bed for this early anyway?" he said into the telephone receiver. Irritably he began to unbutton his heavy jacket.

"Hi. How's it going?" He paused. "No, no luck. I'm not in California any more at all."

He listened for several minutes. "No, I didn't visit your mother in San Francisco. I told you I wouldn't and I meant it." His mouth twisted in a wry expression of impatience. He was a large man, with thick wrists and long brown hair knotted casually behind his head in a fashion at least ten years out of date.

"Look, I didn't have time for any of that foolishness. I've been on this thing for months and I don't want to lose what time there is left. It's going to start to snow around here pretty soon and we won't be able to make much headway in that."

He nervously drummed his fingers on a bedside table while he listened. "Irma, you can't expect me to run all the way back to Oklahoma and hold your hand every time one of your high-fashion friends

cuts you in public. We've got seven million dollars, we don't need to be afraid of anybody or what they say." Pause. "I don't want to talk about it. Don't waste your time on that stuff. Hey, is John there?"

He frowned and scratched absently at the stubble on his chin.

"Damn, I wanted to talk to him about business. Haven't called him in over a week. Was there anything in my personal mail?"

He listened for several minutes and then suddenly smiled. "That's great. If *Natural History* wants my Mayan photographs they can certainly have them. The point is, do they want me to write the article? I'm the guy who paid the money for that expedition, and it was just me and two locals who found the tomb. If it hadn't been for us there wouldn't be any—what did they call it?—'Rosetta Stone of the Mayans.' Yeah, I kind of like that. Good title. But I want to write the article. You tell them that—write them a letter right now. I don't care if they pay me or not, I just want to write the article and they can have all the photos that they want as long as I get to write it. If I don't, no photos. You tell them that."

He listened for several moments, letting his eyes wander at random around the austere motel room and occasionally glancing at the flickering television screen. "No, I haven't been listening to any news. The guide has a radio, but we don't listen to it. It's for emergencies."

Pause. "Yeah, yeah, I got the guide. You whined at me so much I figured I better have one just to make you happy. He's a young guy, seems to know this area pretty well. Only one, though. I can't have a whole army troopin' through the woods out there. Scare everything off."

With a grunt he twisted off the bed and walked over to a small table, pulling the telephone after him. From a packet of cold french fries he fished a handful and ate them as he listened. "The Centaurians? Who're they? Oh, you mean whoever built that wrecked ship on the moon. Did they know it came from Alpha Centauri?"

He sighed. "Oh, okay, they don't know anything, the name Centaurian is just a handy moniker. Trust the networks to pull out some dumb name that doesn't tell you anything. So they've got the shield down now, huh? Great. Ought to find out something." He smiled again, and the wrinkling lines showed his age. "No, honey, I know I'm an explorer and all, but I don't think they need me up there. They've got lots of fellas who can figure out all those technical things. It was nice of you to call them about me, though."

He shook his head in amazement and grinned to himself. "You sure do get some ideas, sittin' alone back there in Chiskasha. Tell you what, that was such a nice thought that I'll take you on a vacation to the moon when I get back—how's that?" He laughed. "Sure I can pass the medical. If I can still walk and talk after eatin' the crummy food around here, I can go to the moon. Huh? Dexter, Oregon. It's a little nothin' town with no way to get a steak or even a decent drink. I think they're all Mormons or New Sons up here or somethin'."

He listened for several minutes and then said, "Honey, I've got to get some sleep or I'm gonna fall down. Call you in a few days." He hung up abruptly before she could answer and dropped the phone on the floor. He looked at the french fries for a moment, shook his head and then walked wearily into the bathroom.

Site 7
(Mare Marginis vicinity)
January 21, 2009

To: John Nichols, Alphonsus Base

Operation Report

Assignment of rotating shifts to interface with alien computer network.

Team one: Primary task: Inventory search utilizing direct readout.
J. Thomson; analysis
V. Sanges; electronic technician

Team two: Primary task: Translation. Search for correspondences to Terrestrial language forms (such as predicate-subject, repeating syllabic context, etc.) in visual "language" sequences.
A. Lewis; linguistics
D. Steiner; electronic technician

Team three: Primary task: General exploratory search pattern. Communicate results to Teams one and two.
Nigel Walmsley; computer and language systems specialist
Nikka Amajhi; electronic technician

Operations are to be conducted on a continuing round-the-clock schedule, seven days a week. Important results will be communicated directly to Alphonsus by tight laser beam, reflected off synchronous satellite C, established December 13 (single channel mode). We under-

stand that Alphonsus will reserve one channel for direct link to Kardensky's Operations Study Group in Cambridge, for technical and library backup of needed information systems.

This communication signifies compliance with the directives of the Special Congressional Committee as formulated 8 December, 2008.

(signed) José Valiera
Coordinator

January 22, 2009, 11:32 A.M.

Nikka allowed the weak lunar gravity to pull her slowly down the narrow shaft. She held her arms above her head; there was no room to keep them at her side. Her feet touched something solid. She felt around with her boots until she found a small hole in the side, off to an angle. She slowly twisted until she could sink into it up to her knees.

She looked up. The head of Victor Sanges was framed in the tunnel mouth six meters up. "You can start down now," she said. "Take it slowly, and don't be afraid of falling. There's enough friction with the walls to slow you down."

She wriggled into the narrow side channel and in a moment was stretched flat on her back, working her way forward by digging in her heels and pushing with her palms against the rough plastiform sheeting. Through the translucent material she could see the coppery metal of the ship itself. It had a dull sheen unlike any metal Nikka had ever seen. Apparently it puzzled the metallurgists as well, for they still could not name the alloy involved. Every few meters the walls had a curious semicircular series of knots, but otherwise this tube was featureless. Nikka passed one of the glowing white phosphors the maintenance crew had stamped into the plastiform when this section of the ship was pressurized. It was the only apparent lighting in the tube; perhaps the aliens had needed none. The tunnel narrowed here, following no apparent scheme. The ceiling brushed against the side of her face, and she had a sudden fear of the oppressive weight of the ship above her. Her breath trapped, moist and warm, in front of her face, and she could hear only her own amplified breathing.

"Sanges?" A muffled shout came in reply. She worked her way further on and felt her heels come free of the floor. Quickly she wriggled

through and into a spherical room two meters in diameter. A chill seeped into her legs and arms as she waited for Sanges. She wore a thermal insulation suit and the air circulated well through the tunnel, but the ship around them was in equilibrium with the moon surface at minus 100 degrees centigrade. During full lunar night things were much worse, but the thermal inertia of the ship helped take away the edge of the cold. The engineers refused to heat the tunnel air, just as they refused to pressurize any more of the strange network of corridors than proved absolutely essential. No one knew what effect air would have on the ship as a whole—thus the plastiform walls.

Sanges slowly crawled out the small opening and into the cramped spherical room. "What is this?" he said. He was a small, wiry man with black hair and intense eyes. He spoke slowly in the ruby glow that enveloped them.

"The Bowl Room, for want of any other name," Nikka replied. "That red light comes directly out of the walls; the engineers don't know how it works. The lights are in a weak period right now. They get brighter later on, and the whole cycle repeats with a period of fourteen point three hours."

"Ah." Sanges pursed his lips.

"The natural assumption is that their day was fourteen point three hours long." She smiled slightly. "But who knows? There isn't any other clue to back up that guess."

Sanges frowned. "But—a room, perfectly spherical. Nothing else on the wall. What could they use it for?"

"A free-fall squash court, that's my theory. Or a drying room for underwear. Maybe it's a shower, only we don't know how to turn on the water. There's a patch over there that looks odd"—she pointed to a burnished splotch above her head—"but with that plastiform over it, it'll be hard to find out what it is."

"This room is so *small*. How could anyone—"

"Small for whom? You and I are both here because we're practically midgets compared to the rest of the human race. Alphonsus imported you especially for the occasion, didn't they? I mean, you were on Earth when we found this. They shipped you up because you know electronics and you can wriggle through these tubes."

"Yes." The man nodded. "The first time I ever thought being small was an advantage."

Nikka pointed to a hole halfway up the wall. "This next part is the worst squeeze in the whole trip to the computer link. Come on."

She worked her way into the hole and down into a comparatively open length. Abruptly the passage narrowed. Nikka braced herself and got through by expelling her breath and pushing hard with her heels. There was an open space that temporarily eased the pressure, and then ahead she saw the walls narrowing again. She pushed and turned, trying to wedge herself flat on the tilted floor of the passage. Not only was it contracted here, but the tube was tilted at an awkward forty-five degrees.

She could hear the soft sounds of Sanges' struggles behind her. The tunnel seemed to press at her, and she gave herself over to an endless series of pushings and turnings, rhythmically twisting forward against the steady hand of gravity and the clutching of the walls.

The passage became almost unbearably tight. She began to doubt that she had ever made it through this space before. The air seemed impossibly foul. The ship was a bruising presence, a massive vise squeezing the life from her. She stopped, thinking to rest, but she could not seem to get her breath. She knew there was only a little way farther to go, and yet—

Something struck her boot. "Go. Go on." Sanges' muffled voice was very close. There was a thread of panic in it.

"Easy, easy," Nikka said. If Sanges lost his nerve they would be in a pretty fix. "We have to take our time."

"Hurry!"

Nikka braced her feet against the walls and pushed. Her arms were above her head, and with one more lunge she found the edge of the passageway above. She pulled slowly up the incline and in a moment was free of the constriction.

Here it was almost possible to stand. The open bay was an ellipsoid with most space taken up by dark oval forms. They were seamless, apparently storage compartments of some kind, with no obvious way of opening them. A short path marked off by tape wound between them. No one was to venture beyond that tape or try to investigate the dead alien machinery that lay farther on. That would come later, when men knew more of the ship and how it worked. Only the white phosphors in the plastiform illuminated this room; they cast long shadows near the walls that gave the room an oddly ominous cast. Though the ceiling was

low and it was almost possible to stand upright, here the shadowed mass of the ship seemed to close in on her from every direction.

Sanges struggled up out of the tube and slowly got to his feet. "Why did you slow down back there?" he asked sharply.

"I didn't. You have to pace yourself."

"What does that mean?" he said quickly.

"Nothing." She looked at him appraisingly. "Claustrophobia is a funny thing and you have to keep your wits about you. You should try it some time the way I first went through—in a s-suit with oxygen gear and a helmet."

"It's a godforsaken way to—"

"Precisely. God didn't make this ship, and men didn't either. We have to learn to adapt to it. If strange things bother you that much, why did you volunteer for this job?"

Sanges clamped his lips together firmly and nodded. After a moment Nikka turned and led the way down the narrow path to an imposing black panel set into one wall. There were two man-made chairs in front of it. She indicated one for Sanges and she sat in the other. Sanges looked at the imposing board with its multiple layers of switches laid out before him. He turned his head and studied the dark forms farther away. "How can we be sure the pressure is good here?" he said.

"The plastiform is tight," Nikka said as she turned on some extra phosphors. "The alien superstructure seems to be intact. The whole ship is modular, as far as we can tell. When it crashed, most of the other components were pulverized, but this one and two others—about forty percent of a hemisphere—remained intact. Some things in the other passages were thrown around, but otherwise this section is still in one piece."

Sanges studied the room and tapped nervously with his fingers on the console board.

"Careful of that! I'm turning on the console now and I don't want you hitting any of the switches." She pressed something like a vertically mounted paper clip and two blue lights flickered on the board before them. In a moment the black screen above the board changed subtly to a shade of light green.

"Where does the power come from?" Sanges said.

"We don't know. The generators must be in one of the other modules, but the engineers don't want to go too deeply into there until

we understand more. The power is AC, about three hundred and seventy Hertz—though that varies, for some reason. We took this panel off and tried to trace the circuitry, but it's extremely complicated. In another passageway the engineers found a huge vault of micro-sized electronic parts, apparently part of a memory bank. We can't be sure it has any relation to this console because we don't want to fool around with it until we understand their electronics better. Most of the vault is thin films of magnetic materials on a substrate. The whole vault is at very low temperature, far colder than the surrounding ship."

"Superconducting memory elements?"

"We think so. That's not quite my line, so I haven't had much to do with it. There are small-scale oscillations in magnetic fields among the circuitry, so probably the fields switch the superconducting elements on and off. Makes a great switching circuit, as long as it operates in vacuum. The trouble is, we don't know where the cooling comes from. There is no circulating fluid; the walls are just cold."

Sanges nodded and studied the array of hundreds of switches before him. "So this computer is alive, or at least its memory is. After all this time . . . with most of the ship knocked out. Remarkable."

"That's why we're taking so much care with it. It's a direct link into whatever the aliens thought worth storing." She tried a few of the switches experimentally. "It appears the power is on. More often than not this board is dead. The ship's power is unstable. Okay, I'm going to call Nigel Walmsley and start work. Watch what I do but don't touch the board. Most of the procedure for starting is written up; I'll give you a copy at the end of this shift."

She took a throat microphone and yoke and fitted it over her head. "Nikka here."

"Walmsley, madam," a voice came from the speaker mounted on the wall. "If national security were at stake, would you spend the night with a man whose name you didn't even know?"

Nikka smiled. "But I know yours."

"True, true. Still, I could have it changed."

"Victor Sanges is here with me," Nikka said before Nigel could say anything more. "He's the inside man for Team one."

"Charmed, I'm sure. See you in the mess later, Mr. Sanges. Nikka, I'm picking up the screen quite well but I am getting bored looking at that same green all the time."

Sanges turned and looked at the television camera mounted over their heads. "Why don't you simply pick the signal up from the circuits that feed the screen?" he asked Nikka.

"We don't want to fool with the circuitry. Watch this, it's the same opening sequence I always use just to see if the memory array is unchanged."

Each switch had ten separate positions available; she altered several, glancing at the notebook at her elbow. A swirl of color formed and suddenly condensed into a pattern of symbols—curls, flashes, marks tantalizingly close to something like Persian script. In the middle of the display was a diagram involving triangles locked together in a confusing pattern.

"This was the first readout we ever got. Most sequences available don't seem to give any image at all. Maybe they are vacant or the readout goes to some other console. This picture by itself is useless, because we don't know what the writing means."

"Is there much of it?"

"No, and I don't think we could decipher very much even if we had a lot of printed symbols. The first Egyptologists couldn't unravel a *human* language even though they had thousands of texts, until the Rosetta Stone was discovered. That's why Nigel and I are concentrating on the pictures, not the script. Eventually maybe Team three can make some sense out of the words, but for the moment we are stuck with looking at pictures and figuring out what they mean."

Nikka touched some of the switches again and another image formed on the screen. This was also familiar. It showed two circles overlapping and a line bisecting the chord of one. An apparent caption ran down the side. "Lewis has tentatively identified one of those captioned squiggles as the word *line*. He compared with six or seven other figures in this sequence and so far that's the only guess he has been able to make. It's a painful process."

She ran quickly through a number of other punching sequences and stopped to admire the last. It was a magnificent shot of Earth as seen from somewhere farther out from the sun. The moon peeked around in a thin crescent; whorls and streaks of cloud obscured most of the dark land.

"The colors are wrong," Sanges said. "It's too red."

"It wasn't made for human eyes," Nikka said. "Nigel, I'm trying a

new sequence. Alter 707B to 707C." She said casually to Sanges, "If this setting is in some way fatal, if it fries me to this chair, at least somebody will know which sequence to avoid next time."

Sanges looked at her in surprise. She punched the sequence and got a few lines of symbols. "No help. Log, Nigel." The next was an array of dots. Then came a slightly altered array. As they watched, the groupings changed smoothly, rotating clockwise.

"Nigel, measure this. How fast is the rotation?"

There was a pause. "I make it a little over seven hours."

Nikka nodded. "Half the fourteen point three hours that the lights in the Bowl Room take to cycle. Put that on special log."

Sanges was making notes. Nikka showed him a color-coded array of dots that one of the astrophysicists had identified as a chart of the stars within thirty-three light-years of the sun. The apparent size seemed to be related to their absolute magnitude. If the correspondence was exact, it meant a slight alteration in the Hertzsprung-Russell diagram and gave some support to one of the newer theories of stellar evolution. Sanges nodded without saying anything.

She tried some new sequences. More dots, then some lines of squiggles. A drawing of two intersecting spheres, no captions. Dots. Then what appeared to be a photograph of a machined tool, with captions. "Log, Nigel. What does it look like to you?"

"Abstract sculpture? A particularly sophisticated screwdriver? I don't know."

The next sequence showed the same tool from a different angle. Next, more dots, then—Nikka jerked back.

Feral dark eyes glared out at them. Something like a large rat with scales stood in the foreground erect on hind legs. Pink sand stretched to the horizon. Its forepaws held something, perhaps food, in long nails. "My," Nigel said. "It does not look at all friendly."

"No caption," Nikka said. "But it's the first life form we've ever gotten. Better put this through to Kardensky."

"It is an evil-looking thing," Sanges said intensely. "I do not know why God would make such a creature."

"Value judgment, tsk tsk," Nigel said. "Perhaps God wasn't consulted, Mr. Sanges."

Nikka thumbed another sequence.

January 22, 2009, 4:47 P.M.

Alexander Livingston stood at the small sink and slowly washed the dishes after supper. The taste of the canned chili lingered in his mouth. It was the real thing, no soybeans, and the only luxury he allowed himself these days. He had never quite gotten accustomed to handing someone a dollar bill when buying a newspaper and not getting any change in return. Even so, he would pay almost any amount to have an occasional meal with real meat in it. It wasn't as though he had any real objection to vegetarianism, though he had never understood why it was better to kill plants than animals. It was just that he liked the taste of meat.

The day's long twilight had begun to settle. He could no longer make out the ridgeline several miles away. Dense white clouds were drifting in from oceanward; it would probably snow tonight.

A flicker of motion caught his eye. The window over the sink was partly fogged, and he reached up to rub a clear spot. A man came staggering out of the forest a hundred meters away. He took a few agonized steps and collapsed into a drift of snow.

Livingston wiped his hands and rushed to the door. He slipped on his heavy lumber jacket as he went out the door and blinked as the sudden cold reached his unprotected face. The man was barely visible in the snow. Livingston cleared the distance in a curious loping stride, puffing only slightly. The work he had done around the cabin had cut away pounds and sharpened his muscle tone. When Livingston reached the man it was clear why he had fallen. There was a burn in his side. It passed through layers of parka, a shirt and extra insulation. An area a foot wide was matted and blood-soaked. The man's ruddy face was clenched and tight. When Livingston touched him near the wound, the man groaned weakly and flinched.

It was obvious that nothing could be done until the man was inside. Livingston was surprised at how heavy the man seemed, but he got the arms over his own shoulders in a carry position and managed to stagger the distance back to the cabin without stumbling or pitching the body into the snow. He laid the man out on the floor and began to undress him. Stripping away the clothes was difficult because the harness of a backpack had knotted itself around the wound. Livingston used a knife to cut away the shirt and undershirt.

Cleaning, treating, and bandaging the wound took more than an

hour. Dirt and pine needles were caught in the blackened, flaky skin, and as the heat of the cabin reached it, the capillaries opened and began to bleed.

He lifted the man again and got him onto the cabin's second bed. The man had never awakened. Livingston stood regarding the face, now relaxed, for long moments. He could not understand how anyone had sustained such an injury out here in the middle of unoccupied forest. What was more, why would anyone be here in the first place? Livingston's first thought was to try for the emergency call station fifteen miles away. The nearest fire road was only four miles, and the Rangers might have it clear of snow by now. Livingston kept a small jeep there.

Livingston began to dress for the walk. The going was mostly uphill, and it would probably take several hours. As he made himself a thermos of coffee he glanced out the window and noticed that snow was falling again, this time in a hard swift wind that bowed the tops of the pines. A gust howled at the corners of the cabin.

At his age such a march was too great a risk. He hesitated for a moment and then decided to stay. Instead of making coffee he prepared beef broth for his patient and got the man to sip a few spoonfuls. Then he waited. He mused over the strange nature of the wound, almost like a cut in its clean outline. But it was a burn, undeniably, and a bad one. Perhaps a burning timber had fallen on him.

It was only after some time that he noticed the pack lying where he had cast it aside. It was a large one, braced at several points by a light metal framework, and quite expensive. The top flap was unbuttoned, and sticking out the top, as though it had been jammed in hurriedly, was a gray metal tube.

Livingston fished it out. The tube thickened at its base, and small metal arches like finger grips ran down the side. It was three feet long and had several extrusions like toggle switches. Livingston was a carpenter, not a mechanic or technician. Still, he had never seen anything like it before, and the lines of the thing seemed awkward. There was no telling what it was. Gingerly he put it back.

He checked his patient, who had apparently fallen into a deep sleep. Pulse was normal; the eyes betrayed nothing unusual. Livingston wished he had more medical supplies.

There didn't seem to be anything to do but wait. He made himself some coffee. Outside the storm grew worse.

January 22, 2009, 5:47 P.M.

Sanges had another bad moment crawling out the tube at the end of the shift. Nikka had to push him through one of the narrow segments of the passage, and the man glowered at her when they reached the lock. They suited up in silence and cycled out onto the flat, dusty floor of the moon. Two hundred meters away—not far from the spot where Nikka had crashed—a surface lock of Site Seven had been sunk into the lunar rock. More excavations were partially completed in the distance. Gradually a network of cylindrical rooms was being built ten meters beneath the shielding rock and dust. Set that deep, the quarters suffered little variation in temperature between lunar day and night, and the incessant rain of solar wind made radiation levels only slightly higher than those on Earth.

Nigel Walmsley met them after they had cycled through to the suiting bay. Sanges acknowledged Nigel's greeting but fell silent, his mind apparently still on the tunnels in the ship.

"Are you free for dinner in Paris tomorrow?" Nigel asked Nikka.

"Um."

"Well, perhaps some preheated rations and processed water, then?"

Nikka looked at him speculatively and agreed. She went to shower while Nigel, by unspoken convention, wrote the debriefing report for the shift's findings. Aside from the large ratlike creature and the 7.15-hour rotation period, there was little remarkable to report.

When Nikka emerged, followed by Sanges, all three made their way into the communicating corridor. It was a swirl of yellows and greens, spiraling around and splashing out onto the deck. This made the corridor seem deceptively long. Nigel made a show of opening the door for Nikka with a certain self-satirical grace. On a world where people were selected to minimize demands on the life-support system, he was tall and heavy. He had come in from Alphonsus Center only four weeks before, like most of the people at the site.

They selected their rations from the few choices available, and on their way back to a table Nigel overheard a conversation between three men nearby. He listened for a moment and then interjected, "No, it was on *Revolver*."

The men looked up. "No, *Rubber Soul*," one of the men said.

"*Eleanor Rigby?*" another man said. "Second disk of the white album."

"No, neither," Nigel said. "You're both wrong. It was on *Revolver* and I have two hundred dollars that says so."

The other men looked at each other. "Well . . ." one of them began.

"I'll take that," another said.

"Fine, look it up and then check with me." Nigel turned and walked to where Nikka and Sanges sat listening.

"You're English, aren't you?" Sanges said.

"Of course."

"Isn't it a bit unfair to take advantage of someone else when you are arguing about a music group who were English themselves?" Sanges said.

"Probably." Nigel began eating.

"Anything new?" a voice came at his elbow. All three looked up. José Valiera stood smiling.

"Ah, Herr Valiera," Nigel said. "Please sit."

Valiera accepted the invitation and smiled at the other two. "I'm afraid I haven't had the time to read your debriefing report."

"There was not very much in it," Nikka said. "But there is something I want to ask you. Is there any real chance of our getting a supplementary appropriation so we can get more people here?"

"Your guess is as good as mine," Valiera said warmly. "But my guess is no. After all, we got a nice large shot of money just two months ago."

"But that was based simply on what we knew when the shield went down. Since then the engineers have uncovered a wealth of things that need investigating." Nigel wrinkled his brow. "Seems silly not to give us more."

"We've also uncovered the computer link," Nikka pointed out. "Surely that's going to cause a splash."

Valiera looked uncomfortable. "It will when there are results. You should realize not all of what we discover is immediately released to the press, and some portions even the Congress does not know about."

"Why's that?" Nigel said.

"It has been decided that there are good social reasons not to spread results from the Marginis Site—that's us, Site Seven—too rapidly. Some

advisers of the Congress feel the impact might be severe if something truly radical is uncovered."

"But that is precisely why we are here. To uncover something radical. That is, radical in the sense of fundamentals," Nigel said, looking intently at Valiera.

"No, I believe I see the point," Sanges said. "The entire issue of extraterrestrial life and intelligences superior to ours is emotionally loaded. It must be treated with delicacy."

"What good is 'delicacy' going to do us if we can't get the money to pursue our research?" Nikka said quickly.

"This craft has been lying here for at least half a million years, according to the estimates from solar-wind abrasions of the outer skin," Valiera said patiently. "I believe it will not vanish overnight, and we do not need an army of people here to swarm all over it."

"After all, we are going to use three shifts a day to get full use of the computer module," Sanges said reasonably, spreading his hands. "We are already using the ship as much as we can."

"Nobody has done more than look at many of the passages," Nikka said.

Sanges scowled and said ponderously, "Our First Bishop spoke only today about the wreck. He, too, advises a path of moderation. It is not pointful to make discoveries without understanding their full implication."

Nigel made a crooked grin. "Sorry, that doesn't quite count as an argument with me."

"I am sorry you have not found it within yourself to open your eyes, Mr. Walmsley," Sanges said.

"Ah, yes. I am a proponent of Cartesian dualism and therefore not to be trusted." Nigel grinned. "I've never really seen how you can be a scientist or a technician and believe all that ugly business about demons and the dead rising."

Valiera said mildly, "You must understand, Mr. Sanges is not a member of the more fundamentalist wing of the New Sons. I'm sure his beliefs are much more sophisticated."

"It has always amazed me that the New Sons were able to incorporate so many different views within one religion," Nikka said. "It would almost seem that they were more interested in the ordering effect of religion than any particular doctrine." She smiled diplomatically.

"Yes, that's really the point, you see," Nigel said. "They don't just get together to exchange theological gossip. They like to change society around to fit their beliefs."

Sanges said intently, "We are spreading the great love of God, the Force that drives the world."

"Look, it's not love that makes the world go round, it's inertia," Nigel said in clipped tones. "And all this mellow *merde* about you fellows getting two hours off to pray every day, and special holidays—"

"Religious measures dictated by our own faith."

"Yes, strangely popular, too, aren't they?" Nigel said.

"What do you mean?" Sanges said.

"Just this. Most people have had a damned hard time of it these last decades. A lot have died, we aren't rich any more, none of us, and we've had to work like billy-hell to keep our necks above water. Hard times breed bad religions. It's a law of history. Even people who don't go in for that sort of thing can recognize a good dodge when they see it. If they become New Sons they get extra hours off work, little privileges, some political influence."

Sanges clenched his fists. "You are making the most base and vile—"

Valiera broke in. "I think you gentlemen should calm down and—"

"Yes, right, I think so," Nigel said. He got to his feet. "Coming along, Nikka?"

In the corridor outside Nigel allowed his face to twist into a grimace and he smacked a fist into his palm. "Sorry about that," he said. "I tend to let things run away with me that way."

Nikka smiled and patted his arm. "It is often an easy thing to do. The New Sons are not exactly the most tolerant people, either. But I must say your view of them is rather cynical, isn't it?"

"Cynical? 'Cynic' is a word invented by optimists to put down realists."

"It didn't seem to me you were being wholly realistic."

He opened the corridor door for her in an exaggeratedly polite fashion. "I wish it were so. It is no accident that Sanges is a full-dress New Son and was assigned to this site. Valiera didn't say so, but the rumors have it that the only reason we got money through Congress this time was by a high-level deal with the New Sons faction. They held out for a large representation of their own people—scientists and technicians, yes, but New Sons, too—before they would turn over their votes."

Nikka looked shocked. "I hadn't heard that. Are there a lot of New Sons here? I haven't been paying attention to the new people."

"I've noticed, me being one of them." He smiled. "I've nosed about a bit myself, and I think quite a few of our comrades are New Sons. Not all admit it or show it like Sanges, but they are."

Nikka sighed. "Well, I hope Valiera can keep them in line."

"Yes, I hope he can," Nigel said solemnly. "I certainly hope he can."

January 23, 2009, 1:06 A.M.

Alexander Livingston woke with a start; he had fallen asleep sitting up. The wood fire had almost gone out. He stirred the smoldering embers and added new wood. In a few moments the cabin had lost its slight chill. Livingston stood, massaging a sore muscle in his back, and watched the flames dance.

His patient was still unconscious, the man's breathing regular. The wound had stopped bleeding and the bulky compresses around it seemed secure. Livingston knew he would not quickly fall asleep again; he made himself a mixture of hot water, lemon juice, sugar and rum, and turned on his radio. In the burr of static he eventually found the twenty-four-hour Portland in-depth news station.

As his rocking chair creaked rhythmically, the radio made a low murmur and the wind wailed hollowly outside. Against this calming background the news seemed discordant. The war was still going on in Africa, and another country had come in on the side of the Constructionists. The government policy on DNA alterations in laboratory babies was under heavy attack by the New Sons. Most commentators agreed, though, that simple body modification was inevitable; the controversy had now shifted to the issue of intelligence and special talents. There were suspicions that a second major dieback was beginning in Pakistan. The water scarcity in Europe was getting critical.

Finally there came some news about the Mare Marginis wreck. The emergency photographic survey of the moon was complete. There was no sign of other crashed vehicles. This by itself did not mean very much, though, because the Marginis ship's force screen had been observed to alter color three times before it was finally penetrated. Scientists guessed this was a remnant of some defense mechanism whereby the ship's screen absorbed almost all light, making it appear dark. If the ship were in flight, it would be hard to see optically against the background of

space. Apparently, until men ruptured it, the screen functioned most of the time and was slowly running down. If other wrecks existed on the moon, their screens might still be intact, in which case it would be very hard to see them from orbit. An extensive search was under way for recurring dark patterns, which might formerly have been assumed to be shadows.

Livingston listened to a few more news items and then switched the radio off. The point about the screen was interesting, but he had expected more by this time. Men were inside the ship now and there should be some results. But nothing came through the news. Perhaps the authorities were simply being very cautious in their exploration of the wreck. The ship's defense system had shut on and off in an unpredictable manner; current thinking seemed to be that whatever had shot down the two survey craft had awakened recently, since otherwise it would have downed the Apollo missions long ago. With the screen penetrated, perhaps all the other defense systems were dead, too. But it would be foolish not to be cautious.

Livingston turned off the radio, checked the man again, and then looked at his pack once more. He put the gray metal tube aside and began taking out the other items—dehydrated food, maps, clothing, simple tools, a writing case and some paper, and credit cards and other identification in the name of Peter Graves. At the very bottom of the pack were several rolls of microfilm and a compact viewer. Livingston felt a slight embarrassment, as though reading another's personal mail.

Well, there was good reason to look. Graves might be a diabetic, or have some other special medical problem. Livingston put the microfilm through his own large wall viewer, made himself another drink, and began reading.

His credit cards, passes, and serial biography all attested to Peter Graves's wealth. He had made his fortune early, in land speculation, before the government regulated it, and retired. For the last ten years he had pursued a strange hobby: trapping the unusual, finding the elusive. He used his money to look for lost Inca trails, search for sea monsters, uncover Mayan cities. Graves carried a portable library about himself. Reasonable; it probably helped him with uncooperative officials. Most of the film concerned something else altogether. There were clippings and notes from as far back as the nineteenth century. Livingston studied them and pieced together a history.

The Salish Indians called it Sasquatch in their legends. The Hudson's Bay Company report of 1864 gave evidence of hundreds of sightings. The loggers and trappers who moved into the Pacific Northwest knew it mainly by its tracks and thus it gained a new name: Bigfoot.

Men saw it throughout the north woods of the United States and Canada. In the nineteenth century over a dozen murders were attributed to it, most of them involving armed hunters. In 1890 two guards posted to watch a mining camp on the Oregon-California border were found dead; they had been crushed, slammed to the ground.

All this led nowhere until 1967, when an amateur investigator made color motion pictures of a Bigfoot at a range of less than fifty yards. It was huge. It stood seven feet and walked erect, moving smoothly, almost disdainfully away from the camera. It turned once, to look back at the photographer, and revealed two large breasts. Thick black fur covered it everywhere except near the cleft of bones that surrounded the eyes. Scientific opinion was divided on the authenticity of the film, but a few anthropologists and biologists ventured theories.

The Pacific Northwest was relatively sparsely settled. Thick forests cloaking the rough western slopes of the Rockies could hide a hundred armies. Bacteria and scavengers on the forest floor digested or scattered bones or even artifacts left behind; the remains of logging projects did not last more than a decade. If Bigfoot built no homes and used no tools, he could escape detection. Even a large, shy primate would be only a melting shadow in the thick woods.

Most animals have learned to run, to hide, rather than fight—and their teacher has been man. Several times over the last million years the glaciers have retreated and advanced in a slow, ponderous cycle. As water became trapped in expanding glaciers the seas fell, exposing a great land bridge connecting Alaska and northern Asia. Across these chill wastes from Asia came mammoths, mastodons, bison, and finally man himself. Man has known many forms between the apes and Neanderthal. As man himself pushed out from the cradle of Africa, he drove these earlier forms before him. Peking or Java man may have been part of this outward expansion. Perhaps Bigfoot, pushed into other climates by this competition, crossed the great land bridge during one glacial cycle, found the New World, and settled there. But men followed, and eventually the two came into conflict for the best land. Man, the smarter and the better armed, won out and drove the Bigfoot back

into the forest. Perhaps the Sasquatch legend came from those ancient encounters.

Scientific expeditions in the 1960's and 1970's failed to find solid evidence of Bigfoot. There were indirect clues: crude shelters made of fallen branches, footprints and paths, dung that showed a diet of small rodents, insects, and berries. Without a capture the cause gradually lost its believers. Population pressure opened cities in Washington and northern California, until one by one the areas where Bigfoot had been seen shrank away.

Among Graves's papers was an extensive map of southern Oregon around Drews Reservoir. It was covered with small arrows and signs in pencil detailing an erratic path northward. Livingston traced the path until it abruptly stopped about twenty miles from his cabin. It ended in a completely wild stretch of country, hilly and thick with pine, one of the most isolated spots still remaining in Oregon. There were other papers: a contract with two guides, some indecipherable notes.

Livingston looked up from the wall viewer, rubbing his eyes. Something thumped against the wall of the cabin as if brushing by.

Livingston reached the window in time to see a shadow fade into the deeper black of the trees at the edge of the clearing. It was hard to see; flurries of snow obscured the distance. It was late and easy to be mistaken.

Still, the sound had not been his imagination. It might have been a load of snow falling from a high pine branch, but Livingston thought not. When he laid down and tried to go to sleep once more, the memory of the sound returned again and again.

January 23, 2009, 10:12 P.M.

Nigel Walmsley squinted at the screen before him and said into his throat microphone, "Afraid I don't understand it either. Looks like another one of those meaningless arrays of dots to me."

"Meaningless to us, yes," Nikka Amajhi's voice replied in his ear, sounding tinny and distant.

"All right, then, I'll put it in passive log." Nigel punched a few command buttons. "While you were cycling that, I got a reply from Kardensky's group. Remember the rat? Well, it's not a rat or any other kind of rodent we know of, it's apparently not standing on the Earth, and

it is probably at least four feet tall, judging from the apparent bone structure in its ankles."

"Great! Then it's our first picture of extraterrestrial life." Nikka's voice was excited.

"Quite so. Kardensky has forwarded it to the special committee of the NSF for publication."

"Shouldn't we go through Coordinator Valiera?" There was a note of concern in her voice.

"Needn't worry about that, luv. I'm sure the New Sons have a tight rein on what comes out of the NSF. They needn't rely on Valiera."

"Valiera isn't a New Son," Nikka said testily. "I'm sure he's impartial."

"I didn't say he was a New Son, but on the other hand I don't think it's wise to assume he isn't. 'I frame no hypotheses,' as Newton said. Anyway, look, we should be getting on with it." Nigel shifted uncomfortably in his chair and turned down the illumination above his console. He sat in a small, cramped room that was about five degrees colder than he liked it. Site Seven had been thrown up rather quickly, and some of the niceties, such as adequate insulation and a good air-circulating system, had been neglected.

He studied his notes for several moments. "Right, then, let's try sequence 8C00E." He made a notation. The difficulty of prospecting for information in a totally unfamiliar computer bank was that you had no way of knowing how the information was catalogued. Intuition told him that the first few settings on the alien console should be more general than later settings, just as if it were a number setting in ordinary Arabic notation. The trouble was that even in Terrestrial languages the logical left-to-right sequence was no more common than a right-to-left sequence or up-to-down or any other frame one could imagine. The aliens might not even use a positional notation.

So far they had been reasonably lucky. Occasionally, similar settings on the console yielded images on the screen that had some relationship. There were the common arrays of dots, including those that moved. The sequences that called them had some of the same prefixes. Perhaps this indicated a positional notation, and perhaps it was merely lucky chance. So far he had asked Nikka to use only a portion of the switches available on the console. Some of them certainly would not be simple catalogue numbers for information retrieval. Some must represent command modes. The third switch from the right in the eighteenth

tier, for example, had two fixed positions. Did one mean "off" and the other "on"? Was one "file this data" or "destroy it"? If he and Nikka kept to a small area of the board, perhaps they would not encounter too many command modes before they got some information straight. They didn't want to run the risk of turning off the computer entirely by proceeding at random through all the switches.

Nigel studied the screen for a minute. An image flickered on. It seemed to show a dark-red passageway in the ship. A bend in the corridor was visible, and as he watched, some of the Persianlike script appeared on the screen, pulsed from yellow to blue, and then disappeared. He waited and the pattern repeated.

"Mysterious," he said.

"I don't believe I have seen that passageway," Nikka said.

"This must be something like the three photos Team one reported from the last shift. They are from unrecognizable parts of the ship."

"We should check with the engineers," Nikka said. "But my guess would be that all these show part of the ship that was pulverized on landing."

Nigel studied the picture a moment. "You know, it just occurred to me that we can deduce something from the fact that this script goes on and off with a period of several seconds. Our friends the aliens must have been able to resolve time patterns faster than a second or so, if they could read this."

"Any animal can do that."

"Just so. But whoever built this ship might not be just any animal. For example, the little switches on the console imply something finger-sized to manipulate with. True enough, animals we know must be able to see things moving faster than on a one-second time scale, or else they'll be overrun and eaten up pretty quickly. It's interesting to note the aliens were similar to us in at least that way. Anyway, let's go on. I'll log that"—he punched a few buttons—"for Team one to check."

He chose a few sequences that differed from earlier ones only in the last "digit," and the screen showed no response at all. "Are you sure that switch is still working?" Nigel asked.

"As far as I can tell. The meters here show no loss of power."

"Very well. Try this." He read off a number.

This time the screen immediately came to life. The image was red and showed a confused jumble of nearly circular objects. Across the

screen traced a long black line. It penetrated one of the odd-shaped blobs; there were small details of dark shading inside this blob alone. The others did not show it.

"Odd," Nigel said. "Looks to me like a photomicrograph. Reminds me of something from my student days, biology laboratory or something. I'll send it to Kardensky." He dialed for the direct line through Site Seven to Alphonsus, obtained a confirmation and transmitted directly on the links to Earth. This took several minutes. Simultaneously the signal was logged into tape storage at Site Seven; Alphonsus served only as a communication vertex. Nigel made some notes and gave Nikka another sequence.

"Hey!" Nikka's voice made him look up from his writing. On the screen something in a slick, rubbery suit stood against a backdrop of low ferns. It did not appear to have legs, but rather a semicircular base. There were two arms and some blunt protrusions below them, with a helmet on top opaqued partially. Through it a vague outline of a head could be seen. Something told Nigel the site was Earth. The pattern of the fronds was simple and somehow familiar.

The figure in the suit showed no more detail, but it was not what attracted Nigel's attention. There was something else, taller and obviously not wearing a suit. It was covered with thick dark fur and stood partially concealed in the ferns. It held something like a large rock in massive, stubby hands.

Nikka and Nigel spoke about it for several moments. The suited figure seemed strange, as though it violated the way a creature should stand upright against gravity. But the tall creature, heavy and threatening, made Nigel feel a vague unease.

Try as he might, he could not shake the conviction that it was human.

Nigel had opened his mouth to say something more when an excited voice spoke into the circuit. "Everyone in the ship, out! Engineering has just reported an arc discharge in passage eleven. There are power surges registered on another level. We're afraid it might be a revival of the defense system. Evacuate at once."

"Better get out, old girl," Nigel said ineffectually. He was safe, buried beneath meters of lunar dust near the living quarters. Nikka agreed and broke the circuit.

Nigel sat for long moments looking at the creature on the screen. It

was partially turned away, one leg slightly raised. Somehow, though, he had the sensation that it was looking directly at him.

January 23, 2009, 11:15 P.M.

Peter Graves's fever abated through the day and he awoke in the night. He babbled at first, and Livingston fed him a broth heavy with the warm tang of brandy. It seemed to give the man energy.

Graves stared at the ceiling, not seeming to know where he was, and rambled through words at random without making sense. After a few minutes he suddenly blinked and focused on Livingston's weathered brown face for the first time.

"I had 'em, you see?" he said, imploring. "They were *that* close. I could have touched 'em, almost. Too quiet, though, even with that singing they were doing. Couldn't run the camera. Makes a clicking sound."

"Fine," Livingston said. "Don't roll onto your side."

"Yeah, that," Graves murmured, looking down at his bandage with a fixed stare. "The big one did that. Bastard. Thought he'd never drop. The guide and me kept pumpin' the slugs into him and that flame thrower they had was goin' off in all directions. Orange. Blew the guide right over and he didn't get up. The flash lit up every . . ."

Graves's dry, rasping voice trailed off as the sedatives in the broth began taking effect. In a moment the man breathed easily. When Livingston was sure Graves was asleep, he pulled on his coat and went outside. The snow was at least three feet deep now, a white blanket that dulled the usually sharp outline of horizon on the opposite hill. Flakes fell in the soft silence, stirred by the breeze. It was impossible to reach the road.

Livingston struggled across the clearing, glad of the exercise. Perhaps it wasn't necessary to get help now. The worst was probably over. If infection didn't set in—with the antibiotics he had, it wasn't likely—Graves could recover without professional care.

He wondered what all the babble had meant. "The big one" might be anybody. Something had made the wound, for certain, but Livingston knew no weapon that could cause that large a burn, not even a laser.

Livingston shook his head to clear it; his hair was falling into his eyes. . . . Have to cut his hair soon. You forget things like that, living away from people.

He looked upward and found Orion immediately. He could just barely make out the diffuse patch of light that was the great nebula. Across the dark bowl of the sky he found Andromeda. It had always seemed incredible to him that in one glance he could see three hundred billion stars, an entire galaxy that seemed a sprinkle of light far fainter than the adjacent stars. Stars like grains of sand, infinite and immortal.

He closed his eyes to steady himself, and instantly the memory enclosed him. Judith. On the last day they had moved her into a private room and closed the door. It was easier than drawing a curtain in the crowded ward. Livingston watched the chaplain administer the last rites and rubber-stamp the fact on a card. After she died the nurse closed her eyes and summoned the orderlies. Within fifteen minutes a temporary death certificate had been signed, a Release of Personal Belongings form was filled in, and the body had been washed, plugged, trussed, wrapped in sheets, and labeled. The morgue attendant loaded the body onto his rolling stretcher, waited for an empty elevator, and then took it to the morgue icebox in the basement.

Livingston had completed the legal forms. There was a brief autopsy. He sat outside while she was drained, embalmed, waxed, rouged, shaved, dressed, and made ready for the standard burial rite. And a day later a machine lowered her into the prepurchased cemetery lot. Livingston walked away with the other members of the burial party, but he could not stop himself from looking back to watch the two teen-agers who shoveled dirt in after her.

Judith had been processed out of life, another unit passing through the labyrinth of an already crowded hospital. No metaphysical mystery, no call from the divine. The doctors didn't know whether her cancer was spontaneous and "natural," or whether the years of pollution had poisoned her body. In the last stages they had simply let her go, stopped treatment. The new ethics: Thou Shalt Not Kill, but thou may allow to die if . . .

Livingston took a deep breath to take himself out of the mood. Even if Graves were to die here, at least it would not be as bad as what happened to Judith. Or what had happened to himself, he mused. When you have lived with a woman over thirty years, her absence is like losing a leg; you can't be the same man again. So Livingston had come up here to find a new place for himself in the world, if possible find a way to continue with dignity. Avoid the mobs, particularly the religious

insanity that seemed to sweep everyone these days. Tonight on the news there had been a report about one of the tattooed New Sons who had finally covered his entire body with design work. The plan had been that the work would be done slowly, so that the last lines would be completed near the time of the man's death. But this one had hurried the job and then cut his throat, willing his body to be skinned, tanned, and presented in a frame to the Bishop as a sacrifice to the truth of the New Revelation. Livingston shuddered and turned back to the cabin.

A man was standing with his back toward Livingston, looking through the cabin window. Livingston moved slowly forward. Amid the falling snow it was hard to see who he was, but the man was big and he peered intently inward. He seemed bent over in order to see something on the side wall of the cabin. Yes, that would be Graves. The bed was not on a direct line of sight through the window.

Livingston came closer, and something must have given him away. The man turned swiftly, saw him and moved with startling speed around the cabin corner. The figure moved smoothly despite the thick drifted snow. In an instant he had melted into the shadows.

When Livingston reached the ground outside the window the snow had already begun to obscure the man's tracks. If they were boot marks they were of an odd sort—strangely shaped, unusually deep and at least sixty centimeters long.

Livingston followed them for a hundred yards into the woods and then gave up. The man could easily get away in the blackness. Livingston shivered and went back to the cabin.

January 23, 2009, 11:27 P.M.

"When did the pressure fail?" Nigel said into his throat microphone. Nikka had just resumed contact.

"About forty minutes ago. I got a warning from engineering that the plastiform had ruptured while they were rigging emergency power in the passage above this one. There was enough time, so I crawled out to the lock, got some air bottles and dragged them back in here. There's an emergency pressure seat under the console, but somebody forgot to issue bottles for it."

"Are you in the seat now?"

"No, they found the leak. Pressure is rising again."

Nigel shook his head and then realized she couldn't see the gesture.

"*Merde du jour.* I've got some bad news about some of our stored data. Several days of our logged material, the stuff we've been transmitting to Alphonsus for links to Earth, is gone."

"What?"

"While you were off the line I got a little call from Communications. Seems they fouled some of their programming; the subroutine that transmits stored tape data to Alphonsus was defective—it erases everything before it transmits. Alphonsus was wondering why they were getting long transmissions with no signal."

"That's ridiculous. Everything from Site Seven has been lost?"

"No, only ours. Each team has its own file number, and something happened to ours alone. We've lost quite a bit of material, but not all of it."

It was the first time Nigel had ever heard Nikka sound genuinely angry. "When we get off this watch I want to go see Valiera."

"Agreed. As far as I can figure out, we've lost those pictures of what looked like molecular chains and most of everything from yesterday. But look, those can be recovered. Let's look at that photograph you found just before Engineering called."

Nigel studied the image when it formed on the screen before him. The alien photograph showed land of a dark, mottled brown, oceans almost jet black, somber pink clouds laced across the land and still eddies caught in the rising mountain peaks. At the shore a slightly lighter line suggested great breakers thundering against the beaches. There were traces of shoals and deep currents of sediment.

"What part of Earth is that?" Nikka's voice lost its deep tone when it came through the wall speaker.

"Can't say. Reminds me of some map I've seen, but I can't remember which. I'll log this for transmission to Alphonsus. Maybe they can find a contemporary shot of the same place."

The next few sequences yielded nothing. There followed complexes of swirling dots, and then a pattern that remained fixed. "Hold that," Nigel said. "That's a three-dimensional lattice, I'm sure. Look, the little balls are of different sizes and colors."

"It might be a molecular chain model," Nikka said. "Or maybe a picture of the real thing."

"Precisely. I'll log that, too. And I'm going to tell Communications

not to transmit anything until I have a chance to look over their programs. We don't want these lost as well."

"Wait a second, Engineering is calling—" Nikka broke off.

Nigel waited, drumming his fingers on the console. He hoped the message he had sent to Kardensky wasn't intercepted. He needed the information and photos Kardensky could provide.

"There's another damned leak," Nikka said suddenly over the speaker. "Engineering threatened to come in here and drag me out—I'd like to see them do it—if I didn't come. I've got enough air in the bottles but—oh, my ears just popped."

Nigel threw down his pencil in disgust. "Never mind, come on in. You and I are going to go see Valiera."

"It was an impossibly dumb thing to do," Nigel concluded. He glared at Valiera. "If for some reason the images were erased by the alien computer when we read it out on the screen, that material is lost forever."

Valiera made a steeple with his fingers. He tilted his chair back and glanced at Nikka and Sanges. "I agree the situation is intolerable. Some of our hardware isn't functioning right, and I think it's mostly due to the fact that everything is disorderly around here. Remember, we are just setting up Site Seven, and mistakes are bound to happen. Victor, here, is looking into the entire Communications net, and I expect his recommendations shortly." Valiera looked significantly at Sanges.

"Yes, I expect I can get things in order soon," Sanges said.

"I don't think this should be taken so calmly," Nikka said abruptly. "It's possible that we have lost some irreplaceable information from the alien computer bank."

"And it's not as though Mr. Sanges has suffered a great loss, is it?" Nigel said with a thin smile. "I gather Team one hasn't made much headway on their inventory search."

Sanges bristled. "We have been working as hard as you, I see no reason—"

"Now, none of that," Valiera said. "True, Team one is only now getting its footing, but you must realize, Nigel, that their task is much harder. They are compiling an inventory using the alien script. Until they have cracked the code and know what the script means they will not have any results."

"Then why do they not abandon the use of script and try to find things by pictures?" Nikka asked mildly. "That's the path we are following and it seems to work."

"Why, what have you found?" Valiera unconsciously narrowed his eyes slightly with a new alertness.

For a long moment there was only the thin whine of air circulation fans in the room. "Some things that look like molecular chain models, photographs of Earth from orbit, a picture of some early primate, apparently," Nigel said slowly. "A few other things, and of course that large rat."

"I have seen most of what you refer to in the briefings," Sanges said. "I would dispute your interpretation of several of them, but of course that can be worked out in time."

"Quite so," Nigel said. "Nikka and I are trying to find out as much as possible so we will have some idea of how the computer works and what is available through it. I will be interested to see what the experts say about that rat, particularly."

"Well," Valiera said distantly, "that will of course take some time to work out."

"What do you mean?" Nikka said.

Valiera pursed his lips and paused. Nigel studied him intently. He had seen this sort of administrator before. Valiera had apparently been an excellent pilot, but somewhere along the way he had acquired the bureaucrat's habit of judging every statement's impact before it was uttered. "The National Science Foundation has decided not to release many of the pictures you are recovering from the alien console. It is thought that the impact at this time might be undesirable."

"Damn! Undesirable how?" Nikka said.

"We want a serious scientific study of everything that comes out of Site Seven. Releasing information now would just inundate the NSF and strain an already fragile budget," Valiera said, spreading his hands in a gesture of helplessness.

"I quite agree," Sanges said. "Many people will find such photographs as the large rodent quite unsettling. It is our duty to release information only when it is well understood. The First Bishop has stressed this point several times."

"Ah, and I'm sure the First Bishop is an authority on cultural shock and exobiology." Nigel raised an eyebrow at Sanges.

"The First Bishop was present when the New Revelation was manifested to the world," Sanges said sternly. "He has a great and abiding knowledge of man's ways and the best course for humanity. I should think even you could see that."

"Nigel, I'm sure you know the New Sons are not hostile to the existence of extraterrestrial life," Valiera said diplomatically. "The New Revelation grew out of the discovery of life on Mars and Jupiter, after all. The First Bishop merely makes the point that man is specifically wedded to Earth, so things extraterrestrial will probably seem quite foreign to man, even frightening."

"Are you going along with the New Sons, then?" Nikka asked.

"No, of course not," Valiera said quickly. "I merely think I should take a position between these two diverging views."

"Diverging they are, yes," Nigel said. "I don't think extraterrestrial life has to be so bloody frightening, and I don't necessarily think our limited knowledge about how we evolved falls in with the First Bishop's dogma."

"What do you mean?" Sanges said severely.

"Never mind. I simply think we should keep our minds open. And release of all the data we recover from the computer is essential. We need the best minds working on this problem, not just a committee of the NSF."

"Nonetheless," Valiera said mildly, "the judgment of the Congress and the NSF has been made and we must go along with it."

Nigel leaned back and drummed his fingers on his knee. Nikka exchanged glances with him and turned back to Valiera. "Let's drop that topic for now. Nigel and I agreed on the way over here that we need a separate link to Alphonsus to ensure that no loss of computer files occurs again."

"That seems a reasonable proposal," Valiera said. His face lost some of its tension.

"It won't take very much trouble or time to install a separate transmission link near the console itself." Nikka took a pad of paper and sketched a circuit configuration. "I want to locate a computer file inventory inside the ship itself, so there will be a separate inventory available to whoever is at the console at all times. That way, even if something is erased in Communications by accident, there will be an-

other copy that can be transmitted to Alphonsus for permanent storage."

"That seems rather a lot of work and expense—" Sanges began.

"Expense be damned!" Nigel said suddenly. "We're not running a shoestring operation here. That ship is at least *half a million* years old. It's still armed, and it can teach us more in a few years than man might learn in a century on his own. I'm not going to let—"

"I think your proposal is well taken," Valiera broke in. "I'll tell Engineering to give you every assistance with it."

"I want a separate link to Alphonsus," Nikka said. "A complete separate subsystem."

"I'll see that you get it immediately. We have enough equipment to spare. And now"—Valiera glanced at his wristwatch—"I believe it is time for the New Sons' hour of withdrawal and meditation, Mr. Sanges."

"You're setting time aside for that?" Nigel said in disbelief. "Even here?"

"We must compromise on all things, Nigel," Valiera said, smiling.

Nigel grimaced, got to his feet and left the room. The slamming door made a hollow echo.

January 24, 2009, 2:36 P.M.

Nigel stood on a high ledge and watched the flames eat their way down the valley. The dry tan grass caught readily and burned with a crisp roar, a sound like many drummers beating. Through the pall of black smoke he could see the few small creatures who had set the fire. They were gesturing to each other, following the flames at the edge of the valley floor, carrying small torches to ensure there was no break in the fire wall.

Before the flames ran the elephants. Their long, loping shamble had a touch of panic to it now; they made low cries to each other as they rushed toward disaster.

From his ledge Nigel could see the dark line of swampland that lay before the elephant herd. The image danced in the shimmering heat, but he could make out the grassy bogs now only a kilometer from the elephants. At each side of the swamp, near the valley wall, waited small bands of the same sort of creatures who carried the fire. It was too far to make out any detail, but they seemed to be dancing, the long poles they carried twirling high in the air. Far away, beyond the moist swamp-

land, lay a drier upper plateau. On it he could see a huge herd of foraging animals, probably antelope or wild cattle; a vast ocean of game. Yet the creatures with fire ignored the herd; they drove the elephants and waited to butcher them when the animals were caught in the mire.

Why did they run the risk of trampling or the searing pain as an elephant tusk skewered them? To show courage? To have more tall tales around the late-night hearth? To fuel the myths and legends that grew with each retelling beside the dancing magic firelight?

How did they learn to cooperate so, moving in and out in an elaborate dance as they probed the prey for weakness? Who taught them to make tribes, kindle fire, form the delicate web of family? So nimble a craft, acquired so quickly, it was hard to believe these creatures were driven by the slow, ponderous hand of evolution, the gravid workings of—

A shifting of shadows caught Nigel's eye. He turned as one of the creatures stepped from behind a spindly tree. It was scarcely a meter high, shaggy, with hands and feet that seemed swollen. The deep-set eyes darted left and right, checking the terrain, and the small erect creature shifted the pointed stick it carried in its hand.

The wind shifted slightly and brought the rank, sweaty smell of the creature to him. Neither of the two moved. After a moment the creature shuffled its feet, took the stick in one hand and raised the other, palm outward. It made a series of low, rumbling grunts. The palm it held up was wrinkled and matted with coarse hair around the sharp nails.

Nigel raised his palm in the same gesture. He opened his mouth to reply, and the image drifted away in a curl of smoke. Light rippled and danced. . . .

There was a loud banging sound that seemed to grow weaker until he recognized what it was. Someone was knocking on his door.

He brushed some papers from his lap, swung his feet to the floor and took the two paces to the door. When he opened it Nikka was standing awkwardly in the passageway.

"My doctor has advised me never to drink alone," she said. She held up a small chemical flask of transparent liquid. "The purest stuff, distilled at Alphonsus for the purposes of scientific research and the advancement of man's knowledge."

"A most interesting specimen," Nigel said judiciously. "Come, bring it inside for further study."

He settled on his bunk and gestured to a chair. "I'm afraid there's not

much place to put anything down. There's an extra glass in the cupboard, and I'll join you as soon as I finish the drink I'm on."

She looked with interest at his glass. "Fruit juice?"

"Well, one must mix the canniforene in something."

Her eyes widened. "But that's *illegal*."

"Not in England. Things are pretty wretched there, and all the mild euphorics are allowed, nay, encouraged."

"Have you ever smoked LSD?" she asked with a touch of respect in her voice.

"No, didn't really feel the need. It's not the sort of thing you smoke, anyway. Not that I mind smoking, mind you; I prefer to take cannabis that way. But I've been drilled that you don't smoke anything on the moon, too dangerous, so I had this canniforene smuggled up with the lot from Kardensky. Cost me a packet—two hundred dollars, that bet, remember?—to get it through."

She mixed in some fruit juice with her alcohol, tested the mixture and smiled. "Do you find the routine here so wearing?"

"Not at all. It's dead easy. I haven't even been here long enough for the low-gravity high to wear off. But while you were rigging up the link to Alphonsus I decided to have a skull session over the Kardensky stuff. Canniforene gives me ideas sometimes, lets me see connections I wouldn't otherwise." Nikka frowned and opened her mouth to say something. Nigel waved his hand elaborately and said, "Ah, I know. Buggering up my mind for a lot of over-the-counter insights. Well, I can't feel it doing me any harm. It's given me some sparks of creativity in the past that helped my career a lot. And anyway, Nikka, it's *delicious*. Very fashionable stuff, that, it's much the rage. All the hominids are doing it."

"All right," Nikka said, "I might even try some myself. But look, I thought that you were going to meet me in the gym an hour ago."

"I was, wasn't I? Well, it's a dreary lot of exercise machines they have in there and I was busy with my cogitating here."

"You should do it, you know. Valiera will be on to you about it pretty soon. If you don't do the exercises, eventually you can't return to Earth at all."

"When they put in a swimming pool I'll be there." He took a sip of his drink and studied a sheet of paper nearby.

"That won't be too long, now that we've struck ice. Besides, Nigel,

the exercise makes you feel good. Look—" She nimbly turned in the air and did a one-handed flip, landing neatly on her feet. "I'll admit it's not all that hard in low gravity."

"Yes, yes," Nigel said, looking at her curiously. He guessed that she was a bit uneasy at visiting him in his digs. She was a naturally physical sort of person, so anxiety would probably show up as increased activity; thus the gymnastics. "Sit down here, I've got some things to show you." He handed her a color photograph of Earth taken from orbit. "That's the same picture we got on the console a while back. Kardensky had it shifted into approximately our color scale, so it doesn't look red to us."

"I see. What part of Earth is it?"

"South America, the southern tip, Tierra del Fuego." Nigel tapped a fingernail on the slick surface. "This is the Estrecho de Magellanes, a narrow strait that connects the Atlantic and Pacific."

Nikka studied the photo. "That's no strait. It's sealed up at four or five spots."

"Right. Now look at this." He snapped down another print of the same area, dealing as though he were playing cards. "Kardensky got this by request from Geological Survey, taken last year."

"It's open," Nikka said. "It is a strait."

"That spot has always been clear, ever since Europeans reached the New World. This picture we got from the wreck's memory bank must be how it looked before erosion cleared the strait."

Nikka said quickly, "This gives us another way of direct dating, then."

"Precisely. Rates of erosion aren't known all that well, but Kardensky says this picture is at least three quarters of a million years old. It ties in pretty well with the radiation-damage estimates. But that's not all." Nigel collected notes, photographs, and a few books that were lying about his bed. "Somebody in Cambridge has identified those lattice-works we found."

"What are they?"

"Sectioned views, from different angles, of physostigmine."

"Isn't that . . ."

"Right. I'm a bit rusty at all this, but I checked with Kardensky and my memory from the news media is right—that's the stuff they use as an

RNA trigger. That, and a few other long-chain molecules, are what the NSF is trying to get legislation about."

Nikka studied the prints he handed her. To her untrained eye the complex matrix made no sense at all. "Doesn't it have something to do with sleep learning in the subcortical region?"

Nigel nodded. "That seems to be one of its functions. You give it to someone and they are able to learn faster, soak up information without effort. But it acts on the RNA as well. The RNA replicates itself through the DNA—there's some amino acid stuff in there I don't quite follow—so that there is a possibility, at least, of passing on the knowledge to the next generation."

"And that's why it's illegal? The New Sons don't want it used, I've heard."

Nigel leaned back against the wall and rested his feet on the narrow bunk. "There's one point where our friends from the Church of the Unwarranted Assumption may have a point. This is dangerous stuff to fool about with. Biochemists started out decades ago using it on flatworms and the like, but a man isn't a worm, and it will take a bloody long series of experiments to convince me that using it on humans is a wise move." He paused and then said softly, "What I'd like to know is why this molecule is represented in an alien computer memory almost a million years old."

Nikka held out her glass. "Could you give me a drop of that canniforene in fruit juice? I'm beginning to see it might have a use."

"There are some other points, too. That long black line against the mottled background we found, that's a DNA molecule entering a—let me look it up—'pneumococcus.' A simple step in the replication process, Kardensky tells me." He put aside his papers and carefully mixed her a drink. "That's what I was having off on, hallucinating about, I suppose, when you knocked."

Nikka drank quickly and then smiled, shaking her head. "Interesting taste. They mix it with something, don't they? But explain what you mean. I don't see where all this points."

Nigel chuckled and turned thumbs up. "Great. I'm hoping the fellows who opened the packages from Kardensky won't see it either."

"What do you mean? They were opened?"

"Sure. All the seals were off. The canniforene was disguised, so it got

through. The rest was just books, papers, photos, and a tape. I don't know what the censors—New Sons, I'd imagine—thought of it all."

"Incredible," Nikka said, shaking her head in disbelief. "You'd hardly believe this was a scientific expedition at all. It seems more like—"

"A political road show, yes. Makes one wonder why our schedule has been so frequently interrupted."

Nikka looked puzzled. "Our shed-yool?"

"Yes, you say sked-jule, don't you? What I mean is, we seem to get interrupted on our shift a great deal, more than the other teams. We lost several hours today from that electric high tension, for example—"

"High tension? Oh, you mean the voltage."

Nigel collected all the papers and put them on the floor. The room was so cramped there was no working desk. "It's really two languages, isn't it, English and American. We say 'cooker' and you say 'stove.'"

Nikka kicked off her light boots. "There's 'rest stop' and 'lay by.'"

"'Potato chip' and 'potato crisp.' Confusing lot."

She sat on the bed and kissed him. "Exotic language. Old World charm," she said softly.

Nigel made a formal gesture, not totally explicit, currently fashionable throughout Europe. Nikka raised an eyebrow in speculation. He kissed her; she was a scent as sweet as the wind. She unfastened the brass buckle at her side. He reached for the light switch as she removed her blouse, but she shook her head silently with an amused smile. He shrugged and left the room at half illumination until much later.

He awoke in the middle of the night. He took elaborate pains to slide out of the bed without waking her, and switched on only the small reading lamp in the corner.

The mass of material from Kardensky was imposing, but he worked at it steadily, reading as fast as he could. The riddles of the past had an annoying habit of slipping away as he tried to pin them down. Much was known, but it was for the most part a collection of facts with the interrelationships only implied. It is one thing to find a wide variety of tools, mostly chipped or polished stone. But how, from a chipped flint, to deduce a way of life?

He rather wished he had paid more attention to such matters at University, rather than swotting up the readings just before term examinations.

There was a lot of talk and data about apes, but the evidence was quite strong—man's prehuman ancestors didn't look or act like the present great primates. Just because Fred is your cousin doesn't mean you can learn much about your grandfather by studying Fred's habits. It was all so interwoven, so dense. A jungle of theories and test mechanisms that were supposed to explain man—big-game hunting, fire, then selection for bigger brains. And that implied prolonged infant and female dependency, loss of the estrus cycle so the woman was always available and interested; the beginnings of the family; taboos; tradition. All factors, all parts of the web.

The Hindu temple monkeys are ordinarily peaceful in the jungle. But once they become pets, take to living in the temples, they multiply freely and form large troops. One troop, stumbling on another, suddenly flies into a fierce rage and attacks. They are animals with time on their hands; deprived of the need to hunt, they have invented warfare.

Nigel sighed. Analogies with animals were all very well, but did this mean man followed the same path? Other men were the cleverest prey one could find. War has always been more exciting than peace, robbers than cops, hell than heaven, Lucifer than God.

When asked why they live in small groups, the Bushmen of the Kalahari reply that they fear war.

Tribes, clans, pacts. Africa the caldron, Africa the crucible. Olduvai Gorge. Serengeti Plain. The Great Rift that circled the planet, a giant baseball seam, splitting, twisting, churning the dry, dusty plains of Africa. Earthquakes and volcanoes that forced migration and pushed the hunter onward in search of game.

Here is where ritual began, some said. The great peace that comes of doing a thing over and over again, every step spelled out in fine detail. The numbing, reassuring chant, the prescribed steps of the dance creating a system where all is certain, all is regular, a substitute universe for the uncertain and unpredictable world outside.

The birthplace: A dry, straw-colored plain with scattered bushes, dark-green clumps near swamps and waterholes, the long winding ribbon of green that lines the course of a small river. The language of fur, horns, claws, scales, wings. The serene logic of sharp yellow teeth and blunt clubs. A creature who walks upright, leading a ragged troop behind. Jaw and mouth thrust forward, a trace of muzzle. Low fore-

head and flattish nose. He climbs trees, he seeks water, he learns and remembers.

Reason and murder. The rich, evil smell of meat. The women, who stayed behind during the hunt to gather roots and berries, now prefer vegetables and fruits and salads. In a man's restaurant the menu is thick steaks and roast beef, rare. A skull, three hundred millennia old, showing clear signs of murder. But with such built-in tension, such rivalry, how did men ever come to cooperate? Why did they erupt from the bloody cradle of Africa, products of an entirely new kind of evolution? Ramapithecus to Australopithecus africanus to Homo erectus to Neanderthal to Walmsley, the litany that should explain everything and said nothing, really, about the great mystery of why it all happened.

Genes, the brute push of circumstance, Darwin's remorseless machine. Flexibility. The complexity of uncommitted structures in the brain, they said. Nerve cells with subtle interconnections not fixed at birth, but patterned by the stamp of experience. Hands, eyes, upright gait. An excited male chimp snaps a branch from a tree, brandishes it, rears up on two feet and drags it away. Other chimps follow, chittering among the trees, tearing away branches and waving them. They jump through the green leaves and land in the clear, scampering out a few meters into the withered grass. It is some form of display, a celebration of the troop.

Inference, deduction, circumstantial evidence. A boy about sixteen years old lies on his right side, knees slightly drawn up and head resting on his forearm in a sleeping position. He seems small at the bottom of the dark trench. A pile of chipped flint forms a sort of stone pillow beneath his head, and near his hand is a beautifully worked stone ax. There are roasted chops and antelope legs, wrapped in leaves; the boy will need something to eat in the land of the dead. Circles and animals drawn on the walls, colored clay smeared on faces and pebbles. Art follows religion, at least a hundred millennia old. Domesticated animals, client allies of dogs and cats and cattle. And always the restlessness, the outward thrust, aggression, war. Man would rather kill himself than die of boredom. Novelty, gambling, exploration, art, science.

"Wamm ymm doing?" Nikka said. She peered at him drowsily.

"Studying up. Looking for clues."

Nikka threw back the covers and lay looking at the low ceiling. She took a deep, cleansing breath and sat up. Her black hair curled and tumbled slowly in the low gravity. "What have you learned?" she asked.

"A lot I'm still trying to fit into my synapses. It's clear whoever flew this ship knew a great deal about our ancestors. They must have had some kind of operation going here, else why learn so much about us? Why not study the dolphins, too—they're intelligent, though in a vastly different way, of course."

Nikka pulled on one of Nigel's shirts and came to sit beside him. "It could be they were studying us just because we were intelligent and they were interested in cultural anthropology."

"But why the physostigmine? There's the rub."

"Well, they must have been somewhat like us. There are many things about this wreck we can understand. Their technology isn't totally mysterious, and they must have had some of the same social forms. They even had war, if that's what their defensive screen and attack system means."

Nigel nodded slowly. "Someone picked up the survivors of this wreck, too, or we would have found some traces of their bodies. They had more than a one-ship expedition."

"Could be. Theories are easy, but to be certain . . ."

"True, a half million years is a long time. We can't even be sure of very much about ourselves a half million years ago. How did we domesticate animals? Evolve the family system and sprout onto the savanna, away from the forests? How did we learn to swim? Apes won't cross a stream more than a foot deep or twenty feet wide. Yet it all happened so *fast*."

Nikka shrugged. "Forced evolution. The great drought in Africa."

"That's the usual story, yes. But is all this"—he waved a hand at the walls—"bases on the moon, science and technology and warfare and cities, is it all just spelling out the implication of big-game hunting? Hard to believe. Here, listen to this." He picked up a small tape player and placed it on his knee. "I'll keep the volume down so we don't wake anyone. This is a war chant from New Caledonia. I suppose Kardensky thought I would find it amusing, since he thinks my taste in music is rather along the same lines."

The tape began with a click. A long droning song began, loud and deep and half shouted to the beating of drums. It was sung with feeling but strangely without pattern. There was no sustained rhythm, only occasional random intervals of cadence that came like interruptions. A dull bass sound filled the room. For a few moments the chanters sang

in unison and their voices and the drum beating seemed to gain in power and purpose. Then the rhythm broke again.

"Spooky stuff," Nikka said. "Who are they, the people who sang this?"

"The most primitive human society we know. Or knew—this recording is forty years old and that tribe has disintegrated since. They're the losers, the people who didn't adjust to larger and larger groups and better ways of warfare and toolmaking. They seemed to lack some trait of aggressiveness that 'successful' societies such as ours display all too much of."

"That is why they are gone now?"

"I suppose. Somewhere in the past we must have all been like those tribes, but something got into us. And what *was* that something? Evolution, the scientists say; God, the New Sons think. I wish I knew."

Later they went to bed again and everything was quite as satisfactory as before. A few hours later Nikka awoke and then could not fall asleep. She lay staring into the darkness, and the listless, random chant ran through her mind.

January 25, 2009, 9:14 A.M.

After a day of dazed babbling, Graves awoke in the morning able to speak clearly. Livingston fried synthetic yeast steak, and as they ate Graves confirmed most of the deductions Livingston had made from the microfilm.

"I'd been on their trail for months," Graves said, propped up in bed. "Got a few long-distance photos, even found some of the vegetation they'd nibbled at, a few rabbit bones, things like that. Followed them up out of California, with a guide to help. Started in August. In December it got cold but we kept on, had a 'copter drop us supplies."

"Why not stop?" Livingston asked. He looked down at the map he held in callused hands. Graves's trail wound back on itself several times; various points were marked with dates.

"They had to slow down sometime. Everything does in the winter up here. If I outlasted them I could maybe move in when they were hibernating or something, have a look at their caves."

"Was that how you got this?" Livingston gestured at the bandage over Graves's ribs.

Graves grimaced. "Yeah. Maybe they weren't holed up at all, just stopped for a while. I came up on them in one of those circular clearings

that used to be a root system for redwood trees. Got in close. They were sitting around a kind of stone block with something made out of metal on top of it, all of them kind of looking at it and humming, swaying back and forth, a few beating on the ground."

"You mentioned that earlier when you first woke up."

"Uh huh. I thought the sound would cover me, all that chanting. My guide circled around to come in at a different angle. They were worshiping that damn thing, that rod. I got a picture and moved, and the one up front, the one who was leading them, he saw me. I got scared. Took a shot at him with my rifle, thinking to run them off maybe.

"Then the leader grabbed that rod and pointed it at me. I thought maybe it was a club, so I got off another shot and I think I hit him. Then he did something to the end of the rod and a beam came out, so close I could feel the heat in the air. Something like a laser, but a lot wider beam width. I was pumping slugs into him like crazy, but he wouldn't go down. He got my guide, killed the boy. Next time he fired he clipped me in the side. But I'd got the son of a bitch by then, he was finished.

"The others had run off. I got over to him and pulled that rod away from him and took off, not even looking where I was going. I guess they picked up my trail a little later—I saw some of them following me. But they'd learned a lesson and stayed away, out of easy rifle range. Guess they thought I'd drop finally and they'd get their rod back. Until I saw your smoke I thought I was finished."

"You nearly were. That burn cut deep, and it could have caused infection. I'm surprised you could stand the pain."

Graves winced, remembering it. "Yeah. Had to keep going, wading through the snow. Knew they'd get me if I stopped, passed out. But it was worth it."

"Why? What did it get you?"

"Well, the rod," Graves said, startled. "Didn't you find it in my pack?"

Livingston suddenly remembered the gray metal tube he had examined and put aside.

"Where is it?" Graves sat up and twisted out of the bed, looking around the cabin. Livingston walked over to the man's pack and found the tube lying under it in a corner. He must have dropped it there.

"Oh, okay," Graves said weakly, dropping back onto the pillow. "Just don't touch any of those things on the end. It goes off real easy."

Livingston handled it gingerly. He couldn't understand its design. If it was a weapon, there was no butt to absorb recoil or crook into a man's shoulder. No trigger guard. (No trigger?) A slight raised ridge on one side he hadn't noticed before. (A sight?)

"What is it?"

"Don't ask me," Graves replied. "Some new Army gadget. Pretty effective. Don't know how they got it."

"You said the Bigfeet were . . . *worshiping* it?"

"Yeah. Gathered around, some kind of ceremony going on. Looked like a bunch of New Sons or something, wailing away." He glanced quickly at Livingston. "Oh, sorry if I offended you. I'm not one of the Brothers, but I respect 'em."

Livingston waved it away. "No, I'm not one of them. But this weapon . . ."

"It's the Army's, for sure. Who else has got heavy stuff like that? I had to get certificates as long as my arm to carry around that rifle I had. I'll turn it in when I get back, don't worry about that. Only thing I care about is the photographs."

Livingston put the tube on the kitchen sideboard, frowning. "Photographs?"

"The ones I got of them. Must have three rolls, a lot done with telescopic lenses. They'll prove the Bigfeet are still up here, get me some press coverage."

"I see. You think that'll do it?"

"Sure. This is my biggest find, easy. It's even better than I thought it would turn out. The Bigfeet are smart, a lot faster than some ordinary game animal. Might not be the missing link or anything, but they're close. Damned close." His voice was fading with fatigue, a sibilant whisper.

"I think you should sleep."

"Yeah, sure . . . sure. Just take care of that film in the pack. Don't let anything, you know . . ."

In a few moments he began to breathe regularly.

Livingston found the film in a side pocket of the pack that he had missed before. They were clear, well-focused shots on self-developing film. The last one, of the clearing, was still in the camera. Seen from behind, the Bigfeet were just dark mounds, but the tube could be seen clearly resting on a rectangular stone at the far end of the clearing.

Livingston moved to the window and stood looking out at the waning light of afternoon. It was hard to imagine how the Bigfeet could get such a weapon. They were primitive, afraid of men, isolated in a wild forest.

But they had it, undeniably. Lasers had been around for over fifty years; possibly the military could keep something like this under wraps for decades, if they wanted to. There were a lot of devices that never reached the civilian market.

The Bigfeet seemed to know how to use it, too. But worshiping it? That didn't seem to fit their pattern.

Use of that gray tube would certainly keep them free of men. Perhaps that's why the reports and sightings dropped off after 1970—the Bigfeet killed anybody who got too close.

Outside, nothing moved. The snow had stopped, but until it compacted there wasn't any hope of getting Graves out to the jeep. Still, Livingston could go for help himself, if the weather held.

He realized that he hadn't listened to a weathercast for over a day. In wild country like this it was a necessity. If the radio promised him a handful of clear hours tomorrow morning, he could make it. It would be a slight risk, even then. But Graves wasn't a young man; he might have a relapse. Best to get help when he could.

Livingston turned on the radio, setting the volume low to avoid disturbing Graves. Slowly he spun the dial, listening for the usual clipped tones of a news broadcast.

January 25, 2009, 11:27 A.M.

Nigel leaned against the wall at the back of the 3D gallery. Figures jostled on the screen, kicking a ball, falling, forming pincer moves and making blocks. He had never much liked soccer, but now he could see the logic of it, the need men had for it. Hunting game in small groups, running and shouting and knowing who was your enemy, who was your friend. In group and out group, simple and satisfying. And not a vegetarian in the lot.

A few men sat watching the 3D. A goalsman missed a shot and one of them laughed. The screen flickered and a woman appeared. She gave the camera a sultry smile, held up a small green bottle and said, "Squeeze it for a lift! It's got upgo! Try—"

Nigel turned to leave and bumped into Nikka. "You've got it all?" she said.

Nigel showed her the packet of papers and photographs he carried under his arm. "Everything we've found, including the bits we don't understand."

"Shouldn't we tell Team one we're going off shift early? They might want to—"

"No, we don't want anyone fooling around with the computer memory now. As long as we don't know what erased the sequences today, no one should touch the console."

Nikka gestured down the corridor and they began walking. "You called Valiera?" she said.

"Yes, he said come by anytime. I think we shouldn't delay any longer. And I'd just as soon not have Sanges put his oar in until we've seen Valiera."

Nikka shrugged. "You may be a little harsh on him. His heart must be in the right place, otherwise he wouldn't be in this expedition. We needn't think the worst of him just because he's a New Son. There are bastards who are New Sons and there are bastards who aren't, and I don't see much difference."

"Maybe," Nigel said noncommittally. They were at Valiera's office door. Nigel knocked, held the door for Nikka and followed her in. Sanges and Valiera sat looking at them, silent, waiting.

Nikka stopped for a moment, surprised, but Nigel showed no sign and fetched a chair for her from the back of the room. They exchanged pleasantries and Valiera said, "I understand from Mr. Sanges that some of the sequences you found are now inaccessible."

"Yes," Nikka said. "We think something has erased them. There must be some method for retrieval and disposal of information, and it's logical that some command through the console will achieve this. As long as any of the three teams tries new sequences we run the risk of losing information."

"But if we cease exploring, we will find nothing," Sanges said reasonably.

"We came here to ask for a halt to all work at the console until the material we have has been assimilated," Nigel said. "We simply don't have enough information or people to handle the material here. What we need is cross-correlations, diversity—anthropology, history, radiology,

some physics and information theory and lots more. The NSF should release what we've found and ask for a consensus—"

"I really think it's too early for that," Valiera said smoothy. "We have hardly begun to—"

"I certainly feel we have enough to think about," Nikka said. "We have two photos now of those tall hairy creatures—"

"Yes, I've seen one of those in your shift report. Interesting. Might be an early form of man," Valiera said mildly.

"I'm pretty well sure that it is," Nigel said. He leaned forward energetically in his chair. "I've made a few tentative conclusions about what we found and I think they point in an extremely significant direction. I'll submit a summary later, with full documentation. But I think I should send a preliminary conclusion to the NSF immediately, to get others working on it, to get some spectrum of opinion. I think there's a fair chance the aliens who crashed here may have had a significant effect on human evolution."

There was a tense silence. Sanges shook his head. "I don't see why . . ." Valiera said.

"It's just a preliminary idea, I'll agree. But it seems a bit odd, doesn't it, that we should so quickly stumble on things like the physostigminian derivative, viewed along each of the major symmetry axes? There are DNA traces, some other long-chain organic molecules we can't identify, and Kardensky just got back to me on that furry creature. The people in Cambridge can't fit it into the usual scheme of primate evolution. It's large, probably fairly advanced and may be a variant form no one has dug up yet. Those fellows are used to looking at bones, you know, and it's hard to tell very much detail under all that fur."

"That is surely why we need to find out more," Sanges said.

"But we can't risk missing any more entries in the computer memory, not after losing some today," Nikka said earnestly.

"Right," Nigel said. "And the matter might be of supreme importance. Information from the past can't be replaced. What's been bothering me for days now is that it seems a great coincidence that this ship was here between five hundred thousand and a million years ago, and current theories of our own evolution place a number of developments in that same time bracket."

"But we began evolving long before that time," Valiera said.

"True enough, but a lot of our progress has been made over the last

million years. We learned a lot of things then—forming large groups, big-game hunting, all the nuances of family relationships, taboos. Art. Religion. I think there's a chance these aliens had something to do with that. Man has always been an anomaly, a species that evolved in a wink of an eye."

Sanges said deliberately, "And you think this was due to the aliens' using physostigmine, altering our ancient genetic material?"

"We can almost do that now," Nikka said. "We're learning to take traces of the RNA complex. There is legislation about it now."

Valiera looked at her with distant assessment and then turned to Nigel. "I'm no professional anthropologist, of course, but I think I see a hole even in what you said just now. If these aliens simply taught these things to our ancestors, how do you explain the parallel evolution of hands, larger brains, two-footed stance and all that? It's that side-by-side mental and physical evolution that is so interesting about early man. But teaching an animal to do something when he hasn't got the physical ability is useless."

Nigel looked concerned. He sat and thought for a moment. "Right, I see your point. That removes the driving link between physical and mental evolution. But look, do you see, it could be selective help. That is, you could wait until some small band of primates developed a special trick—say, throwing sharpened stone knives instead of closing in and using them by hand. You could then teach them to use that new ability better. Show them how to use spears; they're more useful than knives for big game. With a direct hand on the RNA features you could speed up evolution, give it a nudge when it strays from the path you've designed. Man was still being shaped by his environment a million years ago. I should think a push in the right direction—depending on your definition of right—would have large long-term effects."

In a sudden burst of nervous energy Sanges stood up and leaned back against the edge of Valiera's desk. He folded his arms and said, "Why would anyone do this? It would take so long—what would be the point?"

Nigel spread his hands. "I don't know. Control, maybe. The most striking thing about man is how he learned to move from small bands of roving hunters to huge big-game operations involving hundreds or thousands at a time. How did that cooperation come about? It seems to me that's one of man's most efficient features, and on the other side

of the spectrum he's plainly antagonistic toward his fellows. War is an expression of that tension."

Valiera made a thin smile and said, "Why bother to control something little better than an animal?"

"I do not believe we can even guess," Nikka said. "Their aims could even be economic, if we could be trained to make something they wanted. Or it could be that they wished to pass on intelligence itself to us. Those furry creatures were probably half-intelligent already."

"Yes," Nigel said quickly, "even with the crude methods we have now, the physostigminian derivatives can train animals to do amazingly detailed jobs. They can make a man believe anything." He looked wryly at Sanges. "Or almost anything."

Sanges sniffed disdainfully. "This entire idea is incredible."

"So is that wreck out there," Nikka said sharply. "We've got to expect the incredible."

"We've found some other things, too," Nigel said. He was intent upon what he said, but he did not miss the questioning glance that passed between Valiera and Sanges. "Nikka and I have turned up two photos—they were among the ones erased from memory recently—which show something like wild dogs being treated in a sort of casket-like box. There were early forms of a cat, too. My guess is they were diddled with a bit, too."

"Well," Nikka said, looking at him, "I don't think we should go quite that far yet. It would be best to say that conclusion is not impossible."

Nigel shrugged. "I don't fancy going out on a limb, so maybe you're right. I can't help remembering that a cooperative worker is far more efficient than a slave. Something has made dogs—and cats to a lesser extent—excessively loyal to men. You can explain it with evolutionary theory, but I've looked at the technical background on this point and nobody has really been able to uncover an explanation of the phenomenon. Apparently the domesticated animals don't bear much resemblance to the wild species. They got themselves domesticated rather quickly, too—along with all the other rapid developments that were happening to us. That's it, it all happened so damned fast. Suspiciously so, I should think."

Sanges said with sudden fierce energy, "Next you'll be saying they invented art and religion and every other thing that makes man worthwhile."

Nigel cocked an eyebrow at him. "Maybe so. I think we ought to find out."

"Religion does give a group more coherence, doesn't it?" Nikka said mildly. "Makes people better able to work together. It reinforces the family virtues, it fits into the local pecking order."

"I believe this conversation to be nothing less than blasphemous," Sanges said solemnly.

Valiera made a small smile. "As much as I appreciate your coming to me with this, Nikka and Nigel," he said judiciously, "I think you ought to look at things from a broader point of view. I happen to know that Mr. Sanges' religion holds that the Bible is a metaphor for creation. They have no dispute with the modern view of man's evolution. They see no contradiction between that and the New Revelation. They will even agree that life could originate elsewhere, since the conditions exist throughout the universe. But they do hold that Earth was a host to life because of their doctrine—"

"Divine natural origin," Sanges said. "A very important principle to us."

"That is the way the New Sons believe," Valiera said. "There are other opinions about man's origin. I think we as a scientific expedition should not try to stir up these issues without definite proof."

"But the only way to *get* proof is through further study and bringing in as many specialists as we can," Nikka said sharply.

"I don't need to remind you of the difficulty we had getting an appropriation for this expedition in these times," Valiera began. "I do not believe opposition from the New Sons would help our mission here at all. Nor would it be within our proper function to make such statements as the ones you two have made here today, without a vast body of detail behind it."

"Nigel and I don't want to release this to the public, only to authorized people inside the NSF."

"Ah, but there is the point. Once released to even a small body, this sort of thing has a habit of filtering through to the press."

"That's the NSF's problem, isn't it?" Nigel said with deliberate coolness. "The fact remains that I am requesting that we transmit all of this to Earth, to get better advice. And that no further studies of the alien computer banks be carried on until we have sifted through what we've got."

"And these ideas about evolution?" Sanges said abruptly. "They will prove divisive, they will trouble the minds of people who have little time to see why your ideas are wrong—"

"You must admit your theory is a bit out in the wings," Valiera said reasonably.

"Someone has to try to understand what we are digging out of that computer log. Sure enough, if I hadn't believed it with my own mind, I wouldn't have seen it. But I think the idea is worth following."

"And you want it transmitted to Earth as well?" Sanges said.

"Yes," Nikka said.

"Under both our names," Nigel said.

Sanges looked disgusted. "Your names, too? Already dividing up the credit. Do you want to be the first to publish on the Marginis wreck?"

"It's not an official publication," Nigel said with flinty irony. "Just a bit of a memo, of a sort." He looked with sudden energy at Valiera. "Well? The material is in Communications' tapes. I want to send it Earthside, to Kardensky, and then the NSF. I'll need your signature for that."

Valiera leaned back in his chair and narrowed his eyes, visibly weighing something in his mind. "I'm sure you understand the need for security in this matter . . ." he began.

"Security be damned," Nikka said.

". . . and I know I have your full support in my job of keeping all sides balanced in any disputes. I gather Mr. Sanges here does not feel this information should be spread around. I believe if I were to ask the other teams, they would feel much the same way. I must say I can see their argument quite clearly and I think it is valid."

Nigel was watching Valiera intently. He thought he saw some slight shift in the man's face, an odd tightening around the mouth. "I think that as your Coordinator," Valiera went on, "I must turn down this proposal. To be sure, I shall take the matter under advisement in future—"

"Ah yes, well, I see," Nigel said. He silenced Nikka with a glance. "We're sorry about that, but we of course bow to your decision." He stood up suddenly, the thrust almost lifting him clear of the floor. "We'd best be getting on, Nikka," he said woodenly. Very calmly he took her arm and they left. Nigel nodded good-bye at the two men and closed the door.

Outside he leaned against the corridor wall. "An education in cynicism, this, isn't it?"

"They're a bunch of damned lunatics," Nikka said fiercely. "They're not scientists at all, they're—"

"Indeed. It's quite clear now that Valiera is a New Son."

Nikka stopped, startled. "Do you think so? It would certainly explain a lot."

"Such as the numerous delays we've had. I've noticed the other teams haven't had the lost tapes, the air failures, the high-tension arcs. It would make a great deal of sense if our Mr. Valiera and Mr. Sanges were in bed together."

"I must say, though," Nikka said, "you took it very well. I expected you to blow up all over them."

"Well? I'm glad my little bit of playacting went over successfully. We're going to move now, that's why I didn't want to show them I was concerned. Go ahead, why don't you, and start suiting up in the lock."

Nikka looked puzzled. "For what? I thought we weren't going to continue the shift?"

"We're not. But I had an inkling that something like this might happen; that's why I pushed so hard for the direct link to Alphonsus. I want to transmit all this stuff"—he held out the package of papers he carried under his arm—"and be sure Alphonsus retransmits to Earth immediately. If we go through them I don't think Valiera can stop it."

Nikka's eyes widened. "Great! I'll go ahead." She turned and walked quickly toward the lock.

Nigel studied the array of hand tools that formed one wall of the lock bay. He picked off a bulky tube and studied it. "This is a laser, isn't it?"

Nikka was placing the papers and photographs in a vacuum carry case. "Did anyone see you when you went back to pick up these things at your console?" She looked up at what he was doing. "Yes, that's a standard lightweight industrial cutter."

"I don't think anyone noticed me, in any case," Nigel said. He hefted the cutter and put it back in its rack. "Hate to use that with the large power cord. I think we need something a bit simpler."

"For what?"

Nigel said too casually, "I'm not going to let anyone into that lock

at the wreck. Once we're in, the only way they can stop the transmission is by cutting the power switches right there in the lock bay, before the passageways begin. You'll go into the alien console and I'll stay out by the lock, to be sure no one cuts the power."

Nikka blinked. The idea took her by surprise. "Oh," she said meekly.

Nigel plucked off an aluminum lug wrench and hefted it. He banged it against the floor and it rang loudly. "Primate weapon, rawther just the thing."

Outside the lock the lunar sunset made giants of their shadows. The white sun lay pinned on the horizon beneath a black sky. Here the winds always slept. A molecule would travel some ten thousand kilometers before meeting a fellow molecule; on Earth, the distance was smaller than the eye could see. The two fell silent as they walked from the Site Seven lock toward the imposing alien wreck scattered on the stark gray hillside. Nigel reflected that the footprints they made in this dust would survive for half a million years, an immensity of time he could not even compare with his own life span. The universe was so vast and he was so small, so uncertain of himself. "I'm not really sure of all that theory, you know," he said abruptly.

"I know," Nikka replied. "But it sounds to be the most reasonable solution I have yet heard to what we've found."

"Ah, but is a mere idea, and a half-baked one at that, worth doing this for?"

"Losing your confidence?"

Behind his faceplate Nigel's face stiffened. Her remark resolved him. "Considering the opposition, I think anything we do is justifiable."

"Oh?"

"When I was about fourteen, there were some odd kids in my class at school. They were very severe, hardly ever laughed and were given to little lectures about how the rest of the kids should behave. They were New Sons, of course, only I didn't realize what it meant then. Then one day we heard at school that the kids had broken down, had a fit or something, and been hustled off to some special institution. It worked out they had been convinced that the New Revelation was dead right because their parents rigged up a special little show for them."

"Show? In church?"

"No. They had a special room in their house. Every day the kids would go into the room and the parents told them that God would talk to them from the ceiling, because that was the way God did things. Everybody had his special private audience, you see. That wasn't New Son doctrine, but they thought it would be a useful way to keep their children from having conflicts about the faith. So every day they would go in and this little lecture would come down in a heavy, ponderous voice. It was a recording, of course. The parents got a friend to do the tapes. So the kids thought they really were talking to God. They were of a particularly strict sect, and I suppose since they didn't talk about the God Room they never found anyone who told them it was a fake. But then they did find out one day, I never discovered how, and both of them went off the rails."

"I'm sure that kind of treatment is not supported by the New Sons."

"Oh, of course. But that's where that sort of thinking leads."

They reached the man-made lock that bulged outward from the base of the wreck. They cycled through together and Nikka began unsuiting. "Don't have time for that," Nigel said. "You can get through with the s-suit on anyway, can't you?"

Nikka stopped for a moment and considered. "Yes, I suppose I can. Here, help me rig a line so I can tow this packet of papers after me."

They busied themselves for several moments. The lock bay was large and made the mouth of the alien passageway seem improbably narrow. Nigel helped Nikka into the hole and then picked up the lug wrench.

"If you really think you need a weapon," Nikka said, "I think the laser would have been a better guess. And shooting someone with it isn't necessarily fatal."

Nigel looked at her sheepishly. He tried the balance of the lug wrench. "You needn't kill someone with one of these, either," he said defensively. "I really feel that I ought to have something."

Nikka shrugged and grinned. "Well, I'd better get in. Valiera might be over here with a squad of Engineers any minute."

"Yes, well . . . good luck," Nigel said lamely.

Nikka worked her way steadily through to the Bowl Room. She dragged the packet of information after her; the maneuver was difficult but she had long experience. Inwardly she fumed as she wriggled through the narrow passageways. Valiera and his "consideration for others' views," his "fair-mindedness." The situation seemed outrageous

to her, yet Nigel had been able to anticipate it. It was a good thing he had argued Valiera into installing the Alphonsus link for just this eventuality.

She reached the console and switched on the link to Alphonsus. The rig could read electronic input or could scan printed pages. She took a sheaf of the pages and photographs Nigel had given her and stacked them neatly in the feeder. She put it on automatic and watched as the first few sheets were transmitted. It would take quite a while to file the entire log. She reached Alphonsus by voiceover and confirmed a direct relay to Earth. Then she sat back, not quite knowing what to do. The feeder worked smoothly, and the entire system was on automatic. As long as the power remained, nothing else at Site Seven could stop this transmission. She decided to go back and be with Nigel.

On the return trip she listened intently for any sound from the lock bay. The plastiform walls muffled almost everything in the ship, so she was not surprised that when she called out to him Nigel did not respond. She reached the Bowl Room and paused to rest. The exertion was exciting, but the oppressive mass of the ship always depressed her at first. The glowing ruby metal seemed almost live, and she could not forget that she was completely enclosed by this ship, deep in the bowels of an object no man understood. She shook her head to banish such thoughts. Now was the time to be swift and capable; Nigel would be wondering what she was doing.

She was lying partway up the side of the bowl. She got up on her elbows to hook her feet into the passageway entrance below her. Just before she moved down, Sanges' head appeared in the hole. She froze. He looked around but not in her direction. With a grunt he twisted his arms forward, and into Nikka's view came the snout of the industrial cutting laser she had seen in the lock bay. Sanges wriggled forward, keeping the laser aimed in front of him. Just as his eyes swept around toward her she stepped down savagely on his wrist.

She felt something give in his hand and the laser clattered noisily down the side of the bowl. Sanges began a shout that became a scream. Nikka scrambled after the laser and reached it before Sanges could recover. She rolled to the opposite side of the bowl and brought it up, pointed at Sanges. He was clutching at his hand and swearing. Blood trickled down from the wrist and dripped from his fingers.

"You filthy bastard, did you hurt Nigel?" Nikka demanded in a shrill voice.

Sanges looked at her steadily and said nothing. He seemed to assess the situation and put his injured wrist out of his mind. He stopped holding the injured hand and began wriggling out of the hole.

Nikka gulped and tried to think. His silence unnerved her. She knew this was when she had to be quick and think rapidly, but the thin edge of panic came creeping into her mind. "Don't move," she said in a wavering voice. Sanges said nothing and continued to work his way out of the hole. He had difficulty because of his injured hand; he leaned on it once and winced. When he was halfway into the bowl he reached to his belt and unhooked a short knife.

Nikka blinked rapidly. Without thinking she edged to the side of the bowl and hooked her feet into the other passage that led out of the bowl. She held the laser pointed directly at Sanges, but she knew that she could not fire at him. Only when she pulled it after her into the passageway did she notice that it was not the standard cutting laser, which carried a power cord. It had a charging cell on the end, so it could be maneuvered more easily. She should have thought of that, should have warned Nigel and had him carry one, if only she—

She struggled out of her confusion. She had to think quickly or this man might injure her badly. She knew she could not shoot at him until probably too late, when he was so close that he could make a grab for the cutter. She backed farther into the passageway. Sanges was into the bowl now, eyes fixed intently on her and still saying nothing. He could not use his injured hand at all and crawled forward awkwardly, using the hand that carried the knife to pull himself onward.

Nikka worked her way backward down the passageway. It was slow going because she had never done it this way before, and her mind was a welter of conflicting emotion. Sanges made it up the side of the bowl and struggled into the entrance of the passageway. He was only a few meters away. His breathing was ragged, and he never took his eyes from hers. There was something eerie about the man and his single-minded purpose. Nikka backed through a comparatively open space and then felt the passageway narrow again around her hips. She braced herself and pushed back hard with the heels of her hands, but it was difficult to gain any momentum while she tried to hang on to the laser. She remembered the passage narrowed badly here, and she had to exe-

cute a difficult turn just a bit farther along. She tried to think. She knew the design of the ship well. She thought for a long moment, all the time wriggling backward as fast as she could. She was doing better than she had expected, but Sanges seemed to be gaining on her. The fanatic intensity of the man made her hurry and miss some handholds.

She sighted down the laser snout at him and tried to imagine what would happen if she shot him full in the face. No, her mind veered away. She would have to struggle backward, hoping someone would stop the man from the other end. But who could get in here? Only one other person at Site Seven could even get in the passageway, and he was probably asleep, off his shift.

Nikka searched frantically for some solution, and an idea came. She remembered that the passageway had a thin wall here. Another narrow tunnel lay directly over it. That tunnel was not pressurized.

She checked again to be sure she was in the right place and then tilted the laser snout upward to point at the ceiling. Sanges was only four meters away. "Are you going to stop?" Nikka said. The man made no reply.

Nikka pressed the button at the side of the cutter and a quick flash darted at the ceiling. She pressed rapidly three more times and heard the hiss of escaping air. There were four small black holes in the plastiform. Her ears popped.

"Sanges, the air will blow out of here in just a few minutes. If you want to live you'd better start back toward the lock." Without waiting to see what he would do, she worked her way backward as quickly as she could. There was a widening in the passage just behind her. She left the laser where it was and slowly wriggled around, head over heels. When she looked back there was no sign of Sanges. Her ears popped again. Air whistled as it rushed by.

She kicked forward and worked her way with agonizing slowness through the narrowest portion of the passageway. It took her several minutes and her breath was becoming short when she reached the open bay where the console stood. She still had on her s-suit; she stumbled forward and found an emergency helmet stored beneath the console. She tipped the oxygen bottles on and felt the sudden rush of fresh air. She had a strange sense of déjà vu; she had nearly died this way before. She felt suddenly very weary and sat down on the floor. Probably she should call Alphonsus or the operator at Site Seven. She

started to get up. Suddenly she remembered the laser. She had left it lying in the passageway because to carry it would have slowed her down far too much. But if Sanges reached the lock, got a suit and helmet and came back after her—abruptly her mind cleared and she looked at the transmission link to Alphonsus. It was still operating. The feeder swallowed a sheet of paper as she watched.

Sanges had not killed the power in the lock bay. But he might think of it at any moment, and he might come back through the passageway and find the cutter. Nikka climbed back into the hole at the base of the ellipsoidal console bay.

The journey back was long and tiring; there seemed to be more turns than she remembered. She reached the cutter, still lying where she had left it. Apparently Sanges had been so intent upon reaching her that he did not realize that the power could be terminated from the lock bay. The man was a pure fanatic, beyond reason. She remembered his ghostly silence, as though to speak would betray his cause, deflect him from his duty.

She reached the Bowl Room. A small pool of blood had collected in the bottom. Nikka kept on. The bulky emergency helmet caught in turn on one side and then the other of the passage. Her own rasping breath seemed to urge her on.

She was a few meters from the entrance into the lock bay when something caught her attention. A foot appeared at the edge of her field of view. Someone was lying on the floor of the bay. She struggled forward, trying to think only of moving as quickly as she could. She could not tell who it was; the leg was clad in a standard worksuit overall. When she got closer she could see there was no s-suit covering the overall. Whoever was lying there was exposed to high vacuum.

She wriggled around to get a better view. She was nearly to the end of the passageway before she recognized Nigel.

January 26, 2009, 3:14 A.M.

Alexander Livingston turned the weapon over in his rough hands. Did he really feel the strangeness in it, or was that imagination?

It was alien, the radio news broadcast had made that clear. The media seemed unsure just why there was a major news leak inside the NSF; rumors attributed it to a battle between the New Sons and some university group. Whatever the cause, the killing of that scientist

Walmsley at the Marginis wreck had started it all, forced the breech.

The rest of it . . . well, it fitted. In a curious way it all came together.

The newscasts described a set of leaked photographs and documents. To Livingston they explained, in an oblique way, what the Bigfeet must be. The announcer had thrown in some sensationalism about Walmsley's theories, saying it could be a major attack on the New Revelation, but Livingston didn't see what the fuss was about. He had never believed the Revelations, of course, but still it seemed quite reasonable to him that once you had accepted aliens mixing in with human evolution, religion had to be affected, too.

Worship of objects, of idols, was one of the primitive forms of religion. How could any aliens be sure that tinkering with a primate's social instincts would always have only the intended results? If Bigfoot began worshiping something, what was a more natural choice for godhood than the aliens themselves? It would be a simple, natural thing to transfer that worship to their gods' possessions that were left behind when the aliens abandoned Earth.

In the distant past the Bigfeet must have collected the bits and pieces of their gods' leavings and carried them along when the higher forms of men drove them out of Africa and Asia. Dragged them across the Alaskan straits, perhaps used them to survive.

And the tribes with weapons would live longest, of course. A band of Bigfeet that worshiped an alien refrigerator wouldn't find it of much use when they were cornered and had to fight.

Graves spoke in his sleep, mumbling, and thrashed against his bedding. Livingston looked over at him.

Graves would make his name with this discovery. He had brought the Bigfoot at last into the light.

Livingston found the film in Graves's pack. It made an orange kernel in the fire, and in a moment there were no traces.

He carried the tube—how had they made it so tough, to last this long? —out into the clearing, and stood with it in the darkening chill of evening.

Minutes passed. Then they came.

There were not many. Six stepped away from the shelter of the black tree line and formed a semicircle around him. Livingston had the feeling more were waiting out of sight.

In the light thrown through the open cabin door behind him he could see one of them clearly. The head was very human. A thick forehead slanted into flaring nostrils. Glittering, sunken eyes darted quickly, seeing everything.

Massive, muscled arms hung almost to its knees as it crunched forward through the snow. A sheen of black hair, two inches long, covered the entire body except the nose, mouth, and cheeks. A faint sour animal smell drifted in the light breeze.

Human genitalia, and to the right Livingston could see a female with heavy breasts. They stopped twenty yards from him and waited. Even slightly hunched forward there was dignity in their bearing.

He held the weapon out at arm's length and stepped forward. They did not move. He placed it gently, slowly on the snow and stepped back.

Let them have it. Without hard, factual proof Graves's story would be dismissed.

The New Sons were not beaten. They would do anything to disprove the evidence in the moon wreck. The Bigfeet might prove living refutation to the New Revelation. They would be hunted down, once Graves reached civilization with that tube.

This weapon was the final argument. It linked the Bigfeet unquestionably with the aliens.

Livingston gestured for them to pick it up.

Take it. You're just as alone as I am. Neither of us has any use for the madness of man.

One came forward hesitantly. He stooped and smoothly swept it into his arms, cradling the tube.

He looked at Livingston with eyes that flashed in the orange cabin light. He performed a bobbing, nodding motion.

Behind the Bigfoot the others made a high chittering noise that rose and fell. They sang for a moment and made the bobbing motion again. Then they turned and padded gracefully away. In a moment they were lost in the trees.

Livingston looked up. Clouds were scudding across the stars. Between two of them he could see the white starkness of the moon.

There had been someone up there who had seen it too, perhaps, buried in cold electrical memory. Did he sense that these children-ancestors were as much a part of nature as the trees, the wind?

Let them go. Nature had nearly finished its grinding work, nearly snuffed them out. But at least they could go with grace, alone, unwatched. Any wild thing could ask that much of the world.

After a long time Livingston went back inside, leaving the silence to itself.

THE MARATHON PHOTOGRAPH

Clifford D. Simak

Clifford Simak is one of science fiction's most distinguished elder statesmen. His first story was published in 1932; his first novel, Cosmic Engineers *(1939), established him as a major figure in the field; and during the years of the Second World War he published the group of stories known as the* City *series (collected in book form in 1952), which has won a permanent place among the classics of science fiction. He is the author of numerous other novels and scores of short stories, among them two Hugo winners, the novella* The Big Front Yard *and the novel* Way Station. *Simak lives in Minnesota, where he has had a long career as an editor for a major Minneapolis newspaper.*

There is no point in putting this account on paper. For me, a stolid professor of geology, it is an exercise in futility, eating up time that would be better spent in working on my long-projected, oft-delayed text on the Precambrian, for the purpose of which I still am on a two-quarter leave of absence, which my bank account can ill afford. If I were a writer of fiction I could make a story out of it, representing it as no more than a tale of the imagination, but at least with some chance of placing it before the public. If I were anything other than a dry-as-dust college professor, I could write it as a factual account (which, of course, it would be) and submit it to one of the so-called fact magazines that deal in raw sensationalism, with content on such things as treasure hunts, flying saucers, and the underground—and again with the good chance that it might see the light of print, with at least some of the more moronic readers according it some credence. But a college professor is not supposed to write for such media and most assuredly would feel the full weight of academic censure should he do so. There always is, of course, the subterfuge of writing under an assumed name and changing the names of those who appear in the text, but even should I not shrink from this (which I do) it would offer only poor protection, since at least part of the story is known to many others and, accordingly, I could be identified quite easily.

Yet, in spite of all these arguments, I find that I must write down what happened. White paper covered with the squiggles of my penmanship may, after a fashion, serve the function of the confessional, lifting from my soul and mind the burden of a lonely knowledge. Or it may be that subconsciously I hope, by putting it down in a somewhat orderly fashion, to uncover some new understanding or some justification for my action which had escaped me heretofore. Anyone reading this—although I am rather certain no one ever will—must at once perceive

that I have little understanding of those psychological factors that drive me to what must seem a rather silly task. Yet, if the book on the Precambrian is ever to be finished, it seems, this account must be finished first. The ghost of the future must be laid to rest before I venture into the past.

I find some trouble in determining where to start. My writing for academic journals, I realize, cannot serve as a model for this effort. But it does seem to me that the approach in any writing chore must be logical to some degree at least, and that the content must be organized in some orderly fashion. So it appears that a good place to start might be with the bears.

It had been a bad summer for the bears. The berry crop had failed and the acorns would not ripen until fall. The bears dug for roots, ripped open rotten logs to get at grubs and ants and other insects that might be hidden there, labored long and furiously to dig out mice and gophers, or tried, with minimal success, to scoop trout from the streams. Some of them, driven by their hunger, drifted out of the hills to nearby tiny towns or lurked in the vicinity of resorts, coming out at night from their hiding places to carry out raids upon garbage cans. These activities created a great furor, with the nightly locking and barring of doors and windows and an industrious oiling of guns. There was some shooting, with one scrawny bruin, a wandering dog, and a cow falling victims to the hunters. The Division of Wildlife of the State Conservation Department issued the kind of weighty, rather pompous warning that is characteristic of entrenched bureaucracy, recommending that bears be left alone; they were a hungry tribe, consequently out of temper, and could be dangerous.

The accuracy of the warning was borne out in a day or two by the death of Stefan, the caretaker at the Lodge back in the hills, only a half mile or less from the cabin that Neville Piper and I had built a dozen years or more ago, driving up from the university and working on it of weekends. It had taken, for all its modest proportions, a couple of years to build.

I realize that if I were a really skillful writer I'd go on with the story and in the course of telling it weave in all the background information. But I know that if I try it, I will be awkward at it; the writing of geological papers intended for scientific journals is not the kind of thing that trains one for that kind of writing craftsmanship. So, rather than

attempt it and get all tangled up, it might be a good idea to stop right here and write what I knew at that time about the Lodge.

Actually, I didn't know too much about it, nor did anyone. Dora, who ran the Trading Post, a fanciful name for an old-fashioned general store that stood all by itself where the road into the hills branched off from the valley road, for years had carried deep resentment against the people who occasionally came to the Lodge because she had been able to learn almost nothing of them. About all that she knew was that they came from Chicago, although, when pressed upon the point, she wasn't even sure of that. Dora knew almost all the summer visitors in the hills. I think that over the years she had come to think of them as family. She knew them by their first names and where they lived and how they made a living, plus any other information of interest that might be attached to them. She knew, for example, how for years I had been trying to write my book, and she was quite aware that not only was Neville a famous Greek historian, but that he also was widely known as a photographer of wildlife and nature. She had managed to get hold of three or four of those coffee-table books that had used some of Neville's work and showed them to all comers. She knew all about the honors that had been conferred upon him for his photographic study of asters. She knew about his divorce and his remarriage and how that hadn't worked out, either. And while her accounts of the subject may have been somewhat short of accuracy, they did not lack in detail. She knew I'd never married, and alternately she was enraged at me for my attitude, then sympathetic toward my plight. I never could decide whether it was her rage or her pity that incensed me most. After all, it was none of her damn business, but she made everything her business.

So far as technology is concerned, the hills are a backward place. There is no electricity, no gas, no mail service, no telephones. The Trading Post has a sub-postoffice and a telephone, and for this reason, as well as for the groceries and the other items carried on its shelves, it is a sort of central hub for the summer visitors. If you were going to stay for any length of time, you had your mail forwarded, and if you needed a telephone, the Trading Post had the nearest one. It was inconvenient, of course, but few of the visitors minded, for the greater part of them came into the hills to hide away momentarily from the outside world. Most of them came from only a few hundred miles away,

but there were some who lived as far away as the East Coast. These visitors flew into Chicago, as a rule, and boarded the Galloping Goose to fly to Pine Bend, about thirty miles from the hills, renting cars to travel the rest of the way. The Galloping Goose was the Northlands Airline, a regional company that served the smaller cities in a four-state area. Despite its ancient equipment, it did a creditable job, usually getting in on time, and with one of the finest safety records of any airline in existence. There was one hazard; if the weather was bad at a certain landing field, the pilot didn't even try to land, but skipped that particular stop. The fields had no lights and there were no towers, and when there was a storm or a field socked in by fog, the pilots took no chances—which may help to explain the excellent safety record. There were many friendly jokes attached to the Galloping Goose, most of them with no basis of truth whatever. For example, it was untrue that at Pine Bend someone had to go out and drive the deer off the runway before a plane could land. Personally, over the years, I developed a very friendly, almost possessive feeling toward the Galloping Goose—not because I used it, for I never did, but because its planes flew on their regular schedules over our cabin. Out fishing, I'd hear one of them approaching and I would stand and watch it pass over, and after a time I found myself sort of anticipating a flight—the way one would watch a clock.

I see that I am wandering. I really started out to tell about the Lodge.

The Lodge was called the Lodge because of all the summer places in the hills it was the largest and the only one that was pretentious in the least. Also, as it turned out, it had been the first. Humphrey Highmore, not Dora, had been the one who told me the most about the Lodge. Humphrey was a ponderous old man who prided himself on being the unofficial historian of Woodman County. He scrabbled out a living of sorts by painting and hanging wallpaper, but he was first and foremost a historian. He pestered Neville every chance he got and was considerably put out because Neville never was able to generate much interest in purely local history.

The Lodge had been built, Humphrey told me, somewhat more than forty years before, long before anyone else had evinced an interest in the hills as a vacation area. All the old-time residents, at the time, thought that whoever was building it was out of his right mind. There

was nothing back in those hills but a few trout streams and, in good years, some grouse shooting, although there were years when there weren't many grouse. It was a long way from any proper place, and the land, of course, was worthless. It was too rough to farm, and the timber was so heavy it was no good for pasture, and the land was too rough to harvest timber. Most of it was tax-forfeited land.

And here came this madman, whoever he might be, and spent a lot of money not only to erect the Lodge, but to build five miles of road through the nightmare hills to reach it. Humphrey, who had told me the story on several occasions, always indicated at this point a further source of irritation that perhaps would have been felt most keenly by a devoted historian—no one had ever really learned who this madman was. So far as anyone knew, he had never appeared upon the scene during the time the Lodge and road were being built. All the work had been done by contractors, with the contracts let by letter through a legal firm. Humphrey thought the firm was based in Chicago, but he wasn't sure. Whether the builder ever actually visited the Lodge after it was built was not known, either. People did come to stay in it occasionally, but no one ever saw them come or leave. They never came down to the Trading Post to make any purchases or to pick up mail or make a phone call. The buying that was done or other chores that needed to be performed were done by Stefan, who seemed to be the caretaker, although not even that was certain. Stefan, no last name. Stefan, period. "Like he was trying to hide something," Humphrey told me. "He never talked, and if you asked him anything, he managed not to answer. You'd think a man would tell you his last name if you should ask him. But not Stefan." On his infrequent trips out from the Lodge, Stefan always drove a Cadillac. Most men usually are willing to talk about their cars, said Humphrey, and a Cadillac was seen seldom enough in these parts that there were a lot of people who would have liked to talk about it, to ask questions about it. But Stefan wouldn't talk about the Cadillac. To Dora and Humphrey he was an irritating man.

It had taken several months, Humphrey said, to get the road into the Lodge built. He explained that at the time he had been off in another part of the county and had not paid much attention to the Lodge, but in later years he had talked with the son of the man who had the contract to build the road. The road as it first was built was good enough for trucks to haul in the material to build the Lodge, but once it had

been built the track was fairly well torn up by truck traffic, so there had been a second contract let to bring the road back to first-class condition. "I suppose a good road was needed for the Cadillac," Humphrey said. "Even from the first it was a Cadillac. Not the same Cadillac, of course, although I'm not sure how many."

Humphrey always had plenty of stories to tell; he bubbled with them. He had a pathological need to communicate, and he was not bothered too much by repetition. He had two favorite topics. One, of course, was the mystery of the Lodge—if it really was a mystery. Humphrey thought it was. His other favorite was the lost mine. If there was a lost mine, it would have had to have been a lead mine. There were lead deposits all through the area. Humphrey never admitted it was a lead mine; he made it sound as if it might be gold.

As I gathered it, the lost-mine story had been floating around for a long time before Humphrey fastened hold of it. That there was such a story was no great surprise—there are few areas that do not possess at least one legendary lost mine or buried treasure. Such stories are harmless local myths and at times even pleasant ones, but at least subconsciously they are recognized for what they are, and it is seldom that anyone pays much attention to them. Humphrey did, however, pay attention to the story; he ran it down relentlessly, chasing after clues, reporting breathlessly to anyone who would listen to him his latest scrap of information or imagined information.

On that July morning when it all began I drove down to the Trading Post to buy some bacon and pick up our mail. Neville had planned to make the trip so that I could get started on the textbook project, but after several rainy days the sun had come out and during all the rainy spell he'd been praying for a few hours of sunlight to photograph a stand of pink lady's slippers that were in bloom a short distance below the bridge just beyond the Lodge. He had been down there for several days in the rain, floundering around, getting soaked to the skin and taking pictures. The pictures had been fine, as his pictures always are. Still, he needed sunlight for the best result.

When I left, he'd had all his equipment spread out on the kitchen table, selecting what he'd need to take along. Neville is a fussy photographer—I guess most photographers are, the ones who are interested in their work. He had more gadgets than you can imagine, and each of those gadgets, as I understand it, is built for a specific task. It's his fussi-

ness, I suppose, and all those gadgets he has collected, that make him the outstanding photographer he is.

When I arrived at the Trading Post, Humphrey was there, sitting all by himself in one of the several chairs pulled up around the cold heating stove that stood in the center of the store. He had the look of someone who was waiting for a victim, and I didn't have it in my heart to disappoint him. So after buying the bacon and picking up the mail, I went back to the stove and sat down in the chair next to him.

He didn't waste any time in idle chatter; he got right down to business.

"I've told you, I think," he said, "about the lost mine."

"Yes," I said. "We have discussed it several times."

"You recall the main thrust of the story," he said. "How it was supposed to have been discovered by two deserters from Fort Crawford who were hiding in the hills. That would have been back in the 1830's or so. As the story went, the mine was discovered in a cave—that is, there was a cave, and cropping out in the cave was a drift of mineral, very rich, I understand."

"What I've never been able to figure out about it," I said, "is even if they found the mine, why they should have bothered to try to work it. It would have been lead, wouldn't it?"

"Yes," said Humphrey, somewhat reluctantly, "I suppose it would have been."

"Think of the problem of getting it out," I said. "I suppose they would have had to smelt the ore and cast it into pigs and then bring in pack animals to get out the pigs. And all the time with the Army with an eye out for them."

"I suppose you're right," said Humphrey, "but there's magic in a mine. The very idea of finding riches in the earth is somehow exciting. Even if there's no way to work it . . ."

"You've made your point," I said. "I think I understand."

"Well, in any case," said Humphrey, "they never really worked it. They started to, but something happened and they pulled out. Left the country and were never seen again. They are supposed to have told someone that they cut logs to conceal the cave mouth and shoveled dirt over the logs. To hide the mine from anyone else, you understand. Figuring maybe some day they'd come back and work it. I've often wondered, if all this is true, why they never did come back. You know,

Andrew, I think that now I have the answer. Not only the answer, but the first really solid evidence that the old story is not a myth. I think as well that I may be able to identify that hitherto unknown person who got the story started."

"Some new evidence?" I asked.

"Yes, quite by chance," he said. "Knowing I am interested in the history of this area, people often bring me things they find—old things, like letters or clippings from old newspapers. You know the kind of stuff."

I said, indeed, I did. He had me interested, but even if I hadn't been I'd let him get started on it and I had to hear him out.

"The other day," he said, "a man from the eastern part of the county brought me a journal he'd found in an old box in the attic. The farmhouse had been built by his grandfather, say a hundred years or more ago, and the farm had stayed in the family ever since. The man who brought me the journal is the present owner of it. The journal apparently had been written by his great-grandfather, the father of the man who originally settled on the farm. This great-grandfather, for several years when he was a young man, had run a trading post up on the Kickapoo, trading with the Sauks and Foxes who still were in the area. Not much of a business, apparently, but he made a living out of it. Did some trapping on his own and that helped. The journal covers a period of about three years, from 1828 well into '31. Entries for almost every day, sometimes only a single sentence, but entries. At other times several pages filled, summarizing events of the past few weeks, previously only mentioned sketchily or not at all . . ."

"There was mention of a mine?" I asked, getting a bit impatient. Left to himself, he could have rambled on for hours.

"Toward the end of it," he said. "August of '31, I think. I can't recall the date. Two men who I take to have been the deserters came to the post late one evening, seeking food and shelter. It had been some time since our journalist had seen another white man, and I would suspect they made a night of it, sitting up and drinking. They would not have told him what they did if they'd not had a few too many. They didn't out and out say they were deserters, but he suspected it. The fort authorities had asked him some time before to be on the lookout for them. But it appears he had been having some trouble with the military and was not about to help the fort. So it would have been safe enough for

the two to have told him they were deserters, although apparently they didn't. They told him about the mine, however, and pinpointed it close enough so he could guess that it was somewhere in these hills. They told him the story that has come down to us, little changed. How they cut the logs to cover up the cave mouth before they left.

"But they told him something else that has not come down to us—why they fled the country. Something scared them, something they found in the mine. They didn't know what it was; they never got close enough to it to find out. It ticked at them, they said; it sat there and ticked at them. Not regular, like a clock, but erratically, like it might be trying to talk with them, they said. Warning them, perhaps. Threatening them. When they first encountered it, apparently, they went out into the open, like a shot, scared stiff. It must have been an eerie sort of feeling. Then, getting a little over it and feeling sheepish about being scared so easily, they went back into the cave, and as soon as they stepped inside it, the ticking started up again. That did it. You must remember that more than a century ago, when all this happened, men were somewhat more inclined to superstitions than they are now, more easily frightened by what might appear to be supernatural. I remember a fine old Irish gentleman who lived on a farm near my father's farm. When I was a small boy he was well into his seventies, and I, of course, did not hear his story of the graveyard ghost. But in later years I did hear my father tell it many times. It appears that one night, driving home in a cart that he habitually used in his travels about the countryside, he saw or thought he saw a white-sheeted ghost in the graveyard only a few miles from his home. Ever after that, when he was out at night and coming home, upon approaching the cemetery he would whip up his horse and go past the cemetery as fast as good horseflesh could carry him."

"It was after the second ticking incident that they left," I said.

"Yes, apparently. The journal's not entirely clear. The keeper of the journal was no great writer, you must understand. His syntax leaves much to be desired and his spelling takes a moderate amount of deciphering. But, yes, it seems they did light out after that second incident. The wonder is, frightened as they seemed to be, that they took the time to conceal the cave."

The screen door banged and I turned around to see who it was. It was Neville. He stopped just inside the door and stood there, straight

and calm, the way he always is, but a bit stiffer in his straightness, it seemed to me, than was usual.

"Dora," he said to the woman behind the counter, "I wonder if you'd phone the sheriff for me."

I got up from the chair. "The sheriff?" I asked. "What do you want the sheriff for?"

He didn't answer me immediately. He spoke to Dora. "Tell him that Stefan, up at the Lodge, is dead. Killed by a bear, it seems. Just below the bridge this side of the Lodge. The one over Killdeer Creek."

Humphrey was on his feet by this time. "Are you sure he's dead?" he asked.

"Reasonably certain," said Neville. "I didn't touch him, of course. But his throat's ripped out and it would seem his neck is broken. There are bear tracks all about. The slope down to the stream is muddy from the rains and the tracks are clearly seen."

Dora was on the phone. Neville said to her, "I'm going back. I don't think he should be left alone."

"The bear won't come back," said Humphrey. "Granted, they are hungry. But if he didn't eat him at the time . . ."

"Nevertheless," said Neville, "I am going back. It's not decent to leave him there any longer than is necessary. Andy, do you want to follow me?"

"Certainly," I said.

Humphrey dealt himself in. "I'll wait for the sheriff," he said. "When he comes along, I'll flag him down and ride along with him."

Neville and I got back to the bridge half an hour or so before the sheriff and Humphrey showed up. We parked our cars and walked down below the bridge. And there, only a few yards from the creek, was Stefan.

"We better sit down up here," said Neville. "There's nothing we can do but watch. We don't want to go tracking up the place. There's not much doubt what happened, but the sheriff will want the area to be left undisturbed."

We found adjacent boulders and sat down upon them. Neville glanced at the sky. It was clouding up again. "There goes my chance for pictures," he said. "And those blooms only have another day or two to go. Besides . . ."

He said that "besides" and then he stopped. As if there were some-

thing he had been about to tell me and then decided not to. I didn't question him. Maybe one of the reasons we've been friends so long is that we do not question one another.

"There are some good trout in that pool just below the bridge," I said. "One of these days I'm going after them. I picked up some new flies before I drove up. Maybe they'll do the job."

"I have to go back to the university," said Neville. "Tonight, if I can. Tomorrow morning at the latest."

I was surprised. "I thought you were staying for another week or two."

"Something came up," he said.

We sat and passed away the time with inconsequential talk until the sheriff arrived. As I looked at Stefan sprawled out on the stream bank, it seemed to me that he looked smaller than I remembered him. I found myself wondering if life added an extra dimension to a man. Take life away, would the man grow smaller? He lay with his face up to the sky, and there were flies and other insects crawling on his face. The position of his head concealed his torn-out throat, but there were bright specks of red still on the leaves and forest loam, blood that as yet had not turned to brown. I tried to make out the bear tracks that Neville had mentioned, but I was too distant from the body to make them out.

The sheriff turned out to be a genial man, soft-spoken, unofficious. He was a big man, rather fleshy. He looked like the TV stereotype of a hick-town sheriff, but he didn't talk or act like one. He came clambering down the bank, with Humphrey following. He spoke to Neville, "You are Mr. Piper. I think we met several years ago. And you must be Mr. Thornton. I don't think we've ever met. You're a geologist, I understand."

We shook hands and the sheriff said to Neville, "You asked Dora to call. She said you were the one who found the body."

"I was on my way to photograph some flowers," said Neville. "He's just the way I found him. I touched nothing. It was apparent he was dead. There were bear tracks."

"The ambulance will be along any minute now," the sheriff said. "Let's have a look."

We went down and had a look. There was nothing much to see. It was rather horrible, of course, but the body, the man reduced by the absence of life, was so small and insignificant that it had little impact.

Balanced against the brawling stream, the sweeping extent of birch and pine, the deep silence of the wilderness, the fact of human death canceled out to very little.

"Well," the sheriff said, "I guess I better have a closer look. This is something that I always hate to do, but it goes with the job."

He bent over the body and began going through the pockets. He looked through the pockets of the jacket and the shirt and had to roll the body a little to explore the back pockets of the trousers. He came up with nothing.

He straightened up and looked at us. "That's funny," he said. "Nothing. Not even a billfold. No papers. He had no pocketknife; most men carry pocketknives. I don't think I've ever run into that before. Even the filthiest old bum, dead in some back alley, always has something on him—an old letter, a photograph, faded and torn, from long ago, a piece of twine, a knife, something. But this one is absolutely clean."

He stepped away, shaking his head. "I can't figure it," he said. "Stands to reason a man would have something on him." He looked at Neville. "You didn't go through his pockets, did you? No, of course you didn't. I don't know why I asked."

"You're right," Neville said. "I didn't."

We went back to the road. The sheriff played a dirty trick on Humphrey, and perhaps there was justice in that because Humphrey really had no right to be there.

"I think," the sheriff said, "we'd better go up to the Lodge."

"I doubt there's anyone around," I said. "For the last couple of days I've seen no one there, not even Stefan."

"I think, anyhow, we should have a look," the sheriff said. "Just in case there should be someone. Somebody should be notified. Perhaps Humphrey won't mind staying here to flag down the ambulance."

Humphrey did mind, naturally, but there was nothing he could do about it. Here was the chance to go up to the Lodge, probably to go inside it, and he was being counted out. But he did what he had to do with fairly good grace and said that he would stay.

Passing by the Lodge, of course, one could see that it was a massive structure, half camouflaged by native trees and planted shrubbery. But it was not until one drove up to it, going up the driveway that led to the detached garage that housed the Cadillac, that an adequate idea could be gained of the size of it. From the driveway it became apparent

that its true dimensions, as seen from the road, were masked by the fact that it crouched against the hill that rose back of it. By some strange trick of perspective it seemed from the road to be dwarfed by the hill.

The sheriff got out of his car as we drove our cars back of his and parked. "Funny," said the sheriff. "In all these years I have never been here."

I was thinking the same thing. On a number of occasions, driving past, I had waved to Stefan, if he happened to be out, but I had never stopped. Sometimes Stefan waved back, most of the time he didn't.

The garage door was open and the Cadillac parked inside. It seemed to me, as I looked at it, that there was a strangeness to the garage. Then, quite suddenly, I realized what the strangeness was. Except for the Cadillac, the garage was empty; it had not been used as a storage catch-all, the fate of most garages.

A flight of flagstone steps ran up from the driveway to a terrace and the narrow strip of level ground that lay in front of the house. The lawn was intended to be gay, with garden umbrellas, but the gaiety fell a little short, the canvas torn by the wind and faded by the sun.

No one was about. More than that, the place—the house, the lawn, all of it—had an empty feel to it. It felt like a place that never had been lived in, as if it had been built those forty years ago and then been allowed to stand, to age and weather, with no one ever standing underneath its roof. It was a strange sensation and I wondered what was the matter with me that I should be thinking it. I knew that I was wrong. Stefan had done a lot of living here, and occasionally there had been others.

"Well," the sheriff said, "I suppose we should go up and see if anyone is home." I sensed the sheriff felt uncomfortable. I felt uncomfortable myself, as if, somehow, I were an unwelcome guest, as if I'd come to a party, the kind of party that you simply do not crash, without an invitation. All these years the people of this house (whoever they might be) had made it a point of honor that they wished to be left alone, and here we were, invading their fiercely protected privacy, using a tragedy as pretext.

The sheriff went heavy-footed up the flagstone stairs, with Neville and me following close behind. We came out on a stone patio that led up to the front door. The sheriff rapped on the door. When there was

no answer, he pounded on it. I think that all he was doing was going through the motions; he had sensed as well as I had that there was no one there.

He put his hand on the latch and pressed it with his thumb. The door came open and he stuck his head inside. "Anyone home?" he asked, and then, scarcely waiting for an answer, went on in.

The door opened on a large room; I suppose you would call it the living room, although it was larger than any living room I had ever seen. A lounge would have described it better. The windows facing the road were heavily draped and the place was dark. There were chairs scattered all about, and a monstrous stone fireplace was opposite the windows. But I only glimpsed these things, for standing in the middle of the room, in almost the exact center of it, stood an object that caught my gaze and held it.

The sheriff shuffled slowly forward. "What the hell is that?" he rumbled.

It was some sort of transparent box standing on a platform elevated a foot or so above the floor. A framework of what appeared to be metal held the box in place. Inside the box were unsupported green stripes, like the yardage stripes that mark off a football field. But the stripes didn't run the way they would on a football field. They were canted at all angles and were of no uniform length. Some of them were short, others long, some of them had zigzags in them. Scattered amid the markings, with no particular pattern, were a number of glowing red and blue dots.

The sheriff stopped when he got to the box and stood looking down on it. He asked, gently, "Mr. Piper, have you ever seen anything like this?"

"Never," Neville said.

I squatted down, squinting at the box, looking for any sign of wires on which the colored dots might be strung. There was no sign of wires. I poked a finger at the box and struck something hard. Not glass; I would have known the feel of glass. This was something else. I tried several other places and each time the hardness stopped my probing finger.

"What do you make of it, Mr. Thornton?" asked the sheriff.

I made a stupid answer. "It isn't glass," I said.

Suddenly one of the blue dots changed position. It didn't move from

one position to another; it jumped so fast I couldn't see it move. It was at one place and suddenly it was at another place, some three or four inches from where it had been.

"Hey," I said, "the damn thing works!"

"A game of some sort," the sheriff said, uncertainly.

"I wouldn't know," said Neville. "There is no evidence upon which to speculate."

"I suppose not," said the sheriff. "Funny setup, though."

He moved across the room to the windows, started fumbling at the drapes. "Got to get some light in here," he said.

I stayed squatting, watching the box. None of the other dots moved.

"Four feet, I'd say," said Neville.

"Four feet?"

"The box. Four feet square. A cube. Four feet on each side."

I agreed with him. "Close to it," I said.

The sheriff got the drapes open and daylight poured into the room. I got up from my crouch and looked around. The place had a barren look. There was carpeting on the floor. Chairs. Sofas. End tables. Candelabra with wilted candles in them. The fireplace. But no paintings on the walls. No figurines on the fireplace mantel. No small pieces at all. Just the furniture.

"It looks," said Neville, "as if no one ever quite finished moving in."

"Well," said the sheriff, "let's get to work. Let's see if we can find anything that will give us a clue to who should be notified of Stefan's death."

We went through the place. It didn't take us long. All the other rooms were as barren as the lounge. Necessary furniture. That was all. Not a single scrap of paper. Nothing.

Out on the driveway, the sheriff shrugged in resignation. "It seems unbelievable," he said.

"What do you do now?" I asked.

"The county registrar of deeds can tell me who owns the place."

It was almost noon by the time Neville and I got back to the cabin. I started to fry some eggs and bacon. I had the bacon in the pan when Neville stopped me. "Don't bother with it now," he said. "We can eat a little later. There's something I have to show you."

His voice was more tense than I had ever heard it.

"What's the trouble, Neville?"

"This," he said. He reached into his jacket pocket, took something out of it, placed it on the kitchen table. It was a cube, perhaps four inches to the side. It appeared to be translucent.

"Take a look at it," he said. "Tell me what you make of it."

I picked it up. It was heavier than I expected. I weighed it in my hand, puzzled by it.

"Look at it," he said. "Look into it. Bring it up close to your face and look inside it. That's the only way to see it."

At first I saw nothing. Then I brought it closer to my eyes and there, captured inside of it, I could see what appeared to be an ancient battle scene. The figures were small, but lifelike and in full color. There was artistry in the cube; whoever had fabricated it had been a master of his craft.

I saw that not only were there warlike figures, but a background as well—a level plain, and in the distance a body of water and off to the right some hills.

"Beautiful," I said. "Where did you get it?"

"Beautiful? Is that all you can say?"

"Impressive," I said, "if you like that better. But you didn't answer me. Where did you get it?"

"It was lying beside Stefan's body. He'd been carrying it in the pocket of his jacket, more than likely. The bear had ripped the pocket."

I handed the cube back to him. "Strange thing," I said, "for a man to be carrying about."

"Exactly," Neville said. "My thought exactly. It had a strange look to it. Not like plastic, not like glass. You've noticed?"

"Yes," I said. "Come to think of it, a strange feel, too. A hardness, but no texture to the hardness. Like that box in the center of the room back at the Lodge."

"Even facing the fact of death," said Neville, "startled by the fact of human death, I still was fascinated by the cube lying there beside the body. It is strange how one reacts to shock. I suppose that often we may fasten our attention on some trivial matter, not entirely disassociated from the shock, but not entirely a part of it, either, in an unconscious effort to lessen the impact that might be too great if allowed to come in all at once. By accepting the shock gradually, it becomes acceptable. I don't know, I'm not enough of a psychologist to know, no psychologist at all, of course. But there was the cube and there was Stefan, and as

I looked at the cube it seemed to me, rather illogically, that the cube was more important than Stefan. Which, I suppose, is understandable, for Stefan, all these years, had been an object rather than a person, someone that we waved to as we drove past but almost never spoke to, a man one never really met face to face.

"This may all seem strange to you, Andy, and I am a bit surprised myself, for until this moment I have not really considered how I felt when I found the body, never sorted out my reactions. So, to get on with it, I picked up the cube, which I am aware I should not have done, and holding it in my hand and turning it to try to determine what it was, I saw a glint of color from inside it, so I lifted it closer to look at it and saw what you saw just now. And having seen it, there was no question in my mind at all of dropping it back where I had found it. I've never been more shaken in my life. I stood there, with the cold sweat breaking out on me, shaking like a leaf. . . ."

"But, Neville, why?" I asked. "I'll admit it is a clever thing, a beautiful piece of work, but . . ."

"You mean you didn't recognize it?"

"You mean the picture in the cube? Why should I?"

"Because it is a photograph of the Battle of Marathon."

I gasped. "A photograph? Marathon! How can you know? You are going dotty, Neville."

"I know because I know the Plain of Marathon," he said. "I spent three weeks there two years ago—remember? Camping on the field. Tramping up and down the battlefield. Trying to get the feel of it. And I did get the feel of it. I walked the line of battle. I traced the Persians' flight. I lived that goddamn battle, Andy. There were times, standing in the silence, I could hear the shouting."

"But you said a photograph. That thing's not any photograph. There's not a camera made . . ."

"I know, but look at this." He handed back the cube. "Have another look," he said.

I had another look. "There's something wrong," I said. "There isn't any water, and there was before. There was a lake off in the distance."

"Not a lake," said Neville. "The Bay of Marathon. Now you are seeing hills, or perhaps a distant marsh. And there is still a battle."

"A hill," I said. "Not too big a hill. What the hell is going on?"

"Turn it. Look through another face."

I turned it. "A marsh this time. Way off. And a sort of swale. A dry creek bed."

"The Charadra," said Neville. "A stream. Really two streams. In September, when the battle was fought, the streams no longer ran. The beds were dry. You're looking along the route the Persians fled. Look to your right. Some pine trees."

"They look like pines."

"The Schoenia. Pines growing on a sandy beach between the marsh and sea. The Persian boats are pulled up on that beach, but you can't see them."

I put the cube back on the table. "What kind of gag is this?" I asked, half angrily. "What are you trying to prove?"

He almost pleaded with me. "I told you, Andy. I'm not trying to prove anything at all. That cube is a photograph of Marathon, of the battle that was fought almost twenty-five centuries ago. I don't know who photographed it or how it was photographed, but I am certain that is what it is. It's no snap judgment on my part. I know. I have examined it more closely than you have. After you left for the Trading Post I decided that instead of driving my car, I'd walk down to the bridge. It's only half a mile or so. It was a fine morning and I felt like a walk. So when I found Stefan I had to come back here to get the car, and I must confess I did not drive to the Trading Post immediately. I know I should have, but I was so excited about the cube—I was fairly sure what it was, but not absolutely certain, the way I am now—and a half hour one way or the other meant nothing whatsoever to Stefan any more. So I took the time to have a good look at the cube and I used a glass on it. Here," he said, digging around in his pocket, taking out a reading glass. "Here, use this. The picture doesn't break up with magnification. Those are no toy figures in there, no fabrications, no clever make-believes. They are flesh-and-blood men. Look at the expressions on their faces. Note that details become clearer."

He was right. Under the glass, the details were sharper, the faces became more human. The beards were not pasted-on beards, not painted-on beards; they were really beards. One Greek hoplite, his mouth open in a shout, had a missing front tooth, and little beads of blood had oozed out of a minor bruise across one cheek.

"Somewhere," said Neville, "there is a projector, or whatever it is called. You drop the cube into it and the scene is reproduced. You are

standing in the middle of the battle, in a frozen thousandth-second of the battle. . . ."

"But there is no such thing," I said.

"Neither is there a camera that would take a photograph of this sort. It's not only a three-dimensional photograph but an all-angles photograph. Look through one face of it and you see the bay, look through another and you see the marsh. Rotate it through three hundred and sixty degrees and you see the battle all around you. You see it all as it was happening in that thousandth of a second."

I put the cube and the reading glass back on the table. "Now, listen," I said. "You say this had fallen out of Stefan's pocket. Tell me this—how did Stefan get it?"

"Andy, I don't know. First we'd have to know who Stefan was. Tell me what you know about Stefan. Tell me what you know about the other people who come to the Lodge."

"I don't know a thing about Stefan or the others," I said. "Nor do you. Nor does anyone else."

"Remember," Neville reminded me, "how when the sheriff looked for identification on Stefan's body, he found nothing. No billfold. No scrap of paper. Nothing. How could a man get by without a social security card? Even if he had no other identification . . ."

"He might not have wanted to be identified," I said. "He carried nothing so that if something happened to him, there'd be no way for anyone to know who he was."

"The same thought crossed my mind," said Neville. "And the Lodge. It was as clean of paper as Stefan's body."

I had been standing all this time, but now I sat down at the table. "Maybe it's time," I said, "that we start saying out loud some of the things we have been thinking. If that cube is what you say it is, it means that someone with greater technical skills than we have has traveled in time to take the photograph. It couldn't be an artifact. Back when Marathon was fought no one had ever dreamed of the possibility of even a simple photograph. No one from the present time could take the kind of photograph there is in the cube. So we've got two factors —time travel and time travel done by someone from the future, where an advanced technology might make that photograph possible."

Neville nodded. "That has to be the answer, Andy. But you'll not find a responsible physicist who'll concede even the faintest hope that

time travel is possible. And if it should be, some time in the future, why should the travelers be here? There's nothing here that could possibly attract them."

"A hideout," I said. "When the Lodge was built, forty years ago, these hills were a good hideout."

"One thing puzzles me," said Neville. "The emptiness of the Lodge. If you were traveling in time, wouldn't you bring back some artifacts? Wouldn't you want something to put up on the mantel?"

"It might be only a stopping place. A place to spend the night every now and then."

He reached out and took the cube and glass. "One thing bothers me," he said. "I should have turned this over to the sheriff."

"What the world for?" I asked. "It would only confuse him more, and he's confused enough already."

"But it's evidence."

"Evidence, hell," I said. "This is no murder. There's no question what did Stefan in. There's no mystery to it; there's nothing to be solved."

"You don't blame me, Andy, for wanting to keep it? It's not mine, I know. I have no right to it."

"If it's what you think it is," I said, "you have more right to it than anyone I know. Four studies in the *Journal of Hellenic Studies*, all on Marathon . . ."

"Only three on Marathon," he said. "One of them concerned the prehistoric Danube Thoroughfare. Some of the bronzes found there seemed to have some connection with Troy. There have been times when I have had some regrets about that paper. Since then I've told myself I wandered somewhat far afield."

He dropped the cube back into his pocket. "I might as well get started," he said. "I want to reach the university before nightfall. There are hundreds of color slides in my files, taken on the plain of Marathon, and I want to make some comparison checks. Also I want to get some greater magnification than this reading glass affords."

He stood up, hesitating for a moment. "You want to come with me, Andy? We could be back in a few days."

I shook my head. "I have to get down to work," I said. "If I don't get that damn book written this time around, I'll never write it."

He went into his bedroom and came out with his briefcase.

I stood in the cabin door and watched him drive off. He'd get no sleep this night, I knew. Once back in his office, he'd spend the night working with the photograph of Marathon. I was surprised to find how easy it had become to think of it as a photograph of Marathon. I had come to accept, I realized, what Neville said about it. If there was anyone who would know, I told myself, he would be the one. Neville Piper was among the half dozen men in the world who could be regarded as experts on the Persian campaign of 490 B.C. If he said it was Marathon, I stood ready to believe him.

I went out on the porch and sat down in a chair, looking out over the tangled wilderness of the hills. I knew I shouldn't be sitting there. I had an attaché case and a whiskey carton, both filled with notes and half-written chapters, some of them only roughed out and others only needing polishing and checking. I had a brand-new ream of paper and I'd had the typewriter cleaned and oiled—and here I sat out on the porch, staring off into nothing.

But somehow I couldn't make myself get up and go in to work. I couldn't get Stefan or any of the rest of it out of my mind—Stefan, the cube, Stefan's empty pockets, and the empty Lodge, empty of everything except that incredible contraption that the sheriff had thought might be some sort of game. Thinking about it, I was fairly certain it wasn't any game, although, for the life of me, I couldn't imagine what it was.

I sat there stupid, not moving, not wanting to move, sitting there trying to absorb and put together all the strange happenings, listening with half an ear to the sound of wind in the pines that grew just down the hill, the shrill chirring of a startled chipmunk, the squalling of a jay.

Then I became aware of another sound, a distant sound, a droning that steadily grew louder, and I knew it was the noon flight of the Galloping Goose, heading north after stopping at Pine Bend. I got out of my chair and went into the yard, waiting for the plane to come over the treetops. When it showed up it seemed to be flying lower than it usually did, and I wondered if there might be something wrong, although, except for the lower-than-usual altitude, it seemed to be all right. Then, when it was almost directly above me, something apparently did happen. Suddenly the plane, which had been flying level, perhaps actually climbing, although from the ground that would not

have been immediately apparent—suddenly the plane went into a bank, dipping one wing and raising the other, and watching it, I had for an instant the distinct impression that it had shuddered. It banked and seemed to wobble, as if it might be staggering. Then, just as it disappeared above the treetops, it seemed to right itself and go on as before.

It all had happened so swiftly that I really had seen nothing that I could pin down. Somehow, however, I had the impression that the plane had hit something, although what might be up there to hit I could not imagine. It seemed to me I had read somewhere about planes coming to grief by running into flocks of birds. But that, I remembered, almost always happened on approach or takeoff. Despite the fact that the Galloping Goose had appeared to be flying lower than usual, I realized it probably had been flying too high for birds to be a hazard.

I had glanced down and now, for some reason I don't remember, perhaps for no reason at all, I glanced up at the sky and saw a dark dot hanging almost directly over me. As I watched it got larger, and I could see that it was something falling. It was wobbling about as if it might be tumbling in its fall. From the distance that I viewed it, it looked remarkably like a suitcase, and the thought occurred to me that a piece of luggage may have fallen or been thrown from the plane. Then I realized the improbability of throwing anything from a plane in flight, and realized, as well, that if a cargo hatch had popped open, there'd be more than one piece of luggage falling to the ground.

The whole thing was ridiculous, of course, but it didn't seem ridiculous while I stood there watching the flapping, tumbling whatever-it-was falling toward the ground. Afterward it did seem ridiculous, but not at that time.

For a moment it seemed to be rushing straight down upon me. I even took a couple of steps to one side so it wouldn't hit me, before I saw that it would come to earth a short distance down the slope below the cabin.

It came crashing down, brushing through the branches of a maple tree, and when it hit the ground it made a soggy thud. In the last few seconds before it hit the tree I could see it was not a piece of luggage. It was hard to make out what it was, but it did look something like a saddle, and of all the things a man would expect to come falling from the sky a saddle would have been the last upon the list.

When I heard it hit, I went running down the slope and there, in a dry ravine below the road, I found it—and it was a saddle, although

no kind of saddle I had ever seen before. But it did have stirrups and a seat and what I took to be an adaptation of a saddle horn. It was scratched up a bit, but it really wasn't damaged much. It had fallen in a deep drift of leaves, and the leaves had cushioned its fall. There was, I saw, a rather deep dent in the saddle horn, if that was what it was.

It was heavy, but I managed to hoist it on one shoulder and went puffing and panting up the slope. Back at the cabin I dumped it on the porch floor and it lay all humped up, but when I straightened it out there was no doubt that it was a saddle. The seat was wide and ample and the stirrups were cinched up to the right length for an ordinary man. The horn rose somewhat higher than one would find in an ordinary saddle and was considerably larger and flattened on the top, with what seemed to be control buttons set into its face. The entire structure of the horn was shaped like an elongated box. The saddle was constructed of a good grade of heavy leather, and from the feel of it the frame was made of metal. But leather covered all of it and no metal could be seen. Attached to the forward saddle skirts were two closed saddlebags.

I squatted on the floor beside the saddle and my fingers itched to open up the bags, but I didn't do it for a time. I squatted there and tried to fight down the thought that had popped into my head—not that I wanted to do away with it, to banish it, but rather to bring it down to proper perspective, carve it down in size a bit.

Now let's be logical, I told myself. Let's put down the facts we have. First there is a saddle and the saddle is a fact. It is something one can see and touch. It fell out of the sky and that is another fact—for I had seen it fall. It had fallen after the Galloping Goose had gone through a rather strange maneuver—and that probably could be better listed as an observation rather than a fact.

It all seemed clear to me. The saddle had been up there in the sky and the Galloping Goose had come along and collided with it. After the collision the saddle had fallen from the sky. But, I cautioned myself, I could not be sure of that. I could be sure the saddle had fallen from the sky, but I couldn't be positively sure the plane had caused the fall. Fairly sure, of course, but not entirely so.

Questions rattled in my mind, and on the heel of questions, answers. I pushed both the questions and the answers back and stayed looking at the saddlebags. They lay quite flat, and there was no bulge to them.

Although, I told myself, there might be something in them. It wouldn't need to be too much. A clue was all I needed. A clue that would give some support to that one big answer roaring in my brain.

I hunkered down and opened up the first bag. There was nothing in it. I opened the second bag and there was nothing in it, either. Empty—as empty as Stefan's pockets, as empty as the Lodge.

I got up and staggered to the chair and sat weakly in it. The saddle sprawled upon the porch floor and I tried not to look at it.

A time machine, I asked myself—a traveling time machine? You got into the saddle and rose up in the air, then you turned it on and went where you wished in time. But, hell, I told myself, it wouldn't work. Even if you could blind yourself to the impossibility of time travel, there still were a dozen easy reasons why it wouldn't work. I must be insane, I told myself, to even think about it. But tell me, said that mocking, illogical portion of my mind that I didn't even know I had—tell me this, what would a saddle be doing up there in the sky?

I got down on the porch floor on all fours and looked the saddle over. I examined it inch by inch. Hoping, I suppose, for an impression somewhere in the leather which would read: TEXAS SADDLE AND LEATHER CORP., HOUSTON, or something of the sort, anything at all to take my imagination off the hook. I found nothing. There was no imprint or tag to tell the saddle's origin. I felt cold feet walking on my spine. I picked up the saddle and took it in the cabin, tossed it on the floor of the closet off my bedroom and shut the door. Then, halfway back to the porch, I turned around and went back again and threw a pair of trousers and an old sweatshirt over the saddle so it would be hidden. I went back to the porch and sat there, thinking I should get at the book but knowing I'd have to wait for a while before I would get to it. I tried to watch the birds and chipmunks and the other creatures that skittered about the woods, but couldn't seem to work up too much interest in them. I thought about going fishing but decided not to. After a while I cooked myself some eggs and bacon and, after eating, went out on the porch again.

About three o'clock the sheriff drove up, parked his car and came up on the porch to sit with me.

"I'm not getting anywhere," he said. "I checked the records and the Lodge is owned by a legal firm down in Chicago. They hold the deed and pay the taxes and I suppose that's owning it. So I phoned and got

an answering service. At one thirty in the afternoon I got an answering service. And it took a while before they told me it was an answering service. Now, just why should a firm of lawyers be using an answering service at that hour of the day? They wouldn't all of them be in court. They wouldn't all of them be off on vacation, and even if they were, there'd be at least one secretary to take their calls."

"Maybe," I said, "it is a one-man operation."

The sheriff grunted. "Doesn't sound like it. Jackson, Smith, Dill, Hoen, and Ecklund. Took the answering service gal half a minute to get it out of her mouth. She sort of sang it. She had to sing it, I figured, or she'd never make it. Say, where is Piper?"

"He had to go back to the university."

"He didn't tell me he was going back."

"He just failed to mention it," I said. "He'd known for several days he had to go back today. Any reason he shouldn't have?"

"No," said the sheriff. "I guess not. No doubt at all what happened to Stefan. You wouldn't remember, would you, what his last name was?"

"I never knew it," I said.

"Well, so much for that," the sheriff said. "A little embarrassing to have a corpse you don't know the name of. Especially a man who had lived here as long as he had. Stopped at the Lodge on my way up and there's still no one there."

The sheriff stayed for an hour or more. He acted like a man who didn't want to go back to town, who hated to get back to his office. We talked about the fishing, and he said that some day he'd come out and fish Killdeer Creek with me. We talked about grouse. I told him I'd seen a fair amount of them. We talked about the old days when people hunted ginseng in the hills and how you almost never found any ginseng now. Finally he got up and left.

I listened to the six o'clock radio news and again at ten and nothing was said about the Galloping Goose running into anything after it left Pine Bend. I went to bed after that, figuring that I wouldn't sleep, for I was still too excited, but I did. It had been a trying day and I was all worn out.

After breakfast I decided to go fishing. When I got to the bridge over Killdeer Creek a woman was standing on the bridge. I had taken a good look at the Lodge when I drove past and it still seemed to be deserted.

But the woman was someone I had never seen before, and for no good reason I immediately figured she was someone from the Lodge. She was a blonde, a skinny sort of woman. She wore vivid yellow shorts and a skimpy yellow bra, but the bra seemed quite adequate, for she hadn't much to cover. Her hair was skinned back from her face and hung in a short ponytail down her back. She was leaning on the bridge railing, looking down into the pool. When I pulled the car over on the shoulder of the road just short of the bridge and got out, she turned her face toward me. The face was as skinny as her body. The structure of the jaw and cheekbones stood out beneath the skin, and the face had a sharp, almost pointed look.

"Is this where you found him?" she asked.

"I was not the one who found him," I said, "but, yes, this is where he was found. On the other side of the creek, just below the bridge."

"Stefan was a fool," she said.

"I didn't know the man," I said. I thought it strange that she should speak as she did of him. After all, the man was dead.

"Were you a friend of his?" I asked.

"He had no friends," she said. "He had this silly hobby."

"No hobby," I said, "is really silly if the hobbyist gets something out of it. I know a man who collects matchbook covers." I didn't know anyone who collected matchbook covers. I just thought it was a good example of a rather pointless hobby.

"Did he have anything on him?" she asked. "Anything in his pockets?"

It seemed a rather strange question for her to ask, but I answered her. "Nothing," I said. "No identification. They don't know who he was."

"Why, of course they do," she said. "They know he was Stefan. That's all we ever knew of him. That's all anyone needs to know."

I heard footsteps behind me and swung around. A man was close behind me.

"Angela," he said to the woman, "you know you shouldn't be out here. What's the matter with you? Are you drunk again? You've been warned to leave the stuff alone."

He said to me, "Sorry if she's been bothering you."

"Not at all," I said. "We've been talking. It's been most interesting."

He was a bit shorter than I was, perhaps a little heavier, for he ran

to chunkiness. His face ran to fullness and his hair was clipped short. He wore a checkered sports shirt and blue jeans, with heavy work shoes on his feet.

"We were talking about Stefan," said the woman, and her voice carried the impression that she was embarrassing him and was glad of the chance to do so. "About Stefan and his silly hobby."

"But you are not interested in any hobbies he might have had," said checkered shirt to me.

"Certainly I am," I told him. "I find it fascinating."

"Come along," he said to Angela. "Back to the house with you."

She came down off the bridge and stood beside him. She looked at me. "I'll see you again," she said.

"I hope so," I told her. Before she had a chance to say any more he had taken her by the arm and turned her around and the two of them went marching down the road toward the Lodge. He didn't even say good-bye. He was a surly bastard.

There had been a lot going on between the two of them, I knew, that I had not understood. Most of it, I sensed, had to do with Stefan's hobby, and I wondered if the cubic photograph could have been the hobby. Thinking of it, I was fairly sure that my suspicion was correct. Angela had called his hobby silly, though, and it seemed to me that taking a photograph of Marathon was anything but silly.

There were a lot of things, I realized, I would have liked to talk with them about. When and how they'd gotten word of Stefan's death and when they'd gotten to the Lodge and how. Ordinarily when people came to the Lodge they flew into Pine Bend and Stefan took the Cadillac down to get them. Probably, I told myself, they'd hired someone to drive them up; after all, it didn't really matter. Come to think of it, no one really knew that Stefan had driven to Pine Bend to meet arrivals; we had just always assumed he had. I was a little disgusted with myself for wondering all those petty things; I was getting as nosy, I told myself, as Dora.

I lifted the rod out of the car and rigged it up, then got into my waders and went clumping down the embankment to the pool below the bridge.

I knew there were big trout in the pool, but I couldn't really put my heart into the fishing. All the time that I was working at it, I was thinking of Stefan's body, stretched out on the bank across the stream. Every

now and then I caught myself looking over my shoulder at the spot where he had been found. I got no strikes and no wonder, for I was too preoccupied with Stefan to pay attention to the fishing.

So I left the pool and went down the stream, walking in the shallow stretches, climbing out when I reached pools too deep for my waders. I left the scene of Stefan's death behind me and settled down to business. I hooked and landed one fair brookie in a stretch of rapid water at the head of a small pool, failed to set the hook when a big one, probably a rainbow, made a vicious lunge as the fly floated down the smooth water of a pool, edging in toward a cutbank where the big trout waited. I hauled in the line and made another cast to let the fly float in the selfsame pattern, but there was no second strike. The big fellow that had made the strike might have felt the hook and was having none of it. I fished the pool thoroughly, but without a further strike. Several hundred feet beyond the pool I netted another brookie, perhaps a little bigger than the first one.

I climbed out on the bank and sat down on a rotting log, debating whether I should go on or quit. My fishing had not been too successful, but I had two fish, enough for supper, and there was that book on the Precambrian waiting at the cabin. I didn't want to quit. I wanted to keep on down the stream, not so much, perhaps, to keep on fishing as simply to stay out-of-doors, perhaps to stay away from the work that waited at the cabin. And, thinking that, I wondered rather seriously, for the first time, I am sure, if I'd ever get the book done, whether I actually wanted to get it done. I had published little else and the department had excused the failure in light of knowing that I had the book, that I was working on it. I had been given the leave of absence to finish it, and I knew that I damn well better finish it. And yet I sat there, miserable, wondering if I'd ever finish it, knowing that through all the summer I'd use every excuse I could find not to work on it.

I thought of Neville's patch of lady's slippers and wondered if I should take the time to go and look for them. There was no reason that I should, of course, but I told myself that if I didn't see them now, in a few more days the blooms would be gone and I'd miss the seeing of them, for this year at least. But I made no move to go; I just stayed sitting there. I wasn't absolutely sure where the lady's slippers were,

but from what Neville had said I didn't think I'd have much trouble finding them. Still I kept on sitting.

I've often wondered since what it was that kept me sitting on that rotten log. I could have continued with my fishing, I could have gone back to the car, I could have gone in search of Neville's lady's slippers. But I did none of these. And because I didn't, I now sit here writing this account when I should be working on my book.

Before I go any further, perhaps I should explain that Killdeer Creek lies deep in a wooded ravine between two steeply sloping hills. The bed of the creek lies in St. Peter sandstone, but a slight distance up either hillside there are outcroppings of the Platteville limestone, although in large part these outcroppings may go quite unnoticed because in most instances they are masked by trees.

On the slope across the stream from me something was rustling around in the underlay of last autumn's leaves, and when I looked to see what was going on it took several seconds before I spotted the squirrel that was causing the commotion. He was nosing around, digging here and there, perhaps in hope of finding a nut left over from the autumn. He must somehow have sensed me watching, for suddenly he panicked and went scampering up the hillside. Veering to the right, he whipped into a small rock shelter. These tiny rock shelters are common in the hills, small areas of softer stone having eroded away and been capped by a layer of harder stone projecting out above them.

I sat quietly watching the shelter, and after a few minutes the squirrel came sneaking out. He sat upright and looked around, alert to any danger, then flashed up the hill again. A few yards above the rock shelter he crossed a small area of raw earth where the recent rains apparently had washed away loose ground cover and gouged into the underlying clay.

I followed his flight across the gouge and for a short distance up the hill, then my mind caught up with me and my eyes came back to focus on what they had seen, but which had been delayed in its registration on my brain. Protruding from that area of raw earth were not one but two logs, or rather the ends of two logs. Above the topmost log the ground appeared to have caved in, leaving a small depression, and just above the depression was another limestone outcropping.

I sat frozen, and my startled mind said no, that it was all imagination. But hammering through my skull were the words that Humphrey High-

more had spoken to me only the day before: "They cut logs to conceal the cave mouth and shoveled dirt over the logs to conceal the mine."

You're stark, staring mad, I told myself; you're as bad as Humphrey. But the idea still persisted, although I tried to fight it down. A man simply did not sit down on a rotting forest log and find a legendary mine.

To give myself something to do, I unshipped my rod, dropped the reel into my pocket. Over the ages, I told myself, a couple of trees could have fallen and been covered by the slow accumulations of time. But the more I looked at those two logs, the less it seemed that way. Although I was too far away to see them, I found myself believing I could discern the bite of ax strokes upon the logs' protruding ends.

I crossed the stream and began clambering up the slope. The going was slow, the hill so steep that I found myself grabbing hold of saplings to help pull myself forward. When I reached the small rock shelter into which the squirrel had popped, I paused to catch my breath. I saw that the shelter was somewhat larger than I had thought; a drift of dried autumn leaves had become lodged against the open face and made it seem smaller than it was. The floor of it was flat and a few feathers lay upon it; the floor was white with the chalkiness of old bird droppings. Perhaps, I thought, it had been used for centuries as a sanctuary for ruffed grouse, or possibly by quail, although there were no longer very many quail. Toward the farther end of the shelter a small rock fall from the roof above seemed rather recent; in a few years, I told myself, other rock falls would occur and there'd no longer be a shelter. I felt sorry for the grouse, it was such a snug retreat for them against the night or weather.

Having gotten back my breath, I went on up the slope to where I'd seen the logs. Kneeling beside them, I knew I had found the mine. The wood was punky and wet from recent rains, but there could be no mistaking the still-existent evidence that they had been cut to a proper length by ax work. I could not quite believe my eyes and ran a hand across their cut ends for confirmation. And as I squatted there, stupidly running my hand back and forth over the wood, something ticked at me.

I went cold inside my guts and crouched hunched over, as if expecting someone or something to clout me on the head. There was nothing in the sound that was sinister; it was, in fact, a very gentle ticking, al-

most companionable—but this was not the place for it. And now there was no doubt at all that I had found the mine, for it had been a ticking that had driven the miners in terror from the hills.

I came to my feet and for a moment felt an illogical but powerful urge to go plunging down the hill, to put as much distance as possible between myself and this thing that ticked. The feeling didn't go away, but I stood against it and once I had managed to stand against it, it didn't seem quite so bad. I drove myself, literally drove myself, my feet not wanting to move but my brain making them move, the few feet up the slope to where the depression fell away above the logs. I could see that the depression extended deep into the ground, and I went down on my knees beside it. There seemed no bottom to it. I thrust my face down close above it and smelled the darkness and the coldness of another world. The cave, I knew, lay beneath my feet, and out of the opening into it came a wild, excited chittering of ticks.

"O.K.," I said. "O.K., just take it easy. I'll be back to get you."

I don't know why I said it. The words had come out of me without any conscious thought, as if some part of me of which I was not aware had grasped a situation I was unaware of and had answered for me, speaking to the thing that ticked and chittered as if it were a person.

I straightened, and even though the day was warm, I shivered. I would need a shovel, perhaps something that would play the part of a crowbar—the opening was too small and would have to be enlarged. And I would need, as well, a flashlight.

As I started to turn away, the ticking came again, a somewhat frantic and excited sound. "It's all right," I said. "I'll be back. I promise."

I was back in less than an hour. I had a shovel, a flashlight, my geologist's hammer, and a length of rope. I had not been able to find anything that resembled a crowbar, so I had brought along a pick that Neville and I had used when we had dug a trench to put in the footings for the cabin.

The thing inside the cave began ticking at me as I toiled up the slope, but now it sounded like a contented ticking, as if it knew I was coming back to get it. During the time that I had been gone, I'd had it out with myself on that score. You acted like a damn excited fool, I'd told myself. You allowed yourself to be stampeded into the acceptance of a fantasy situation that could not possibly exist. You can be excused for what you did in the unthinking excitement of the moment; you acted under shock

impact and were illogical. But you're illogical no longer. You've had time to think it over and now you know it's not a living thing down there in the cave, not a personality. Whatever is in there ticks, but it was ticking more than a century ago and it's unlikely that any living thing that was there more than a hundred years ago, and God knows how much longer ago than that, would still be there, alive and ticking. What you'll find will either be a mechanism of some sort or you'll find a perfectly natural explanation. And once having found it, you'll wonder why in hell you hadn't thought of it before.

I admit that while I had been talking so harshly to myself I hadn't examined that bit about finding a mechanism too closely. I had, I suspect, shied away from it because I didn't want to ask the question that would follow—what kind of mechanism, made by whom and for what purpose and how did it come to be there?

The thing to do, I told myself, was to rip out the logs, enlarge the opening, get down into the cave and find out what was going on. I was scared, of course. I had a right to be scared. I had thought of seeking out Humphrey (because Humphrey was the one man who had the right to be there), the sheriff, even that bastard at the Lodge. But I decided against it. I was surprised to find that I had become somewhat secretive about this business—afraid, perhaps, that it would come to nothing in the end and that I would become the laughingstock of the neighborhood.

So I got down to business. I shoveled away some dirt from around the logs, drove the pick between the logs and heaved. The bottom log came loose with less effort than I had expected, and I grabbed it with my hands and hauled it out. With the bottom log gone, the one on top of it was easily removed. Underneath the second log I could see another, but there was no need to bother with it, for with the two logs out, the way into the cave was open.

I shined the flashlight down into the cavity and saw that the floor was only about three feet down.

All the time that I had been working, the ticking had been going on, but I had paid little attention to it. I suppose I was getting somewhat accustomed to it. Or maybe I was consciously trying not to pay attention to it. Coming out of the dark maw of the cave, it was a spooky sound.

I let the shovel and the pick down into the cave, then, holding the

flashlight, slid in myself. Once I hit the floor, I flashed the light into the cave's interior and was surprised to see it was rather small—ten feet wide or so and half again as deep, with the roof some three feet above my head. It was dry—there was very little overlay above it, and the slope was so steep that most of the water ran off without a chance to seep down into the cave.

I directed the light at the back of it and could see where the miners, more than a century ago, had done some digging. There were a couple of heaps of broken rock lying against the back wall of the cave, rocks that had been pried out of the rather thin-layered structure of the Platteville limestone.

The ticking came from the back of the cave. I stalked it step by cautious step. I could feel the short hairs at the back of my neck prickling, but I kept on.

I found it at the very back of the cave, protruding from one of the strata that had been broken by the miners. And, having found it, I sat flat upon my seat, keeping the light trained directly on it. Sitting there, with all the wind of courage drained out of me, I stared at it.

It really wasn't anything to be afraid of. It was not alive. It was, by rough definition, the mechanism I had told myself I'd find. It was cemented in the rock, only a part of it revealed.

It chittered at me and I said nothing back. If you'd paid me a million, I could have said nothing back.

Its end was a blunted point and seemed to be attached to some sort of cylinder. The cylinder, I estimated, was four inches or so in diameter. Above and all around it I could see the rough edges of the break that must have been made when the miners had worried off the forepart of the stone in which it was embedded.

And that was the hell of it—embedded!

The blunt end of the cylinder ticked at me.

"Oh, shut up," I said. For not only was I frightened, I was exasperated. It was, I told myself, impossible. Someone, I thought, was pulling my leg, but for the life of me I couldn't figure who it might be or how they could have done it.

A rattle of falling rock and earth brought me around to face the entrance of the cave. I saw that someone stood there, but for a moment I couldn't make out who it was.

"What the hell do you mean," I asked, "sneaking up on me?"

"I'm sorry that I startled you," the intruder said. "Please believe me, I did not intend to do so. But it seems that you have found what we've been looking for."

I thought I recognized the voice and now I saw who it was—the man who had come from the Lodge to get the woman he had called Angela.

"Oh, it's you," I said. I didn't try to conceal my dislike of him.

"Thornton," he said, "we have to make a deal. We must have what you have found."

He came across the cave and stood above me. The cylinder made a few excited clicks, then fell silent.

He squatted down beside me. "Let's have a look," he said.

When I turned I had moved the flashlight. Now I brought it back to shine on the blunted nose of the cylinder.

"Have you got a name?" I asked.

"Sure. My name is Charles."

"O.K., Charles," I said. "You say you want this thing. As a start, perhaps, you can tell me what it is. And be damn careful what you tell me. For my part, I can tell you that it's embedded in the stone. See how the stone comes up close against it. No hole was ever bored to insert it. The limestone's wrapped around it. Do you have any idea what that means?"

He gulped, but didn't answer.

"I can tell you," I said, "and you won't believe it. This is Platteville limestone. It was formed at the bottom of an Ordovician sea at least four hundred million years ago, which means this thing is an artifact from at least as long ago. It fell into the sea, and when the limestone formed it was embedded in it. Now speak up and tell me what it is."

He didn't answer me. He took a different tack. "You know what we are," he said.

"I have a good idea."

"And you're not about to talk of it."

"I think it most unlikely," I said. "To begin with, no one would believe me."

"So there's no use in my pretending."

"I rather doubt there is," I said. "You see, I have the saddle and Neville has the Marathon photograph."

"The what kind of photograph?"

"The Marathon photograph. Marathon was a battle fought two and

a half millennia ago. It fell from Stefan's pocket. Neville found it when he found the body."

"So that is it," he said.

"That is it," I said. "And if you think you can come in here and demand this thing that I have found—"

"It's not a matter of demanding," he assured me, "nor of taking. We are beyond all demanding and all taking. We are civilized, you see."

"Yeah," I said. "Civilized."

"Look," he said, almost pleading, "there is no reason not to tell you. There were a people—you say four hundred million years ago, so I suppose it could have been that long ago . . ."

"A people?" I asked. "What people? Four hundred million years ago there weren't any people."

"Not here," he said. "Not on Earth. On another planet."

"How would you know?" I asked.

"Because we found the planet."

"We? You talk of we. Just who are 'we'?"

"Myself. Angela. Stefan. Others like us. What is left of the human race. Stefan was different, though. Stefan was a throwback, a mistake."

"You're jabbering," I said. "You don't make any sense. You're from up ahead, in the future, is that it?"

It was all insane, I told myself. Insane to ask that question. Asking as if it were just an ordinary thing, not to be greatly wondered at.

"Yes," he said. "A different world. You would not recognize it. Or the people in it."

"I recognize you," I said. "You seem like anybody else. You're no different than anyone I know."

He sighed, a patronizing sigh. "Think, Thornton," he said. "If you were to go back to a barbarian age, would you wear a jacket and a pair of slacks? Would you talk twentieth-century English? Would you—"

"No, of course not. I would wear a wolfskin and I'd learn—so that is it," I said. "Barbarian."

"The term is relative," he said. "If I've offended you—"

"Not in the least," I said. I had to be fair about it. Depending on how far in time he had traveled, we might be barbarian. "You were telling me about a planet you had found."

"Burned out," he said. "The sun had novaed. All the water gone. The soil burned to powdered ash. You said half a billion years?"

"Almost that long," I said.

"It could have been," he said. "The star is a white dwarf now. That would have been time enough. The planet had been inhabited by an intelligence. We found—"

"You mean you, personally? You saw this planet . . . ?"

He shook his head. "Not I. No one of my generation. Others. A thousand years ago."

"In a thousand years," I said, "a lot could happen. . . ."

"Yes, I know. Much is forgotten in a thousand years. But not this. We remember well; this is not a myth. You see, in all the time we've been out in space this is the first evidence of intelligence we found. There had been cities on that planet—well, maybe not cities, but structures. Nothing left, of course, but the stone that had been used in building them. It still was there, or most of it, stone on stone, much as it had been when it was laid. Some destruction, of course. Earthquakes, probably. No real weathering. Nothing left to cause weathering. All the water gone and the atmosphere as well. I forgot to say the atmosphere was gone."

"Come to the point," I said, rather brutally. "This is all wonderful, of course. And very entertaining . . ."

"You don't believe me?"

"I can't be sure," I said. "But go on, anyhow."

"You can imagine," he said, "how avidly and thoroughly our people examined the ruins of the structures. The work was, after a time, discouraging, for the ruins could tell us very little. Then, finally, a graven stone was found . . ."

"A graven stone?"

"A message stone. A slab of stone with a message carved upon it."

"Don't tell me that you found this stone and then, right off, you read the message."

"Not words," he said. "Not symbols. Pictures. You have a word. Funny pictures."

"Cartoons," I said.

"Cartoons. That is right. The cartoons told the story. The people of that planet knew their sun was about to nova. They had some space capability, but not enough to move a total population. What was worse,

there was no planet they had ever found that could support their kind of life. I suspect it was much like our life, the same basis as our life. Oxygen and carbon. They didn't look like us. They were bugs. Many-legged, many-armed. Perhaps, in many ways, a more efficient organism than ourselves. They knew they were finished. Perhaps not all of them. They might have hoped they still could find a planet where a few of them could live. That way the germ plasma could be preserved, if they were lucky. The plasma, but not the civilization, not their culture. Locating to another planet, having to come to grips with that planet and perhaps only a few of them to do it, they knew they would lose their culture, that it would be forgotten, that the few survivors could not maintain and preserve what they had achieved over many thousands of years. And it seemed to them important that at least the basics of their culture should be preserved, that it should not be lost to the rest of the galaxy. They were facing the prospect of cultural death. Do you have any idea of what the impact of cultural death might be like?"

"Like any other death," I said. "Death is death. Someone turns out the light."

"Not quite," he said. "Not quite like any other death. No one likes the prospect of death. It may not be death itself, but the loss of identity we fear. The fear of being blotted out. Many men facing death are able to await it calmly because they feel they've made a good job out of life. They have done certain tasks or have stood for something they feel will cause them to be remembered. They are, you see, not losing identity entirely. They will be remembered, and that in itself is a matter of some identity. This is important for the individual; it is even more important for a race—a race proud of the culture it has built. Racial identity is even more important than individual identity. It is not too difficult for a man to accept the inevitability of his own death; it is almost impossible for him to accept the fact that some day there may be no humans, that the species will have disappeared."

"I think I see," I said. I had never thought of it before.

"So this race on the planet soon to be dead," he said, "took steps to preserve their culture. They broke it down to its basic concepts and essentials and they recorded it and put it into capsules. . . ."

I started in surprise. "You mean this?" I asked, gesturing at the cylinder enclosed within the stone.

"It is my hope," he said, far too calmly, far too surely.

"You must be nuts," I said. "First for believing all this . . ."

"There were many capsules," he said. "There was a number indicated, but since we could not decipher their notation . . ."

"But they must have broadcast them. Simply flung them into space."

He shook his head. "They aimed them at suns. Given the kind of technology they had, many would have reached their destinations. They were gambling that one of them would come to earth on some distant planet and be picked up by some intelligence with enough curiosity and enough ingenuity. . . ."

"They would have burned up when they entered the atmosphere."

"Not necessarily. The technology . . ."

"Four hundred million years ago," I said. "That long ago this precious planet of yours could have been across the galaxy from us."

"We did not know, of course, how long ago," he said, stubbornly, "but from our calculations our sun and their sun would never have been impossibly far apart. They have matched galactic orbits."

I squatted there and tried to think, and all I had was a roaring in the brain. It was impossible to believe, but there was the cylinder, embedded in the stone, a cylinder that ticked industriously to call attention to itself.

"The ticking," said Charles, as if he knew my thoughts, "is something we had never thought of. Perhaps it's activated when anything fulfilling certain biological requirements comes within a certain distance of it. But, then, of course, we never expected to stumble upon one of the capsules."

"What did you expect, then?" I asked. "From what you've said, you have been hunting for a capsule."

"Not really hunting for one," he told me. "Just hoping we'd find some evidence that some time in the past one had been found. Either found and destroyed or lost—maybe found and at least a portion of its message extracted from it, extracted perhaps, then lost again because it did not fit in with human thought. Always hoping, of course, that we might find one tucked away in some obscure hiding place, in a small museum, maybe, in an attic or a storeroom of an ancient house, in some old temple ruin."

"But why come back into the past, why come here? Surely in your own time—"

"You do not understand," he said. "In our time there is very little

left. Very little of the past. The past does not last forever—either materially or intellectually. The intellectual past is twisted and distorted; the material past, the records and the ruins of it, are destroyed or lost or decay away. And if by 'here' you mean in this particular place and time, we do few operations here. The Lodge—I understand that is what you call it—is what in your time you might term a rest and recreation area."

"But the years you've spent at it," I said. "All these years in a search that had so little chance."

"There is more to it than that," he said. "The finding of an alien capsule, how would you say it in the idiom of today? The finding of a capsule is the big prize on the board. It was something we were always on the lookout for, our investigative sense was always tuned to some hint that one might exist or at one time had existed. But we did not spend all our time—"

"Investigative? You said investigative. Just what the hell are you investigating?"

"History," he said. "Human history. I thought there was no question that you would have guessed it."

"I am stupid," I said. "I didn't guess it. You must have shelves of history. All you have to do is read it."

"As I told you, there's not much of the past left. When there are nuclear wars and a large part of the planet goes back to barbarism, the past goes down the drain. And what little there is left becomes very hard to find."

"So there will be nuclear wars," I said. "We had begun to hope that Earth might never have to face that. Could you tell me—"

"No," said Charles, "I can't."

We hunkered there, the two of us, looking at the capsule.

"You want it?" I asked.

He nodded.

"If we can get it out undamaged," I said.

The capsule clucked quietly at us, companionably.

I pulled the rock hammer out of my belt.

"Here," I said, handing him the flashlight.

He took it and held it with its light trained on the capsule while I leaned close and studied the rock.

"We might be in luck," I said. "There is a bedding plane, a seam, running just below the capsule. Limestone's funny stuff. The layers can

be either thick or thin. Sometimes it peels, sometimes it has to be broken."

I tapped the bedding plane with the hammer. The stone flaked under the blows. Turning the hammer around to use the chisel end, I pecked away at the seam.

"Hand me the pick," I said, and he handed it to me.

I had little room to work in, but I managed to drive the sharp end of the pick deep into the seam and a layer of the limestone peeled away and fell. The capsule was exposed along its lower side, and it took only a little more judicious chipping away of the rock to free it. It was some eighteen inches long and heavier than I had imagined it would be.

Charles put the flashlight down on the floor of the cave and reached out his hands for it.

"Not so fast," I said. "We have a deal to make."

"You can keep the saddle."

"I already have it," I said. "I intend to keep it."

"We'll repair it for you. We'll even exchange a new one for it. We'll teach you how to use it."

"I don't think so," I said. "I'm satisfied right here. I know how to get along right here. Seems to me a man could get into a lot of trouble taking off to other times. Now if you had some more photographs like the Marathon photograph. . . . Say a couple of hundred of them, of selected subjects."

He put his hands up to his head in anguish.

"But we don't," he said. "We never take such photographs."

"Stefan took them."

He choked in frustration. "How can I make you understand! Stefan was a freak, a throwback. He got kicks out of violence, out of blood. That's why we kept him here. That was why he was never allowed to go out in the field. He sneaked out whenever he could and took what you call the photographs. There is a name for them. . . ."

"Holographs," I said.

"I guess that's the word. A mechanism using the laser principle. It was a mistake to put him on our team. It meant we had to cover up for him. We couldn't report or admit what he was doing. We had to consider the honor of the team. We talked with him, we pleaded with him, but he was beyond all shame. He was a psychopath. How he ever succeeded in covering up his condition so he could be appointed to the team—"

"Psychopaths," I said, "are tricky."

He pleaded with me, "Now you understand?"

"Not too well," I said. "You stand aghast at violence. You are turned off by blood. And yet you study history and, more often than not, history turns on violence. It can be a bloody business."

He shuddered. "We find enough of it. We are repelled by it, but it's sometimes necessary to consider it. We do not enjoy it; Stefan did enjoy it. He knew how we felt about it. He hid away his photographs, afraid we would destroy them. We would have if we'd found them."

"You hunted for them," I said.

"Everywhere. We never found their hiding place."

"So there are some around?"

"I suppose there are. But if you think they can be found, forget it. You said psychopaths are tricky."

"Yes, I guess I did," I said. "In such a case, there can't be any deal."

"You mean you'll keep the capsule?"

I nodded and tucked it underneath my arm.

"But why?" he shouted. "Why?"

"If it's valuable to you," I told him, "it should be valuable to us."

And I thought to myself, what in the name of Holy Christ am I doing here, hunkered down in a cave that was an olden mine, arguing with a man out of the human future about a silly cylinder out of the nonhuman past?

"You would have no way to come by the information that the capsule carries," he said.

"How about yourself? How about your people?"

"They'd have a better chance. We can't be entirely sure, of course, but we'd have a better chance."

"I suppose," I said, "that you expect to find some nonhuman knowledge, a cultural concept based on nonhuman values. You expect a lot of new ideas, a windfall of new concepts, some of which could be grafted on your culture, some of which could not."

"That's the whole point, Thornton. Even if you could extract the knowledge, how would your age put it to use? Don't forget that some of it, perhaps much of it, might run counter to your present concepts. What if it said that human rights must take precedence, both in theory and in practice, over property rights? In practice as well as in theory—right now, of course, human rights do in certain aspects take precedence

in theory, even in law, but how about in practice? What if you found something that condemned nationalism and gave a formula for its being done away with? What if it proved patriotism were so much utter hogwash? Not that we can expect the contents of this capsule to deal with such things as human rights and nationalism. The information in this capsule, I would suspect, will include a lot of things we've never even thought of. How do you think the present day, your present day, would take to such divergence from what you consider as the norm? I can tell you. It would be disregarded, it would be swept beneath the rug, it would be laughed and sneered to nothing. You might as well smash this capsule into bits as give it to your people."

"How about yourselves?" I asked. "How can you be sure you'll put it to good use?"

"We have to," he said. "If you saw Earth as it is up in my time, you would know we'd have to. Sure, we can travel out in space. We can travel into time. But with all these things, we still are hanging on by our fingernails. We'll use it; we'll use anything at all to keep the human race in business. We are the end product of thousands of years of mismanagement and bungling—your mismanagement and bungling. Why do you think we spend our lives in coming back to study history? For the fun of it? The adventure? No, I tell you, no. We do it to find where and how the human race went wrong, hoping to glean some insight into how it might have gone right, but didn't. To find an old lost knowledge that might be put to better use than you ever put it to. We are the lost race digging through the garbage of men who lived before us."

"You're sniveling," I said. "You are feeling sorry for yourself."

"I suppose so," he said. "I'm sorry. We no longer are the frozen-faced realists of this time, afraid of emotion, any more than you are the rough, tough barbarian you'd meet if you went back a couple of thousand years. The human race has changed. We are the ones who were stripped naked. We decided long ago we could no longer afford the luxury of violence, of cutthroat economic competition, of national pride. We are not the same people you know. I don't say we are better, only different and with different viewpoints. If we want to weep, we weep; if we want to sing, we sing."

I didn't say anything; I just kept looking at him.

"And if you keep the capsule," he asked, "what will you do with it, you personally, not your culture? To whom would you give it, whom

would you tell about it? Who would listen to your explanation? Could you survive the scarcely hidden disbelief and laughter? How could you, once you'd told your story, the story I have told you—how could you face your colleagues and your students?"

"I guess I couldn't," I said. "Here, take the goddamn thing."

He reached out and took it. "I thank you very much," he said. "You have earned our gratitude."

I felt all cut up inside. I wasn't sure of anything. To have something in one's hand, I thought, that might change the world, then give it away, be forced to give it away because I knew that in my time it would not be used, that there could be no hope that it would be used—that was tough to take. I might have felt different about it, I knew, if I could have given the cylinder to someone else than this little twerp. I didn't know why I disliked him; I had never even asked myself what there was to dislike about him. Then, suddenly, I knew; it all came to me. I disliked him because there were too many centuries between us. He was still a human, sure, but not the same kind of human as I was. Time had made a difference between us. I had no idea of how many years there might be between us—I hadn't even asked him, and I wondered why I hadn't. Times change and people change, and those cumulative changes had made us different kinds of humans.

"If you'll come up to the house," he said, "I could find a drink."

"Go to hell," I said.

He started to leave, then turned back to me. "I hate to leave like this," he said. "I know how you must feel. You don't like me, I am sure, and I can't with all honesty say I care too much for you. But you have done a great, although unwitting, service for us, and I have a deep sense of gratitude. Aside from all of that, we are two human beings. Please don't shame me, Thornton. Please accord me the luxury of being decent to you."

I grunted boorishly at him, but I got up, picked up the tools and followed after him.

When we came into the Lodge, Angela was slumped in a chair. A whiskey bottle stood on the table beside her. She struggled to her feet and waved a half-filled glass at me, spilling liquor on the rug.

"You must not mind her," Charles said to me. "She is compensating."

"And who the hell wouldn't compensate?" she asked. "After months of

tracking down and keeping up with Villon in the stews of fifteenth-century Paris . . ."

"Villon," I said, not quite making it a question.

"Yes, François Villon. You have heard of him?"

"Yes," I said, "I have heard of him. But why . . ."

She gestured at Charles. "Ask the mastermind," she said. "He's the one who figures it all out. A man out of his time, he said. Find this Villon, a man out of his time. A genius when there were few geniuses. Pluck wisdom from him. Find out who he really was. And so I found him and he was just a filthy poet, a burglar, a chaser after women, a brawler, a jailbird." She said to me, "The past human race was a bunch of slimy bastards, and the people of your time are no better than the others that have come before you. You're all a bunch of slimy bastards."

"Angela," Charles said, sharply, "Mr. Thornton is our guest."

She swung on him. "And you," she said, "while I'm wading through the stench and depravity and obscenity of medieval Paris, where are you? In a little monastery library somewhere in the Balkans, feeling sanctimonious and holy, and no doubt somewhat supercilious, pawing through parchments, searching on slimmest rumor for evidence of something that you damn well know never did exist."

"But, my dear," he said, "it does exist."

He put the cylinder on the table beside the whiskey bottle.

She stared at it, swaying a little. "So you finally found it, you little son of a bitch," she said. "Now you can go home and lord it over everyone. You can live out your life as the little creep who finally found a capsule. There's one good thing about it—the team will be rid of you."

"Shut up," said Charles. "I didn't find it. Mr. Thornton found it."

She looked at me. "How come you knew about it?" she asked.

"I told him about it," said Charles.

"Oh, great," she said. "So now he knows about us."

"He did, anyhow," said Charles. "So, I suspect, does Mr. Piper. They found one of Stefan's cubes, and when the plane hit Stefan's parked saddle, it fell in Mr. Thornton's yard. These men aren't stupid, dear."

I told him, "It is good of you to say so."

"And the sheriff, too," she said. "The two of them and the sheriff came snooping yesterday."

"I don't think the sheriff knows," I said. "The sheriff doesn't know

about the saddle or the cube. All he saw was that contraption over there. He thought it might be a game of some sort."

"But you know it's not a game."

"I don't know what it is," I said.

"It's a map," said Charles. "It shows when and where we are."

"All the others can look at it," said Angela, "or another like it and know where all the others are."

She pointed. "That is us down there," she said.

It made no sense to me. I could see why they'd need a map like that, but not how it could work.

She moved closer to me and took me by the hand. "Look down," she said. "Look down into the center of it. Let's move closer to it and look down into the center of it."

"Angela," warned Charles, "you know that's not allowed."

"For the love of Christ," she said, "he has something coming to him. He found that stinking cylinder and gave it to you."

"Look," I said, "whatever is going on, leave me out of it." I tried to pull my hand away, but she hung on to it, her nails cutting into my flesh.

"You're drunk," said Charles. "You are drunk again. You don't know what you're doing." There was something in his voice that told me he was afraid of her.

"Sure, I'm drunk," she said, "but not all that drunk. Just drunk enough to be a little human. Just drunk enough to be a little decent.

"Down," she said to me. "Look down into the center of it." And I did, God help me, look down into the center of that weird contraption. I guess I must have thought that looking down into it might humor her and end the situation. That's just a guess, however; I don't honestly remember for what reason, if I had a reason, I looked down into it. Later on—but the point is that it was later on and not at that particular moment—I did some wondering if she might have been a witch, then asked myself what a witch might be, and got so tangled up in trying to figure out a definition that it all came to nothing.

But, anyhow, I looked down and there was nothing I could see except a lot of swirling mist—the mist was dark instead of white. There was something about it that I didn't like, a certain frightfulness to it, and I went to step away, but before I could take the step the dark mist inside the cubicle seemed to expand rapidly and engulf me.

The world went away from me and I was a consciousness inside a blackness that seemed to hold neither time nor space, a medium that was suspended in a nothingness in which there was no room for anything or anyone but the consciousness—not the body, but the consciousness—of myself and Angela.

For she still was with me in that black nothingness and I still could feel her hand in mine, although even as I felt the pressure of her hand I told myself it could not be her hand, for in this place neither of us had hands; there was no place or room for hands. Once I had said that to myself, I realized that it was not her hand that I seemed to feel so much as the presence of her, the essence of her being, which seemed to be coalescing with my being as if we had ceased to be two personalities, but had in some strange way become a single personality, although not so much a part of one another as to have lost our identities.

I felt a scream rising in my throat, but I had no throat and I had no mouth and there was no way to scream. I wondered, in something close to terror, what had happened to my body and if I'd ever get it back. As I tried to scream I sensed Angela moving closer, as if she might be extending comfort. And there was comfort, certainly, in knowing she was there. I don't think she spoke to me or actually did anything at all, but I seemed to realize somehow that there were just the two of us in this great nothingness and that there was no room for more than just the two of us; that here there was no place for fear or even for surprise.

Then the dark nothingness drained away, but the draining did not give us back our bodies. We still were disembodied beings, hanging for a moment over a nightmare landscape that was bleak and dark, a barren plain that swept away to jagged mountains notched against the sky. We hung there for a moment only, not really long enough to see where we were—as if a picture had been flashed upon a screen, then suddenly cut off. A glimpse was all I had.

Then we were back in the empty nothingness and Angela had her arms around me—all of her around me—and it was very strange, for she had no arms or body and neither did I, but it seemed to make no difference. The touch of her was comforting, as it had been before, but this time more than comforting, and in that nothingness my soul and mind and the memory of my body cried out to her as another human being and another life. Instinctively, I reached out for her—reached out within everything I had or had ever had until the semblance

of what we once had been intertwined and meshed and we melted into one another. Our beings came together, our minds, our souls, our bodies. In that moment we knew one another in a way that would have been impossible under other circumstances. We crawled into one another until there were not two of us, but one. It was sexual, in part, but far more than sexual. It was the kind of experience that is sought in a sexual embrace but never quite achieved. It was complete fulfillment and it did not subside. It reached a high and stayed there. It was an ecstasy that kept on and on, and it could have gone on forever, I suppose, if it had not been for that one little dirty corner of my busy brain that somehow stood aside and wondered how it might have been with someone other than a bitch like Angela.

That did it. The magic went away. The nothingness went away. We were back in the Lodge, standing beside the strange contraption. We still were holding hands, and she dropped my hand and turned to face me. Her face was white with fury, her voice cold.

"Remember this," she said. "No woman will ever be quite the same again."

Charles, still standing where he had been before, picked up the nearly empty whiskey bottle. He laughed, a knowing and insulting laugh. "I promised you a drink," he said. "You probably need one now."

"Yes, you did," I said. I started across the room toward him, and he picked up the glass that Angela had been using and began to pour the drink. "We are short of glasses," he said. "Under the circumstances, I don't imagine you will mind."

I let him have it, squarely in the face. He was not expecting it, and when he saw the fist coming it was too late for him to duck. I caught him in the mouth and he went back and down as if he had been sledged. The glass and bottle fell from his hands and rolled across the carpeting, both of them spewing whiskey.

I felt good about belting him. I had wanted to do it ever since I saw him for the first time that morning. Thinking that, I was aghast that so little time had passed.

He didn't try to get up. Maybe he couldn't; maybe he was out. For all I cared he might as well be dead.

I turned and walked toward the door. As I opened it, I looked back. Angela was standing where I'd left her, and she didn't stir when I

looked at her. I tried to think of something I should say to her, but nothing came to mind. I suspect it was just as well.

My car was standing in the driveway and the sun was far down the western sky. I took a deep breath—I suppose, unconsciously, I was trying to wipe away any clinging odor of the fog of nothingness, although, to tell the truth, I had never noticed any odor.

When I got into the car and put my hands on the wheel, I noticed that the knuckles of my right hand were bleeding. When I wiped the blood off on my shirt, I could see the toothmarks.

Back at the cabin I parked the car and, climbing to the porch, sat down in a chair. I didn't do a thing, just stayed sitting there. The Galloping Goose came over, heading south. Robins scratched in the leaves underneath the brush beyond our patch of lawn. A sparrow sang as the sun went down.

When it was dark and the lightning bugs came out, I went indoors and made myself some supper. After I had eaten I went out on the porch again, and now I found that I could think a bit, although the thinking made no sense.

The thing that stuck closest to my mind was that brief glimpse I'd gotten of the bleak, dark landscape. It had only been a glimpse, a flashing on and off, but it must have been impressed deeply on my brain. For I found that there were details I had not been aware of, that I would have sworn I had never seen. The plain had seemed level in its blackness, but now I could recall that it was not entirely level, that there were mounds upon it and here and there jagged spears extending upward that could be nothing else than the stumps of shattered masonry. And I knew as well, or seemed to know, that the blackness of the plain was the blackness of molten rock, frozen forever as a monument of that time when the soil and rock beneath had bubbled in a sudden fire.

It was the future, I was certain, that Angela had shown me, the future from which she and the other scavengers had come, probing back across unknown centuries to find not only what their far forebears had known, but as well those things they might have uncovered or discovered, but had not really known. Although I wondered, as I thought of it, what could possibly have been the so-far-unrecognized significance of a man like Villon? A poet, sure, an accomplished medieval poet who had a modern flair and flavor, but as well a thief and a vagabond who

must at many times have felt the shadow of the hangman's noose brush against his neck.

What had we missed in Villon, I wondered, what might we have missed in many other events and men? What could be the significance that we had missed and which had been recognized and now was sought by our far descendants in that black and frozen world up ahead of us? Sought by those who now came back among us to sift through the dustbins of our history, seeking what we unknowingly might have thrown away.

If we could only talk with them, I thought, if only they would talk with us—and even as I thought it, I knew how impossible it was. There was about them a supercilious quality that would not allow them to, that we would never stand for in that it scarcely masked the contempt that they felt for us. It would be akin to a radio astronomer going back to ancient Babylon to talk with a priest-astronomer. In both cases, I knew, the gulf would not be only one of knowledge but of attitude.

A faithful whippoorwill that clocked in every evening shortly after dusk began his haunted chugging. Listening to it, I sat and let the woodland peace creep in. I'd forget it all, I told myself, I'd wipe it from my mind—I had a book to write. There was no purpose and no need to fret about something that would not happen for God knows how many millennia from now.

I knew, of course, that I was wrong. This was not something that could be forgotten. Too much had happened, too much remained unsaid for the incident to be ignored. There probably was, as well, too much at stake, although when I tried to sort out what specifically might be at stake, I had no luck at all. There were questions that needed answering, explanations to be given, a fuller story to be told. And there was just one place to get those questions answered.

I went down off the porch and got into the car. The Lodge was dark when I pulled into the driveway. There was no answer to my knock; when I tried the latch the door came open. I stepped inside and stood in the dark, not calling out. I think I knew there was no one there. My eyes became somewhat accustomed to the dark. Moving cautiously, alert to chairs that might trip me up, I went into the room. My foot crunched on something and I stopped in midstride. Then I saw it—the shattered wreckage of the time-map. I found a pack of matches in my pocket and struck one of them. In the brief flaring of its light I saw that the cubicle

had been smashed. Someone, I guessed, had taken a maul, or perhaps a rock, to it.

The match burned down and I shook it out. I turned about and left, shutting the door behind me. And now, I thought, the people of the hills would have another mystery about which to speculate. There was the shattered time-map, of course, which when it was found would be a topic of conversation for a year or more at most. The real mystery, however, would be the question of what had happened to the people of the Lodge—the story of how one summer they had disappeared, leaving the Cadillac standing in the garage, and had not come back again. The unpaid taxes would pile up, and at some time in the future someone might pay up the taxes and get title to the place, but that would make no difference to the legend. Through many years to come the story would be told at the Trading Post, and given time the Lodge might become a haunted house and thus the story would be ensured a special kind of immortality.

Back at the cabin, with the fireflies winking in the woods and the faithful whippoorwill chunking from across the hollow, I tried to console myself by thinking I had done everything that a man could do, although I had the horrid feeling I had failed. And I realized, as well, that now I had lost any chance I might have to do anything at all. This, then, had to be the end of it. The best thing for me, I told myself, was to get back to the book in the hope that as I worked I might forget—or, if not forget, ease the sharpness of the memory.

I tried. For three whole days I tried. I drove myself and got some writing done. When I read it over, I tore it up and wrote it once again. The second draft was no better than the first.

While I sat working at the kitchen table I could feel the saddle in the closet sneaking up on me. I took it out of the closet and, dragging it down the hill, chucked it in a deep ravine. It didn't help; it still sneaked up on me. So I went down into the ravine and retrieved it, throwing it back into the closet.

Running out of groceries, I went to the Trading Post. Humphrey was sitting outside the door, his chair tipped back against the building. I picked up the groceries and a letter from Neville. I sat an hour or two with Humphrey while he talked about the mine. I let him do the talking; I was afraid to say anything for fear I'd make a conversational slip and tip him off to what I knew about it.

The letter from Neville was short, written by a man who was in a hurry. He was off for Greece, he wrote—"I need to see Marathon again."

Returning home with the groceries, I bundled up the notes and drafts I had been working on and jammed them in the briefcase, then went fishing. Fishing helped, I think. If I could have gone on fishing, it would have been all right. If I could have spent the summer fishing, I might have worked it out. But the fishing didn't last long.

I had picked up three fairly good trout by the time I reached the place from which, sitting on a log, I had spotted the protruding log ends that had led me to the mine.

Standing in the stream and looking up the hill, I could see the entrance to the mine, and a short distance below it the rock shelter into which the squirrel had dived.

Then my mind played a sneaky trick on me. Looking at the rock shelter, the thought suddenly struck me—that hidden, obscure bit of evidence that had been lying in the back part of my mind, unnoticed until now. I have often wondered since why it could not have passed me by, why it could not have remained hidden, why the computer in my brain felt compelled to haul it forth.

When I had glanced into the shelter, I recalled, I had seen the drifting feathers and the chalky droppings of the birds that had used it for a shelter, while toward the farther end there had been a small rockfall. And it was something about this rockfall that my mind had pounced upon—something that at the time I must subconsciously have noted, but which my brain, in the excitement of the moment, had tucked away for consideration later.

Now, suddenly, it brought forward for consideration the fact that while the roof of the shelter had been limestone, the rockfall had not been limestone, but green shale instead. Green shale, the kind of stone that could be picked up from this very stream bed, chunks of soft, smooth rock eroded from the Decorah beds that lay atop the Platteville. The shale could not have been the product of the rockfall; it had been carried there.

Incredible as it may seem, I believe that in that moment I sensed exactly what had happened—an incredible hypothesis rising full-blown out of an incredible situation.

I rebelled against it. To hell with it, I thought; I have had enough; I

don't need any more. But even so, I knew I had to have a look; I would never rest until I'd had a look. Not knowing would haunt me. I hoped, I think (it's hard to remember now), that I would find the fall was limestone and not shale at all.

When I went to look, I found my subconscious had been right. The rock was shale, worn smooth by water action. And underneath the little pile of rocks were hidden two of Stefan's photographic cubes.

I squatted there and looked at them, remembering back to what Charles had said. A psychopath, he'd said. A psychopath and he did this filthy thing, then hid the cubes away so we couldn't find them.

Strangely, I couldn't be absolutely sure of the words he had used. Had he said psychopath? Had filthy been the word he had used, or some other word that was very much like it? I remembered he had said violence, but realized he had meant something more than violence, something perhaps so subtle that he could not explain it to me in terms I would understand. And that was the crux of it, of course, illustrative of the gulf between his time and mine.

I tried to imagine a twentieth-century social worker attempting to explain compassion for the poor to an aristocrat of Rome who only thought in terms of bread and circuses, then knew the analogy was a bad one, for the gulf of understanding between the social worker and the Roman would have been narrow compared to the gulf between myself and Charles.

So here, this day, I sit at the kitchen table, nearly done with writing, with the two cubes beside the pile of paper. I wonder at the blind course of circumstance that could have led me to them. And I wonder, too, rather bitterly, about the burden of knowledge that one man must carry, knowing it is true and yet unable to speak a word of it, condemned to write of it in secret for his own salvation (and I'm beginning to think it is no salvation).

I wonder, as well, why I cannot feel compassion for these people of the future, why I cannot see them as our descendants, children of our children many times removed. Why I cannot wish them well. But, no matter what I do, I can't. As if they were alien, as alien as that other people who had broadcast cylinders to the stars—aliens in time rather than in space.

Now about the cubes.

One of them, I am fairly certain, although I cannot be entirely sure

since I'm no historian, contains a photo of that moment on Christmas Day in the Year of Our Lord 800 when Charlemagne was crowned by Leo III as emperor of the West. Charlemagne (if it indeed is he) is a thug, a massive brute that one dislikes instinctively, while Leo is a fussy little person who seems more overwhelmed by the situation than is Charlemagne.

I cannot be sure, of course, but a number of things make me believe the photo is of Charlemagne and Leo, not the least of which is that this would be, in historic context, the one coronation that a man going into time would want to photograph. Or, rather, perhaps the coronation a man of my own time would want to photograph. I realize that with Stefan there can be no telling. If his thinking and his viewpoint were as twisted as the viewpoint of the others of his time, God knows what his reasons might have been for doing anything at all. Although he did photograph Marathon—and the thought occurs to me that his doing so may mean he did think somewhat along the lines we do and may possibly supply a clue to his so-called psychosis. Could the fact that he was believed psychotic by the people of his time mean no more than that he was a throwback?

I find small comfort in the thought. I would prefer to think he was not a throwback. Knowing he was not, I could feel more comfortable about the remaining cube.

I wish now I had taken the time to know Stefan better; as it stands, no one really knew him. He had been around for years, and all we ever did was wave at him as we went driving past. He was a difficult man, of course. Humphrey said he was the sort of man who would not even tell his name. But we, all of us, could have made a greater effort than we did.

Sitting here, I try to reconstruct him. I try to envision his sneaking down the hollow to hide his cubes. He must have been on the way to cache the Marathon cube when he met his death. Illogical as it may seem, I have even wondered if he was engaged in some ghastly joke, if he had deliberately planted an intentional clue by being killed just below the bridge to enable me, or someone else, to find the hidden cubes. Could there have been two authentic and historic cubes that were intended to lend some credence to the third? This is all insane, of course, but under stressful circumstances a man thinks insanity. My own think-

ing must be going faulty; I am clutching at any evidence that will enable me to discount the third cube.

The photograph shows a crucifixion. The cross is not a tall one; the feet of the man upon it are no more than two feet or so above the ground. The wrists are nailed to the crossbar, but the ankles are tied to the post, with no support for the feet. To support the body so that the nails will not tear out, a wooden peg has been passed beneath the crotch and driven in the post. In the distance lies an ancient city. Half a dozen bored and listless soldiers—I take them to be Roman soldiers—lounge about, leaning on their spears, there apparently to prevent interference with the execution. Besides the soldiers there are only a few others, a small band of silent men and women who simply stand and watch. A dog is sniffing at the post and one knows, instinctively, that in a little while he'll lift his leg against it.

There is no mocking placard nailed upon the cross. There is no crown of thorns. There are no other crosses, bearing thieves, to flank the single cross. There is no sign of glory.

And yet—and yet—and yet. . . . Stefan filmed a moment out of Marathon, snatched for posterity the significance of that far-gone Christmas day, proving that indeed he had a keen sense of the historical as it might be interpreted by the culture of the present. The present, not the future. If he had been so right about the other two, could he have been wrong about the third? There had been, of course, many crucifixions, the punishment reserved for slaves, for thieves, for the contemptibles. But of all of them, in the context of history, only one stands out. Could Stefan have missed that one? Much as I might like to think so, I do not believe he did.

The thing that saddens me, that leaves in me a feeling of chilling emptiness, is that nothing of importance seems to be transpiring. There is the sense of shoddy death (if death can be shoddy, and I think it often is). Here the soldiers wait for the dying to be done, so they can be off to better things. The others simply wait, with resignation on their faces; there is nothing one can do against the power of Rome.

And yet, I tell myself, if this is the way it really was, this is the way it should have stayed, this is the way the event should have been transmitted to us. Out of this sad and empty happening, Christianity might have built a greater strength than it has from all the trappings of imagined glory.

The head of the victim on the cross has fallen forward, with the chin resting on the chest. Turn the cube as I may, I cannot see the face.

If I could look upon the face, I think that I would know. Not by recognizing the face, for we do not know the face—all we have is the imaginings of long-dead artists, not all of them agreeing. But from some expression on the face, from something in the eyes.

I wonder about the saddle. Could it somehow be fixed? Could it be made to function once again? Could I figure out, from scratch, how to operate it?

(Editor's note: This manuscript was found in the briefcase of Andrew Thornton, along with notes for a book he had been writing, after Thornton's disappearance. Police theorize he may have wandered off and been killed by a bear in some densely wooded and remote area where there would be little hope of finding his body. The possibility he may have wandered off is supported by his distraught frame of mind, which the manuscript reveals. Thornton's disappearance was reported by his close friend, Neville Piper, upon his return from Greece. The saddle mentioned in the manuscript has not been found; there is some question it existed. Neither have the cubes been found. Dr. Piper, who presently is engaged in writing a book on the Battle of Marathon, setting forth some new findings, disclaims any knowledge of the so-called Marathon Photograph.)

RIDING THE TORCH

Norman Spinrad

Norman Spinrad is recognized as one of the most versatile and energetic of the science-fiction writers who entered the field in the 1960's. His powerful novel, Bug Jack Barron *(1969), caused controversy both in the United States and Great Britain; his short stories, collected in volume form as* The Last Hurrah of the Golden Horde *(1970), displayed a wide range of talents; in 1972 his novel* The Iron Dream, *a vision of what science fiction would be like if it had been written by Adolf Hitler, extended his reputation. A native of New York, Spinrad now makes his home in Los Angeles.*

I

Flashing rainbows from his skintight mirror suit, flourishing a swirl of black cape, Jofe D'mahl burst through the shimmer screen that formed the shipside wall of his grand salon to the opening bars of Beethoven's *Fifth Symphony*. The shimmer rippled through the spectrum as his flesh passed through it, visually announcing his presence with quicksilver strobes of dopplering light. Heads turned, bodies froze, and the party stopped for a good long beat as he greeted his guests with an ironic half-bow. The party resumed its rhythm as he walked across the misty floor toward a floating tray of flashers. He had made his entrance.

D'mahl selected a purple sphere, popped the flasher into his mouth, and bit through an exquisite brittle sponginess into an overwhelming surge of velvet, a gustatory orgasm. A first collection by one Lina Wolder, Jiz had said, and as usual she had picked a winner. He tapped the name into his memory banks, keying it to the sensorium track of the last ten seconds, and filed it in his current party listing. Yes indeed, a rising star to remember.

Tapping the floater to follow him, he strode through the knee-high multicolored fog, nodding, turning, bestowing glances of his deep green eyes, savoring the ambience he had brought into being.

D'mahl had wheedled Hiro Korakin himself into designing the grand salon as his interpretation of D'mahl's own personality. Korakin had hung an immense semicircular slab of simmed emerald out from the hull of the ship itself and had blistered this huge balcony in transparent plex, giving D'mahl's guests a breathtaking and uncompromising view of humanity's universe. As *Excelsior* was near the center of the Trek, the great concourse of ships tiaraed the salon's horizon line, a triumphant jeweled city of coruscating light. Ten kilometers bow-ward,

the hydrogen interface was an auroral skin stretched across the unseemly nakedness of interstellar space.

But to look over the edge of the balcony, down the sleek and brilliantly lit precipice of *Excelsior*'s cylindrical hull, was to be confronted by a vista that sucked slobbering at the soul: the bottomless interstellar abyss, an infinite black pit in which the myriad stars were but iridescent motes of unimportant dust, a nothingness that went on forever in space and time. At some indefinable point down there in the blackness, the invisible output of *Excelsior*'s torch merged with those of two thousand and thirty-nine other ships to form an ethereal comet's tail of all-but-invisible purplish fire that dwindled off into a frail thread which seemed to go on forever down into the abyss: the wake of the Trek, reeling backward in space and time for hundreds of light-years and nearly ten centuries, a visible track that the eye might seemingly follow backward through the ages to the lost garden, Earth.

Jofe D'mahl knew full well that many of his guests found this prime reality visualization of their basic existential position unsettling, frightening, perhaps even in bad taste. But that was *their* problem; D'mahl himself found the view bracing, which, of course, justifiably elevated his own already high opinion of himself. Korakin wasn't considered the best psychetect on the Trek for nothing.

But D'mahl himself had decorated the salon, with the inevitable assistance of Jiz Rumoku. On the translucent emerald floor he had planted a tinkling forest of ruby, sapphire, diamond, and amethyst trees—cunningly detailed sims of the ancient life-forms that waved flashing crystal leaves with every subtle current of air. He had topped off the effect with the scented fog that picked up blue, red, and lavender tints from the internally incandescent trees, and customarily kept the gravity at .8 gs to sync with the faerie mood. To soften the crystal edges, Jiz had gotten him a collection of forty fuzzballs: downy globs in subdued green, brown, mustard, and gray that floated about randomly at floor level until someone sat in them. If Korakin had captured D'mahl's clear-eyed core, Jofe had expressed the neobaroque style of his recent sensos, and to D'mahl, the combined work of art sang of the paradox that was the Trek. To his guests, it sang of the paradox that was Jofe D'mahl. Egowise, D'mahl himself did not deign to make this distinction.

The guest list was also a work of art in D'mahl's neobaroque style: a

constellation of people designed to rub purringly here, jangle like broken glass there, generate cross-fertilization someplace else, keep the old karmic kettle boiling. Jans Ryn was displaying herself as usual to a mixed bag that included *Excelsior*'s chief torchtender, two dirtdiggers from *Kantuck,* and Tanya Daivis, the velvet asp. A heated discussion between Dalta Reed and Trombleau, the astrophysicist from *Glade,* was drawing another conspicuous crowd. Less conspicuous guests were floating about doing less conspicuous things. The party needed a catalyst to really start torching up lights.

And at 24.00 that catalyst would zap itself right into their sweet little taps—the premiere tapping of Jofe D'mahl's new senso, *Wandering Dutchmen.* D'mahl had carved something prime out of the void, and he knew it.

"—by backbreeding beyond the point of original radiation, and then up the line to the elm—"

"—like a thousand suns, as they said at Alamagordo, Jans, and it's only a bulkhead and a fluxfield away—"

"—how Promethean you must feel—"

"Jof, this nova claims he's isolated a spectral pattern synced to organic life," Dalta called out, momentarily drawing D'mahl into her orbit.

"In a starscan tape?" D'mahl asked dubiously.

"In theory," Trombleau admitted.

"Where've I heard that one before?" D'mahl said, popping another of the Wolder flashers. It wriggled through his teeth, then exploded in a burst of bittersweet that almost immediately faded into a lingering smoky aftertaste. Not bad, D'mahl thought, dancing away from Trombleau's open mouth before he could get sucked into the argument.

D'mahl flitted through the mists, goosed Arni Simkov, slapped Darius Warner on the behind, came upon a group of guests surrounding John Benina, who had viewpointed the Dutchman. They were trying to pump him about the senso, but John knew that if he blatted before the premiere, his chances of working with Jofe D'mahl again were exactly zip.

"Come on, Jofe, tell us something about *Wandering Dutchmen,*" begged a woman wearing a cloud of bright-yellow mist. D'mahl couldn't remember her with his flesh, but didn't bother tapping for it. Instead, he bit into a cubical flasher that atomized at the touch of his

teeth, whiting out every synapse in his mouth for a mad micropulse. Feh.

"Two hints," D'mahl said. "John Benina played one of the two major viewpoints, and it's a mythmash."

A great collective groan went up, under cover of which D'mahl ricocheted away in the direction of Jiz Rumoku, who was standing in a green mist with someone he couldn't make out.

Jiz Rumoku was the only person privileged to bring her own guests to D'mahl's parties, and just about the only person not involved in the production who had any idea of what *Wandering Dutchmen* was about. If Jofe D'mahl could be said to have a souler (a dubious assumption), she was it.

She was dressed, as usual, in tomorrow's latest fashion: a pants suit of iridescent, rigid-seeming green-and-purple material, a mosaic of planar geometric forms that approximated the curves of her body like a medieval suit of armor. But the facets of her suit articulated subtly with her tiniest motion—a fantastic insectile effect set off by a tall plumelike crest into which her long black hair had been static-molded.

But D'mahl's attention was drawn to her companion, for he was obviously a voidsucker. He wore nothing but blue briefs and thin brown slippers; there was not a speck of hair on his body, and his bald head was tinted silver. But persona aside, his eyes alone would have instantly marked him: windows of blue plex into an infinite universe of utter blackness confined by some topological legerdemain inside his gleaming skull.

D'mahl tapped the voidsucker's visual image to the banks. "I.D.," he subvoced. The name "Haris Bandoora" appeared in his mind. "Data brief," D'mahl subvoced.

"Haris Bandoora, fifty standard years, currently commanding scoutship Bela-37, returned to Trek 4.987 last Tuesday. Report unavailable at this realtime."

Jiz had certainly come up with something tasty this time, a voidsucker so fresh from the great zilch that the Council of Pilots hadn't yet released his report.

"Welcome back to civilization, such as it is, Commander Bandoora," D'mahl said.

Bandoora turned the vacuum of his eyes on D'mahl. "Such as it is,"

he said, in a cold clear voice that seemed to sum up, judge, and dismiss all of human history in four dead syllables.

D'mahl looked away from those black pits, looked into Jiz's almond eyes, and they cross-tapped each other's sensoriums for a moment in private greeting. Jofe saw his own mirrored body, felt the warmth it evoked in her. He kissed his lips with Jiz's, tasting the electric smokiness of the flashers he had eaten. As their lips parted, they broke their taps simultaneously.

"What's in that report of yours that the Pilots haven't released to the banks yet, Bandoora?" D'mahl asked conversationally. (How else could you make small talk with a voidsucker?)

Bandoora's thin lips parted in what might have been a smile, or just as easily a grimace of pain. D'mahl sensed that the man's emotional parameters were truly alien to his experience, prime or simmed. He had never paid attention to the voidsuckers before, and he wondered why. There was one beyond senso to be made on the subject!

"They've found a planet," Jiz said. "There's going to be a blanket bulletin at 23.80."

"Drool," D'mahl said, nuancing the word with most of the feelings that this flash stirred up. The voidsuckers were always reporting back with some hot new solar system, turning the Trek for a few months while they high-geed for a telltale peek, then turning the Trek again for the next Ultima Thule just as the flash hit that the last one was the usual slokyard of rock and puke-gas. The voidsuckers had been leading the Trek in a zigzag stagger through space from one vain hope to another for the better part of a millennium; the latest zig was therefore hardly a cosmic flash in Jofe D'mahl's estimation. But it *would* be a three-month wonder at least, and tapping out a blanket bulletin just before the premiere was a prime piece of upstaging, a real boot in the ego. Drool.

"The probabilities look good on this one," Bandoora said.

"They always do, don't they?" D'mahl said snidely. "And it always turns out the same. If there's a rock in the habitable zone, it's got gravity that'd pull your head off, or the atmosphere is a tasty mixture of hydrogen cyanide and fluorine. Bandoora, don't you ever get the feeling that some nonexistent cosmic personage is trying to tell you something you don't want to hear?"

Bandoora's inner expression seemed to crinkle behind his impassive

flesh. A tic made his lower lip tremble. What did I do *this* time? D'mahl wondered. These voidsuckers must be far beyond along some pretty strange vectors.

Jiz forced a laugh. "The torch Jof is riding is all ego," she said. "He's just singed because the bulletin is going to bleed some H from his premiere. Isn't that right, Jof, you egomonster, you?"

"Don't knock ego," D'mahl said. "It's all that stands between us and the lamer universe we have the bad taste to be stuck in. Since my opinion of myself is the only thing I know of higher in the karmic pecking order than my own magnificent being, my ego is the only thing I've found worth worshiping. Know what that makes me?"

"Insufferable?" Jiz suggested.

"A human being," D'mahl said. "I'm stuck with it, so I might as well enjoy it."

"A bulletin from the Council of Pilots." The words intruded themselves into D'mahl's mind with a reasonable degree of gentleness, an improvement over the days when the Pilots had felt they had the right to snap you into full sensory fugue on the spot whenever the spirit moved them. "Ten . . . nine . . . eight . . . seven . . ." D'mahl pulled over a green fuzzball and anchored the floating cloud of particles by planting his posterior in it. Jiz and Bandoora sat down flanking him. "Six . . . five . . . four . . ."

Whichever guests were standing found themselves seats; there was no telling how long one of these bulletins would last. The Pilots have a grossly exaggerated sense of their own importance, D'mahl thought. And what does that make them?

". . . three . . . two . . . one . . ."

Human beings.

D'mahl sat on a bench at the focus of a small amphitheater. Tiered around him were two thousand and forty people wearing the archaic blue military tunics dating back to the time when Ship's Pilot was a paramilitary rank rather than an elective office. D'mahl found the uniformity of dress stultifying and the overhead holo of the day sky of an Earthlike planet banal and oppressive, but then he found most Pilots, with their naïve notion of the Trek's existential position, somewhat simpleminded and more than a little pathetic.

Ryan Nakamura, a white-haired man who had been Chairman of the Council of Pilots longer than anyone cared to remember, walked

slowly toward him, clapped him on the shoulder with both hands, and sat down beside him. Nakamura smelled of some noxious perfume designed to sim wisdom-odors of moldy parchment and decayed sweetness. As an artist, D'mahl found the effect competent if painfully obvious; as a citizen, he found it patronizing and offensive.

Nakamura leaned toward him, and as he did, the amphitheater vanished and they sat cozily alone on an abstract surface entirely surrounded by a firmament of tightly packed stars.

"Jofe, Scoutship Bela-37 has returned to the Trek and reported that a solar system containing a potentially habitable planet is located within a light-year and a half of our present position," Nakamura said solemnly.

D'mahl wanted to yawn in the old bore's face, but of course the viewpoint player hunched him intently toward Nakamura instead as the Chairman blatted on. "The Council has voted 1,839 to 201 to alter the vector of the Trek toward this system, designated 997-Beta, pending the report of the telltale."

D'mahl sat midway up in the amphitheater as Nakamura continued formally from a podium on the floor below. "It is our earnest hope that our long trek is at last nearing its successful completion, that in our own lifetimes men will once more stand on the verdant hills of a living planet, with a sky overhead and the smells of living things in our nostrils. We conclude this bulletin with brief excerpts from the report of Haris Bandoora, commander of Bela-37."

Behind the podium, Nakamura faded into Haris Bandoora. "Bela-37 was following a course thirty degrees from the forward vector of the Trek," Bandoora said tonelessly. "Torching at point nine . . ."

D'mahl stood on the bridge of Bela-37—a small round chamber rimmed with impressive-looking gadgetry, domed in somewhat bluish plex to compensate for the doppler shift, but otherwise visually open to the terrifying glory of the deep void. However, one of the four void-suckers on the bridge was a woman who easily upstaged the stellar spectacle as far as D'mahl was concerned. She wore briefs and slippers and was totally bald, like the others, and her skull was tinted silver, but her preternaturally conical breasts and shining, tightly muscled flesh made what ordinarily would have been an ugly effect into an abstract paradigm of feminine beauty. Whether the warmth he felt was his

alone, or his reaction plus that of the viewpoint player, apparently Bandoora himself, was entirely beside the point.

"Ready to scan and record system 997-Beta," the stunning creature said. D'mahl walked closer to her, wanting to dive into those bottomless voidsucker eyes. Instead, he found his lips saying, with Bandoora's voice: "Display it, Sidi."

Sidi did something to the control panel before her (how archaic!) and the holo of a yellow star about the diameter of a human head appeared in the geometric center of the bridge. D'mahl exchanged tense glances with his crew, somatically felt his expectation rise.

"The planets . . ." he said.

Five small round particles appeared, rotating in compressed time around the yellow sun.

"The habitable zone . . ."

A transparent green torus appeared around the holo of 997-Beta. The second planet lay within its boundaries.

There was an audible intake of breath, and D'mahl felt his own body tremble. "The second planet," Bandoora's voice ordered. "At max."

The holo of the star vanished, replaced by a pale, fuzzy holo of the second planet, about four times its diameter. The planet seemed to be mottled with areas of brown, green, blue, yellow, and purple, but the holo was washed out and wavered as if seen through miles of heat-haze.

A neuter voice recited instrument readings. "Estimated gravity 1.2 gs plus or minus ten percent . . . estimated mean temperature thirty-three degrees centigrade plus or minus six degrees . . . estimated atmospheric composition: helium, nitrogen, oxygen as major constituents . . . percentages indeterminate from present data . . . traces of carbon dioxide, argon, ammonia, water vapor . . . estimated ratio of liquid area to solid surface 60–40 . . . composition of oceans indeterminate from present data. . . ."

D'mahl felt the tension in his body release itself through his vocal cords in a wordless shout that merged with the whoops of his companions. He heard his lips say, with Bandoora's voice: "That's the best prospect any scoutship's turned up within my lifetime."

D'mahl was seated in the amphitheater as Bandoora addressed the Council. "A probe was immediately dispatched to 997-Beta-II. Bela-37 will leave within twenty days to monitor the probe data wavefront. We

estimate that we will be able to bring back conclusive data within half a standard year."

D'mahl was an abstract viewpoint in black space. A huge hazy holo of 997-Beta-II hovered before him like a ghostly forbidden fruit as the words in his mind announced: "This concludes the bulletin from the Council of Pilots."

Everyone in Jofe D'mahl's grand salon immediately began babbling, gesticulating, milling about excitedly. Head after head turned in the direction of D'mahl, Jiz, and Bandoora. D'mahl felt a slow burn rising, knowing to whom the fascinated glances were directed.

"Well, what do you think of *that,* Jof?" Jiz said, with a sly knife edge in her voice.

"Not badly done," D'mahl said coolly. "Hardly art, but effective propaganda, I must admit."

Once again, Bandoora seemed strangely stricken, as if D'mahl's words had probed some inner wound.

"The planet, Jof, the *planet!*"

Fighting to control a building wave of anger, D'mahl managed an arch smile. "I was paying more attention to Sidi," he said. "Voidsuckers come up with planets that look that good from a distance much more often than you see bodies that look that good that close."

"You think the future of the human race is a rather humorous subject," Bandoora said loudly, betraying annoyance for the first time.

D'mahl tapped the time at 23.981. His guests were all blatting about the prospects of at last finding a viable mudball, and *Wandering Dutchmen* was about to begin! Leaping to his feet, he shouted: "Bandoora, you've been out in the big zilch too long!" The sheer volume of his voice focused the attention of every guest on his person. "If *I* were confined in a scoutship with Sidi, I'd have something better than slok planets on my mind!"

"You're a degenerate and an egomaniac, D'mahl!" Bandoora blatted piously, drawing the laughter D'mahl had hoped for.

"Guilty on both counts," D'mahl said. "Sure I'm an egomaniac—like everyone else, I'm the only god there is. Of course I'm a degenerate, and so is everyone else—soft protoplasmic machines that begin to degenerate from day one!"

All at once D'mahl had penetrated the serious mood that the bulletin had imposed on his party, and by donning it and taking it one step be-

yond, had recaptured the core. "We're stuck where we are and with what we are. We're Flying Dutchmen on an endless sea of space, we're Wandering Jews remembering what we killed for all eternity—"

A great groan went up, undertoned with laughter at the crude bridge to the impending premiere, overtoned with sullenness at the reminder of just who and what they were. D'mahl had blown it—or at least failed to entirely recover—and he knew it, and the knowledge was a red nova inside his skull. At this moment of foul karma, 24.000 passed into realtime, and on tap frequency E-6—

You are standing at the base of a gentle verdant hill on whose tree-dotted summit a man in a loincloth is being nailed to a cross. Each time the mallet descends, you feel piercing pains in your wrists. You stand in an alleyway in ancient Jerusalem holding a jug of water to your breast as Jesus is dragged to his doom, and you feel his terrible hopeless thirst parching your throat. You are back at Calvary listening to the beat of the mallet, feeling the lightnings of pain in your wrists, the taste of burning sands in your mouth.

You are on the quarterdeck of an ancient wooden sailing ship tasting the salt wind of an ocean storm. The sky roils and howls under an evil green moon. Your crew scurries about the deck and rigging, shouting and moaning in thin spectral voices, creatures of tattered rags and ghostly transparent flesh. Foam flies into your face, and you wipe it off with the back of your hand, seeing through your own flesh as it passes before your eyes. You feel laughter at the back of your throat, and it bubbles out of you—too loud, too hearty, a maniac's howl. You raise your foglike fist and brandish it at the heavens. Lightning bolts crackle. You shake your fist harder and inhale the storm wind like the breath of a lover.

You look up the slope of Calvary as the final stroke of the mallet is driven home and you feel the wooden handle and the iron spike in your own hands. The cross is erected, and it is you who hangs from it, and the sky is dissolved in a deafening blast of light brighter than a thousand suns. And you are trudging on an endless plain of blowing gray ash under a sky the color of rusting steel. The jagged ruins of broken buildings protrude from the swirling dust, and the world is full of maimed and skeletal people marching from horizon to horizon without hope. But your body has the plodding leaden strength of a thing that

knows it cannot die. Pain in your wrists, and ashes in your mouth. The people around you begin to rot on their feet, to melt like Dali watches, and then only you remain, custodian of a planetary corpse. A ghostly sailing ship approaches you, luffing and pitching on the storm-whipped ash.

The quarterdeck pitches under your feet and the skies howl. Then the storm clouds around the moon melt away to reveal a cool utter blackness punctuated by myriad hard points of light, and the quarterdeck becomes a steel bulkhead under your feet and you are standing in an observation bubble of a primitive first-generation torchship. Around your starry horizon are dozens of other converted asteroid freighters, little more than fusion torchtubes with makeshift domes, blisters, and toroid decks cobbled to their surfaces—the distant solar ancestors of the Trek.

You turn to see an ancient horror standing beside you: an old, old man, his face scarred by radiation, his soul scarred by bottomless guilt, and his black eyes burning coldly with eternal ice.

You are standing in an observation bubble of a first-generation torchship. Below, the Earth is a brownish, singed, cancerous ball still stewing in the radiation of the Slow Motion War. Somewhere a bell is tolling, and you can feel the tug of the bellrope in your hands. Turning, you see a lean, sinister man with a face all flat planes and eyes like blue coals. His face fades into fog for a moment, and only those mad eyes remain solid and real.

"Hello, Dutchman," you say.

"Hello, Refugee."

"I'm usually called Wanderer."

"That's no longer much of a distinction," the Dutchman says. "All men are wanderers now."

"We're all refugees too. We've killed the living world that gave us birth. Even you and I may never live to see another." The bite of the nails into your wrists, the weight of the mallet in your hand. Thirst, and the tolling of a far-off bell.

You are the Dutchman, looking out into the universal night; a generation to the nearest star, a century to the nearest hope of a living world, forever to the other side. Thunder rolls inside your head and lightnings flash behind your eyes. "We've got these decks under our feet, the interstellar wind to ride, and fusion torches to ride it with," you say.

"Don't whine to me, I've never had more." You laugh a wild maniac howl. "And I've got plenty of company, now."

You are the Wanderer, looking down at the slain Earth, listening to the bell toll, feeling the dead weight of the mallet in your hand. "So do I, Dutchman, so do I."

The globe of the Earth transforms itself into another world: a brown-and-purple planetary continent marbled with veins and lakes of watery blue. Clad in a heavy spacesuit, you are standing on the surface of the planet: naked rock on the shore of a clear blue lake, under a violet sky laced with thin gray clouds like jet contrails. A dozen other suited men are fanned out across the plain of fractured rock, like ants crawling on a bone pile.

"Dead," you say. "A corpse-world."

Maniac laughter beside you. "Don't be morbid, Wanderer. Nothing is dead that was never alive."

You kneel on a patch of furrowed soil cupping a wilted pine seedling in your hands. The sky above you is steel plating studded with overhead floodlights, and the massive cylindrical body of the torchtube skewers the watertank universe of this dirtdigger deck. The whole layout is primitive, strictly first-generation Trek. Beside you, a young girl in green dirtdigger shorts and shirt is sitting disconsolately on the synthetic loam, staring at the curved outer bulkhead of the farm deck.

"I'm going to live and die without ever seeing a sky or walking in a forest," she says. "What am I doing here? What's all this for?"

"You're keeping the embers of Earth alive," you say in your ancient's voice. "You're preserving the last surviving forms of organic life. Some day your children or your children's children will plant these seeds in the living soil of a new Earth."

"Do you really believe that?" she says earnestly, turning her youthful strength on you like a sun. "That we'll find a living planet some day?"

"You must believe. If you stop believing, you'll be with us here in this hell of our own creation. We Earthborn were life's destroyers. Our children must be life's preservers."

She looks at you with the Wanderer's cold eternal eyes, and her face withers to a parchment of ancient despair. "For the sake of our blood-stained souls?" she says, then becomes a young girl once more.

"For the sake of your own, girl, for the sake of your own."

You float weightless inside the huddled circle of the Trek. The

circular formation of ships is a lagoon of light in an endless sea of black nothingness. Bow-ward of the Trek, the interstellar abyss is hidden behind a curtain of gauzy brilliance: the hydrogen interface, where the combined scoopfields of the Trek's fusion torches form a permanent shock wave against the attenuated interstellar atmosphere. Although the Trek's ships have already been modified and aligned to form the hydrogen interface, the ships are still the same converted asteroid freighters that left Sol; this is no later than Trek Year 150.

But inside the circle of ships, the future is being launched. The *Flying Dutchman,* the first torchship to be built entirely on the Trek out of matter winnowed and transmuted from the interstellar medium, floats in the space before you, surrounded by a gnat swarm of intership shuttles and men and women in voidsuits. A clean, smooth cylinder ringed with windowed decks, it seems out of place among the messy jury-rigging of the first-generation torchships, an intrusion from the future.

Then an all-but-invisible purple flame issues from the *Dutchman*'s torchtube and the first Trekborn ship is drawing its breath of life.

Another new torchship appears beside the *Flying Dutchman,* and another and another and another, until the new Trekborn ships outnumber the converted asteroid freighters and the hydrogen interface has more than doubled in diameter. Now the area inside the Trek is a vast concourse of torchships, shuttles, suited people, and the dancing lights of civilized life.

You are standing on a bulkhead catwalk overlooking the floor of a dirtdigger deck: a sparse forest of small pines and oaks, patches of green grass, a few rows of flowers. Above is a holo of a blue Earth sky with fleecy white clouds. Dirtdiggers in their traditional green move about solemnly, tending the fragile life-forms, measuring their growth. Your nostrils are filled with the incense odor of holiness.

And you sit at a round simmed marble table on a balcony café halfway up the outer bulkhead of an amusement deck sipping a glass of simmed burgundy. A circle of shops and restaurants rings the floor below, connected by radial paths to an inner ring of shops around the central torchtube shaft. Each resulting wedge of floor is a different bright color, each is given over to a different amusement: a swimming pool, a bandstand, a zero-g dance-plate, carnival rides, a shimmer maze. Noise rises. Music plays.

Across from you sits the Wanderer, wearing dirtdigger green and an expression of bitter contempt. "Look at them," he says. "We're about to approach another planet, and they don't even know where they are."

"And where is that, Refugee?"

"Who should know better than you, Dutchman?" he says. And the people below turn transparent, and the bulkheads disappear, and you are watching zombies dancing on a platform floating in the interstellar abyss. Nothing else lives, nothing else moves, in all that endless immensity.

Manic laughter tickles your throat.

A planet appears as a pinpoint, then a green-and-brown mottled sphere with fleecy white clouds, and then you are standing on its surface among a party of suited men trudging heavily back to their shuttleship. Hard brown rock veined with greenish mineral streakings under a blue-black sky dotted with pastel-green clouds. You are back on your balcony watching specters dance in the endless galactic night.

"Great admiral, what shall you say when hope is gone?" the Wanderer says.

And you are down among the specters, grown ten feet tall, a giant shaking your fist against the blackness, at the dead planet, howling your defiance against the everlasting night. "Sail on! Sail on! Sail on and on!"

"No more ships! No more ships! Soil or death!" You are marching at the head of a small army of men and women in dirtdigger green as it bursts into the amusement deck from the deck below, bearing crosses wrapped with simmed grape leaves. Each chanted shout sends nails through your wrists.

And you are leading your carnival of ghosts on a mad dance through a dirtdigger deck, carelessly trampling on the fragile life-forms, strewing gold and silver confetti, flashers, handfuls of jewels—the bounty of the fusion torch's passage through the interstellar plankton.

You are in a droptube falling through the decks of a ship. Amusement decks, residential decks, manufacturing decks, sifting decks—all but the control and torchtender decks—have been rudely covered over with synthetic loam and turned into makeshift dirtdigger decks. The growth is sparse, the air has a chemical foulness, metal surfaces are beginning to corrode, and the green-clad people have the hunched

shoulders and sunken eyes of the unwholesomely obsessed. The vine-covered cross is everywhere.

You are rising through a lift-tube on another ship. Here the machinery is in good repair, the air is clean, the bulkheads shiny, and the decks of the ship glory in light and sound and surfaces of simmed ruby, emerald, sapphire, and diamond. The people are birds-of-paradise in mirrorsuits, simmed velvets and silks in luxurious shades and patterns, feathers and leathers, gold, silver, and brass. But they seem to be moving to an unnatural rhythm, dancing a mad jig to a phantom fiddler, and their flesh is as transparent as unpolarized plex.

You are floating in space in the center of the Trek; behind you, the Trekborn ships are a half-circle diadem of jeweled brilliance. In front of you floats the Wanderer, and behind him the old converted asteroid freighters, tacky and decayed, pale greenery showing behind every blister and viewport.

"Your gardens are dying, Wanderer."

"Yours never had life, Dutchman," he says, and you can see stars and void through your glassy flesh, through the ghost-ships behind you.

Two silvery headbands appear in the space between you in a fanfare of music and a golden halo of light. Large, crude, designed for temporary external wear, they are the first full sensory transceivers, ancestors of the surgically implanted tap. They glow and pulse like live things, like the gift of the nonexistent gods.

You pick one of the headbands, laugh, place it on the Wanderer's head. "With this ring, I thee wed."

Unblinkingly, he places the other band on yours. "Bear my crown of thorns," he says.

You stand on the bridge of a torchship, the spectral Dutchman at your side. Beyond the plex, the stars are a million live jewels, a glory mirrored in the lights of the Trek.

You kneel among tiny pine trees in a dirtdigger deck beside the Wanderer, and they become a redwood forest towering into the blue skies of lost Earth, and you can feel the pain of the nails in your ghostly wrists, hearing the tolling of a far-off bell, feel the body's sadness, smell the incense of irredeemable loss.

You rise through a lift-tube, the Dutchman's hand in yours, and you hear the hum of energy as you pass through deck after jeweled and gleaming deck, hear the sounds of human laughter and joy, see crystal

trees sprouting and rising from the metal deckplates. The flesh of the spectral people solidifies and the Dutchman's hand becomes pink and solid. When you look at his face, your own Wanderer's eyes look back, pain muted by a wild joy.

You float in the center of the Trek with the Wanderer as the ships around you rearrange themselves in an intricate ballet: Trekborn and converted asteroid freighters in hundreds of magical *pas de deux,* reintegrating the Trek.

You are droptubing down through the decks of a dirtdigger ship, watching green uniforms transform themselves into the bird-of-paradise plumage of the Trekborn ships, watching the corrosion disappear from the metal, watching crystal gazebos, shimmer mazes, and bubbling brooks appear, as shrines to sadness become gardens of joy.

And you are sitting across a round simmed marble table from the Dutchman on a balcony café halfway up the bulkhead of an amusement deck. The central torchtube shaft is overgrown with ivy. The pool, bandstand, shimmer mazes, dance-plates, and carnival rides are laid out in a meadow of green grass shaded by pines and oaks. The bulkheads and upper decking dissolve, and this garden square stands revealed as a tiny circle of life lost in the immensity of the eternal void.

"We're Wanderers in the midnight of the soul," the Dutchman says. "Perhaps we're guardians of the only living things that ever were."

"Flying Dutchmen on an endless sea, perhaps the only gods there be."

And you are a detached viewpoint watching this circle of life drift away into the immensity of space, watching the Trek dwindle away until it is nothing more than one more abstract pinpoint of light against the galactic darkness. Words of pale fire appear across the endless starfield:

WANDERING DUTCHMEN

by Jofe D'mahl

There was an unmistakable note of politeness in the clicking of tongues in Jofe D'mahl's grand salon. The applause went on for an appropriate interval (*just* appropriate), and then the guests were up and talking, a brightly colored flock of birds flitting and jabbering about the jeweled forest.

". . . you could see that it had well-defined continents, and the green areas *must* be vegetation . . ."

". . . oxygen, sure, but can we breathe all that helium?"

Standing between Jiz Rumoku and Bandoora, Jofe D'mahl found himself in the infuriating position of being a vacuum beside the focus of attention. Eyes constantly glanced in their direction for a glimpse of Bandoora, but no gaze dared linger long, for at the side of the void-sucker, D'mahl was sizzling toward nova, his eyes putting out enough hard radiation to melt plex.

But Bandoora himself was looking straight at him, and D'mahl sensed some unguessable focus of alien warmth pulsing up at him from the depths of those unfathomable eyes. "I'm sorry the Pilots' bulletin ruined your premiere," he said.

"Really?" D'mahl snarled. "What makes you think your precious blatt has so much importance?" he continued loudly. There was no reason for the guests not to stare now; D'mahl was shouting for it. "You dreeks expect us to slaver like Pavlov's dogs every time you turn up some reeking mudball that looks habitable until you get close enough to get a good whiff of the dead stink of poison gas and naked rock. Your blatt will be a six-month nova, Bandoora. Art is forever."

"Forever may be a longer time than you realize, D'mahl," Bandoora said calmly. "Other than that, I agree with you entirely. I found *Wandering Dutchmen* quite moving." Were those actually *tears* forming in his eyes? "Perhaps more moving than even you can imagine."

Silence reigned now as the attention of the guests become totally focused on this small psychodrama. Some of the bolder ones began to inch closer. D'mahl found that he could not make out Bandoora's vector; in this little ego contest, there seemed to be no common set of rules.

"I'd like to atone for interfering with the premiere of a great work of art," Bandoora said. "I'll give you a chance to make the greatest senso of your career, D'mahl." There was a thin smile on his lips, but his eyes were so earnest as to appear almost comical.

"What makes you think *you* can teach *me* anything about sensos?" D'mahl said. "Next thing, you'll be asking me for a lesson in voidsucking." A titter of laughter danced around the salon.

"Perhaps I've already gotten it, D'mahl," Bandoora said. He turned, began walking through the colored mists and crystal trees toward the transparent plex that blistered the great balcony, focusing his eyes on

D'mahl through the crowd, back over his shoulder. "I don't know anything about sensos, but I can show you a reality that will make anything you've experienced pale into nothingness. Capture it on tape if you dare." A massed intake of breath.

"If I dare!" D'mahl shouted, exploding into nova. "Who do you think you're scaring with your cheap theatrics, Bandoora? I'm Jofe D'mahl, I'm the greatest artist of my time, I'm riding the torch of my own ego, and I know it. *If I dare!* What do you think any of us have to do *but* dare, you poor dreek? Didn't you understand *anything* of what you just experienced?"

Bandoora reached the plex blister, turned, stood outlined against the starry darkness, the blaze of the concourse of ships. His eyes seemed to draw a baleful energy from the blackness. "No theatrics, D'mahl," Bandoora said. "No computer taps, no sensos, no illusions. None of the things all you people live by. *Reality*, D'mahl, the real thing. Out there. The naked void."

He half turned, stretched out his right arm as if to embrace the darkness. "Come with us on Bela-37, D'mahl," he said. "Out there in your naked mind where nothing exists but you and the everlasting void. *Wandering Dutchmen* speaks well of such things—for a senso by a man who was simming it. What might you do with your own sensorium tape of the void itself—if you dared record it through your own living flesh? Do you dare, D'mahl, do you dare face the truth of it with your naked soul?"

"Jof—"

D'mahl brushed Jiz aside. *"Simming it!"* he bellowed in red rage. "Do I dare!" The reality of the grand salon, even the ego challenge hurled at him before his guests, burned away in the white-hot fire of the deeper challenge, the gauntlet Bandoora had flung at the feet of his soul. *I can face this thing, can you? Can you truly carve living art out of the dead void, not metaphorically, but out of the nothingness itself, in the flesh, in realtime? Or are you simming it? Are you a fraud?*

"I told you, Bandoora," he said, hissing through his rage, "I've got nothing to do *but* dare."

The guests oohed, Jiz shook her head, Bandoora nodded and smiled. Jofe D'mahl felt waves of change ripple through his grand salon, through himself, but their nature and vector eluded the grasp of his mind.

II

As he flitted from *Excelsior* to *Brigadoon* across a crowded sector of the central Trek, it seemed to Jofe D'mahl that the bubble of excitement in which he had been moving since the premiere party had more tangibility than the transparent shimmer screen of his voidbubble. The shimmer was visible only as the interface between the hard vacuum of space and the sphere of air it contained, but the enhancement of his persona was visible on the face of every person he saw. He was being tapped so frequently by people he had never met in senso or flesh that he had finally had to do something 180° from his normal vector: tap a screening program into his banks that rejected calls from all people not on a manageable approved list. He was definitely the Trek's current nova.

Even here, among the bubbled throngs flitting from ship to ship or just space-jaunting, D'mahl felt as if he were outshining the brilliance of the concourse of torchships, even the hydrogen interface itself, as most of the people whose trajectories came within visible range of his own saluted him with nods of their heads or subtle sidelong glances.

It almost made up for the fact that it wasn't *Wandering Dutchmen* that had triggered his nova but his public decision to dare six standard months with the voidsuckers—away from the Trek, out of tap contact with the banks, alone in his mind and body like a primitive pre-tap man. Waller Nan Pei had achieved the same effect by announcing his public suicide a month in advance, but blew out his torch forever by failing to go through with it. D'mahl knew there could be no backing out now.

He flitted past *Paradisio,* accepted the salutations of the passengers on a passing shuttle, rounded *Ginza,* throttled back his g-polarizer, and landed lightly on his toes on *Brigadoon*'s main entrance stage. He walked quickly across the ruby ledge, passed through the shimmer, collapsed his bubble, and took the nearest droptube for Jiz Rumoku's gallery on twelvedeck, wondering what the place would look like this time.

Thanks to Jiz's aura, *Brigadoon* was the chameleon-ship of the Trek; whole decks were completely done over about as often as the average Trekker redid his private quarters. Fashions and flashes tended to spread from *Brigadoon* to the rest of the Trek much as they spread from Jiz's

gallery to the decks of her ship. Recently, a motion to change the ship's name to *Quicksilver* had come within fifty votes of passage.

Dropping through the decks, D'mahl saw more changes than he could identify without tapping for the previous layouts, and he had been on *Brigadoon* about a standard month ago. Threedeck had been living quarters tiered around a formalized rock garden; now it was a lagoon with floating houseboats. Sixdeck had been a sim of the ancient Tivoli; now the amusements were arranged on multileveled g-plates over a huge slow-motion whirlpool of syrupy rainbow-colored liquid. Ninedeck had been a ziggurat-maze of living quarters festooned with ivy; now it was a miniature desert of static-molded gold and silver dust-dunes, latticed into a faerie filigree of cavelike apartments. Fluidity seemed to be the theme of the month.

Twelvedeck was now a confection of multicolored energy. The walls of the shops and restaurants were tinted shimmer screens in scores of subtle hues, and the central plaza around the torchtube shaft was an ever-changing meadow of slowly-moving miniature fuzzballs in blue, green, purple, yellow, and magenta. The torchtube itself was a cylindrical mirror, and most of the people were wearing tinted mirror-suits, fogrobes, or lightcloaks. It was like being inside a rainbow, and D'mahl felt out of sync in his comparatively severe blue pants, bare chest, and cloth-of-gold cloak.

Jiz Rumoku's gallery was behind a sapphire-blue waterfall that cascaded from halfway up the curved bulkhead to a pool of mist spilling out across the floor of the deck. D'mahl stepped through it, half expecting to be soaked. Mercifully, the waterfall proved to be a holo, but with Jiz, you never knew.

"You who are about to die salute us," Jiz said. She was lying in a blushing-pink fuzzball, naked except for blinding auroras of broad-spectrum light coyly hiding her breasts and loins. The pink fuzzball floated in a lazy ellipse near the center of the gallery, which was now a circular area contained by a shimmer screen around its circumference that rippled endless spectral changes. The ceiling was a holo of roiling orange fire, the floor a mirror of some soft substance.

"Better in fire than in ice," D'mahl said. "My motto." They cross-tapped, and D'mahl lay in the fuzzball feeling an electric glow as his body walked across the gallery and kissed Jiz's lips.

"Voidsucking isn't exactly my idea of fire, Jof," Jiz said as they simultaneously broke their taps.

"This is?" D'mahl said, sweeping his arm in an arc. Dozens of floaters in sizes ranging from a few square centimeters to a good three meters square drifted in seemingly random trajectories around the gallery, displaying objects and energy-effects ranging from tiny pieces of static-molded gemdust jewelry to boxes of flashers, fogrobes, clingers, holopanes that were mostly abstract, and several large and very striking fire-sculptures. The floaters themselves were all transparent plex, and very few of the "objects" on them were pure matter.

"I cog that people are going to be bored with matter for a while," Jiz said, rising from the fuzzball. "After all, it's nothing but frozen energy. Flux is the coming nova, energy-matter interface stuff. It expresses the spirit of the torch, don't you think? Energy, protons, electrons, neutrons, and heavy element dust from the interstellar medium transmuted into whatever we please. This current collection expresses the transmutational state itself."

"I like to have a few things with hard surfaces around," D'mahl said somewhat dubiously.

"You'll see, even your place will be primarily interface for the next standard month or so. You'll put it in sync."

"No I won't, oh creator of tomorrow's flash," D'mahl said, kissing her teasingly on the lips. "While everyone else is going transmutational, I'll be out there in the cold hard void, where energy and matter know their places and stick to them."

Jiz frowned, touched his cheek. "You're really going through with it, aren't you?" she said. "Months of being cooped up in some awful scoutship, sans tap, sans lovers, sans change. . . ."

"Perhaps at least not sans lovers," D'mahl said lightly, thinking of Sidi. But Jiz, he saw, was seriously worried. "What's the matter, Jiz?"

"What do you actually know about the voidsuckers?"

"What's to know? They man the scoutships. They look for habitable planets. They live the simplest lives imaginable."

"Have you tapped anything on them?"

"No. I'm taking a senso recorder along, of course, and I'll have to use myself as major viewpoint, so I don't want any sensory preconceptions."

"I've tapped the basic sensohistory of the voidsuckers, Jof. There's nothing else in the banks. Doesn't that bother you?"

"Should it?"

"Tap it, Jof."

"I told you—"

"I know, no sensory preconceptions. But I'm asking you to tap it anyway. I have, and I think you should." Her eyes were hard and unblinking, and her mouth was hardened into an ideogram of resolve. When Jiz got that look, D'mahl usually found it advisable to follow her vector, for the sake of parsimony, if nothing else.

"All right," he said. "For you, I'll sully my pristine consciousness with sordid facts. Voidsuckers, basic history," he subvoced.

He stood in an observation blister watching a scoutship head for the hydrogen interface. The scout was basically a torchship-size fusion tube with a single small toroid deck amidship and a bridge bubble up near the intake. "Trek Year 301," a neuter voice said. "The first scoutship is launched by the Trek. Crewed by five volunteers, it is powered by a full-size fusion torch though its mass is only one tenth that of a conventional torchship. Combined with its utilization of the Trek's momentum, this enables it rapidly to reach a terminal velocity approaching .87 lights."

D'mahl was a detached observer far out in space watching the scoutship torch ahead of the Trek. Another scoutship, then another, and another, and finally others too numerous to count easily, torched through the hydrogen interface and ahead of the Trek, veering off at angles ranging from ten to thirty degrees, forming a conical formation. The area of space enclosed by the cone turned bright green as the voice said: "By 402, the scoutships numbered forty-seven, and the still-current search pattern had been regularized. Ranging up to a full light-year from the Trek and remote-surveying solar systems from this expanded cone of vision, the scoutship system maximized the number of potential habitable planets surveyed in a given unit of time."

Now D'mahl sat on the bridge of a scoutship looking out the plex at space. Around him, two men and a woman in blue voidsucker shorts were puttering about with instrument consoles. "In 508, a new innovation was introduced." A small drone missile shot slightly ahead of the scoutship, which then began to veer off. "Scoutships now dispatched

telltale probes to potentially habitable planets, returning at once to the Trek."

D'mahl was a viewpoint in space watching a stylized diorama of the Trek, a scoutship, a telltale, and a solar system. The scout was torching back to the Trek while the telltale orbited a planet, broadcasting a red wavefront of information Trekward. The scout reached the Trek, which altered its vector toward the telltale's solar system. The scout then left the Trek to monitor the oncoming telltale wavefront. "By turning the Trek toward a prospective system, then returning to monitor the telltale wavefront by scoutship, our fully evolved planetary reconnaissance system now maximizes the number of solar systems investigated in a given time period and also minimizes the reporting time for each high-probability solar system investigated."

D'mahl was aboard a scoutship, playing null-g tennis with an attractive female voidsucker. He was in a simple commissary punching out a meal. He was lying on a grav-plate set at about .25 g in small private sleeping quarters. He was a female voidsucker making love to a tall powerful man in null-g. "The scout's quarters, though comfortable and adequate to maintain physical and mental health, impose some hardship on the crew owing to space limitations," the neuter voice said. "Tap banks are very limited and access to the central Trek banks impossible. Scout crews must content themselves with simple in-flesh amusements. All Trekkers owe these selfless volunteers a debt of gratitude."

Jofe D'mahl looked into Jiz Rumoku's eyes. He shrugged. "So?" he said. "What does that tell me that I didn't already know?"

"Nothing, Jof, not one damned thing! The voidsuckers have been out there in the flesh for over half a millennium, spending most of their lives with no tap connection to the Trek, to everything that makes the only human civilization there is what it is. What's their karmic vector? What's inside their skulls? Why are they called voidsuckers, anyway? Why isn't there anything in the banks except that basic history tape?"

"Obviously because no one's gone out there with them to make a real senso," D'mahl said. "They're certainly not the types to produce one themselves. That's why I'm going, Jiz. I think Bandoora was right—there's a beyond senso to be made on the voidsuckers, and it may be the only virgin subject matter left."

A little of the intensity went out of Jiz's expression. "Ego, of course, has nothing to do with it," she said.

"Ego, of course, has everything to do with it," D'mahl replied.

She touched a hand to his cheek. "Be careful, Jof," she said quite softly.

Moved, D'mahl put his hand over hers, kissed her lightly on the lips, feeling, somehow, like an Earthbound primitive. "What's there to be afraid of?" he said with equal tenderness.

"I don't know, Jof, and I don't know how to find out. That's what scares me."

Jofe D'mahl felt a rising sense of vectorless anticipation as the shuttle bore him bow-ward toward Bela-37, a silvery cylinder glinting against the auroral background of the hydrogen interface as it hung like a Damoclean sword above him. Below, the ships of the Trek were receding, becoming first a horizon-filling landscape of light and flash, then a disk of human warmth sharply outlined against the cold black night. It occurred to him that Trekkers seldom ventured up here where the scoutships parked, close by the interface separating the Trek from the true void. It was not hard to see why.

"Long way up, isn't it?" he muttered.

The shuttle pilot nodded. "Not many people come up here," he said. "Voidsuckers and maintenance crews mostly. I come up here by myself sometimes to feel the pressure of the void behind the interface and look down on it all like a god on Olympus." He laughed dryly. "Maybe I've ferried one voidsucker too many."

Something made D'mahl shudder, then yearn for the communion of the tap—the overwhelmingly rich intermeshing of time, space, bodies, and realities from which he was about to isolate himself for the first time in his life. The tap is what we live by, he thought, and who so more than I?

"Jiz Rumoku," he subvoced, and he was in her body, standing beside a fire-sculpture in her gallery with a chunky black man in a severe green velvet suit. "Hello, Jiz," he said with her vocal cords. "Hello and good-bye."

He withdrew his tap from her body, and she followed into his, high above the Trek. "Hello, Jof. It's sure a long way up." She kissed his hand with his lips. "Take care," his voice said. Then she broke the tap, and

D'mahl was alone in his flesh as the shuttle decelerated, easing up alongside Bela-37's toroid main deck.

"This is it," the shuttle pilot said. "You board through the main shimmer." D'mahl gave the pilot an ironic salute, erected his voidbubble, grabbed his kit and senso recorder, and flitted across a few meters of space to Bela-37's main entrance stage.

Stepping through the shimmer, he was surprised to find himself in a small closetlike room with no droptube shaft in evidence. A round door in the far bulkhead opened and a tall, pale voidsucker stepped inside. "I'm Ban Nyborg, D'mahl," he said. He laughed rather humorlessly. "This is an airlock," he said. "Safety feature."

Automatically, D'mahl tapped for a definition of the new word: *double-doored chamber designed to facilitate ship entry and exit, obsoleted by the shimmer screen.* "How quaint," he said, following Nyborg through the open door.

"Lose power, lose your shimmer, this way you keep your air," Nyborg said, leading D'mahl down a dismal blue pastel corridor. "Radial passageway," Nyborg said. "Leads to circular corridor around the torchtube. Five other radials, tubes to the bridge and back, that's the ship." They reached the circumtorchtube corridor, done in washed-out blue and yellow, walked 60 degrees around it past some instrument consoles and an orange radial corridor, then another 60 degrees and halfway up a green radial to a plain matter door.

Nyborg opened the door and D'mahl stepped into a grim little room. There was a g-plate, a blue pneumatic chair, a tall simmed walnut chest, a shaggy red rug, and beyond an open door, toilet facilities. The ceiling was deep gray, and three of the walls were grayish tan. The fourth was a holo of the interstellar abyss itself—pinpoint stars and yawning blackness—and it faced the g-plate.

"Bandoora's quarters," Nyborg said. "He's doubling with Sidi."

"Charming," D'mahl grunted. "I'm touched."

"Ship's got three tap frequencies: library, communications, external visual. Bridge is off limits now. You can tap our departure on external." Nyborg turned, walked unceremoniously out of the little cell, and closed the door behind him.

D'mahl shuddered. The walls and ceiling seemed to be closing in on him as if to squeeze him into the reality of the holo. He found himself

staring into the starfield, leaning toward it as if it were pulling him down into it.

He blinked, feeling the strangeness of the sensation, which drew his attention away from the holo and to his senso recorder. Ought to get all this down. He turned the recorder on, dropped in a hundred-hour pod of microtape, keyed it to his own sensorium. But the initial moment of vertigo had passed; now he was just in an excruciatingly dull little room with a big starfield holo on one wall.

D'mahl set the g-plate for one tenth g, just enough to hold him in place, and lay down on the padding. He found himself staring into the starfield holo again from this position. Did Bandoora actually like being sucked at by that thing?

Bandoora tapped him, audio only: "Welcome to Bela-37, D'mahl. We're about to torch through the interface. Perhaps you'd care to tap it."

"Thanks," D'mahl tapped back through the scout's com frequency, "but I'd rather record it in the flesh from the bridge."

"Sorry, but the bridge is off limits to you now," Bandoora said, and broke the tap.

"Drool!" D'mahl snarled to no one, and irritably tapped the scout's external visual frequency.

He was a disembodied viewpoint moving through the silent frictionless darkness of space. It was like being in a voidbubble and yet not like being in a voidbubble, for here he was disconnected from all internal and external senses save vision. He found that he could tap subfrequencies that gave him choice of visual direction, something like being able to turn his nonexistent head. Below, the Trek was a jewel of infinitely subtle light slowly shrinking in the velvet blackness. All other vectors were dominated by the hydrogen interface, a sky of rainbow brilliance that seemed to all but surround him.

It was a moving visual spectacle, and yet the lack of the subtleties of full senso also made it pathetic, filled D'mahl with an elusive sadness. As the rainbow sheen of the hydrogen interface moved visibly closer, that sadness resolved along a nostalgia vector as D'mahl realized that he was about to lose tap contact with the Trek's banks. The interface energies would block out the banks long before time-lag or signal attenuation even became a factor. It was his last chance to say good-bye

to the multiplex Trek reality before being committed to the unknown and invariant void beyond.

He broke his tap with the scout's visual frequency, and zip-tapped through the multiplicity of the Trek's frequencies like a dying man flashing through his life's sensorium track before committing it to the limbo banks.

He stood among the crystal trees of his own grand salon. He was Dalta Reed punting across Blood Lake on *Lothlorien* and he was Erna Ramblieu making love to John Benina on his balcony overlooking Sundance Corridor on *Magic Mountain.* He watched *Excelsior* being built from the body of a welder working on the hull, and he flashed through the final sequence of *Wandering Dutchmen.* He riffled through his own sensorium track—making love to Jiz five years ago in a dirtdigger deck, moments of ten parties, dancing above a null-g plate as a boy, cutting *Wandering Dutchmen* at his editor—realizing suddenly that he was leaving the world of his own stored memories behind with everything else. Finally, he flashed through Jiz Rumoku's body as she led the man in the green velvet suit past a holoframe of the Far Look Ballet dancing *Swan Lake* in null-g, and then his tap was broken, and he was lying on his g-plate in Bela-37, unable to reestablish it.

He tapped the scout's visual frequency and found himself moving into the world-filling brilliance of the hydrogen interface behind the auroral bubble of Bela-37's own torch intake field. The lesser rainbow touched the greater, and D'mahl rapidly became sheathed in glory as Bela-37's field formed a bulge in the Trek's combined field, a bulge that enveloped the scoutship and D'mahl, became a closed sphere of full-spectrum fire for an instant, then burst through the hydrogen interface with a rush that sent D'mahl's being soaring, gasping, and reeling into the cold hard blackness of the open void beyond.

D'mahl shook, grunted, and broke the tap. For a panicked moment he thought he had somehow been trapped in the abyss as his vision snapped back into his flesh staring at the holo of the void that filled the wall facing him.

The lift-tube ended and Jofe D'mahl floated up out of it and onto the circular bridge of Bela-37. The bridge was a plex blister up near the bow of the torchtube encircled by consoles and controls to waist level but otherwise visually naked to the interstellar void. Bow-ward,

the ship's intake field formed a miniature hydrogen interface; sternward, the Trek was visible as a scintillating disk behind a curtain of ethereal fire, but otherwise nothing seemed to live or move in all that eternal immensity.

"Isn't there any getting away from it?" D'mahl muttered, half to himself, half to Haris Bandoora, who had watched him emerge from the lift-tube with those unfathomable eyes and an ironic, enigmatic grin.

"You people spend your lives trying to get away from it," Bandoora said, "and we spend our lives drenching ourselves in it because we know there *is* no real escape from it. One way or the other, our lives are dominated by the void."

"Speak for yourself, Bandoora," D'mahl said. "Out there is only one reality." He touched a forefinger to his temple. "In here are an infinity more."

"Illusion," said a woman's voice behind him. D'mahl turned and saw Sidi—conical bare breasts, hairless silvered skull, tightly muscled body, opaque voidsucker eyes—a vision of cold and abstract feminine beauty.

D'mahl smiled at her. "What is," he said, "is real."

"Where you come from," Sidi said, "no one knows what's real."

"*Réalité c'est moi*," D'mahl said in ancient French. When both Sidi and Bandoora stared at him blankly, failing to tap for the reference, *unable* to tap for the reference, he had a sharp flash of loneliness. An adult among children. A civilized man among primitives. And out there . . . out there . . .

He forced his attention away from such thoughts, forced his vision away from the all-enveloping void, and walked toward one of the instrument consoles where a slim woman with a shaven untinted skull sat in a pedestal chair adjusting some controls.

"This is Areth Lorenzi," Bandoora said. "She's setting the sweep-sequence of our extreme-range gravscan. We automatically scan a twenty light-year sphere for new planeted stars even on a mission like this. We can pick up an Earth-massed body that far away."

The woman turned, and D'mahl saw a face steeped in age. There were wrinkles around her eyes, at the corners of her mouth, even a hint of them on her cheeks; extraordinary enough in itself, but it was her deep, deep pale-blue eyes that spoke most eloquently of her years, of the sheer volume of the things they had seen.

"How often have you detected such bodies?" D'mahl asked conversationally, to keep from obviously staring.

Something seemed to flare in those limpid depths. She glanced over D'mahl's shoulder at Bandoora for a moment. "It's . . . a common enough occurrence," she said, and turned back to her work.

"And finally, this is Raj Doru," Bandoora said with a peculiar hastiness, indicating the other voidsucker on the bridge: a squat, dark, powerful-looking man with a fierce mouth, a sweeping curve of a nose, and bright brown eyes glowering under his shaven brows. He was standing, hands on hips, regarding D'mahl scornfully.

"*What is, is real,*" Doru said acidly. "What do you know about real, Jofe D'mahl? You've never confronted the reality of the universe in your whole life! Cowering behind your hydrogen interface and your tap and your mental masturbation fantasies! The void would shrivel your soul to a pinpoint and then snuff it out of existence."

"*Raj!*" Bandoora snapped. Psychic energy crackled and clashed as the two voidsuckers glared at each other for a silent moment.

"Let's see the great D'mahl suck some void, Haris, let's—"

"Everything in its time," Bandoora said. "This isn't it."

"Raj is an impatient man," Sidi said.

"A peculiar trait for a voidsucker," D'mahl replied dryly. These people were beginning to grate on his consciousness. They seemed humorless, obsessive, out of sync with their own cores, as if the nothingness in which they continuously and monomaniacally wallowed had emptied out their centers and filled them with itself.

D'mahl found himself looking up and out into the starry blackness of the abyss, wondering if that eternal coldness might in time seep into his core too, if the mind simply could not encompass that much nothingness and still remain in command of its own vector.

"Patience is an indifferent virtue out here," Areth said. It did not seem a comforting thought.

III

What do these people *do* with themselves? Jofe D'mahl wondered as he paced idly and nervously around the circumtorchtube corridor for what seemed like the thousandth time. A week aboard Bela-37 and he was woozy with boredom. There was a limit to how much chess and null-g tennis you could play, and the ship's library banks were pathetic

—a few hundred standard reference tapes, fifty lamer pornos, a hundred classic sensos (four of his own included, he was wanly pleased to note), and an endless log of dull-as-death scoutship reports.

"Patience is an indifferent virtue out here," Areth Lorenzi had said. To D'mahl, it seemed the only virtue possible under the circumstances, and his supply of it was rapidly running out.

Up ahead, he heard footfalls coming down a radial corridor, and a moment later his vector intersected that of Sidi, striding beautifully and coldly toward him like a robot simmed in flesh. Even his initial attraction to her was beginning to fade. Inside that carapace of abstract beauty she seemed as disconnected from any reality he cared to share as the others.

"Hello, D'mahl," she said distantly. "Have you been getting good material for your senso?"

D'mahl snorted. "If you can call a pod and a quarter of boredom footage interesting material," he said. "Bandoora promised me something transcendent. Where is it?"

"Have you not looked around you?"

D'mahl nodded upward, at the ceiling, at space beyond. "Out there? I can see that from my own grand salon."

"Wait."

"For what?"

"For the call."

"What call?"

"When it comes, you will know it," Sidi said, and walked past him up the corridor. D'mahl shook his head. From Doru, hostility; from Bandoora, lamer metaphysics; from Nyborg, a grunt now and then; from Areth Lorenzi, a few games of nearly silent chess. Now brainteases from Sidi. Can it be that that's all these people have? A few lamer quirks around a core of inner vacuum? Nothing but their own obsessiveness between them and eternal boredom? It might make a reasonably interesting senso, if I could figure out a way to dramatize vacuity. He sighed. At least it gave him a valid artistic problem to play with.

"*All* routine here," Ban Nyborg said, bending his tall frame over the readout screen, across which two columns of letters and numbers slowly crawled. "Star catalog numbers on the left, masses of any dark bodies around them on the right."

"A simple program could monitor this," D'mahl said. "Why are you doing it?"

"Computer *does* screen it, I'm just backing up. Something to do."

D'mahl shook his head. He had wandered into this comp center by accident—none of the voidsuckers had even bothered to mention it to him. Yet here was much of the equipment at the heart of the scoutship's mission: the ship's computer and banks, the gravscan readout, and a whole series of other instrument consoles he would have had to tap for to identify. But the dull gray room had a strange air of neglect about it.

"You sound almost as bored as I am, Nyborg," he said.

Nyborg nodded without looking up. "All waiting, till you get the call."

"*The call?* What call?"

Nyborg turned, and for the first time in nearly two standard weeks, D'mahl saw animation on his long face; fire, perhaps even remembered ecstasy in his pale eyes. "When the void calls you to it," he said. "You'll see. No use talking about it. It calls, and you go, and that's what it's all about. That's why we're all here."

"That's why you're here? What about all this?" D'mahl said, sweeping his hand in a circle to indicate the roomful of instruments.

He could visibly see the life go out of Nyborg's face; curtains came down over the fire in his eyes, and he was once again Nyborg the cyborg.

"All this is the mission," Nyborg grunted, turning back to the readout screen. "What gets us out here. But the call is why we come. Why do you think we're called voidsuckers?"

"Why?"

"We suck void," Nyborg said.

"You mean you don't care about the mission? You're not dedicated to finding us a new living world?"

"Drool," Nyborg muttered. "Scoutships don't need us, can run themselves. *We* need *them*. To get us to the void." He deliberately began to feign intense interest in what he was doing, and D'mahl could not extract a syllable more.

"Just how long have you been on scoutships, Areth?" Jofe D'mahl said, looking up from his hopeless position on the chessboard.

"About a century and a half," Areth Lorenzi said, still studying her next move. As always, she volunteered nothing.

"You must really be dedicated to the mission to have spent such a long life out here in nowhere," D'mahl said, trying to get something out of her. Those eyes hinted of so much and that mouth said so little.

"I've always heard the call."

"What's this call I keep hearing about?"

"The void calls, and for those who are called, there is nothing but the void. You think our lives are sacrifices for the common good of humanity?"

"Well, aren't they?"

Areth Lorenzi looked up at him with her ancient crystalline eyes. "We man the scoutships to reach the void, we don't brave the void to man the scoutships," she said. "We sacrifice nothing but illusion. We live with the truth. We live for the truth."

"And the truth shall set you free?" D'mahl said archly. But the reference blew by her since she had no way to tap for it.

Areth dropped her gaze. A note of bitterness came into her voice. "The truth is: No man is free." She moved her rook to double-check D'mahl's king and queen. "Checkmate in three moves, D'mahl," she said.

D'mahl found Haris Bandoora alone on the bridge looking sternward, back toward where the Trek had been visible until recently as a tiny bright disk among the pinpoint stars. Now the Trek, if it was visible at all, was nothing more than one point of light lost in a million others. Bela-37 seemed frozen in a black crystal vastness speckled with immobile motes of sparkling dust, an abstract universe of dubious reality.

A tremor of dread went through D'mahl, a twinge of the most utter aloneness. Even the presence of the enigmatic and aloof Bandoora seemed a beacon of human warmth in the dead uncaring night.

"Overwhelming, isn't it?" Bandoora said, turning at the sound of D'mahl's footfalls. "A hundred million stars, perhaps as many planets, and this one galaxy is a speck of matter floating in an endless nothingness." There was a strange overlay of softness in those dark and bottomless eyes, almost a misting of tears. "What are we, D'mahl? Once we were bits of some insignificant anomaly called life contaminating a dust-

mote circling a speck of matter lost in a tiny cloud of specks, itself a minor contaminant of the universal void. Now we're not even that. . . ."

"We're the part that counts, Bandoora," D'mahl said.

"To whom?" Bandoora said, nodding toward the abyss. "To *that*?"

"To ourselves. To whatever other beings share consciousness on planets around whichever of those stars. Sentience is what counts, Bandoora. The rest of it is just backdrop." D'mahl laughed hollowly. "If this be solipsism, let us make the most of it."

"If only you knew . . ."

"If only I knew what?"

Bandoora smiled an ironic smile. "You *will* know," he said. "That's why you're here. We can't be alone with it forever."

"What—"

"I've heard the call, Haris." Raj Doru had risen to the bridge, and now he walked rapidly to Bandoora's side, his brown eyes feverish, an uncharacteristic languor in his posture.

"When?" Bandoora asked crisply.

"Now."

"How long?"

"Twenty-four hours."

Bandoora turned and followed Doru toward the droptube. "What's going on?" D'mahl asked, trailing after them.

"Raj is going to suck void," Bandoora said. "He's heard the call. Care to help me see him off?"

At the round airlock door, Raj Doru took a voidbubble-and-flitter harness from the rack, donned it, took a flask of water and a cassette of ration out of a locker, and clipped them to the belt of his shorts. His eyes looked off into some unguessable reality that D'mahl could not begin to sync with.

"What are you doing, Doru?" he asked.

Doru didn't answer; he didn't even seem to notice D'mahl's presence. "Put on a voidbubble and see," Bandoora said, taking two harnesses off the rack and handing one to him.

D'mahl and Bandoora donned their harnesses, then Bandoora opened the airlock door and the three men stepped inside. They erected their bubbles, Bandoora sealed the door behind them, then the three of

them walked through the shimmer screen onto the scoutship's entrance stage.

Out on the narrow metal shelf, D'mahl found himself utterly overwhelmed by the black immensities, the infinite hole in which the scoutship hung precariously suspended. This was utterly unlike the view from his grand salon, for here there was no concourse of ships or even torchtube wake to ease the impact of the abyss upon the soul. Here there was only a tiny ship, the abstract stars, three small men—and an infinity of nothing. D'mahl reeled and quaked with a vertigo that pierced the core of his being.

"Twenty-four hours, Haris," Doru tapped on the com frequency. He spread his arms, turned on his g-polarizer, and leaped up and out into the blackness of the interstellar abyss.

"What's he doing?" D'mahl shouted vocally. He caught himself, tapped the question to Bandoora as Doru began to pick up velocity and dwindle into the blackness along a vector at right angles to the ship's trajectory.

"He's going to suck void for twenty-four hours," Bandoora tapped. "He's answering the call. He'll go out far enough to lose sight of the ship and stay there for a standard day."

Doru was already just a vague shape moving against the backdrop of the starfield. As D'mahl watched, the shape fuzzed to a formless point. "What will he do out there?" he asked Bandoora quietly, a shudder racking his body.

"What happens between a man and the void is between a man and the void."

"Is it . . . safe?"

"Safe? We have a fix on him, and he's still inside the cone of our interface. His body is safe. His mind . . . that's between Raj and the void."

Now D'mahl could no longer make Doru out at all. The voidsucker had vanished . . . into the void. D'mahl began to catch his mental breath, realizing that he was missing the only prime senso footage that had yet presented itself to him. He tried to tap Doru through the ship's com frequency, but all he got was a reject signal.

"I've got to get this on tape, Bandoora! But he's rejecting my tap."

"I told you, what happens between a man and the void is between that man and the void. The only way you'll ever bring back a senso of

this reality, D'mahl, is to experience it in your own flesh and tap yourself."

D'mahl looked into Bandoora's cool even eyes; then his gaze was drawn out into the black and starry depths into which Doru had disappeared. To which Doru had willingly, even ecstatically, given himself. Fear and fascination mingled inside him. Here was an experience the contemplation of which caused his knees to tremble, his heart to pound, and a cold wind to blow through his soul. Yet here too was an experience whose parameters he could not predict or fathom, a thing he had never done nor dreamed of doing, the thing that lay at the core of what the voidsuckers were. The thing, therefore, that was the core of the senso for which he was enduring these endless months of boredom. A thing, therefore, that he must inevitably confront.

"Why do you do it?" he tapped, turning from the abyss to face Bandoora.

"Each man has his own reason," the voidsucker tapped. "The call has many voices." He smiled a knowing smile. "You're beginning to hear it in your own language, D'mahl," he said.

D'mahl shivered, for somewhere deep inside him, the opening notes of that siren-song were indeed chiming, faraway music from the depths of the beyond within.

Standing on the bridge watching Bandoora disappear into the void, Jofe D'mahl felt like a hollow stringed instrument vibrating to yet another strumming of the same endless chord. Doru, Nyborg, Areth, Sidi, and now finally Bandoora had committed themselves to the abyss in these past three weeks, Areth and Nyborg twice apiece. Each of them had refused to let him tap them or even to discuss the experience afterward, and each of them had come back subtly changed. Doru seemed to have much of the hostility leached out of him; Nyborg had become even less talkative, almost catatonic; Areth seemed somehow slightly younger, perhaps a bit less distant: and Sidi had begun to ignore him almost completely. He could find no common denominator, except that each succeeding voidsuck had made him feel that much more isolated on Bela-37, that much more alone, that much more curious about what transpired between the human mind and the void. Now that the last of them was out there, D'mahl felt the process nearing completion,

the monotonous chord filling his being with its standing-wave harmonics.

"Are you hearing it, Jofe D'mahl?" the quiet voice of Areth Lorenzi said beside him. "Do you finally hear the call?"

"I'm not sure what I'm hearing," D'mahl said, without looking away from the immensities outside the plex. "Maybe what I'm hearing is my own ego calling. I've got to get a voidsuck on tape, or I've wasted all this time out here."

"It's the call," Areth said. "I've seen it often enough. It comes to each along his own natural vector."

With an effort, D'mahl turned to face her. "There's something you people aren't telling me," he said. "I can feel it. I know it."

Now it was Areth who spoke without looking at him, whose eyes were transfixed by the overwhelming void. "There is," she said. "The void at the center of all. The truth we live with that you deny."

"Drool on all this crypticism!" D'mahl snapped. "What is this cosmic truth you keep teasing me with?"

"To know, you must first taste the void."

"Why?"

"To know that, you must first answer the call."

A wordless grunt of anger and frustration exploded from D'mahl's throat. "You think I don't know the game you people are playing?" he said. "You think I don't know what you're doing? But why? Why are you so anxious for me to suck void? Why did you want me here in the first place?"

"Because of who you are, Jofe D'mahl," Areth said. "Because of *Wandering Dutchmen*. Because you may be the one we have sought. The one who can share the truth and lift this burden from our souls."

"Now it's flattery, is it?"

Areth turned to face him, and he almost winced at the pain, the despair, the pleading in her eyes. "Not flattery," she said. "Hope. I ask you, one human being to another, to help us. Bandoora would not ask, but I do. Lift our burden, D'mahl, heed the call and lift our burden."

Unable to face those eyes, D'mahl looked off into the star-speckled blackness. Bandoora could no longer be seen, but something out there was indeed beckoning to him with an unseen hand, calling to him with an unheard voice. Even his fear seemed to be a part of it, challenging

him to face the void within and the void without and to carve something out of it if he had the greatness of soul to dare.

"All right," he said softly—to Areth, to Bandoora, to all of them, and to that which waited beyond the plex blister of the bridge. "You've won. When Bandoora comes back, I'll answer your damned call. As I once said, I've got nothing to do but dare."

But the man who had said it seemed long ago and far away.

They were all out on the entrance stage in voidbubbles to see him off. "Eighteen standard hours, D'mahl," Bandoora tapped over the com frequency. "Remember, we've got a fix on you, and we can come right out and get you if it becomes too much. Just tap."

Inside his own bubble, D'mahl nodded silently. He fingered his water flask and his ration cassette. He tapped the time at 4.346. He could not for a moment draw his eyes away from the endless black sea into which he was about to plunge. Millions of pinpoint stars pulsed and throbbed in the darkness like needles pricking his retinas. A silent roaring pulsed up at him from out of the abyss, the howl of the eternal silences themselves. His body seemed to end at the knees. The void appeared to be a tangible substance reaching out to enfold him in its cold and oceanic embrace. He knew that he must commit himself to it *now*, or in the next moment flee gibbering and sweating into the psychic refuge of Bela-37.

"See you at 22.000," he tapped inanely, activating his g-polarizer. Then he flexed his knees and dived off the little metal shelf into the vast unknown.

The act of leaping into the abyss seemed to free him of the worst of his fears, as if he had physically jumped out of them, and for a while he felt no different than he had at times when, flitting from one Trek ship to another, he had temporarily lost sight of all. Then he looked back.

Bela-37 was a small metal cylinder slowly dwindling into the starry darkness. The five tiny figures standing on the entrance stage hovered on the edge of visibility and then melted into the formless outline of the scoutship. Nothing else existed that seemed real. Only the shrinking cylinder of metal, one single work of man in all that nothing. D'mahl shuddered and turned his head away. Somehow the sight of the pure

void itself was less terrifying than that of his last connection with the things of man disappearing from view into its depths.

He did not look back again for a long time. When he did, his universe had neither back nor front nor sides nor top nor bottom. All around him was an infinite black hole dusted with meaningless stars, and every direction seemed to be down. His mind staggered, reeled, and rejected this impossible sensory data. Polarities reversed, so that the entire universe of stars and nothingness seemed to be collapsing in on him, crushing the breath out of him. He screamed, closed his eyes, and was lost in the four-dimensional whirlpool of his own vertigo.

By feel, he turned off the g-polarizer, whirling inside the vacuum of his own mind, sucked spiraling downward into meaningless mazes of total disorientation. Half whimpering, he opened his eyes again to a new transformation.

It was as if he were imbedded in a clear, motionless, crystalline substance englobed by a seamless black wall onto which the stars had been painted. Nothing moved, no event transpired, time could not be said to be passing. It was the very essence of tranquillity; calming, eternal, serene.

D'mahl sighed, felt his constricted muscles relax and his mind drift free. He floated in the void like an immortal embryo in everlasting amnion, waiting for he knew not what. Nor cared.

Time did not pass, but there was duration. D'mahl floated in the void, and waited. Thirst came and was slaked, and he waited. Hunger came; he nibbled ration, and waited. He grew aware of the beating of his own heart, the pulsing of blood through his veins, and he waited. The kinesthetic awareness of his own bodily functions faded, and he still waited.

Nothing moved. Nothing lived. Nothing changed. Silence was eternal. Gradually, slowly, and with infinite subtlety, D'mahl's perception of his environment began to change again. The comforting illusion of being held in crystalline suspension in a finite reality enclosed by a painted backdrop of stars and blackness began to fade under the inexorable pressure of durationless time and forced contemplation. The clear crystal substance of space dissolved into the nothingness whence his mind had conjured it, and as it did, the stars became not points of pain on distant walls but motes of incandescent matter an infinity away

across vast gulfs of absolute nothingness. The overwhelming blackness was not the painted walls of a pocket reality but an utter absence of everything—light, warmth, sound, motion, color, life—that went on and on without boundaries to give it shape or span to give it meaning.

This was the void and he was in it.

Strangely, D'mahl now found that his mind could encompass this mercilessly true perception of reality, however awesome, however terrifying, without the shield of perceptual illusions. Endless duration had stripped him of the ability to maintain these illusions, and between gibbering terror and a cool, detached acceptance of the only reality he could maintain, his mind chose detachment.

He was, and he was in the void. That was reality. He moved, and all else was static. That was real. He could hear the sound of his own breath, and all else was silence. That was inescapable truth. He could perceive his body's shape as the interface between his internal reality and the nothingness outside, and all else was formless forever in space and time. That was the void. That was the universe. That was prime reality. That was the reality from which men fled—into religion, dream, art, poetry, philosophy, metaphysics, literature, film, music, war, love, hate, paranoia, the senso and the tap. Into the infinity of realities within.

Outside the realities of the mind there was nothingness without form or end, minutely contaminated with flecks of matter. And man was but the chance end-product of a chain of random and improbable collisions between these insignificant contaminants. The void neither knew nor cared. The void did not exist. It was the eternal and infinite nonexistence that dwarfed and encompassed that which did.

D'mahl floated in this abyss of nonbeing, duration continued, and the void began to insinuate tendrils of its nonself into his being, into his pith and core, until it was reflected by a void within.

Jofe D'mahl experienced himself as a thin shell of being around a core of nothingness floating in more nonbeing that went on timelessly and formlessly forever. He was the atom-thin interface between the void without and the void within. He was an anomaly in all that nothingness, a chance trick knot whereby nothingness redoubled upon itself had produced somethingness—consciousness, being, life itself. He was

nothing and he was everything there was. He was the interface. He did not exist. He was all.

For more timeless duration, Jofe D'mahl existed as a bubble of consciousness in a sea of nonbeing, a chance bit of matter recomplicated into a state it was then pleased to call life, a locus of feeling in a nothingness that knew neither feeling nor knowing itself. He had passed beyond terror, beyond pride, beyond humility, into a reality where they had no meaning, where nothing had meaning, not even meaning itself.

He tried to imagine other bubbles of consciousness bobbing in the everlasting void—on Bela-37, on the ships of the Trek, on unknown planets circling those abstract points of light contaminating the sterile perfection of the abyss. But out here in the true void, in this endless matrix of nonbeing, the notion that consciousness, or even life itself, was anything but the improbable product of a unique and delicate chain of random interactions between bits of recomplicated nothingness called "matter" seemed hopelessly jejune and pathetically anthropocentric. One possible chain of unlikely events led to life and all others led back to nothingness. One misstep on the part of nonexistent fate, and the unlikely spell was broken.

The wonder was not that life had arisen so sparsely, but that it had arisen at all.

D'mahl floated in the blackness of the abyss, in the sea of timeless nonbeing, clinging to the life-preserver of one incontrovertible truth. I am, he thought. I exist, and every thought I've ever had, every reality that ever existed in my mind, also exists. This may be prime reality, but everything that is, is real.

Coldly, calmly, almost serenely, Jofe D'mahl waited in the silent immobile darkness for the recall signal from Bela-37, the call to return from the nonbeing of the void to the frail multiplexity of the worlds of man.

They were all out on the entrance stage in voidbubbles to greet him. Silently, they conveyed him inside the scoutship, their eyes speaking of the new bond between them. With a strange ceremoniousness, they escorted D'mahl into the ship's commissary. Bandoora seated him at a short side of one of the rectangular tables, then sat down across its length from him. The others arranged themselves on either long side

of the table. It would have been a moot point as to who was at the foot and who the head were it not for another of the scoutship's endless holos of space forming the wall behind Bandoora. This one was a view of the galaxy as seen from far out in the intergalactic emptiness, and it haloed Bandoora's head in stardust and blackness.

"Now that you have confronted the void, Jofe D'mahl," Bandoora said solemnly, "you are ready to share the truth."

Petty annoyance began to fade the reality of D'mahl's so recent experience from the forefront of his consciousness. This was beginning to seem like some kind of ridiculous ceremony. Were they going to treat his experience out there as an initiation into some ludicrous *religion?* Replete with incantations, tribal secrets, and Bandoora as high priest?

"Say what you have to say, Bandoora," he said. "But please spare me the formalities."

"As you wish, D'mahl," Bandoora said. His eyes hardened, seemed to pick up black flashes of void from the holo of space behind him. "What happened between you and the void is between you and the void," he said. "But you felt it. And for half a millennium our instruments have been confirming it."

"Confirming what?" D'mahl muttered. But the quaver in his voice would not let him hide from that awful foretaste that bubbled up into his consciousness from the void inside.

"We have instruments far beyond what we've let you people believe," Bandoora said, "and we've had them for a long time. We've gravscanned tens of thousands of stars, not thousands. We've found thousands of planets, not hundreds. We've found hundreds of Earth-parameter planets orbiting in habitable zones, not dozens. We've been lying, D'mahl. We've been lying to you for centuries."

"Why?" D'mahl whispered, knowing the answer, feeling it screaming at him from the holo behind Bandoora's head, from the voidsucker's opaque eyes, from the void beyond.

"You know why," Doru said harshly. "Because they're nothing but dead rock and gas. Over seven hundred of them, D'mahl."

"All of them should have been teeming with life by any parameters our scientists can construct," Areth Lorenzi said. "For centuries, we hoped that the next one or the one after that would disprove the only possible conclusion. But we've not found so much as a microbe on any of them. We have no hope left."

"Gets as far as protein molecules sometimes," Nyborg grunted. "Maybe one in eighty."

"But the telltale probes can't—"

"Telltales!" Doru snorted. "The telltale probes are more illusion to protect you people! We've got microspectrographs that could pick up a DNA molecule ten light-years away, and we've had them for centuries."

"We already know that 997-Beta-II is dead," Sidi said. "We knew it before we reported to the Council of Pilots. This whole mission, like hundreds before it, is an empty gesture."

"But why have you been lying to us like this?" D'mahl shouted. "What right did you have? What—"

"What were we supposed to say?" Bandoora shouted back. "That it's all dead? That life on Earth was a unique accident? That nothing exists but emptiness and dead matter and the murderers of the only life there ever was? What are we supposed to say, D'mahl? What are we supposed to do?"

"For over two centuries we have lived with the conviction that our mission is hopeless," Areth said softly. "For over two centuries we have been leading the Trek from one false hope to the next, knowing that hope was false. Don't judge us too harshly. What else could we have done?"

"You could have told us," D'mahl croaked. "You could have told us the truth."

"Could we?" Areth said. "Could we have told you before you yourself confronted the void?"

Anger and despair chased each other in a yin-yang mandala at Jofe D'mahl's core. Anger at the smug arrogance of these narrow lamer people who dared treat all of human civilization as retarded children who could not be told the truth. Despair at the awful nature of that truth. Anger at the thought that perhaps the voidsuckers were hiding their true reason for silence, that they had kept the Trek in ignorance so that they wouldn't risk the termination of the scoutship program and with it the one act that gave their lamer lives meaning. Despair at the treacherous thought that the voidsuckers might be right after all, that the truth would shatter the Trek like radiation-rotted plex. Anger at himself for even thinking of joining the voidsuckers and sitting in such arrogant judgment.

"You lamer drool-ridden dreeks!" D'mahl finally snarled. "How dare

you judge us like that! Who do you think you are, gods on Olympus? Living your narrow little lives, cutting yourselves off from the worlds inside, and then presuming to decide what *we* can face!"

His flesh trembled, his muscles twanged like steel wire tensed to the snapping point, and adrenaline's fire pounded through his arteries as his hands ground into the edge of the table.

But the voidsuckers sat there looking up at him quietly, and what he saw in their eyes was relief, not anger, or reaction to anger.

"Then you'll do it, D'mahl?" Bandoora said softly.

"Do what?"

"Tell them in your own way," Areth said. "Lift the burden from us."

"What?"

"When I tapped *Wandering Dutchmen,* I felt you might be the one," Bandoora said. "You sensed the edges of the truth. You seemed to be looking at the void and yet beyond. You know your people, D'mahl, as we do not. You've just said it yourself. Tell them. Make a senso that tells them."

"All this . . . this whole trip . . . it was all a trick to get me out here . . . to tell me this . . . to drop your load of slok on me. . . ."

"I promised you the chance to make the greatest senso of your career," Bandoora said. "Did I lie?"

D'mahl subsided into his chair. "But you didn't tell me I was going to have to succeed," he said.

IV

The scoutship came in tail-first on a long shallow arc over the hydrogen interface, still decelerating. Tapping Bela-37's visual frequency, Jofe D'mahl saw the ships of the Trek suddenly appear in all their glory as the scoutship passed the auroral wavefront, as if the interface were a rainbow curtain going up on a vast ballet of motion and light.

Thousands of shining cylinders hung in the blackness, their surfaces jeweled with multicolored lights. The space between them coruscated and shone with shuttle exhausts and a haze of subtle reflections off thousands of moving voidbubbles. The thin purple wake of the Trek cut an ethereal swath of manifested motion and time through the eternal immobile nothingness.

The Trek seemed larger and lovelier than even D'mahl's memory

had made it during the long sullen trip back. Its light drove back the everlasting darkness, its complexity shattered the infinite sameness of the void; it danced in the spotlight of its own brilliance. It was alive. It was beautiful. It was home.

Bandoora had calculated well; as Bela-37 passed sternward of the Trek, its relative velocity dwindled away to zero and it hung in space about twenty kilometers behind the great concourse of ships. Bandoora turned the scoutship end-for-end and began to ease it toward the Trek, toward its eventual parking slot just behind the hydrogen interface. D'mahl broke his tap with the scout's visual frequency and lay on the g-plate in his room for a long moment staring into the starfield holo before him for the last time.

Then, like a lover reaching for remembered flesh after a long parting, like a man rising out of a long coma toward the dawning light, he tapped Jiz Rumoku.

He was sitting at a clear glass table sipping an icy blue beverage out of a pewter mug, washing down a swallow of lavender sponge. Across the table, Varn Kamenev was pouring himself another mugful from a matching pitcher. The table was on a disk of clear plex, floating, like dozens of others, through what seemed like a topless and bottomless forest of ivy. He didn't recognize the restaurant, but didn't bother to tap for it.

"Home is the hero," he said with Jiz's throat and lips, feeling her body warm to his presence.

"Jof! Where are you, what happened, let me tap—"

"Wait for the flesh, Jiz," he told her. "I'll be in your gallery within two hours. I wanted you to be the first, but I've got to zip-tap my way back to realities before I die of thirst."

"But what was it like—"

"Miles and miles of miles and miles," he said, feeling a surge of exhilaration at the thought that he was with someone who could and would tap for the reference. "Next year in Jerusalem," he said with her mouth. He kissed her hand with her lips and broke the tap.

And zip-tapped through the changes like a random search program for the phantom tapper.

He was Para Bunning, soaring naked in a low-g dive into a pool of fragrant rose-colored water heated to body temperature. He watched Bela-37 pop through the hydrogen interface with himself aboard from

the sensorium track of the shuttle pilot, then watched it arrive back at the Trek on the news-summary frequency. He stood in his own grand salon glaring through the party's mists at Haris Bandoora, then tapped it in realtime—the bare emerald floor, the darkened crystal trees, and, beyond the plex, the great concourse of ships shining in the galactic night.

He was in John Benina's body, looking down on Sundance Corridor. Vines crawled up and down the sheer glass faces of the apartments now, and pines grew around the faceted mirror in the center of the square, subduing the usual brilliance. He tapped a fragment of *Let a Thousand Flowers Bloom,* a senso by Iran Capabula that had been premiered during his absence: bent over under a yellow sun in a clear blue sky, he was weeding an endless field of fantastically colorful flowers, soaked in their incenselike perfume. He danced a few measures of *Starburst* as male lead for the Far Look Ballet. He made love for the first time on a hill of blue fur in *Samarkand,* for the last time at Jiz's, and a dozen times in between. He edited *Blackout,* his first senso, and *Wandering Dutchmen,* his latest. He dined amidst colored clouds on *Ariel* and at the shore of Blood Lake on *Lothlorien* and a dozen other meals between. He tapped random sequences of every senso he had ever made.

And when he was through, he was one with the D'mahl that had been, he was back in the universe of infinite realities that he had left; he was whole, and he was home.

Brigadoon, as D'mahl had expected, was totally transformed. But the nature of the current flash was hardly anything that he would have expected, and something about it chilled him at the core.

Twodeck was a sim of an ancient Alpine Earth village—simmed wooden houses, grass growing on synthetic loam, pine trees; even the bulkheads were hidden by a 360-degree holo of snowcapped mountains under a blue sky. The amusements of sixdeck had been cut down and ludicrously simplified to fit into an American county fair motif: Ferris wheel, merry-go-round, dart-and-balloon games, a baseball diamond, even mechanical sims of prize cattle, sheep, dogs, and pigs. Once again, the deck was enclosed in a 360-degree holo, this one of fields of corn waving in a breeze. Eightdeck, a residential deck, was a simmed African village—thatched huts in a circle, a kraal containing mechanical cattle and antelope, lions and hyenas slinking about the holoed veldt that en-

closed it. Tendeck had actually been made over into a functional dirt-digger deck: row after row of pine tree seedlings, thickly-packed vine trellises, beds of flowers, people in dirtdigger green bustling about everywhere.

It wasn't so much the theme of the flash that appalled D'mahl—*Brigadoon* had gone through nature flashes before—but the monomania of its application, the humorlessness of it all, the sheer lack of brio. This latest transformation of *Brigadoon* seemed so deadly earnest, an attempt to accurately sim old Earth environments rather than to use them to ring artistic changes.

Twelvedeck, Jiz's deck, the epicenter of all of *Brigadoon*'s waves of transformation, appalled him most of all. Everything was wood and trees. The shops and restaurants were constructed of simmed logs with rough bark on them; the windows were small square panes of plex set in wooden grillworks. The furniture in them was of simmed rough-hewn wood. The paths were flagstone. Huge simmed chestnut and eucalyptus trees were everywhere, towering to the ceiling of the deck to form an almost seamless forest canopy, and dwarfing and almost crowding out the modest neoprimitive cabins. The air had been made redolent with the odors of burning leaves and moldering loam; bird-calls and vague animal rustlings burbled continually in the ear.

Jiz Rumoku's gallery was a single large room carved out of the simmed stump of what would have been an enormous redwood tree, with her living quarters a rude lean-to atop it. Inside, the walls and floor were simmed redwood planking, the ceiling was ribbed by heavy wooden beams, and an orange fire flickered and roared in a red brick fireplace. Elegant simmed oak tables and chests in the clean, severe Shaker style served to display representational woodcarvings, clay pottery, blue-and-white ceramic dishes, simple gold and silver jewelry, wickerwork baskets and animals, neohomespun clothing. Cast iron stoves, scythes, tools, and plowshares were scattered around the gallery.

Jiz stood behind a low table wearing a clinging, form-fitting dress of red-and-white checked gingham, cut in bare-breasted Minoan style. She was drinking something out of a clay mug.

"Jof!" she shouted, and they cross-tapped. D'mahl felt the scratchiness of the dress against her skin as his body kissed her lips and his arms hugged him to her. He tasted the remnants of the drink in her mouth

—something sweet, slightly acrid, and vaguely alcoholic. His own lips tasted hard and electric by comparison.

"I don't know where to begin!" she said, as they broke the tap. "Let me tap your sensorium track of the trip!"

"Not in the banks yet," D'mahl said. "Remember, I was cut off."

"That's right! How bizarre! Are you actually going to have to *tell* me about it?"

"I'll tap the recordings into the banks soon enough," D'mahl mumbled, wondering whether he was lying. "But in the meantime, what's all *this*, talking about bizarre?"

"That's right," Jiz said, "you *have* been out of touch. How strange! The transmutational flash didn't last quite as long as I had expected, mostly because it began to seem so artificial, so out of sync with our future vector."

"Future vector?"

"Eden."

"Eden?"

"Our coming new home, Jof. We couldn't keep calling it 997-Beta-II, could we? We had a referendum and 'Eden' won, though I preferred Olympia. I've always found the Greek mythos more simpatico."

Chimes of nausea rolled through D'mahl's being from a center of nothingness below his sternum. "Don't you think all this is a bit premature, Jiz?" he said.

"That's the nature of my game, Jof, you know that," Jiz said, touching the tip of his nose with a playful fingertip. "But this time, I'm doing more than creating flash. I'm helping to prepare us for the transformation."

"Transformation?"

She flitted around the gallery, touching wood, brick, clay, wicker, iron. "Oh Jof, you said it yourself in *Wandering Dutchmen!* Flying Dutchmen on an endless sea, that's what we've been too long. Eternal adolescents low-riding our faerie ships through the night. And now that we've got a chance to grow up, to sink new roots in fresh soil, we've got to sync our minds with the coming reality, we've got to climb off the torch we're riding and get closer to the ground. Wood, brick, iron, clay, growing things! *Planetary* things! We're preparing ourselves to pioneer a virgin world."

"Slok," D'mahl muttered under his breath. "Dirtdigger slok," he said aloud. Something like anger began simmering toward nova inside him.

Jiz paused, a butterfly frozen in mid-dance. "What?"

D'mahl looked at her, bare breasts held high over red-and-white gingham, proudly presiding over the synthetic primitivism she had created, over the vain and pathetic dream that would never be, and for a long moment she seemed to be made of thin clear glass that would shatter at the merest sound of his voice. The gallery, twelvedeck, *Brigadoon,* the Trek were clouds of smoke that would dissipate at a careless wave of his hand. Beyond and within, the void gibbered and laughed at poor wraiths who tried so hard to be real. How can I tell her? D'mahl thought. And to what end? To what damned end?

"Nothing," he said lamely. "I guess I just don't like the idea of growing up. I've got too much pan in my peter."

Jiz giggled as she tapped the triple-reference pun, and it enabled the moment to slide by. But D'mahl felt a distancing opening up between himself and Jiz, between himself and the Trek, between reality and illusion. Is this what it feels like to be a voidsucker? he wondered. If it is, you can torch it to plasma and feed it to the converter!

"But you've been out there, Jof," Jiz said, moving back across the gallery toward him. "You've read the telltale wavefront, you've looked inside the gates of Eden." Her eyes sparkled, but beyond that sugarplum glow D'mahl saw only the lurking void. "Are there oceans with fish and skies full of birds? Is the grass green? Do the plants flower?"

"A gentleman never tells," D'mahl muttered. What do I say, that the green grass is copper salts and the oceans are blue with cyanide and the skies full of poison? He began to feel more sympathy for the voidsuckers now. How could you make a life out of telling people these things? How do *you* like being the angel of death?

"*Jof!*"

"I can't say anything, Jiz, I promised not to."

"Oh come on, how could the voidsuckers or the Council squeeze a promise like that out of you?"

With enormous effort, D'mahl painted a smug smile across his face; the creases in his skin felt like stress-cracks in a mask of glass. "Because that's the quid I'm paying for their pro quo, ducks," he said.

"You mean . . . ?"

"That's right. You didn't think I'd spend all that time out there and

let some dry-as-Luna bulletin from the Council upstage me, did you? No bulletin—997-Beta-II—Eden—is my next senso."

Jiz bounced up, then down, and kissed him on the lips. "I cog it'll be your greatest," she said.

D'mahl hugged her briefly to him, his eyes looking through her mane of hair to a set of plain clay dishes on an oaken chest beside the brick fireplace. He shuddered, feeling the void inside every atom of every molecule of matter in those simmed projections of a past that was dead forever into a future that would never be. He was committed to doing it now, the way through was the only way out, and he had taken it upon himself to find it.

"It had better be," he said. "It had damned well better be."

D'mahl stood in Aric Moreau's body amidst solemn people in their loathsome homespun wandering drool-eyed through tightly packed rows of pine seedlings jamming a dirtdigger deck on *Glade*. There was no attempt to sim anything here; the dirtdiggers were force-growing a forest for transplantation to the nonexistent fertile soil of Eden, and, as with the other dirtdigger decks he had tapped, aesthetics had been gobbled up by function. Angrily, he made excrement rain from the sky, turned the fashionable neohomespun garments to filthy denim rags, and threw in a few wrathful lightning bolts for good measure.

He ran the segment of Bela-37's report where the holo of 997-Beta-II hung like an overripe fruit in the center of the scoutship's bridge and made a tongue and mouth appear at the equator, giving a big juicy raspberry. He floated in the void, falling, falling, eternally falling into an infinite black hole dusted with meaningless stars. He caused the stars to become crudely painted dots on black paper, and punched his way out of the paper-bag continuum and into—the abyss.

He tapped a newstape from 708, the year 557-Gamma-IV had been the light that failed, and watched Trekkers in Biblical-style robes moping about a dirtdigger deck crammed with overgrown flower beds and the reek of rotting vegetation. He exaggerated the sour expressions into ludicrous clown caricatures of themselves that melted slowly into pumpkins, and Big Ben chimed midnight. He stood poised on the entrance stage of Bela-37, reeling and quaking, utterly overwhelmed by the black immensities in which the scoutship hung precariously suspended.

He snorted, took the effects ring off his head like a discarded crown, and sat in the cocoon chair staring moodily at the microtape pod turning futilely on the output spindle of his editor. He pressed a blue button and wiped the pod. The slok I've been laying down these three days just isn't worth saving, he thought. I'm just diddling with the banks and the effects ring; it doesn't add up to anything.

And time was growing short. Everyone knew that Bela-37 had returned, and everyone knew that the reason there had been no bulletin was that Jofe D'mahl was going to release the news in the form of a senso. Jiz in her innocence and Bandoora in his cowardly cunning had seen to that. The longer it took for the senso to appear, the more cosmic import it took on, and the more certain people became that the only possible reason for releasing the scoutship report in this bizarre manner was to do karmic justice to the greatest and most joyous event in the history of the Trek, to write a triumphant finis to man's long torchship ride.

So the longer he sat here dead in space like a ship with its torch blown out, the farther people would travel along hope's false vector, the worse the crash would be when it came, the harder it became to conceive of a senso that could overcome all that dynamic inertia, and on into the next turning of the terrible screw. Now D'mahl understood only too well why the voidsuckers had chosen to lie for half a millennium. The longer the lie went on, the more impossible it became to dare to tell the truth.

And what was the way out that the voidsuckers took? They ignored the asymptotic nature of the Frankenstein Monster they had created and gave themselves over to the void! For them, the ultimate reality was the greatest escape illusion of them all.

D'mahl slammed both hands angrily down on the edge of the editor console. All right, damn it, if the void is where all vectors lead, then the void has to be the core! It's the best footage I've got anyway. I'll go to the center, and I won't come back till I've got the heart of this senso beating in the palm of my hand.

He fitted the pod of his voidsuck onto the editor's auxiliary playback spindle and programmed continuous-loop replay. He started to program a twenty-four-standard-hour limit, then changed his mind. No, he thought, I want the power in my hand, and I want this to be open-ended. He programmed a cut-off command into the effects ring bank,

threw blocks across all other effects programming, and put the ring on his head.

Now he would confront his void footage as if it were the original naked reality, with only the power to break the loop, without the reality-altering powers of the editor. And I won't use the cutoff until I can come back with what I need, he promised himself as he opened his tap to the voidsuck pod. I won't come back until I can come back riding my own torch again.

He was an immortal embryo floating free in the eternal amnion of the universal abyss, and the millions of stars were motes of incandescent matter an infinity away across vast gulfs of absolute nothingness. The overwhelming blackness was an utter absence of everything—light, warmth, sound, color, life—that went on and on without boundaries to give it shape or span to give it meaning. This was the void and he was in it.

But to his surprise, D'mahl found that his mind now immediately grasped this mercilessly true perception of reality without illusion, and with only the residual somatic vertigo and terror recorded on the sensorium tape. Even this soon faded as the tape's memory caught up with the cool clarity of mind it had taken him an unknown duration of disorientation and terror to achieve in realtime.

He was, and he was in the void. He moved, and all else was static. He could perceive his body's shape, the interface between his internal reality and the nothingness outside, and all else was without edge or interface forever in space and time. Outside the realities of his own mind was void without form or end, minutely contaminated with flecks of matter, and man was but the chance end-product of a chain of random and improbable collisions between these insignificant contaminants. The void neither knew nor cared. The void did not exist. It was the eternal and infinite nonexistence that dwarfed and encompassed that which did. D'mahl experienced himself as a thin shell of being around a core of nothingness floating in more nonbeing, a trick anomaly of somethingness lost in timeless and formless forever. Nothing had meaning, not even meaning itself. The wonder was not that life had arisen but once in this endless matrix of nonbeing, but that it had arisen at all.

Black void, meaninglessly dusted with untouchable stars, the internal churnings of his own flesh, the utter knowledge of the utter emptiness that surrounded him, and timeless duration. Once you have reached this place, D'mahl thought, then what? Once asked, the question became ridiculous, for here in the void there was nothing to address any question to but himself. There was nothing to perceive but the absence of perception. There was nothing to perceive. There was nothing. There wasn't.

D'mahl floated in physical nothingness and mental void waiting for the transcendent revelation he had sought. Waiting for the revelation. Waiting for. Waiting. Waiting. Waiting.

Games chased themselves through his mind as he waited in the absence of event, in the absence of meaningful perception, in the absence of measurable time, in the total absence. He counted his own pulsebeats trying to reestablish time, but soon lost count and forgot even what he had been doing. He tried to imagine the nature of what it was he sought, but that immediately tangled itself up in tautological feedback loops: if he knew what he sought, he would not have to seek it. He tried to speculate on what lay beyond the infinite nothingness that surrounded him in order to establish some frame of metaphysical reference, but any such concept hovered forever in unreachable realms of mathematical gobbledygook. He tried to immerse himself in the nothingness itself and found he was there already.

Games evaporated from his consciousness, and then the possibility of games, and he became nothing but a viewpoint trapped in a vacuum of nondata. The blackness of space could no longer be perceived as anything like a color, and the stars became no more than mere flecks of retinal static. Vision and hearing were becoming forgotten concepts in this utter nonreality where the only sensory data seemed to be the noise in the sensory systems themselves.

Thought itself began to follow the senses into oblivion, and finally there was nothing left but a focus of ache in the vast and endless nothing, a bonging mantra of boredom so total, so complete, so without contrast that it became a world of universal pain.

No, not even pain, for pain would have been welcome relief here.

Something somewhere whimpered. Something nowhere whimpered. Nothing nowhere whimpered. Why? Why? Why? it cried. Why? Why? Why? Why is this happening to me? Why is this not happening to me? Why doesn't something happen? Happen . . . happen . . . happen . . . happen . . . happen . . . happen . . .

A mental shout shattered the void. "Why am I doing this to myself?"

And there was mind, chastising itself. And there was mind, chastising itself for its own stupidity. There was mental event, there was content, there was form.

There was the mind of Jofe D'mahl floating forever in eternal boredom. And laughing at itself.

You *are* doing this to yourself, you silly dreek! D'mahl realized. And with that realization, the meaningless patterns on his retinas resolved themselves into a vision of the galactic abyss, speckled with stars. And in his mind, that vision further resolved itself into microtape unreeling endlessly on a pod in his editor in his living quarters on *Excelsior* near the center of the Trek.

You're doing it *all* to yourself, cretin! *You* control this reality, but you forgot you control it. There isn't any problem. There never was a problem. The only problem is that we refused to see it.

"Cut," D'mahl tapped, and he was sitting in his cocoon chair bathed in his own sweat, staring at the console of his editor, laughing, feeling the power of his own torch coursing through him, crackling from his fingertips, enlivening his exhausted flesh.

Laughing, he cleared the blocks from his effects banks. Who needs planets? Who needs life beyond the germ we carry? Who needs prime reality at all?

"*Réalité, c'est moi,*" D'mahl muttered. He had said it before, but hadn't savored its full meaning. For on his brow he wore not a crown of thorns but the crown of creation.

He ran back a few feet of the tape and floated once more in the empty star-dusted blackness. He laughed. "Let there be light," he tapped. And behold, the firmament shattered, and there was light.

"Cut," Jofe D'mahl tapped. And sat hovering over his editor. And began to carve another segment of his own meaning out of the void.

A bright golden light fills your vision and a delicious warm glow suffuses your body. The light recedes until it becomes something no

naked human eye could bear: the plasma heart of a torchtube, which seems to beat and throb like a living thing. And now you are straddling this phoenix-flame; it grows between your legs and yet you are riding it through a galaxy preternaturally filled with stars, a blazing firmament of glory. As you ride faster and faster, as the warm glow in your body builds and builds with every throb of the torchtube, letters of fire light-years high appear across the starfield:

RIDING THE TORCH

by Jofe D'mahl

And you scream in ecstasy and the universe explodes into crystal shards of light.

An old man with long white hair, a matted white beard, dressed in an ancient grimy robe, sits on a fluffy white cloud picking his red, beak-like nose. He has wild-looking pop eyes under bushy white brows and a shock of lightning bolts in his right hand. On the cloud next to him sits Satan in a natty red tuxedo, black cape, and bow tie, with apple-green skin and a spiffy black Vandyke. He is puffing on the end of his long sinuous tail, exhaling occasional whiffs of lavender smoke that smells of brimstone. You are watching this scene from slightly above, inhaling stray Satanic vapors. They are mildly euphoric.

"Job, Job," Satan says. "Aren't you ever going to get tired of bragging about that caper? What did it prove, anyway?"

"That my creatures love me no matter how much crap I dump on them," the old man says. "I don't see them building no Sistine Chapels to *you*, Snake-eyes."

"You really are a sadistic old goat, aren't you? You ought to audition for *my* part."

"You think I couldn't do it? You think you're such a red-hot badass?" The old man stands up, scowling thunders, brandishing his lightning bolts. "By the time I got through with those yucks, they'd be drooling to *you* for mercy. Either way, I am the greatest. Remember how I creamed those Egyptians?"

Satan blows lavender smoke at him. "Ten crummy plagues and a drowning scene. Strictly amateur stuff."

"Oh yeah? Oh yeah?" the old man shouts, flinging random lightning

bolts, his eyes rolling like pinwheels. "I'll show you who's the tail-torcher around here! I'll show you who's Lord God Allah Jehovah, King of the Universe!"

"Oh, really?" Satan drawls. "Tell you what, you want to make it double or nothing on the Job bet?"

"Anytime, Snake-eyes, anytime!"

"Okay, Mr. I Am, you dumped all you had on Job and he still crawled on his hands and knees to kiss your toes. If you're such a hotshot, let's see you break them. All of them. Let's see you make the whole human race curl up into fetal balls, stick their thumbs in their mouths, and give up. That's the bet, Mr. In the Beginning. I'll take them against you."

"You gotta be kidding! I run this whole show! I'm omniscient, omnipotent, and I can deal marked cards off the bottom of the deck."

"I'll give you even money anyway."

The old man breaks into maniacal laughter. Satan looks up into your face, shrugs, and twirls his finger around his right temple. "You got a bet, sonny!" the old man says. "How's *this* for openers?" And with a mad whoop, he starts flinging lightning bolts down from his cloud onto the world below.

You are standing in a crowded street in Paris as the sky explodes and the buildings melt and run and the Eiffel Tower crumples and falls and your flesh begins to slough off your bones. You are a great bird, feathers aflame in a burning sky, falling toward a wasteland of blowing ash and burning buildings. You are a dolphin leaping out of a choking bitter sea into sandpaper air. You stand beside your orange orchard watching the trees ignite like torches under a sky-filling fireball as your hair bursts into flame. You lie, unable to breathe, on an endless plain of rubble and gray ash, and the sky is a smear of cancerous purples and browns.

You are watching Satan and the wild-eyed old man drifting above the ruined ball of the Earth on their fleecy clouds. Satan looks a bit greener than before, and he sucks nervously on the end of his tail. The old man, grinning, flings occasional lightning bolts at small islands of green below, turning them to more gray ash and purplish-brown wasteland.

"Zap!" the old man giggles, flinging a bolt. "How's *that,* Snake-eyes?

I *told* you I was omnipotent. They never had a chance. Fork over, Charley!" He holds out the palm of his left hand.

"I've got to admit that tops your Land of Egypt number," Satan says. "However . . ." He takes his tail out of his mouth and blows a pointed arrow of lavender smoke upward past your nose. Following it, you see dozens of distant silvery cylinders moving outward into the starry blackness of the galactic night.

"Oh, yeah?" the old man says, cocking a lightning bolt at the fleet of converted asteroid freighters. "I'll take care of *that!*"

"Hold on, Grandpa!" Satan drawls. "You can't win your bet that way! If there are none of them left to give up, then I win and you lose."

Trembling with rage, the old man uncocks his throwing arm. His eyes whirl like runaway galaxies, his teeth grind into each other, and black smoke steams out of his ears. "You think you're so damned smart, do you? You think you can get the best of the old Voice from the Whirlwind, do you? You think those shaved apes have a chance of making it to the next green island in their lousy tin-can outrigger canoes?"

"There's a sweet little world circling Tau Ceti, and they've got what it takes to get that far," Satan says, throwing you a little wink on the side.

"Don't tell me about Tau Ceti!" the old man roars. "I'm omnipotent, I'm omniscient, and I can lick any being in this bar!" He snaps his fingers and you, he, and Satan are standing on a rolling meadow of chartreuse grass under a royal-blue sky scudded with faerie traceries of white cloud. Huge golden fernlike trees sway gently in a sweet fragrant breeze, swarms of tiny neon-bright birds drift among beds of huge orange-, emerald-, ruby-, and sapphire-colored flowers, filling the air with eldritch music. Red velvety kangaroolike creatures with soulful lavender eyes graze contentedly, leap about, and nuzzle each other with long mobile snouts.

"Here's your sweet little world circling Tau Ceti," the old man snarls. "Here's the new Eden those monkeys are making for, and it's as good a job as I did on Earth, if I do say so myself."

"Maybe better," Satan admits.

"Is it?" the old man howls with a voice of thunder. And his eyes rumble and he flings a handful of lightning bolts into the air, and his face turns bright red with rage as he screams: "Turn to slok!"

And the sky becomes a sickly chemical violet veined with ugly gray

clouds. And the chartreuse grass, the golden fern trees, and the bright flowers dissolve into a slimy brown muck as the birds and red velvet kangaroos evaporate into foul purple mists. And the brown muck and purple mists mingle and solidify. . . .

And you are clad in a heavy spacesuit, standing on an endless plain of purplish-brown rock under a cruel dead sky, one of a dozen suited men crawling over the planetary corpse like ants on a bone pile.

You are watching Satan and the old man hovering over the converted asteroid freighters of the Trek as they slink away from Tau Ceti V into the galactic night. A gray pall seems to exude from the ships, as if the plex of their ports and blisters were grimed with a million years of despair's filth.

"Take a look at them now!" the old man crows. He snaps his fingers and the three of you are looking down into a primitive dirtdigger deck from a catwalk. The scudding of green is like an unwholesome fungus on the synthetic loam, the air smells of ozone, and the dirtdiggers below are gray hunchbacked gnomes shuffling about as if under 4 gs. "It won't be long now," the old man says. "It's a century to the next live world I've put out here. None of them are going to live to see it, and boy oh boy, do they know it!"

He snaps his fingers again and the three of you are standing by the torchtube in a first-generation residence deck: grim blue corridors, leaden overheads, ugly steel plating, row after row of identical gray doors. The people plodding aimlessly up and down seem as leached of color and life as their surroundings.

"And before their children can get there, they're going to start running out of things," the old man says. "Carbon for their flesh. Calcium for their bones. Phosphorus for their life's juices. Iron for their blood." The light begins to get dim, the walls begin to get misty. The people begin to slump and melt, and you can feel your own bones begin to soften, your blood thinning to water; your whole body feels like a decomposing pudding. "They're going to turn slowly to slok themselves," the old man says, leering.

He snaps his fingers once more, and you are an abstract viewpoint beside the old man and Satan as they hang over the dimming lights of the Trek.

"Well, Snake-eyes, are you ready to pay up now?" the old man says smugly, holding out his palm.

"They haven't given up yet," Satan says, dragging on the tip of his tail.

"You're a stubborn dreek!" the old man snaps irritably.

Satan blows out a plume of lavender smoke that seems endless. It billows and grows and expands into a great cloud of mist that completely envelops the fleet of converted asteroid freighters. "So are they," he says.

And when the lavender mist clears, the Trek has been transformed. Where there had been scores of converted asteroid freighters slinking through space in their own pall of gloom, there are now hundreds of new Trekborn torchships coruscating like a pirate's treasure of jewels against the black velvet of the night, promenading through the abyss behind their own triumphant rainbow shield, the hydrogen interface.

Satan laughs, he cracks his long sinuous tail like a whip, and the three of you are standing beside the great circumtorchtube coils of a sifting deck, amid recovery canisters, control consoles, and a Medusa's head of transfer coils. You can feel the immense power of the torch in your bones, through the soles of your feet. Satan points grandly from canister to canister with the tip of his tail. "Carbon for their flesh," he mimics in a croaking parody of the old man's voice. "Calcium for their bones. Phosphorus for their life's juices. Iron for their blood. And all of it from the interstellar medium itself, which you can't get rid of without shutting down your whole set, Mr. Burning Bush! They're not turning to slok, they're turning slok to themselves."

He breaks into wild laughter, snaps his tail again, and the three of you are standing in a small pine forest in a dirtdigger deck beneath a holoed blue sky inhaling the odors of growing things. "Lo, they have created a garden in your wilderness," Satan says, doubling over with laughter as the old man's face purples with rage. Another crack of the tail and you are floating above a grand promenade in a particularly brilliant amusement deck: restaurants in gold, sapphire, and silver, diamond tables drifting on null-g plates, gypsy dancers twirling weightless in the air, rosy fountains, sparkling music, and the smell of carnival. "And a city of light in your everlasting darkness."

Yet another snap of the tail and the three of you are drifting in the center of the Trek, surrounded by the great concourse of bright ships, under the aurora of the hydrogen interface. Satan holds out his palm to the old man. "Does this look as if they're going to give up, Mr. Have

No Others Before Me? All they'll ever need, and all from pure slok! They can go on forever. Cross my palm with silver, Mr. Creator of All He Surveys. Your sons and your daughters are beyond your command."

The old man's face turns from purple to black. Fire shoots out of his nostrils. The hairs of his beard curl and uncurl with a furious electrical crackle. "For I am a god of vengeance and wrath," he roars, "and I am going to smite them hip and thigh."

"You're wasting your dingo act on *me,* cobber," Satan drawls, puffing out lavender smoke rings. "They've got you by the short hairs."

"Oh, have they, sonny? Wait till they get to their next Ultima Thule!" The old man snaps his fingers with a peal of thunder and the three of you are standing in a forest of immensely tall and stately trees with iridescent green bark and huge sail-like leaves at their crown that roll and snap ponderously in the wind. A thick carpet of brownish mosslike grass covers the cool forest floor, punctuated with red, blue, yellow, and purple fans of flowery fungi. Feathered yellow and orange monkey-size bipeds leap from leaf to leaf high overhead, and fat little purplish balls of fur roll about the brownish grass nibbling on the fungi. The air smells of cinnamon and apples, and the slight overrichness of oxygen makes you pleasantly lightheaded.

"Let me guess," Satan sighs, sucking languidly on the tip of his tail.

"Turn to slok!" the old man bellows, and his shout is thunder that rends the sky and the forest crystallizes and shatters to dust and the brownish grass hardens to rock and the feathered bipeds and purplish furballs decompress and explode and you are standing on a plain of mean brown rock streaked with green under a blue-black sky soiled with green clouds, and the air reeks of chlorine.

"You're slipping, Mr. You Were," Satan says. "They don't need your gardens any more, for theirs is the power and the glory forever, amen."

"Oh, is it?" the old man says, grinning. "They don't need the old Master of the Universe any more, do they? You've been the Prince of Liars too long, sonny. You don't understand how these jerks have been programmed. For thus have I set them one against the other and each against himself. It's the oldest trick in the book."

He snaps his fingers and the three of you are pressed up against the outer bulkhead of an amusement deck as a wild-eyed mob of dirt-diggers surges through it, smashing crystal tables, toppling fire-sculptures, brandishing crosses wrapped with simmed grape leaves, and chanting: "No more ships! No more ships! Soil or death!"

"They don't need my gardens any more, do they?" the old man gloats. "I can play their minds like harpsichords, because *I* created their universe, outer *and* inner." He snaps his fingers. "Look at your masters of energy and matter now!"

And you are standing in a corroding dirtdigger deck breathing sour air. The pine trees are stunted, the grass is sickly, and the dirtdiggers' eyes are feverish and shiny as they bow down to the vine-covered cross. "Groveling on their hands and knees where they belong," the old man says. "The old guilt routine, it gets 'em every time." He snaps his fingers again, and you are falling through a droptube through the decks of a well-maintained ship. The air is sweet, the lights clear and bright, the metallic and jeweled surfaces clean and sparkling, but the peacock crowds seem ridden with fear, whirling at nothing, jumping at shadows. "And if the right don't get them, the left hand will," the old man says. "Each man is an island, each man stands alone. What profiteth them if they gain the universe as long as I hold the mortgage on their souls?"

"Ah, but what profiteth them if they *forsake* your cheapjack housing development and *gain* their souls?" Satan says, blowing chains of smoke rings into each passing deck. The rings of lavender smoke alight on the brows of the people and turn into silvery bands—the first full sensory transceivers, ancestors of the tap. "Behold the tap!" Satan says as the transceiver bands melt into the skulls of their wearers, becoming the surgically implanted tap. "The Declaration of Independence from your stage set, O Producer of Biblical Epics! The bridge between the islands! The door to realities into which you may not follow! The crown of creation!"

Satan turns to you as the three of you leave the droptube in a quiet residential deck: walkways of golden bricks wandering among gingerbread houses of amethyst, quartz, topaz. He blows a smoke ring at you which settles on your head and then sinks into your skull. "What about it, man?" he asks you with a cock of his head at the old man. "Is Merlin the Magnificent here the Be-All and End-All, or just another circus act?"

Satan breaks into mad laughter, and then you are snapping your tail, laughing madly, and blowing lavender puffs of smoke at the old man, who stares at you with bugging pop eyes.

"Where did he go?" the old man says.

"Allow me to introduce myself," you say.

"The Lord is not mocked!" the old man shouts.

"Behold the master of space beyond spaces and times beyond time," you say, sucking on the tip of your tail.

You bounce one of the purplish furballs on your hand under huge iridescent green trees. You stand on the Champs Élysées in fair Paris on lost Earth. You dance in Jofe D'mahl's grand salon and pop a flasher into your mouth which explodes in a flash of pink velvet that transforms you into a woman making love to a golden man on black sands on the shore of a silver lake under blue and orange moons. You ride a surfboard of emerald light in the curl of a wave a mile high that rolls across an endless turquoise sea. You soar singing into the heart of a blue-white sun, burning yet unconsumed.

You are a viewpoint beside Satan and the old man rising through a lift-tube in a torchship transformed. Somber dirtdigger shorts turn to cloaks of many colors. Trees, ivy, and flowers sprout from metal deck-plates. Corrosion melts from the bulkheads of dirtdigger decks, the vine-colored crosses evaporate, and sour-smelling gloomings become fragrant gardens of delight.

Anger boils through the old man. His red face dopplers through purple into ultraviolet black as sparks fly from his gnashing teeth and tiny lightning bolts crackle from his fingertips. "They've . . . they've . . . they've . . ." He stammers in blind rage, his eyes rolling thunders.

"They've eaten from the Tree of Creation this time," Satan says with a grin. "How do you like *them* apples?"

"For eating of the Tree of Good and Evil I drove these drool-headed dreeks from Eden with fire and the sword!" the old man roars with the voice of a thousand novas. "For *this* will I wreak such vengeance as will make all that seem like a cakewalk through paradise!"

And he explodes in a blinding flash of light, and now you can see nothing but the starry firmament and an enormous mushroom pillar cloud of nuclear fire light-years high, roiling, immense, static, and eternal. "For now I am become the Lord of Hosts, Breaker of Worlds! Look upon my works, ye mortals, and despair!"

And you are watching Jofe D'mahl flitting from a shuttle to the entrance stage of Bela-37. You watch him emerge from a lift-tube onto the bridge of the scoutship. And you are Jofe D'mahl, staring back

through the plex at the Trek, a disk of diamond brilliance behind the rainbow gauze of its hydrogen interface. As you watch, it dwindles slowly to a point of light, one more abstract star lost in the black immensities of the boundless void.

"Overwhelming, isn't it?" Haris Bandoora says, moving partially into your field of vision. "A hundred million stars, perhaps as many planets, and this one galaxy is a speck of matter floating in an endless nothing. Once we were bits of some insignificant anomaly called life contaminating a dust-mote circling a dot of matter lost in the universal void. Now we're not even that."

"We're the part that counts," you say.

"If only you knew."

"Knew what?"

"I've heard the call, Haris." Raj Doru, fever in his fierce brown eyes, has risen to the bridge and walked to Bandoora's side.

You are standing in a voidbubble on Bela-37's entrance stage with Haris Bandoora and Raj Doru. Your field of vision contains nothing but the tiny ship, the abstract stars, the two men, and an infinity of nothing. You reel with vertigo and nausea before that awful abyss.

Doru spreads his arms, turns on his g-polarizer, and leaps up and out into the blackness of the void.

"What's he doing?" you shout.

"Sucking void," Bandoora says. "Answering the call. He'll go out far enough to lose sight of the ship and stay there for a standard day."

"What will he do out there?" you ask softly as Doru disappears into the everlasting night.

"What happens between a man and the void is between a man and the void."

"Why do you do it?"

"Each man has his own reason, D'mahl. The call has many voices. Soon you will hear it in your own language."

And you are standing on the scoutship's bridge watching Haris Bandoora himself disappear into that terrible oceanic immensity.

"Are you hearing the call, Jofe D'mahl?" says the quiet voice of Areth Lorenzi, the ancient voidsucker now standing beside you like a fleshly ghost.

"I'm not sure what I'm hearing," you say. "Maybe just my own ego. I've got to get a voidsuck on tape, or I've wasted my time out here."

"It's the call," she says. "It comes to each of us along his own natural vector."

"There's something you people aren't telling me."

"There is, but to know, you must first taste the void."

You stand in your voidbubble on Bela-37's entrance stage, knees flexed, looking out into the endless abyss into which you are about to leap; millions of needlepoint stars prick at your retinas, and the black silences howl in your ears. You inhale and dive up and out into the unknown.

And you float in clear black nothingness where the stars are motes of incandescent matter infinities away across the empty purity of the abyss. Nothing moves. Nothing changes. No event transpires. Silence is eternal. Time does not exist.

"What is it that the voidsuckers know?" you finally say, if only to hear the sound of your own voice. "What is it that they hear out here in this endless nowhere?"

And an immense and horrid laughter rends the fabric of space, and the firmament is rent asunder by an enormous mushroom pillar cloud light-years high that billows and roils and yet remains changeless, outside of time. "You would know what the voidsuckers know, would you, vile mortal?" says the voice from the pillar of nuclear fire. "You would know a truth that would shrivel your soul to a cinder of slok?"

And the mushroom cloud becomes an old man in a tattered robe, with long white hair and beard, parsecs tall, so that his toenails blot out stars and his hands are nebulae. Novas blaze in his eyes, comets flash from his fingertips, and his visage is wrath, utter and eternal. "Behold your universe, upright monkey, all that I now give unto thee, spawn of Adam, and all that shall ever be!"

You stand on a cliff of black rock under a cruel actinic sun choking on vacuum. You tread water in an oily yellow sea that sears your flesh while blue lightnings rend a pale-green sky. Icy-blue snow swirls around you as you crawl across an endless fractured plain of ice under a wan red sun. Your bones creak under 4 gs as you try to stand beneath a craggy overhang while the sky beyond is filthy gray smeared with ugly bands of brown and purple.

"Behold your latest futile hope, wretched creature!" the voice roars. "Behold Eden, 997-Beta-II!" And you stand on a crumbling shelf of striated green rock overlooking a chemically blue sea. The purplish

sky is mottled with blue and greenish clouds and the air sears your lungs as your knees begin to buckle, your consciousness to fade.

And once more you float in a void sundered by a galactic mushroom pillar cloud that becomes a ghastly vision of an old man light-years tall. The utter emptiness of the interstellar abyss burns with X-ray fire from the black holes of his eyes, his hair and beard are manes of white-hot flame that sear the firmament, his hands are claws crushing star clusters, his mouth is a scar of death across the face of the galaxy, and his rage is absolute.

"Slok, stinking microbe!" he howls with a voice that blasts ten thousand planets from their orbits. "It's all slok! That's what the void-suckers know. Lo, I have created a universe for you that goes on forever, time and space without end. And in all that creation, one garden where life abounded, one Earth, one Eden, and that you have destroyed forever. And all else is slok—empty void, poison gas, and dead matter, worlds without end, time without mercy! Behold my works, mortals, behold your prison, and despair!"

And his laughter shakes the galaxy and his eyes are like unto the nether pits of hell.

You shake your head, and you smile. You point your right forefinger at the ravening colossus. "You're forgetting something, you lamer," you say. "I created this reality. You're not real. Evaporate, you drool-headed dreek!"

And the monstrous old man begins to dissolve into a huge lavender mist. "I may not be real," he says, "but the situation you find yourself in sure is. Talk your way out of that one!" He disappears, thumbing his nose.

And you are watching Jofe D'mahl, a small figure in a shiny mirrorsuit standing alone in the eternal abyss. He turns to you, begins to grow, speaks.

> "Have thou and I not against fate conspired,
> And seized this sorry scheme of things entire?
> And shaped it closer to the heart's desire?"

D'mahl's mirrorsuit begins to flash endlessly through the colors of the spectrum. Lightnings crackle from his fingertips and auroras halo

his body like waves of hydrogen interfaces. "Let there be light, we have said on the first day, and there is light."

You are D'mahl as the entire jeweled glory of two thousand and forty torchships springs into being around you. "Let there be heavens, we have said on the second day," you say, and you are standing on a meadow of rolling purple hills under a rainbow sky in a dancing multitude of Trekkers. "And Earth." And the multitude is transported to *Erewhon,* where the dirtdiggers have combined three whole decks and created a forest of towering pines and lordly oaks under an azure sky.

"Let there be matter and energy without end, we have said on the third day," you say, and you feel the power flowing through your body as you straddle a naked torchtube, as you become the torch you are riding. "And there is matter and energy everlasting."

"And now on the fourth day, we have rested," you say, floating in the void. "And contemplated that which we have not made. And found it devoid of life or meaning, and hopelessly lame."

"And on the fifth day," D'mahl says as you watch him standing in the blackness in his suit of many lights, "we shall give up the things of childhood—gods and demons, planets and suns, guilts and regrets."

D'mahl is standing in front of a huge shimmer screen overlooking the grass and forest of a dirtdigger deck. "And on the sixth day, shall we not say, let there be life? And shall there not be life?"

Bears, cows, unicorns, horses, dogs, lions, giraffes, red velvety kangaroolike creatures, hippos, elephants, tigers, buffalo, mice, hummingbirds, shrews, rabbits, geese, zebras, goats, monkeys, winged dragons, tapirs, eagles come tumbling, soaring, and gamboling out of the shimmer screen to fill the forest and meadow with their music.

And you are D'mahl, feeling the power of the torch pour through your body, flash from your fingertips, as you stand in the center of the Trek, awash in light and life and motion, saying: "And on the seventh day, shall we not say, let us be fruitful and multiply and fill the dead and infinite reaches of the void with ships and life and meaning?"

And you stretch out your arms and torchships explode into being around you as the Trek opens like an enormous blossoming mandala, filling the blackness of the abyss with itself, immense, forever unfolding, and eternal. "And shall not that day be without end?"

About the Authors

CLIFFORD D. SIMAK, author of "The Marathon Photograph" in this volume, is the senior of the three contributors. Editor of a Minneapolis, Minnesota, newspaper, Mr. Simak has been writing and publishing science fiction since 1932.

Middle man is Gregory Benford, who wrote the story from which this book takes its title, "Threads of Time." A theoretical physicist, Dr. Benford teaches at the University of California at Irvine, employing his spare time to write science-fiction novels and short stories as well as nonfiction articles on scientific subjects. His first short story was published in 1965, when he was twenty-four.

The youngest of this trio of writers is Norman Spinrad, author of "Riding the Torch," who entered the field about the same time as Gregory Benford. Mr. Spinrad also has a number of highly imaginative and striking tales to his credit, including the controversial novel *Bug Jack Barron*.

Robert Silverberg, who conceived and edited this collection, is himself the award-winning author of a variety of scientific and technical works. Mr. Silverberg has won two Hugo awards and in 1970 received the coveted Nebula Award for the best science-fiction short story of the year.

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