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DAVID GRINNELL **ACROSS TIME**

QUEST IN THE
YEAR ONE
MILLION



Complete & Unabridged

ONE MAN VS. THE YEAR ONE MILLION!

Chasing mysterious celestial phenomena was part of Zack Halleck's Air Force duties, so it wasn't strange that he was assigned to assist in his brother's experiment. For his scientist brother had devised a method of deliberately attracting and trapping any such sky objects. But the experiment backfired—and the Hallecks themselves were its victims.

When Zack opened his eyes again, it was on the Earth of a million years in the future. And Zack learned that the only way he could rescue his brother and return to his own time would be to accept a role as a human pawn in a conflict of galactic supermen.

CAST OF CHARACTERS

ZACHARY HALLECK

He sought a human needle in a cosmic haystack.

CARL HALLECK

He threw a web into the sky to pull down wonders.

SYLVIA HALLECK

**Once she made her choice, she wouldn't change her mind
in a million years!**

TUDAL LURIS

**Although he was a professor of world history, he had
never heard of America.**

ALBAR

**He wouldn't tolerate losing his girl friend to a freak
from "Mars."**

THE EVER-PERFECT LIEUTENANT

A piece of machinery with a personality all its own.

ACROSS TIME

by
DAVID GRINNELL

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"He who contemplates nature must live in those ages as yet uncreated as well as those which have passed away. And the future as well as the past are even more real than the present, which does not exist, since from one second to another time climbs up into the future only to fall back into the pit of the past. Shall we say that the 'present' is at the present hour? No, for an hour is long. The present minute? No, for the minute is long to the observing astronomer or physicist. The present second? No, for it is exceedingly long to electricity. Shall we reduce the 'present' to the tenth of a second. Yes, if you like, but it is still relative to our sensations. Still, let us agree to that. Here, then, is the present—a tenth of a second! All the rest is past or future, and eternity is the only permanent reality."

—*Camille Flammarion*

I. Full Circle Assignment

WHAT some people would call coincidence is often the inevitable working out of the laws of cause and effect. The trouble lies in the fact that so often the causes are not immediately apparent. It would, for instance, seem to be the sheerest of accidents that brought Zachary Halleck back face to face with the very problem that he had enlisted in the Air Force to avoid.

He looked out the window of the train that was bringing him closer to the problem of his brother and his sister-in-law, and tried to fit the pieces together. How had this happened? It seemed such a short time ago that he had been based at Edwards, near the Mojave, testing the new jets—the latest sound-barrier crashers.

I was safe there, he thought. They all thought I had no emotions; I was all cool control and nerve—and I was safe. I didn't have to think about Carl and Sylvia.

He thought back to that day when he was somewhere over the desert, testing a new jet fighter—the day when the unidentified object had been sighted. He was strapped in, cushioned comfortably, driving along at 300 m.p.h. when the call came in from Edwards.

“Halleck in XP 547. Disregard previous orders for test three. Investigate reported unknown at . . .” Zack turned his plane in the indicated direction and flew fifty miles at ever-accelerating speed.

Driving forward, he saw the spot and started to close in on it, only to have the thing speed away from him. The blip, or whatever it had been that registered on the field radarscopes, was fast; but with his lead, Zack overtook it.

It appeared to be a glowing object, size and shape uncertain. It seemed to be spherical, but the only sure thing was that it had a greenish glow as it darted ahead, then up. Zack's touch on the controls was good; he had the experience of a veteran hand at chasing jet fliers. There was a moment of elation as the thing suddenly loomed in his sights, green and misty and whirling; then—he struck it.

How fast Halleck's test jet was going then he couldn't tell; he wasn't looking at the gauges. He was staring at the green thing and the next thing he knew, he was falling—falling by parachute down toward the brown and gray Earth so far below him. He remembered a shock; the seat ejector had functioned and he had felt as if he were somersaulting. There was a second shock—he blacked out, and was free, falling, the plane crashing somewhere below him.

He had been badly shaken up when he hit, and was hospitalized for bruises and shock. Then came Intelligence, with hours of questioning and a final warning to say nothing. He emerged from the hospital to find himself isolated, kept to his quarters.

At first, Zack felt that they were holding him responsible for a loss that wasn't his fault—until he had another session with the major from the Pentagon.

"These things, Captain Halleck, are a mystery to us," the major said. He was a graying and balding man—not the type to make jokes. "In spite of the things that papers and some cheap sensationalists have been saying, we don't know the answers. Actually, there are surprisingly few authenticated accounts of the unidentifiable flying objects—much fewer than you would suppose. And we want to know the answers, believe me."

The major paused a minute. Halleck, seated in a chair in the small office at Air Base Intelligence, nodded. He'd been puzzled over just what had happened to him; it hadn't made

sense. "I've thought it might be a meteor," he said. "They do explode, sometimes. It didn't look artificial to me."

The major nodded. "It might be meteoric in origin, but if so, it didn't quite follow the rules. At any rate, you saw and hit something—something that registered on the radar, that moved almost as fast as you did and tried to run away from you."

He paused, weighing his words before he spoke again. "We've checked your record and like what we see. You'll not be quite fit to resume your regular work for several months. Meanwhile, we've had a request for an assistant with aviation knowledge at a certain project connected with our national defense. There have been things reported there that seem to belong to the investigations our branch has been conducting. I'd like to ask you to take this transfer for the time being, to be our observer there."

Halleck smiled briefly. "Glad to assist, sir. I'll take the job. If it helps clear up what happened to me, I want to be in on it."

"Good," said the Intelligence major. "Then it's settled. Besides, I've held out the best part of this until last. The project in question is right in your own home grounds. In fact, I believe that the man you'll be helping is probably a relative. Carl Halleck. Do you know him?"

For a moment, Zachary's head whirled. He felt as if he had been struck by lightning. He choked down the protest that bubbled up to his lips, tightened up, and said, "Yes, sir. I know him. I'm his brother."

Carl! And Sylvia, who was supposed to be my wife, not my sister-in-law. He wondered again if he could really blame her. *She chose Carl because he was the nearest substitute when I was reported dead,* Zachary thought.

That was on his fourteenth mission in Korea; his bomber had come down, crippled, behind the enemy lines. He had

been written off as dead when, in fact, he was making his way on foot by night back to the lines.

But why did Sylvia have to turn to Carl? It was the question that kept on returning whenever he thought of her. Zack couldn't bring himself to admit that there was a resemblance the girl couldn't miss. *I told her about him that summer night before I went away. She knew how I felt about Carl. She knew.*

Yes, Sylvia knew how Zachary Halleck felt about his life as a younger brother. Carl, six years older, had always gotten the first choice, the biggest portion, the favored rôle. And the crowning blow was the knowledge that it would be Carl who would inherit the house and the land—the farm that their father and grandfather had homesteaded in free land of Oregon Territory.

No matter that Carl had not wanted to be a farmer, had become a scholarship student at the state university. No matter that Carl's interests were physics and the mysteries of science rather than agriculture. The farming Hallecks had always left the land intact to the oldest son—and so it was to be. *That was why I volunteered for the air service,* he thought.

The major hadn't noticed Zachary's face go pale. He stood up, smiling. "Very good. You will receive your instructions and leave at once to join him. Your brother is an outstanding engineer. He seems to be working on some new development of radar—quite ingenious, I'm told. But he will explain his problems to you better than I can."

So now Zachary Halleck was on his way home. That closed the coincidence. Cause: hatred and disappointment. Result one: leave home and take up daredevil flying. Result two: encounter a mystery. Effect: brother's researches covered some similar mystery. Conclusion: Zachary is the man picked to return to assist brother.

Why didn't Air Force Intelligence plumb deeper than the mere fact that Carl and I were related? No doubt, it had seemed such a neat coincidence that they thought it would prove effective. *It might at that,* thought Zack grimly, as the grimy little train wound its way through the lonely reaches of the Cascades on the last lap of his trip home.

Every mile the train went intensified his mood. The feel of the air brought back a thousand and one memories of Zack's boyhood, of his youth, and each memory was tinted with Carl. Always his brother . . . Zack squirmed in his seat, looking out the window; he felt himself choking up.

Sylvia had promised to wait for him, but she hadn't waited.

He remembered the fury in which he had left Carl and Carl's bride. Zack had just come back from overseas, but he had not even spent the night at the old farm. He returned to the station and waited the lonely, cold hours for the milk train—back to the cities and the coast and the enlistment office.

He could see their faces now: Sylvia, perhaps a little embarrassed; Carl, with the odd quizzical, somewhat humorous look of detachment. *Smug*, Zachary thought—*yet not exactly*. Carl, of the blocky squareness, the solidity that Zack's slender energy never seemed to be able to dent.

Finally he deliberately thrust emotion from him.

He got off at the whistle stop that was the nearest community to his isolated family holdings. He swung down from the car, started to look around for transport, and saw a new station wagon. Then a woman stepped down from the driver's seat and came toward him.

For a moment he did not recognize Sylvia. He still pictured her in his mind as he had left her that far-away day in 1951—a fresh-faced country girl with honey-brown hair, a few freckles, and a quizzical charm in her wide green eyes.

This woman coming toward him was a stranger, at first. She seemed taller, more mature; the school-girl fragility was gone with the freckles.

Zack recognized Sylvia apparently at the same moment she recognized him. Her step faltered a moment; then she caught herself, held out her hand.

"Hello, Zachary," she said, her voice almost quavering. "They didn't say they were sending you, but I'm glad to see you."

He forced himself to smile, accepted her hand, tensing to the feel of her flesh. "I didn't ask for this assignment, you know . . . but it's good to be back. That's a brand-new car, there. Guess Carl is making out all right."

They started toward the station wagon. Sylvia said, "He's made money from some patents. Government work. You'll see."

They climbed into the front seat and Sylvia drove. There was silence between them as they tore along the narrow and deserted country road; it seemed to grow like a physical thing, neither one knowing what to say or how to act.

Zack sat there, his eyes staring straight ahead, his mind seething. Finally, he made a banal comment about the weather. The desultory sort of chitchat it started only added to the tension. Suddenly, Sylvia turned the wheel sharply, drew up and parked by the side of the road, where fields stretched away to the slopes of the dark, wooded mountains that loomed all around them.

She turned to Zachary. "Look, we're going to have to get along together for several months, so we may as well make up our minds to let bygones be bygones. I've been hurt by you, Zack—maybe just as much as you think I've hurt you. There's just no use getting a mad on. I'm married to Carl, and we've been happy."

Zack looked at her a while. "Yes, I'll bet," he said finally. "I'll bet you're happy. Him, especially."

She pinched her lips. "Yes," she snapped. "Whether you like it or not, we *have* been happy. And I want you to know something else. Your brother likes you. I've never heard him utter a single word against you in all the time I've known him. It's you who's carrying the grudge."

Zack felt himself boiling over. "Oh, is it? I'll bet he's never said a word against me. He doesn't have to! Just let's not talk about it, before I forget I'm supposed to be a gentleman. Never mind—I'll be polite. I won't give him what's coming to him—not this time."

Sylvia looked furious; he could see her biting back a retort that fought to come out. She threw in the gears, stepped on the gas, and drove on in angry silence.

II. The Sleeping Devil

As THE station wagon drove on along the narrow road, Zack felt a curious change coming over him. It seemed as if a deep sense of restfulness were pervading his system. The air was the air of his childhood, the scenery reminiscent of happier days.

He leaned back in his seat and let his pores absorb the world around him. *Homecoming*, he thought. *I never realized what homecoming meant.* Now he knew, and it seemed as if he were a changed person.

When Sylvia finally drew up at the sprawling farmhouse which had been home to his father and grandfather, and the two of them climbed out of the station wagon, Zachary Halleck felt calm, and somehow dispassionate.

Carl Halleck hadn't changed much to Zack's eyes; he was still the bluff, stocky, heavy-set one. The quiet smile that had

so often infuriated Zack in the past now seemed one of genuine pleasure, as he emerged from the house, crossed the wide porch and bounded down the steps to offer his hand.

"This is a surprise, Zack," he said, "but a real pleasant one. It'll be like old times again, having you here." Awkwardly, Zack reached out and allowed his hand to be pumped, noticing with a touch of curiosity that there were now flecks of gray in his elder brother's hair. "Frankly, I'm glad it was you they sent," Carl went on. "There are things about this setup that might be harder for a stranger to believe."

The next day, after an evening during which Sylvia wondered at the change in him and Carl exchanged reminiscences of neighbors and local events, they got down to business.

The farmstead was no longer the scene of agricultural pursuits; the large fields had reverted to flowers and grass. What had been barn and dairy were now laboratory and experimental chambers. Carl held some basic patents in certain electronic operations; income from these supported the place and his present work.

There were two assistants working with him. Kedrick was a native of the region—a wizened little mechanic from the township and a wizard at assembling and repairing the gadgets Carl dreamed up; the other was an engineer named Dean. Dean was thirtyish, dry and competent, but it was obvious from start to finish that Carl was master here in all things.

Zack listened patiently while Carl conducted him over the place, nodding when each device was explained to him, putting in a word here and there when expected. Finally Carl Halleck drew him over to a corner of the lab, sat him down in a chair, taking another at a desk crowded with papers and diagrams.

"Here's what we're up to now," he said. "You understand radar, of course?"

Zack nodded. He had noticed a radarscope in one corner of the chamber and had not missed the cuplike antenna on top of what had been the old water-tank tower. He understood the principle. Radio waves could be made to bounce off an object, and be caught on the rebound by the ear of the sender; these echoes could be translated into light and sound of such exactness as to reveal the whereabouts, distances, and movements of unseen objects. *It's simple—but wonderful*, he thought; *it's a new form of sight. Night is no longer perilous. Flight is safer all around and there's hope for defense against air attack.*

"I started on an effort to improve the principle of radar screening," Carl said. "We can set up a line of radar stations now in such a way as to form a fence through which nothing can fly without being noticed. The famous DEW screen in Northern Canada is a good example. Nothing can cross it from the North, from the other side of the Pole, without being picked up, instantly. But I asked myself, what is the next step? Detected, yes—followed as far as the radarscope can carry, charted and tracked. But eventually, anything is sure to go off the screen. Our present system is to pick it up again by calculating the object's last known speed and direction. Yet this is an uncertain thing. With a potential enemy surely aware of our system, abrupt changes of course would be the order of the day. Zigzagging, calculated deviations will make further picking up of the intruder difficult.

"With the present possibilities of rocket-driven missiles, of the ICGM with the H-Bomb warhead, we can't afford to take even the slightest chance. We need not only a screen to pick up the object but a means whereby, once detected, the object can be tracked by the original detector for ten

thousand miles if necessary. That is what I believe I have worked out."

Zack whistled. "Sounds good," he said quietly. "What's the trick?"

Carl paused a bit, pursed his lips. "Well, it came to me that the initial radar screen is not quite enough. What do we do? We bounce a radio wave off the intruding airplane. We continue to bounce more such, a regular rain of such waves. But suppose, I thought one day, instead of just a radio wave—innocuous in itself—we had a wave which carried some sort of electrical charge. Sure it would still bounce back, but suppose it leaves the object it touches permanently carrying this charge. Couldn't we then have not just touched the intruder, but actually marked it? Wouldn't it be marked in such a way that any electronic eye could detect it as something which had passed through a forbidden barrier?"

He paused, and Zack knew that his brother expected an answer to the question. "Well, that's a rather big 'if,' " he said.

"Of course," Carl agreed. "But once I had the idea in mind, the methods suggested themselves. I worked out elementary principles, got the Pentagon interested and received a contract to try to work it out in practice. I can tell you, although the matter is highly classified, that we have succeeded.

"I worked out a way of radiating a very faint paramagnetic charge along the beams of the radar screen. Anything passing into the scope of this radar fence is instantly charged. This can be immediately detected by a relatively simple paramagnetic device, and once this is attuned to the flying object similarly charged, that object cannot be lost. Our detector will point continuously in the direction of the charged plane, even if it has gone hundreds of miles away."

Zack nodded. "And where do I come in in all this?" he asked.

"We'll come to that," said Carl. "I've set up an experimental screen station out in Chinook Pass, which is about twenty miles up in the mountains. You'll remember . . . we used to go hunting there when we were kids." Zack nodded. "With fairly low power, we can track anything that flies over the pass as high as fifteen miles up, and for many miles around. We made our first checks, as you might guess, on flights of wild geese. Later on, we checked against passenger planes going north to Tacoma or Seattle. With our paramagnetic charge, we found we could keep tabs on those planes up to the moment they finally landed—long, long after we lost them in the normal radar. Apparently the moment they land, the extra charge is grounded and lost. What's more interesting, the planes themselves cannot detect any difference. No pilot or passenger ever noticed the charge—and Air Force pilots who have co-operated with us on request cannot tell when their plane has been so charged. In short, the system works fine.

"But where do you come in . . ." Carl hesitated, as if feeling for words.

Zack frowned. "Did you ask for someone with experience in unidentified flying objects? Someone from Project Blue Book?"

Carl looked at him. "Yes, I did. And . . . why somehow it never dawned on me when you came that you must have been connected with them!"

"Yes, I had a little experience of that nature. I guess it made me your man. What happened? Did you pick up things that weren't there?"

"I guess that's the word for it," said his elder brother. "We got some things that we couldn't see, but of course every radar gets those. Weird blips when the sky is clear; wild

effects that turn out to be migrating birds, or maybe just dust concentrations. Those I could account for. But we got some other things, too." He leaned over, called out:

"Dean, will you come here a moment and tell about last Thursday?"

The engineer came over, looking a little embarrassed. "Well, Captain," he said, "Carl was up in the Pass working the screen and I was down here watching the tracker when I saw that we'd got a fast flier on the record. Thing went over the Pass, according to the tracker, about three hundred miles an hour, heading Southwest. Was out of radarscope range in seconds, but the charge took it and my detector here held on to it. According to my records, it was speeding up and I held the thing for about six hundred miles before it was lost.

"Shortly after, I caught another blip like that following this one and that, too, was going along at outlandish speeds. Now Carl, on the phone, said he could see nothing and the radar said it was about six miles up when it passed through the screen. Finally we got a third. This one turned almost immediately and started straight up. You may not believe this, but this fellow just kept on up. I clocked it at five hundred miles up before I lost it. Could have followed it for thousands more if we'd had a stronger detector, but we're only using experimental equipment."

"That's it," said Carl. "Since then I've clocked blips several times, and followed them for incredible distances. Finally, we caught a group of them, had them turn back, come down again and recross the Pass quite low. I ran out to look at them. I saw what seemed to be about a dozen tiny green dots, which turned in formation and went straight up into the sky.

"Now the strangest part comes. I followed them by their paramagnetic charges for about fifty miles when, one by one,

they blanked out—exactly as if they had been grounded.”

Zachary whistled. “I’ve read reports like that—of formations of things—but I’ve never really believed them.” He went on then to tell of his own collision in the air with something nobody could analyze. “But being grounded . . . it would sound as if they were picked up by something. A mother ship, maybe.”

Carl shook his head. “Let’s not come to any conclusions like that. We just don’t know. Anyway, I stopped my operational experiments and reported to the Air Force. They assigned you. I want to go over all this with you first; see if maybe there’s some sort of flaw in our apparatus that would account for this. If we can be sure there isn’t, then we’ll start our next series of tests with you checking here.”

For the next three days Zachary learned the whys and wherefores of the setup. It was not tedious; he was still in the reverie that had come over him on arrival. There would be routine checking of wires, a quiet dissertation on each little trick and twist by the efficient, although curiously unimaginative Dean—a perfect foil for Carl’s visionary mind. And there was plenty of time for quiet hikes along the woods and hills of his boyhood.

Yet he found the spell wearing off as the time passed. The familiar landscape was beginning to dredge up more and more memories, and Zachary found them less and less pleasant. Here was a hill where he had hunted rabbits, but all he could remember was that Carl had brought home the big daddy hare that Zack had set his heart on bagging. There was the spot where they used to fish in the icy mountain stream, and Zack could think only of a certain Saturday when Carl had taken six flashing trout while Zack went fishless.

He tried to dismiss these memories; he told himself that

everyone had his own private disappointments—little things like that which hurt, and kept on hurting year after year. Carl was a man now, they both were, he told himself; these things no longer counted. *When I became a man, he thought, I put away childish things.*

But he couldn't quite put them away, and his effort to keep them under control left him no energy to open up with Carl and Sylvia, to be companionable as he had planned to be.

And four days later, just before the morning the screen up on Chinook Pass was to be activated, the sleeping devil awoke.

The three were sitting on the porch after dinner, watching the sunset. Venus shone white in the sky; the black waves of the mountains shone, their peaks outlined in ever-darkening lavender. He sat on the top stair of the porch, Carl and Sylvia seated in the swinging bench. Zack turned to say something that had come to him.

What it was he was about to say, he never knew. The man and his wife were stealing a kiss in the peace of the coming night, and Zack felt sudden coldness run through him. It was as if some tidal current had rushed in over the chill mountains and washed over him. Something within cried out, *"That's my girl!"*

Zack turned away quickly, his heart pounding, hands shaking with fury.

He stood up, still trembling, and thrust the voice back, hardly recognizing his own voice as he mumbled something about being tired and started to go indoors. The sky had become black, and the great span of the Milky Way spread its myriad suns across the heavens. Zack looked up at it briefly, and it seemed as if the future had become a vast, gaping abyss.

III. Open Switch

TIME is probably the most inadequately understood problem in the universe. A thousand philosophers have tried to explain it, yet none have adequately succeeded. Work with it as one will, measure it, ponder it, there is nothing that can be done with it. Every second follows exactly the path prescribed upon it by the preceding second and in turn defines the path of the following second. Where in all this lies the wedge of change, of will, of direction? Break it down infinitesimally and there is no gap for this—yet such gaps must exist, and in infinite numbers, too . . .

For instance, the events of the following day were certainly set a million years before in one way, a million years after perhaps in another. For Zachary Halleck, they might be founded on the almost forgotten events of a dozen years past, brought to a focus only a few hours ago, only the night before. Who is to say which was the deciding period of time?

He hated his brother; yet hate, we are told by poets and psychologists, is akin to love. It may be a distorted reflection of it, or . . . it may not. Each man is the focus of the universe to himself. For Zachary, his hate that night was fitting and righteous—yet it would not be for anyone else. Again, who is to set the standards? Where does loyalty to oneself end and loyalty to the group begin? Another infinitesimal line, as narrow perhaps as the wedge between the seconds.

The next morning, the change in Zachary Halleck was not noticeable. He was as quietly courteous as the mornings before, those days when the peace of an earlier childhood period had taken over.

They outlined the plans; they made the arrangements. Dean and Kedrick would stay at their main base, the farm, and operate the radars and the power. The station in the mountain pass was powered by a makeshift cable strung over the ground on the long-abandoned mining road. And so, by nine o'clock, the station wagon, with Carl at the wheel, and Zack and Sylvia as passengers, made the twenty-mile trip up to the heights.

A rabbit darted across the road in front of them, and Zachary felt himself grow tense. He found himself thinking of that Saturday again—and remembered that Carl wouldn't go fishing with him the following week end, when they both had sets of new flies. *I caught twice as many that day*, alone, as he had the week before, Zack thought. But it didn't seem much of a victory; he remembered Carl brushing the whole affair aside, claiming that he'd have topped Zack easily if he'd been there.

He never gave me another chance. He recalled Carl grinning and saying, "When you beat a fellow, that settles it. You don't have to rub it in."

The road dipped through a hollow, then up again, as it wound higher, the great mountains closing around them; and the silence and majesty brought its usual silencing finger across their minds.

It grew cold and they shrugged into their mackinaws. Carl threw in the second gear, and the station wagon roared up the ever-rising narrow dirt road, upwards and upwards, until at long last, as they felt their breathing speeding up and the air thinning, they came out at the building in Chinook Pass.

It was a makeshift, evidently the abandoned shack of some forgotten miner of half a century past. Sylvia and Carl had repaired it enough to house their machinery and to be weatherproof. Outside, the giant towers of his radar and

radio-emanation antennae rose like the weird whiskers of some antediluvian insect. The station wagon drew up, they got down.

Carl showed his brother over the place, explained the workings of the experimental devices. "And inside the cabin we have a radarscope, too; it makes a double check with the one at the farm."

"Got a telephone connection on that cable?" asked Zack, in the subdued tones he had been using all day. He had been trying to avoid conversation, trying to keep from looking at Sylvia, watching.

"No," said Carl, pointing to the set on the table. "We're using the latest Army walkie-talkie device, a radio telephone. Saves us wire trouble. We get enough power up here through the cable. There's only one hitch. We have no way of turning off our screen save from the farm. We have to keep contact with someone down there to turn our stuff off here. A heck of a system—we didn't figure on it that way, but it turned out to be the only one practical. When our full report goes to the Pentagon, we may be able to afford a better control installation and post right up here."

"I don't get it," said Zack, puzzled. "You mean you really can't turn this thing on or off here?"

Sylvia came in just then, heard him and laughed. "Fact," she said. "We just talk to Dean at the farm and he turns it on and off. Our idea really isn't to stay up here. We can turn this screen station on and off entirely from the farm and never come up here in person. That's why Carl did it that way. It was really clever of him."

Zack's mind supplied a different answer: it was inefficient and silly.

"That's why we came up here today ourselves," said Carl. "You see, Sylvia and I want to stay here during the actual tests today, check the results on our radar up here, right

in the Pass. You'll take the car back to the farm, and handle the controls at that end. I have an idea that maybe some local phenomenon—birds, or electronic discharges, or some sort of paramagnetic leakage—may account for the discordant pips on our radars. Sylvia is familiar with the installation here and we'll check it over while in operation."

That suits me fine, thought Zack, but he merely nodded and said, "Uh-huh. What do we do if we spot pips on the screen?"

"I'll check here, visually. If there is something, we can co-ordinate views. I've an uneasy idea that this new system may have a way of drawing down trouble. If so, we'll have to do something to change it. Dean's idea is that we're getting meteors by some magnetic attraction, catching them out of their usual paths, and that accounts for the strange pips. I suppose the Air Force thinks the answer adds up to something more. So we'll see."

It was a little later, when he left them. Driving the station wagon back down the mountain, barely glancing once over his shoulder as he left the Pass, he pictured the two standing before the cabin with its crazy network, laughing at him. All the way down, his mood darkened. He wondered whether he shouldn't simply wire the Air Force for a transfer, get the devil out of here and back into the air where he belonged. *Maybe*, he thought, *I can show this whole thing's a crackpot business, wash it up fast.*

By eleven o'clock, all was in readiness. Zack had taken over the radiophone and the controls at the farm lab. He had Sylvia on the wire, chatting about the changes Carl was making, giving instructions for power and sight. Then Zack threw in the power switch that sent the surging force up the cable to the Pass, sent the charges into the wires over the cabin up there. It built up a screen of paramagnetic

force, along with the radar, pouring out in a fanlike belt over the mountains a dozen miles into the heavens.

There were adjustments of power, there were minor observations; then came a long wait. Some birds went through the Pass; they were duly charted and forgotten. A mail plane half a mile overhead was picked up. Dean, at the big radar-scope, tracked it all the way up to Yakima in the next hour. In spite of himself, Zack was impressed.

And then the pips arrived. Sylvia's voice alerted them; something was on the screen, ten miles up. "There's nothing ten miles up," Zack said sharply.

"There is on the screen," said Sylvia, tension in her voice.

"I've got it now," called Dean. "Come and see."

Zack looked—something *had* caught the edge of the special Halleck charge, something was trapped. "There's more than one," said Zack.

Sylvia confirmed that. "There's a half dozen," she said now. "Seem to be coming down toward the ground."

"Meteors, I'll bet," said Dean. Zack relayed the suggestion.

Sylvia's voice: "Don't act right. They're curving, not falling straight. They're curving directly toward the Pass. Maybe only six miles up now and seem to be coming fast."

Zack hunched at the phone, listening. Dean was excited, too. Sylvia said, "They're slowing down," and at the same second Dean shouted the same thing.

"Impossible," objected Zack on the radio-phone. "Meteors can't slow down as they fall—they'd do just the opposite."

"*These* are slowing down," said Sylvia. "No doubt about it, and they're—they're curving in more and more toward the Pass itself." Her voice was getting a little high, as if she were becoming a bit frightened.

Zack stood up and craned his neck to see the farm's radar-

scope. He could make the pips and tracks now; it seemed as if Carl and Sylvia were right.

He spoke again on the phone. This time Carl's voice answered him. "I wonder if we'd better not cut off the power here. There may be something to Dean's theory of attraction."

Zack was thinking, *If I can get this business cleared up, I can get away from this assignment.* "No, keep it on. May as well see this through, Carl. Settle the matter."

Carl was silent and Zack thought he heard the two arguing. Sylvia's voice came through. "Carl's gone outside to see if anything's visible. They're three miles away and still heading here. I wish you'd cut off the power, regardless of what he says, Zack. I'm . . . I'm sort of scared."

Zack grinned sharply. *Sweat a little; it'll do you good.* "Oh, don't worry," he said aloud. "It can't be anything. We'll turn it off if anything looks dangerous."

He held his hand on the power switch, happy in the feeling that, for once, he had the master hand.

Dean was bending over the radar. "Looks like these things are going to make a bull's-eye of the Pass," he said uneasily. "Maybe you'd better turn off the power."

Zack turned around and covered the mouthpiece, knowing that Dean couldn't hear the other end of his conversations. "Carl wants to see this through."

Again Sylvia's voice. "Oh, Zack, they must be only a half mile away—and we don't see anything. Carl is outside. What do you think it is? . . . wait, here's Carl."

Her voice was replaced by her husband's, speaking fast and breathless. "Turn off the power quick, Zack! I see something now. It looks like a half-dozen little green dots—not airplanes or anything like them. Turn it off! I'm sure they're being drawn down."

Zack still held back the power switch. "What did you

say they look like? I didn't quite get it." He was stalling.

"They're like green balls of lightning, like little globes of fire. I can see them now coming down fast. Turn the power off, quick!"

Zack held his breath a minute, his heart pounding. "Green balls of fire?" he repeated slowly.

"Zack! They're right on top of us! Turn off the power, For . . ."

The voice was cut off suddenly. Zack listened, hunched over the set. There was no sound; even the carrying wave was off.

He heard a mutter from Dean. "Turned the power off, eh, Captain? About time, too. Them dots were getting real close to the station." Dean was standing up. "But you didn't have to turn it off on our radar, too. Better get it on here at least."

Zachary Halleck turned around. The big screen was dark. Dean looked at him, came over, gave a gasp. "My God! You didn't turn the power off! The switch is still on—they're burned out!"

For a moment, Zachary's mind whirled. The elation that had filled him a scant few seconds before suddenly drained away and a coldness seemed to seep into him. He felt suddenly weak and faint.

A vision of his brother swept before him and suddenly the features reminded him of his father and mother. He felt a sickness seize him and he sat and shook.

Then he rose up, staggered like a drunken man. "I've got to go up there," he said in a whisper. "I've got to find out what happened."

Zack started out, panic overtaking him, and rushed to the station wagon. He ground its gears and started up the long road to the mountains, agony tearing at him.

IV. Diamond and Firepoint

ALL THROUGH the wild ride up to Chinook Pass Zachary Halleck's teeth were set and his body tense. He kept thinking about his actions, constantly re-living the moments, still feeling the anger that had driven him to disregard Carl's plea.

He was hoping that all would be well, somehow; but as he came into sight of the station, his worst fears were realized. Where the little cabin had stood was a blackened area on the ground, smoke still rising from it. Where the lacery of wires had been were a couple of bent poles and some shreds. There was nothing else around, nothing moving.

He drove up, jumped out, dashed to the site. Fire had consumed the cabin, melting and twisting and wrecking the screen projector. It was as if something intensely hot had exploded within. He searched anxiously for evidence of Carl and Sylvia; there was no sign of them.

He went outside and called. Only the faint echoes of his own voice came back from the surrounding peaks. He walked slowly through the debris and suddenly he saw footprints—two sets, those of a woman and a man.

They came from the area of the doorway. Evidently the two had survived, somehow, somehow, for their prints were impressed in one or two spots over the thin ash and burn. They must have been outside the cabin when it blew up—whatever had hit it. He traced their steps in the smudges of black ash. The steps went a certain distance—about forty feet—and then vanished.

He stopped there. The footprints ended in the middle of

a patch of dusty ground; he could see them clearly, breaking off sharply.

Zack stood there, baffled. His first impression when he found the footprints had been an immense feeling of relief. The thought that had been dancing in the darkest recesses of his mind—that he was a murderer, a fratricide—had been squelched. But . . . what had happened?

Surely Carl and Sylvia would not be hiding. Why should they? Nor would they have been foolish enough to try to walk back, when they would be aware he would be coming up. Again, it was probable that they had been hurt in the catastrophe—scorched, bruised. It was hard to see how they could have escaped scot-free.

Then it occurred to Zack that perhaps someone else had heard the explosion, had come over and picked them up. A forest ranger, or a rancher, may have rescued them. There were no signs of auto or horse tracks, but that seemed the only reasonable solution.

Zack stood and looked slowly about. The scene was as it had been before—blue sky, mountains, quiet vastness of the lonely landscape. Only the charred remnants and the smell of smoke was different—that and the feeling that something uncanny, something unnatural had occurred recently.

What were those green dots? Zachery Halleck remembered that thing in the sky with which his plane had collided. It was no hallucination; it had been real, yet it had not been subject to normal explanation. The Air Force would like to know if it had been man-made. Was it a vehicle, a projection, a missile, an electric discharge, a meteor of some unprecedented type—or a visitation from the endless depths of space and time?

Were the things that crossed Carl's radar the same, or something different? And where were they now?

Zack looked around again, preparatory to returning to

the station wagon and driving back. Then his eye caught something, something that hadn't been there before. Far, far up in the sky, at the very edge of visibility, there was a tiny speck.

He stared, but it didn't move. It didn't soar as would a bird; it didn't drift as would a cloud. It simply hung there, a tiny blemish in the blue heavens. Zack watched it for a while, but there was no change. Slowly he got into the station wagon and started out to the road back to the farmhouse.

He drove slowly. If Carl and Sylvia were walking back, he would give them a chance to call to him as he passed. And it gave him a chance to think.

His thoughts were unpleasant as he examined himself and his motives. *It wouldn't have made any difference if I'd shut off the power when Carl asked me. The explosion might have occurred, anyway.* And yet, he knew what his motives had been. The guilt was there, would always be there, regardless of what the effects might turn out to be. And—somehow—the reason for his actions seemed to have vanished. Try as he might, Zack couldn't resurrect his anger, his jealousy, his feeling of self-righteousness.

All the way down, he kept searching for the figures of the man and the woman. Back at the farmhouse, he described the appearance of the station to Dean and Kedrick. They were shocked; they insisted on setting out themselves to begin a search. They knew the area.

Zack wanted to go with them, but Kedrick shook his head. "Suppose they return to the farm while we're all gone and need help? Somebody's got to stay; it had better be you." Dean backed him up.

Finally the two left, packing lanterns, blankets, and a rifle. Zack trudged up to the porch, turned into the empty house. He looked around. Somehow it had turned cold and

hostile. The spirit of his childhood, of his parents, which had permeated the old home had fled; the house seemed to have turned against him. He shivered a bit, went out, back to the laboratory.

That wasn't much better, but at least it didn't seem so full of Carl and Sylvia. Zack walked around the various pieces of equipment, biting his lips, thinking.

He found himself standing at the radarscope. Dean had repaired the blown fuses, Zack noticed; he turned it on. Gradually the huge grid lit up and the eerie flickering of the rotating beam began tracing its uncanny patterns.

He watched it, conscious of the outlines of the house nearby, of the mountains miles away. And as he watched, he became aware of an unmoving dot over in the corner, high in the sky. He watched a moment, then went outside.

There it was—the same enigmatic speck that had hovered over the Pass. Now it had moved to survey the farmhouse. Zack stared at it, then went back inside to the radar.

As he watched, he noticed the dot move. It was descending; that was definite. Then he saw something else. There was a small side panel, connected with the radar, which was part of Carl's screen device. This was lit now, its own indicator pointing to the dot. Then the spot on their screen was charged—charged paramagnetically by having passed into the screen in Chinook Pass. Zack knew what that meant—the dot was part of the phenomena that had destroyed the base; it was a key to the problem.

And it was drawing closer now, descending. He wondered if he should go outside and observe it visually. But this might mean personal danger.

He stayed inside, watching. And then he saw something else. There was a new pip on the radar, also descending from the skies in the direction of the house. It was coming from another sector of the sky. *Two dots*, Zack thought, anger

beginning to boil up in him. Then he tensed as he noticed that the second dot was not charged. It hadn't been present in Chinook Pass—and it was due to intercept the path of the first!

Zack ran outside, stopped in the yard, looked up.

There was a green glowing point in the sky—the first pip—growing steadily in brightness as it neared the ground. There was no sound, just an eerie point of unnatural fire, a spark from the unknown, closing in. Zack turned his head; he saw the second pip.

It was a white thing, slightly misty, and with a curious suggestion of diamond in its conformation. This thing, the white diamond, was curving inwards, directing itself at the green firepoint.

It was then that Zachary Halleck became aware of a queer tension in the atmosphere. He felt his hair beginning to rise, as if static electricity was permeating the air and ground. He stood, his body bathed in rhythmic chills which he realized now were radiating from the white diamond.

The green firepoint was close—not thirty feet up—and the white diamond was there, too. The objects were floating side by side; and between the two things appeared a crackling and hissing discharge.

They hung there, halted, and the electric tension rose painfully, startlingly. Zack's teeth chattered, his body crawled; he felt himself gripped by a mighty current, as a man who has taken hold of a strong electrified wire might feel.

The sky seemed to blacken around him. He felt his senses reeling. As he fought to retain consciousness, Zack felt a shock wave, as of something exploding—of the green firepoint being shattered asunder. And at that instant, Zachary Halleck felt himself ripped apart, felt bone and flesh and body tearing themselves into the most fundamental sub-

atomic components, felt a pain beyond which no other could be conceived; simultaneously, he felt a frenzied ecstasy, a moment of eternity—and a consciousness of change.

Then it was over. To his blinded eyes, sight filtered back; to his ears, sound returned. To his feet came the sensation of standing; to his skin the awareness of air and sun. And as he recovered control of himself, Zack's first realization was that he was no longer in familiar surroundings. He was—*elsewhere*.

V. Where? When?

ZACHARY HALLECK sat out on the balcony and looked down into the street, meditating, uneasy, perplexed. He had done this often the past six months, and somehow the wonder had not gone away. Today, with that strange chemistry of time, the strangeness was gone. Suddenly he looked on the scene below, and saw in it something that only familiarity could breed.

The exotic is always fascinating at first. To a man tossed out of a plane into India, the country would be strange, its ways outlandish, its people inscrutable. But let him stay there half a year, and what was once strange becomes commonplace; what was outlandish becomes normal, a way of life; and what was inscrutable becomes only the logic of a workaday and routine tedium. Zachary realized that he had begun to see below the surface oddities, to discover the life of this place as it was. And what he saw was disturbing.

"Do you still find our ways so strange, our life so odd?" said a voice near him, and Zack looked up into Lury's impudent eyes. He turned his head, gazed at her. Here again he was struck by the sense of reorientation. She of the wide, spherical brown eyes, of the flat turned-up nose, of

the near lipless smile, had become familiar—and, he realized now, also was beginning to appear beautiful. Pixyish, yes; this *seroomi* girl had been this from the beginning. Gay, amusing, nice to know, all of these—but “beautiful”? The adjective had been impossible at first.

Whatever had made the exotic commonplace furnished a new standard now, and by that standard, Lury was beautiful. He was aware of it and knew that his mind had performed a mental somersault. A pale white skin, an overlong pair of arms, overlong legs, woolly russet hair, and big brown eyes, round not oval, could be an object of beauty. The *seroomi* were never ugly, but at first he had seen their forms objectively, the way he would have observed a new species of animal.

But the cuteness of an animal and the beauty of a woman are two different things, he thought. With a start, Zachary realized that somehow, for him, the parallel lines were close to merging. It presented some disturbing new thoughts. *That explains Albar's antagonism.*

“No,” Zachary answered her, speaking her language slowly and carefully. “I think I am seeing you people as you see yourselves. It took time.”

“And what do you think of us, Mr. Funny Man?” Lury's eyes widened as she drew up a cushion and squatted on it.

Zack looked down again into the street as he gathered his thoughts. “I think you are hardly different from my own people. I think that beneath your ways of doing things, that you are not essentially different from the world I left behind me. And that is what is so strange: Not that you are different, but that in reality you are *not*. It's strange and terrible.”

“Terrible?” she asked. “I don't think so. I should think it would be wonderful.”

He shook his head. "You don't see what I'm getting at. Why shouldn't you be different? What happened to my people, my world? It makes the problem so much more frightening."

In the street below, several vehicles were clamoring at one carryall, which had pulled up across a turn and was temporarily blocking traffic. Zack watched it. The vehicles were affairs of three and six wheels, depending on size, and their shapes were peculiar. Yet—they were still automobiles, for all that. They were driven by well-engineered and quite effective steam propulsion. They burned forms of peat and chemical pills, and worked quite as well as the motor vehicles of Halleck's time.

Gasoline would have been better, he thought, but there's no gasoline in this world. No deposits of oil, either. The moving parts were lubricated by nut oils, raised on vast plantations, in cultivated hybrid plants.

Yet this world, this strange world, was Earth. Mother Earth. Halleck knew it. At first he'd assumed otherwise, because it was so different in detail. But it was Earth.

He remembered that moment when he had found himself sitting on a hillside in the sun. There had been the globes and the mountains and the tension. Then there was only the hillside with grass and flowers growing on it. He saw no mountains, just a gently rolling landscape, with a river in the distance. On the horizon was a hint of water that suggested a seaside. There was no one in sight, no sign of the Halleck farm, no sign of the laboratory.

He remembered how he had gotten to his feet, dizzily, and looked about him. *Amnesia*, he thought. *I've read enough about it in mystery novels. I've been wandering in a state of shock, and now my memory is coming back.* But he'd looked down at his clothes, at his shoes, and they were the same he had been wearing at the moment of transition. They

weren't any older or more worn or torn. It had seemed to have been but a moment ago that he had been standing staring at the firepoint and the diamond coming down from the sky, from the mountain-rimmed sky of Oregon. And now these were all gone and he was transposed.

Where? He couldn't place the scene. *It doesn't feel like Oregon; it doesn't even feel like America.* That subtle something that tells men here is home was missing. He walked down the hillside slowly, looking. He bent, picked a flower, examined it. It was much like all flowers; yet it wasn't familiar. He looked at the grass and had the same feeling; it was both grass and something slightly otherwise. He saw a tiny anthill, bent and studied it. The ants were the same. That, at least, had not changed. He walked on.

"Father is baffled, too," said Lury, breaking into Halleck's reverie. "At first, he thought you were some being from another planet—a visitor from Mars, as the sensational newspapers put it. He's finally come around to accepting your story at your word, but he's still trying to figure it out. There simply isn't any record of your people; there just isn't. I don't see how you could have been all over this planet, with giant cities and hundreds of millions of people, and left no trace."

"I don't know," Zack said. "I just don't know. At first it was my brother and Sylvia, and then it was me, and now it's my whole world. Yet there's no doubt that it all happened to us . . . a million years ago. That's beyond dispute. Your astronomer friends proved it to the hilt. Your geology books proved it, too. I still can't get over the textbook reconstruction of the Earth a million years ago. It was my world, my continents, not the formations of the *seroomi* Earth."

"You know, we thought that maybe you were lying—that you might have been a spy from Kota-Savin, or even from

Mars. There are many people who still think so, but my father doesn't. The government no longer thinks so, though there are demagogues like Elector Vodr-Vedris who insist on it." Lury was thoughtful, her eyes gazing down into the street.

Zack followed her glance. On a street corner opposite the house was another delegation of the fearful. They carried banners, and were picketing Lury's home—the home of the history professor who had been made the government protector of the man from Oregon. He could catch the globe sign on it—religious emblems. Zack knew that his protector was afraid of trouble; there was an armed city guard stationed at the door below.

Zack had not met a *seroomi* that first day. He had walked through the fields in the direction of the river. He had picked some berries and nibbled on them. By the time he reached the riverbank, night had fallen. He made his camp by the gently flowing waters, near some bushes, and lay there, watching the stars come out.

Could he be in some such place as Australia or South America? His training had given him a good knowledge of astronomy. *I'll know*, he told himself, *just about where I am, and what the season is, when the stars come out.*

But as they twinkled into being, until finally the whole grand belt of the Milky Way banded the black sky, Zack knew something terrible had happened, something vaster than even his worst fears.

Their positions were a mockery of the stars he had known. There were constellations that seemed like the familiar ones but displaced, twisted, shifted. He was in the Northern Hemisphere; but when Zack sought the North Star he saw another. After a while, he recognized bright Vega in the polar position.

He sat and stared at the stars, fighting off the realization

that, somehow, he had gone into the future. A *hundred thousand years*? he thought. No, *more like a million*. It would have taken at least that long to effect the stellar changes that the heavens portrayed. As he sat, he ran his hands through the grass in the darkness, and knew that it was the grass of Earth, and that there had been a million years to change it. Everything was advanced; everything was evolved in one way or another. Everything but the ants. The unchanging ants.

The ants—and Zachary Halleck.

The moon came out later and it was a thin crescent which told him nothing. When the sun rose, he had slept a few hours fitfully. He rose and walked along the river down toward the distant sea.

He came upon someone working in a field. The person was wearing simple gray clothes, shapeless like a farmer's; indeed, the person *was* a farmer, walking slowly along the ridges of a plowed field, doing something or other. The farmer seemed unusually long-legged and long-armed; he had red hair, worn long under a wide-brimmed sun hat. Zack walked past him without speaking and the farmer looked at Halleck. The farmer stopped, stared a while, scratched his head and went back to his work.

Beyond the farm he came upon a narrow dirt road bordering the river. It became a paved road, and then a highway. A few vehicles passed by—farm vehicles, small carryalls running on six wheels, puffing a trail of thin steamy vapor. They were piled high with bags of produce, the drivers all red-haired rurals, all with the same ungainly body shapes as the first. They all glanced at the walking traveler with a certain curiosity and passed by, staring back, cautiously.

He'd come to a town, finally—or rather a crossroads village. It was there that the *seroomi*, which was what the

people of this world called themselves, took him in charge.

He'd been lodged in a variety of jails at first, brought to ever-larger communities, and finally to this main city, where he was mulled over, yelled at, talked to by innumerable people, and photographed and "interviewed" by reporters. It was all confusion, but Zachary decided to ride with the tide until he could come to a quiet harbor where he could have time to master the language.

That had come when the police had turned the "Martian"—as the journalists had dubbed the odd man they had found—over to the government. The government, after a period of political wrangling, had entrusted Halleck to their most respected university, which handed him over to Lury's father.

Tudal Luris was a good one for the job, Zack thought. He made me feel at home while he and Lury taught me the language. It had taken just about six months to give Zack a working grasp of it, and he'd acquired a good deal of information about his new world in the process.

"You see," he explained to Lury, "the thing that troubles me is that you people are just about where my people were when I left them. You're not a million years advanced. You're not even a hundred years in advance, and you're not a hundred years behind, either. It just dawned on me now how true this is. You are at the same historical and cultural moment in your world history as the world I left. It frightens me."

VI. Trouble

LURY WAS sober now. "It frightens us, too. This talk of atomic war. This business of ideology. The subversive drive for Kota-cracy against the democratic state. It's a great and fearful period we live in."

Zachary nodded. "That's what makes it so eerie. It isn't just an accident. There was something behind it. Some directing mind. Some end in sight."

Lury looked at him. "I didn't know you were religious. I know my father isn't. But you know there are some preachers who claim you are a visitant and that you are an omen of trouble. They say you were sent by"—she looked around, made a motion—"by the Great Sky Lights."

Zack turned to her, startled. "What did you say? Lights of the Sky? But I never mentioned them to your father. I didn't think he'd believe me. I never told him. What are you talking about? Say—just what is your religion?"

Lury stared back at him startled. "Don't look at me that way! You frighten me. You mean you've never discussed religion with Father? And don't ever shout anything about Lights of the Sky so loud. It offends the religious. You're in enough trouble with the preachers as it is."

"I want to know. I must know. What do you know about"—he lowered his voice—"globes of light, lights flying in the sky, things that look like green spheres of fire?"

Lury was pale, a little frightened. She shook her head slowly. "I . . . I think you'd better talk to Father about it."

She got up; still tingling with shock, Zack followed her."

The house was—a house. In the last analysis, there is only one general pattern that makes a dwelling for people, and that's something with four walls and a roof. In a city, the house takes various forms; and in an industrial city of the coal and iron era, any house will bear a certain generic resemblance to those of any similar city of the period. Some may be poor, some better kept, some even spacious.

This house was the spacious kind, quite well kept, as befitted a historian of national repute and substantial royalties. Zack and Lury found the gray-haired Tudal Luris working on a paper he was to read before one of the learned societies.

He put his writing aside, pushing aside his mechanical printer, in answer to his daughter's request.

Zack seated himself and bit his lip, wondering how to open the topic. In all the time he had been here, the subject of the green sky dots had been avoided. He had told the historian about the American milieu, and his own life, but Halleck had carefully avoided discussing the objects that had effected his transition. Somehow he had felt that they might prove the most unbelievable items, the things that might perhaps react against him, play into the "Martian" legend of the streets.

Beneath that reasoning was always the subconscious knowledge of guilt, the feeling that any cross-questioning of his incident might bare the shame of a man who had willed his brother dead. But Lury's remark had opened the door.

Lury herself introduced the subject by explaining the cause of Zack's new interest. Halleck organized his thoughts, said, "What is the meaning of your term 'Great Sky Lights'? I think it might have a bearing on what has happened to me, but first I would rather hear what you know. Do you worship—things of mystery that fly in the sky?"

Tudal's eyes sparkled. "The Great Sky Lights are something that everybody knows about; I never thought to mention them to you. Yes, I suppose it would be accurate to describe the ancient deities of the *seroomi* as things that fly in the sky. Specifically, our gods—though you must understand that most scientifically minded people no longer regard them as supernatural objects—take the physical form of brilliant points of light that can be seen, on rare occasions, flying through the sky.

"At certain points of our history—great strategic moments—these lights have, according to legend, played a part in the outcome of important conflicts. The most famous of these was the battle at Three-Ocean Pass. It was only the

appearance of such a light, hurling a thunderbolt at the leader of the pagan hordes, which saved King Rhondi from destruction. As you know, we date our civilization from that battle and consider Rhondi the true founder of the *seroomi* culture of today. This event occurred about two millennia ago. As a result of this miraculous intervention, the religion of the Great Sky Lights took its present form."

Zack felt his heart beating. "Are you saying that these lights, these 'gods,' are actual objects—things that any man can hope to see in his lifetime?"

The historian nodded. "Most people never do see them, of course, since they make only rare appearances over our territories. They have not actually intervened in *seroomi* affairs for the past few hundred years. But anyone who is interested seriously enough can go north, near the taboo lands, and see them from a distance. I myself have made the expedition once."

"What did they look like to you?"

"They looked like tiny dots of light, perhaps globes of force seen from afar. They are quite real. Personally, I do not believe they are truly gods. I believe that they are a form of life, or energy, of a type we simply do not understand or have not discovered."

"But these taboo lands—what are they, and where?" Zack asked, urgency in his voice.

"Since time immemorial, from the very dawn of the most primitive legendry of prehistoric *seroomi*, it has been forbidden to us to venture into the farthest north. There is a place—a plateau perhaps, in the far north of our continent, a place to which the compass needles point—where the Great Sky Lights are always to be found. Those of us who have crossed into this domain die. None, at any rate, have ever returned from there. We have religious laws that

affirm this taboo, and the public is very superstitious about breaking these laws."

Zack nodded, then told the historian and his daughter about the green dots that had been the apparent cause of his own transition. The two seemed astonished when Zack insisted that, in the past history of the human race, there were no such things known and that such phenomena had played no part in human theologies.

"But then," said the old man, "we have never even found evidence that such a race as yours ever existed—not even a million years ago."

This was true. Zack remembered the past months as he slowly learned the language and probed the records of this new Earth. A million years had passed since the Twentieth Century of *homo sapiens*. After that period, he had found this new race of humans, in no way advanced beyond the people of the buried epoch. He had seen in the books and museums of the *seroomi* people that they had a clear and proven evolutionary record; they were no degenerate or time-marking descendants of Man. They could trace their evolution through skeletons, records, artifacts, and caves. A hundred thousand years in their past they had been stooped, thick-browed, low-skulled, club-wielding cavemen. Three hundred thousand years in their past, they had been shambling half-humans, half-apelike beings. Eighty thousand years in the past they had been animals, mere tiny arboreal animals. But human beings they had never been.

In all the researches and records, on all the wide face of the Earth, on the continents new and old, in all the strata of rocks, there was no evidence of human culture. There was no sign of the great steel and cement cities of America and Europe, no piles of rubbish buried deep with bits of steel and plastic and china. Nothing. And no living animals, among the myriads that still inhabited the jungles and

rivers and plains of the world, were any that could have been human a million years before.

There was not the slightest sign or evidence of a previous race of intelligent beings. *None*, Zack thought, *unless you knew what these people have never suspected—that great deposits of coal and oil once existed, but are no more. That something had used them up.*

But what had happened to humanity? Zack had asked for signs of atomic war, for evidence of some world-wide cataclysm; these, too, were lacking. Where had the sons and daughters of mankind gone?

Zachary Halleck looked at the old man. "I think the solution of my mystery, of myself, lies north. I think I must go to the taboo lands and get to the bottom of this sky riddle. I think it is only there that I can find the reason for my presence here, and for my brother's vanishing."

Lury gasped, "But you can't! You daren't! With all the public suspicion now, with the war scare, you'd never get permission."

Her father nodded. "That's right. It would be very unlikely. The Electoral Body is probably going to question you again next month or so. I understand Vodr-Vedris has a new bit of evidence to prove you a Kota spy. It seems that Lury's old flame, Albar, went to him."

"What!" Zack was stunned. "Why would he do that? What has he got against me?"

The old man smiled. Zack turned, astonished, to seek Lury's reaction, but she had looked away. Then it struck him. Somehow it was part of his change of viewpoint that morning. He was becoming acclimated. The odd faces of the *seroomi* were taking on the aspects of men, and Lury's beauty among her own kind had been subtly penetrating him. Albar was jealous; he must have reason for it.

"But . . ." Zack stammered, "but . . . it's unthinkable.

I'm not one of you. Surely you couldn't think . . ."

The old man frowned. "I couldn't think, and I had supposed that Lury would have known better. But when in all time could a male estimate the thoughts of a female? She is a foolish girl just out of college, and you—the most exotic being she has ever met. I understand Albar's anger, but that does not excuse him."

"It means," said Zack, "that I have no time to lose to make my journey north. We will have to make our plans in secret, without official permission."

"But you cannot leave me behind. I will guide you." Lury turned her face toward him; there was quiet determination in her voice, and he could not mistake the look in her eyes.

Zack found that no protest could sway her, and the old man seemed to think there was no danger. They made their plans carefully the next few days, gathered a minimum of necessary equipment, debated the best means of traveling. They could have taken a train or a plane to the farthest post north, and trekked the rest of the way. But Tudal was opposed to this; Zack's racial differences could not be hidden. The only way was to drive north in their own vehicle.

They bought a second-hand car, a heavy-duty six-wheeler with a powerful engine and a closed body. They loaded their equipment, got maps, prepared.

Nevertheless, some news of their plans seemed to have leaked out. Not that it was known where they were going, but rumors held that the "Martian" was leaving in secret. Crowds gathered daily in the street outside their home and indignant stories appeared in the papers. On the radio, acid-tongued commentators mentioned it and asked for court action, demanding that the state resume custody of the mystery man.

It was evident that the populace was being stirred up.

The times were uncertain and it began to appear as if Zack was being built up as a scapegoat for some political purpose.

They made their getaway early one morning, slipping out singly to the garage on another street. Zack buried himself in the back where he could not be seen, while Lury and Tudal took turns driving.

They drove all night and all the next day along the northward highways. It would be a long trip, for they were about four thousand miles south of their destination. By the car radio they knew that police cars had been alerted for them, but they took back roads and were cautious.

During the next few days, the outcries gathered strength, as national action was demanded. Zack heard himself described as a being from Mars in league with the Kota-crats. And still they managed to make their way.

They had covered a great distance by the time they reached the northernmost province of the *seroomi* nation, eluding various searchers. Several times they had hidden in side roads while squads of police and soldiery tore past on their armored steam-racers. The old historian knew his country; he had drawn on his knowledge of historical battles, on his personal expeditions in student days, and routed them well.

They reached the sparsely settled realm of forests and lakes where the road at last petered out. Here they abandoned the car, bought beasts of burden—a domesticated type of reindeer, Zack thought—and mushed on.

The first snows fell, and still they traveled. But now with the white around them, they were a target; on the third day a low-flying sort of two-man Zeppelin spotted them. They ignored it, but realized that they had been seen. The next day, they saw a squad of fliers coming and hid themselves amid the snow; the following day they knew that a

ski battalion was on their trail. They could see it from the distance.

"We've only a day more to go to reach the taboo land," said Tudal, as they toiled on, leading their laden reindeer. "After that, they will not dare follow us."

"Then I must ask you to stop now. Let me go ahead alone. Let the offense be mine. Let the danger be mine."

"No," said Lury, "I'm going with you. I can't lose you."

"Look," said Zack, "believe me. I like you, Lury. I could love you if I stayed here. But I could never be happy here. I must go on—forever if need be—to find out where my own race went. You think you love me, but it's excitement and novelty and adventure that you love. You'd soon tire of such as I. You and I are not the same—not even the same kind of animals.

"You and your father must leave me. Remember me with pleasure, but don't surrender your life on my account. My problem is not yours. You'll see, after I'm gone. You'll realize that I am doing the best for you."

Lury shook her head, tears in her eyes, but her father added his voice to Zachary's. And that night, when the two *seroomi* were asleep and in the far distance the campfire of their pursuers could be seen, Zack took one of the reindeer, stripped it of its pack, saddled it, took provisions for three days, and slipped away.

He rode through the night as fast as the beast could travel over the snow-swept tundra, the barren plains of that far northern land. He rested briefly during the day, long enough to refresh his mount, and again rode on.

On the evening of the third day, a day which had been spent on a low but steady rise—the rise to the taboo plateau—he knew he was beyond pursuit. He had passed a strange line stretching from horizon to horizon, a radiant line that glowed through stone and snow and ice, that had tingled

slightly when he passed it—tingled enough to alarm any beast or bird or superstitious traveler.

After he had passed that line, as the sun was setting, he saw a tiny speck of glowing, misty golden light moving high in the sky. It vanished swiftly, but Zachary Halleck knew that he was in the presence of the god lights of the *seroomi*, of the mystery that bridged a million years.

VII. The Plateau

THERE HAD been pursuit the first two days and Zack was aware of it. No aircraft, thank heavens, but that was probably because of the taboo—they were afraid to venture by air too close to the northern barrier. At night he had seen the campfires of his pursuers. Now that he had crossed the glowing line, this changed.

The terrain changed abruptly, too. He was traveling along a slow but steady rise, and the dark line he saw on the far horizon could be only the ramparts of a mountain chain. Plainly he was now in the foothills, a definite gradation leading up to the peaks ahead.

He could look back and see how the landscape behind him was gradually spreading out. Now he could see farther and farther as he rose above the level of what had, in the most ancient times, been Northern Canada—though the outlines of North America had altered greatly, and were scarcely recognizable. Still, the scene behind was green and brown—the green of stocky subarctic trees, the green of fields of grass, the brown of long streaks of barren tundra, with ridges and breaks where the spring thaws sent the snows and ice of the long winter melting down.

From his height, Zachary Halleck could see a faint, glowing

line across the land below—just as if a hand had reached down from the sky and drawn the line in radiant chalk. His pursuers had stopped at that line. He could make out the faint group of dots on the other side of the demarkation. *They will return home eventually*, he thought.

Well, he was sure they could take no legal action against Lury and her father. What could be proved?

As far as Zack knew, there was no warrant out for him. He was not a citizen of the *seroomi* Post-American Federation; he wasn't even human from the viewpoint of such detractors as Vodr-Vedris. Doubtless, if the parallel between this world and a million years ago held, Lury and Luris would be subjected to official questioning. They would be harassed a bit, but they'd escape jail.

The landscape was rapidly becoming inhospitable. Here and there patches of snow were visible, leftovers from the arctic winter that had never melted. The vegetation was becoming sparse, and the air distinctly thinner. How high his elevation was already, Zack could not imagine; but he knew that he must be higher than would have been the case in this latitude and longitude a million years past.

As he trudged on, he remembered a prediction about the North American continent; it was expected to curl up at the edges in the future. Obviously, this had happened, while other parts had been inundated.

There was a speck hanging in the sky again, he noticed, but it did not move. Zack studied it, then decided to ignore it; but it reminded him again of Carl and Sylvia, and then, by association, of Albar and Lury.

I can't rightly blame Albar, he thought. His own attitude toward Carl was different. Carl had been a rival for Sylvia's hand, and the competition had been at least a likely one. *But I made no actual effort to woo Lury*, he thought wryly. In fact, it hadn't even occurred to him; yet Albar had acted

toward Halleck with almost the same murderous fury that Zack had taken toward his own brother.

He wondered vaguely whether Carl had ever been aware of his brother's mental turmoil. Maybe he'd never known. Albar's first outbreak of fury had taken Zack quite by surprise. He recalled the evening, sitting in the study of Lury's home—about a month ago—carefully making conversation with his still-limited grasp of the *seroomi* language. Albar—who was a handsome sort by *seroomi* standards, Zack realized—had been interrupted by Lury rather sharply when she insisted that some venture of Zack's was right. Albar leaped to his feet, said something too fast and sharp for Halleck to grasp, and slammed out.

Lury was quite upset, and refused to translate Albar's words. *If I had known she was infatuated with me, I'd have recognized that outburst*, Halleck thought. It was the same sort of fury that had possessed Zack himself, the night before the catastrophe in the Cascades.

And so Albar had plotted as had another frustrated young man—only Albar had gone about it differently. *And, Zack thought, it will probably come out better. He'll probably emerge a hero, and Lury will forget me. When she sees me again—if she ever does—she will see how strange I am, physically.*

He came to a patch of green and stopped, sat down to rest and eat. He had reached the bottom of his limited provisions.

Far behind, down the long valley, he could barely make out the dividing line. Ahead lay the steady rise to the walls of what must conceal a plateau unheard of a million years ago. On it would lie—what?

After he had eaten the last of his provisions, Zack got to his feet, took a deep breath, and started off again. He trudged on steadily until the sun, dipping toward the horizon, warned him of the lateness of the hour—it was the arctic summer

and the light would not wholly vanish. Tired, he stopped at the side of a hummock of bare rock that stuck out of the barren landscape. There he unrolled his blanket and prepared to spend a hungry night.

As he lay there, he saw the towering sides of the mountainous wall still before him, perhaps another day's journey. And he tried to conjecture just what he expected to find.

He had no assurance that there would be any solution for his personal woes in the enigmatic lights. What if they were but the impersonal manifestations of natural forces? What could they tell him? What would they prove? What if they were some sort of entities, creatures from outer space—why would they be any more open to him than to the myriads of other intelligent men and *seroomi* who must have come upon them?

Yet, there remained the undeniable fact that, for him, the lights had to be the object of his existence. There was no real future for Zachary Halleck in this *seroomi* world. At best, he could eke out his days as a freak in a freak show, contributing nothing but the memories of a lost and bygone era . . . and living with the unpleasant memory of an unfinished research.

He had been assigned by his superiors in the United States Air Force to do research into unidentified flying objects. That was a million years ago—but, he thought with a wry grin, *my orders have not been countermanded*. Though there might no longer exist anyone to report to, nevertheless, his orders could be regarded as still in effect. *At least, to my own understanding—so there's an objective*. In marching toward the forbidden plateau, Halleck was only fulfilling his oath as an officer. So, reasoned Zack, *here I lie. Tomorrow, I throw myself against the ramparts of the unknown. For me, there is nothing else*.

He closed his eyes and gradually sleep came to him.

Just how long he slept he did not know, but slowly to his returning awareness came the knowledge that the twilight of night had vanished. Light was beating on his closed eyelids, and he opened them.

There was a pale white light shining around him, a light different from that of the blue sky and the ruddy sun. Hanging over him, perhaps ten feet up, was a . . . a globe of glowing substance, a thing of misty radiance whose light was bathing the reclining man.

Zack sat up, struggled to his feet, his eyes upturned. The globe hung there unmoving; even so close, Zack could not quite make out its outlines. If it had a surface, it was not visible the way glass would be. There seemed to be this bubble, this *drop* of light simply hanging there, quietly glowing, while misty currents seemed slowly to move across its surface. Gradually Zack's eyes felt that within the drop of light were darker areas, spots and shadows; yet he could not distinguish them.

Nothing happened. He stared some more, then, shrugging fatalistically, picked up his pack and his blanket. He rolled the latter and started off again toward the distant stony precipices. The globe, apparently, was moving with him; its light continued to shine down on him and a glance upwards confirmed its motion.

He walked on, conscious of himself, determined to let the globe make the first move—hostile or friendly. That it was alive, he was convinced; subconsciously he had known that all along—the actions of these things had always spelled purpose and intent.

He was tired, even after sleep; doggedly, he lifted one foot after another, setting each down as the shining circle of radiation covered the ground like a theater spotlight.

Now he felt a tingling run through his system, and sensed that the globe was making its next move. He kept on walk-

ing, and suddenly put one foot down and *did not touch the ground*. He raised his body and set the other foot forward, still walking; this foot did not touch the ground, either. His feet hung an inch above the surface. He kept on, making walking motions.

Zack rose steadily higher, apparently walking on air, and soon found himself gliding forward several feet above the ground. His whole body was atingle with current, his hair and teeth stiff and bristly with electric discharge. He stopped the pretense of walking, and looked up.

His progress forward continued, accelerated. He was hanging only a few feet from the globe, which he could see now was perhaps two yards in diameter. He was suspended from it by some electromagnetic means; the globe was lifting him into the air, rushing him faster and faster toward the mountain wall and the land beyond.

His breath came harder; breathing was difficult, and his face was chilling from the thin, cold air. He gasped, strangled, and suddenly felt himself surrounded by a belt of warm, thick air. He twisted his head around, regaining strength as he sped high above the barren land. The globe had sensed his problem and had provided for him.

Protected thus, Zack was carried high and fast. He soared into the arctic sky beneath his strange captor; he saw the land fall away, saw the mountains diminish and saw that which was beyond it—a plateau.

Over this high, Tibet-like region he moved and looked down on it in wonder and awe.

Sometime during the past aeons, during the convulsions of Mother Earth's aging, this edge of the continent, wherein lay the magnetic north, had been pushed upwards, had been encircled by mountains. Here, lost to the eyes of the *seroomi*, there had been a settlement; upon this high plateau were the ruins of a city.

Here was a city that must have vied with the great metropoli of humanity, a city that could have taken its stand alongside Nineveh and Babylon, Athens and Rome, London and New York. He could see the network of its streets, though the buildings that had stood there were leveled by time. He could see radical avenues, checkerboard roadways and squares; and here and there was the single tower of some surviving structure. Now and then, he could see the sagging structure of an elevated passageway. For mile after mile the mighty ruins spread; there was no part of the surface on that great plateau that had not been built upon. It came to Zack as he sped over it that this had been an aerial civilization, for surely no roads could have led to it from the hinterlands below; surely no farm belts could have had other than aeronautical access to this metropolis. This was a city founded upon the triumph of science, upon atomic energy; every now and then, after a geometric pattern, he saw the ruins of a black cubical building whose very being suggested a titanic power station.

He came to the middle of the city, near the center of the vast plateau, and realized that here had been more than an air civilization. Here was a cleared circular space, and the burns of countless atomic fires, and all the evidence of a port of entry. He knew, as somehow he could not fail to know, that this was not just an airfield but a spacefield—a place where ships from the far planets had landed and taken off.

From London of old, ships had conquered the seven seas. But from this future Karnak, what craft had sped through what uncharted lightless voids? And what cargo?

The thought came to him then that no starbound craft called here now; no foot walked the streets. The city was no port of call on any merchant's celestial map. How long had it been dead—half a million years? What had the globes to do with it? Were they conquerors? Were they robots? Were

they visitors from the stars? Were they the mourners of the city, or its slayers?

As Zack looked about, he saw that there were other globes hovering over the plateau, moving about slowly, apparently aimlessly—he counted twenty or so. And they were all white radiances . . .

He approached the farther edge of the plateau, another mountain rampart beyond which he caught glimpses of the ocean. The globe began to lower, to move toward a point in the mountain wall.

It came to a stop upon a wide ledge, on a mountainside overlooking the ancient ruins. There upon that ledge was a house—a house whose appearance took Zachary entirely by surprise, for it was a perfect one-story ranch house that might have been picked bodily out of a California landscape of his own time! Zachary Halleck felt his feet touch the ground; he stumbled and caught himself. He stood of his own weight now and looked around. The globe was already high in the sky, darting away, leaving him.

Zachary stood in warm, thick air on soft soil, in which grew grass and flowers. Here was a garden, in the midst of which was set the incredible house. He walked toward it, came to the door, opened it, went in. It was furnished much as he would have expected such a house to have been furnished a million years ago. He went through it, wondering at the soft chairs, the picture window, the comfortable modern bed, the kitchen, the bathroom. He sat down finally in the living room and was too stunned to move further.

After a while, he scratched his head. "Now what do I do?" he asked aloud. "I'd better see if there's any food." But he continued to sit there with his thoughts, until he became aware of sounds elsewhere in the house. Something was swishing, something was clicking. He turned in his chair

and saw what had made the sounds, as it came through the door that connected with the spotless kitchen.

VIII. Evolution's Long Ladder

IT WAS A warm meal, just that—a meal in the *seroomi* fashion, served *seroomi* style. It came floating through the kitchen door, in dishes set on a colored tray. The tray, upheld by nothing visible, settled itself before the man, in proper perspective to his lap and hands, and simply hung there. Nor did the heaviest pressure of Halleck's fingers, manipulating the implements of cutting and eating, move it. He didn't affect even a small vibration.

Somehow, Zack was not surprised. On the other hand, if something like this had not occurred, he would have been astonished. Considering the globe's transportation, the very existence of this house—a reconstruction from an age otherwise entirely obliterated—Zackary Halleck was prepared for anything. There was meat, at least to the eye and nose and tongue—though almost certainly it was artificial, Zack presumed. The vegetables, the sweet stuff, the drink—all had an exact similarity to the present products of the *seroomi* world.

He supposed it would have been a little too much to have expected the kitchen machinery to produce the food of his own day. One should be lenient with miracles, Zack thought wryly, finishing up. Plainly he was in contact with an intelligent species something more like what he would have expected in the future—but—globes? They knew of man's past, evidently; then, possibly, they knew what had happened to man's descendants. What disaster, if such it was, had wiped humanity from the face of Earth, and had depopulated this city on the plateau?

The tray removed itself, and Zack wandered after it. He saw it slide into a cupboard in the kitchen wall. There was a swishing noise, more clicks, and then silence. Zack opened the cupboard. It was empty inside; he saw only a small, vacant enclosure. Such mechanical legerdemain wasn't so imposing, however; Halleck knew that implements such as these were already on visionaries' drawing boards in the world he'd left.

He idled about the little house for two days, without being disturbed. He found a music-maker by experimenting with various odd cabinets and buttons, and heard some unusual selections, dating from heaven knew what period of ancient history. For the most part, he didn't appreciate it. His own tastes had always run to tunes one could whistle, and he found none such among the impressive melanges of metrical sound that emerged.

He saw occasional globes come and go above the ruins of the city, and wondered what they did there—nothing ever changed on the scene. Finally, a globe approached the house on the ledge; it drew nearer, moved slowly and silently through the warmed air of the garden, to settle down a few feet before him.

Zack was seated in a chair just outside the house door and he kept his seat. He was aware of an electrical tension in the air, emanating from the aura of radiance about the thing. The globe was misty white, not blinding to the eyes, but not penetrable. It hung before him a while, and as it did so, its glow seemed to dim slightly, to radiate away as if being directed into the ground. Then he began to see something within the ball of light. He could see shadows there, something like a nucleus.

Watch, said something. Zack started and turned; but there had been no voice, his memory said. *You only think you heard a voice*. He watched, straining his eyes.

Gradually, the darkness within the globe took shape. There was a framework like the filaments of an electric bulb. He stared at it and realized slowly that this filament, these dark lines that seemed like wires, had a faintly familiar form; then he became aware that they had a manlike shape—a form oddly similar to a human skeleton. He saw masses of darker gray surrounding these wires; they looked like flesh hung on bones.

Zack watched silently, and realized that the thing within the globe of light was staring back. There was indeed a living sort of being within the radiance; he saw it now. It was like a small man—not more than three feet in length—with an overproportioned head like that of a baby. The head was bulbous; it perched on a tiny chest structure, from which dangled little twigs like helpless arms and legs.

Was this a man within the globe? Was the globe a machine to support a helpless body? But no, something rejected this idea. The globe was not mechanical, nor did the body seem helpless; it seemed to be a vestige, a lingering mass of inactive material in an activated element—perhaps an ash in fire.

But was this then a man, *homo sapiens*, a million year beyond Zack's own day? Was this the answer to the riddle of Halleck's vanished species? A voice, or a seeming voice, spoke somewhere and asked, *You recognize us now?*

"Yes," said Zack aloud, his voice hollow with astonishment. "You are men. But what happened? How did this come about?"

Evolution, the voice replied. *You would not have recognized your ancestors of a million years before your time. Surely you could expect changes not any less great a million years after.*

The globe was not static, motionless. All this time there was a faint jiggling, a nervous wavering. The shadows and

intensities within it changed subtly but constantly. Zack wondered how he could have regarded it as other than alive. He settled back in his seat, crossed one knee over the other. "And what do you want of me?" he asked. "This house wasn't just an accident."

The globe wavered more. Zachary sensed laughter. *No, it wasn't accident. Relax and let me tell you something of the past. Relax and see.*

Halleck was already at ease; he leaned even farther back in the comfortable lawn chair and tried to put his mind at rest. After a while the voice began speaking again, though in a tone which made him wonder whether it really was speaking. Afterward, he could not recall any definite words. He gathered the sense of a story, and as it was told, there passed before his eyes a series of visions, constuctions in the air, paintings on the body of the globe itself—a flowing panorama of scenes that fit the narrative which unfolded.

Zachary Halleck saw the world of the Twentieth Century, saw its cities, highways, its people and problems, and he acknowledged that this was familiar to him. He saw the explosion of an atomic bomb.

The voice said this was the true beginning of the history of adult mankind. All that had gone before—and here flashed semblances of savages and submen, of pyramids and castles, of Renaissance artists and steam-engine operators—was pre-history, part of the childhood of the race. The tapping of the direct power of the atom was the starting point of maturity.

He saw the crisis of the world as its societies struggled to adjust to the new forces. There were wars and world debates, periods of intolerable tension when the human species teetered on the brink of self-destruction. He saw men adapt and move slowly away from unreason, as a more or less homogeneous world culture was set up. This, in turn, evolved

into a single federation in the course of a few more centuries.

The pictures moved swiftly as the globe-man kept up a commentary. Zack saw the age-old dream of human unity in diversity come true, a world culture where the demand to conform was at a minimum. He watched atomic rockets soar out to the planets as men explored the solar system, saw interplanetary bases set up for research. But there were no colonies—the explorers confirmed at first hand what astronomers had been sure of, privately, in Zachary Halleck's own time: no other worlds in this solar system were fit homes for human beings. The planets and their satellites were too hot or too cold, too heavy or too light, poisonous in atmosphere, or lacking it. Humanity turned to making an Earthly paradise.

Halleck saw much accomplished in this direction as climate was controlled, disease obliterated, the polar caps melted, deserts flooded and irrigated. He saw the automaton of industry creating all things in abundance, without great waste, as people adjusted to relief from labor. There was unrest, but the younger generations adjusted more easily, turning their minds to art, sports, philosophy, and the seemingly endless mansions of science.

Humans remained manlike in form for many thousands of years. He saw them growing more delicate in appearance although they were longer-lived. Zack expected to see decadence set in, but there were no signs of it. Men were still argumentative, the race still a combative people—not an indolent one. But their arguments and tempers were no longer directed against each other; they were spent on athletic contests, on competitive hobbies and art efforts, and on debates of scientific theory and application.

Halleck saw them break the barriers of stellar distances and find means of flying to the stars and returning within

individual lifetimes. Then came millennia of intense and fascinated exploration. He saw the star ships pushing farther and farther through the Milky Way, finding worlds that could be colonized. He watched colonies being set up. Some of them advanced, some died, and some slid back into barbarism. He saw the time of chaos, when friction between planets brought war back to the universe.

There was the discovery of other intelligent races, mostly human in form, but sometimes not; there were further intense conflicts and problems.

All this flashed in great pictures before Halleck's eyes, as the voice sounded in his mind. He saw the shining ships cleave the sky, saw innumerable Columbuses setting strange flags on uncharted New Worlds. He saw men fighting in public squares, while the omnipresent automatic factories churned out luxuries they disregarded because they were part of the elementary facts of life. He saw ships battle ships in the blackness of space.

Every now and then the pictures showed Earth ablaze with the homes of its people—an Earth without cities, for the cities had become economically useless. He saw an Earth revered above all the turmoil of a galaxy being settled, an Earth that remained aloof. And then he beheld the final city—the only one on Earth—set up on this polar plateau to harbor the millions of guests and students from the universe who returned to the Old World to wonder and study and refresh their contacts with the source of their life.

Now he saw that humans were changing subtly; the work of hundreds of thousands of years was showing up. Men were rising above the needs of their physical bodies. Artificial foods had become so perfect that most of the machinery of the physical system became stagnant, useless, and evolution worked a gradual diminishment. Men built into their systems a biological means of absorbing energy directly

from the surrounding space, and this began the next final shift. Man, who had been a mammal of warm blood and flesh and hair, became a new type of animal, higher yet in the scale than mammalry.

Halleck saw the future men become creatures able to draw power and nourishment from the cosmos itself. And this ability took the form of a constant nimbus of radiation that, after hundreds of thousands of years, became a ball of light. The nerves of the hands and legs, the nerves of the brain passed beyond the attenuated substance of bone and flesh and encompassed all this radiant energy-matter. What was left of the human shell was merely a nucleus, an *appendix veriform* to be seen within the globe of light that the human shape had become.

These globes no longer depended on automatic factories and on physical homes. The homes and settlements in the universe began to vanish and were swallowed up again by the jungles of forest and lower beasts. And *homo sapiens* in its new form spread through the universe, beyond this galaxy, on tasks and arguments and projects that Zachary Halleck could no longer grasp.

Now, back on Earth, the planet reverted to its forest primeval and became as if men had never existed, save for the one great starport city of the North Magnetic Plateau. He saw it fall to ruins; but still it remained a shrine and a memory, and the globe-men never ceased to visit it, for they had never lost their humanity. They were sentimental, they were reverent; they still knew love and devotion, had pride in their history and the heritage of their past.

But nature never remains stagnant, and the stream of evolution never stops flowing. When one dominant race abandons physical use of a world, another will evolve to take it over. Zack watched this happen on Earth, as it had

taken place on many other worlds after their human populations left them.

A million years past—in Halleck's own time—the second highest rung on the ladder of evolution was occupied by the primates, the apes and monkeys, species of beasts whose forms and habits were not very far from those that must have been humanity's primogenitors of a million B.C. It was two hundred thousand years before humans had abandoned the surface space of the world for their special homes and their one city. In the vast continents that had been returned to natural cause and effect, these apes had resumed the fight of a clever brain against a sharper claw. In three hundred thousand years they had become shambling half-men, grasping polished stones, living in herds. In six hundred thousand years they were Old Stone Agers, speaking rudimentary languages, wandering in bands to fight the wild beasts, chipping axes. And after a million years they had become the *seroomi*, men arisen from the ape, conquering the forces of nature as they struggled to conquer themselves. Now they too, had passed the barrier of maturity—they had split the atom.

The globes had anticipated this rise. They had carefully obliterated all the relics of the human civilization preceding the *seroomi*, wanting to give them no clues to ease their way forward. Each species must find its own path, all the way. There was a law to this effect—a natural law, evidently—or so Zachary's mind interpreted the thought.

But their one city, their last great ruin, was something the globes could not give up. Instead, they drew a line, set up a series of taboos, allowed the few sightings of them that had been inevitable to become *seroomi* legend; and a vision of the unknown to embody their first glimpse of a Greater Power.

All these things Zachary saw as the afternoon waned and

night drew close. And when he realized he was hungry and tired, he was still watching the flow of the aeons through the globe's images. But as the globe became still, he asked, "Where do I come in? What am I doing here? And who brought me here? Who are the flying lights of my own time, the green dots, the diamonds?"

The globe was silent. *It grows late*, the voice said. *Sleep on what you have learned. Tomorrow I will tell you further.*

It drew into itself, rose and floated into the darkening sky. Zack went inside.

IX. The Others

THE GLOBE did not return until next morning. Zachary Halleck slept that night, head awl with wonders . . . a million years of awesome history condensed into a few hours . . . but opening such vast fields of conjecture, such tremendous visions. By morning it had again brought his own personal problem to the fore. Why tell him this? Surely he had nothing to contribute to these mighty descendants of man—he who must be to them as a chattering ape would be to an Einstein . . .

But the globe came back from somewhere in the reaches of the skies, settled down again before Halleck. For a while there was just a quiet recognition, and the thought came to the man that this being was not just an object; it had emotions. He remembered certain changes of tone during yesterday's revelations.

Then Zack repeated his queries. *You have a role to play*, the voice answered, *though whether it will be effective is something we do not know.*

"Then you are the ones who brought me across time? The

white diamond who opposed the green dot was one of you? It didn't look like your kind."

It was not one of us and we did not cause your transition, said the voice. *Listen and watch again . . .*

Again the sight and voice began. It took Zack back in time, back a half million years to the period when the humans were beginning to evolve out of their physical dependence, already beginning to assume the free-energy forms of the globes. There had been great adjustments to be made in their social ways at that period. The established homes and methods of living were becoming obsolete, yet were clung to out of social inertia and sentiment—as had always happened throughout human history. Controversy and debate were endless; tremendous philosophical quarrels divided the emerging star-dwelling globes. In the course of aeons, these were gradually resolved—all save two viewpoints. One was the philosophy of the great majority, of whom Zack's mentor was a member. The dissident viewpoint gradually drew aside from the rest, settled in one corner of the galaxy, and went its own way.

Exactly what the nature of this debate was, Zachary was unable to ascertain. The philosophy of beings half a million years ahead of his own time, whose knowledge was infinitely greater than his, was something that Halleck could not grasp. What it involved—outside of a difference in the long-term view of all existence and human purpose—simply could not be made to register on Zack's brain, although his mentor tried hard enough. What the Quoxians stood for was incomprehensible, though it was evident in every way that the globe disliked and distrusted them. Halleck also gathered that the Quoxians had been diminishing in numbers and were apparently bound to lose out in the long run.

But meanwhile the Quoxians had accomplished something that the globe-people had not mastered. Developing

as they had, along different lines of reasoning, the Quoxians had made certain advances, in special directions, over the discoveries of the rest of humanity. One of these was time travel—or rather time manipulation. The possibility of going back or forward in time had long been discredited by the future men; but the Quoxians had apparently discovered a means of doing so.

They could not return bodily to any past epoch, but they had managed to contrive mechanical devices that could and did go back. These devices, in the form of energy-compounded flying machines, had crossed a million years to appear over Earth. The Quoxian robot ships were scouting the skies over the cities of the Twentieth Century, but exactly what their purpose was, the globe-people could not ascertain. Vaguely, Halleck's mentor hinted that intervention in the crucial period of the human race—the maturing of the species—could have some very subtle effects. Apparently it might effect a Quoxian victory a million years later. It might implant some subtle tangent to the direction of human growth thereafter, a trend so slight that it would take ages to make it evident.

So these Quoxian constructions, green in color, were the things that had interfered with the Hallecks. They had apparently seized Carl and Sylvia, and would have taken Zachary as well had it not been for the intervention of the white diamond object.

What, then, was the diamond object? There was a pause; the globe was marshaling its projection. Zachary could sense an excitement in its depths.

The globes did not know; they only had a theory. Their researches and records from the dawn of history—and they had quite accurate and continuous records of the past million years—showed that on very rare occasions, back in

the Twentieth Century, for instance, lights in the sky, flying phenomena, radiant objects had been observed.

The globes recognized an apparent similarity to their own forms in these objects. They had concluded that even as they were a million years advanced over man, so there had been an earlier intelligent species before them—a million years before them! Perhaps men had been primates to these earlier beings, and the unidentified flying objects of the Nineteen-fifties and sixties the descendants of the original Masters of Earth! Everything about the objects indicated that, structurally and evolutionarily, these things—exemplified by the white diamond being that had challenged the Quoxian green dot—were similar to what the globe-humans had become.

If so, went on the globe's thoughts, what were these beings today? What shape did they now have, and where were they? This was a problem that had baffled the globes for many thousands of years; and they had still found no answers. Nowhere in their mapped regions—which included island universes beyond conception—was there any sign of a being that would be superior to the globe-men. Perhaps, they conjectured, a million years more of evolution would leave humanity in the form of pure energy, simple thought. But that was only a conjecture.

Yet that a race prior to man had existed was suggested, if not evidenced now, by Halleok's presence. Plainly, it had been one of those objects that had twisted the green dot's forces to deposit Zachary not on the distant planet in the Quoxian sector, where Carl and Sylvia were, but on Earth itself.

Zack sat up sharp. "Carl and Sylvia are alive! Now! You know of them!" His voice was sharp, explosive; there was sudden relief flowing through his veins. His mind ran riot.

The globe glowed deep, twisted. *We know where they are,*

the voice said. *The Quoxians intend something for your brother; they need him as a tool. And we need you as a counter-tool. You seek to rescue him, this brother whom you must love. We can assist you.*

"Yes," said Zack, his mind smothering the last part of the remark. The globes were not mind readers, or they would have realized that it had been guilt that drove him, not fraternal love. "I'll do it, if you can show me how."

The globe rose slightly in the air, as if in indecision. It lowered again. It seemed to study Zachary minutely, seemed to wait for him to calm down. Zack relaxed in his chair, forced himself to coolness, to heed what would come next.

We can supply you with a ship, said the voice, and Zachary saw visions of spaceships of various sizes. The ship they would lend him was a mighty one, built a quarter of a million years after his time—a ship that represented the last and final version of the physical spacecraft. After this period, men had learned to travel without shells of matter.

It was a warship, one that had been preserved in a museum somewhere on a planet in the Milky Way Galaxy. Zack saw a vision of a world which constituted one entire museum . . . continents covered with examples of every kind of house and car and implement ever made by man in a million years of history. This ship was lying at the end of a row of spacecraft that stretched for thousands of miles; and even as Halleck watched, he saw the ship rise up and speed into the black, airless sky of that world.

The ship was on its way to him. It was, he saw, not anywhere near as large as many in the great column. It was more compact, more perfect, and seemed more dangerous. He learned as he watched that it was a warcraft of something called the Fifth Galactic Federation, which flourished in what sounded like the year 237,000 A.D.

With this ship, you can go to the Quoxian sector, can reach your brother, the voice said.

"But can I run it? Will there be a crew?" Zack asked.

There will be no crew. When it arrives, we will show you how to command it, said the globe. *But it will not arrive immediately; it has a long way to go. You will have to go back among the seroomi and wait.*

The globe showed signs of restlessness. Zack thought of something. "Why can't you rescue Carl? You are so advanced, so much more powerful than even this ship you showed me? Why do you need me?"

The globe dimmed sharply as if drawing in a breath. *The Quoxians can block us,* it explained. *But we think that you will not register on them because they will not be paying attention to their second-growth humans—as seroomi are here—and there are other reasons why you must go. Reasons connected with their own need for your brother. Rise and dress warmly. I am taking you back.*

Zack did not ask any further questions; he rose and returned to the little house. He dressed as directed, but his mind was awlirl. A curious feeling began to come over him—a feeling of wonder, then of amazement, and finally of something else—not quite disbelief but of incredulity. He finished in something of a daze, went out again and stood on the little patch of ground before the house, overlooking the vast plain of ruins.

The sky was a darkening blue. Two or three tiny globes moved restlessly over the sea of black and gray columns, the broken trestles, the cracked boulevards. Stars were beginning to show up in the thin air. The globe that had spoken to Zack was hanging several yards up, revolving slowly, mistily.

It descended, and again Zack felt himself lifted into the air, felt himself flowing over the abandoned spaceport met-

ropolis. And his strange mood of thought continued, deepened.

He felt confused; his brain had absorbed too much. Carl and Sylvia alive? *No, they must be dead, a million years dead. I thought I heard a voice say otherwise, but it must have been in a nightmare. This must be a dream, this travel through dark twilight air over a city such as Dali would have painted.*

His brain abruptly rejected the dream, for the reality was also there. The misty light of the globe, the soft rush of the air around him, the smell of the subarctic. And again his brain rejected the things that had been forced upon it.

In the still night, as he rushed through air to the land of "second-growth" humans, the mind of Zachary Halleck blanked out entirely. His body sped on.

X. Forgetfulness

HE WAS awakened by the rude hands of three frontier guards of the Borderline Territory. They had spotted him from their helicopter, asleep on the edge of a small lake in the forest region several miles inside the borders, away from the thin, glowing line beyond which no *seroomi* had ever gone—and returned.

There was a reward out for him, but they had never expected to collect it. So they swooped on him with mixed emotions. For one thing, they would get the reward—and that was satisfying, but for the other thing, it was morally disturbing to them that he had returned. They feared his revelations, regarding them as one would those of a man returned from the dead. For another, it might have a startling effect on the trial coming up in the capital city, a trial which was making headlines all over the world.

Zack sat up, murmuring, holding his head. He looked

quizzically at the three strangers, gazing at their odd round eyes, their bristling red hair with a certain wide-eyed incomprehension. He looked at their green uniforms, heard their insistent questions, and merely shook his head.

"I have a terrific headache," he said in English. "Where am I? What hit me?"

But they merely shook him further, tried to get him to his feet, and barked more questions at him. He staggered to his feet, held by the muscled hands of one of the border troopers. Gradually their words penetrated, and he made the adjustment to their tongue. He repeated his remarks in *serooml*, but they cared nothing about his feelings. Instead, they were hammering queries at him about the "other side of the line, the forbidden land."

He shook his head. "I don't understand," he said. "I don't remember."

"It was true; Zachary Halleck did not remember. They took him back to their headquarters, and before they were halfway to the capital city, he was besieged by reporters, by police, by agents of the court. But he had forgotten.

Under interrogation, he could remember vaguely that he had started on the long trip north to the border, beyond that, he could recall nothing. His mind had taken the whole affair and tossed it into the locked vaults of his subconscious, there to tear at it and worry it; and either discard it, or come up eventually with a sufficiently muffled and falsified pseudo-memory.

He was lodged in the city prison at first, but shrewd efforts by Tudal Luris's lawyers, and by other leaders of Luris's group got him out. His return had effectively thrown a monkey wrench into the trial which Elector Vodr-Vedris had set up to make political capital. They had sought to annihilate all the disbelievers, and squelch some of their most discerning opponents, by winning a verdict against Luris

and Lury for blasphemy and violation of the oldest taboos of the race. Now their star evidence was returned, useless. For they could not prove that Halleck, the "Man from Mars," had actually crossed the taboo line.

No one had seen him cross it. No one who had ever done so had returned. Zack had returned—he was found well on the safe side of the line—ergo he had never crossed the line. Such was the decision of the priesthood, thankful to have their prime point of theology left a closed mystery.

Zack could not remember where he had been those two days. He remembered nothing of the city on the plateau, of the globe, or of the history of a million forgotten years.

Many days later, when his headache had gone away and the turmoil of the public eye had been lifted from him, he sat again in the study of the home of Tudal Luris and talked with his guardian and his guardian's daughter. The old *seroomi* looked at him with sharp-eyed humor and said:

"And now, friend Zack, you can tell us what you really saw."

"Yes." Lury leaned forward, her eyes bright with hero worship. "Did you see the gods?"

Halleck frowned. "I haven't been lying, Lury," he answered. "I don't remember. I believe that I must have crossed the line, for such was my intention—but I can recall nothing."

"You must have had a shock," the old scientist said, leaning back and rubbing his cheek. "Is there anything you seem to know now that you didn't know before? Does anything you see around you have a different light?"

Zack reflected. Yes, he thought to himself, *one thing does seem to have changed. Before the trip, I was surely falling in love with this female. I seem to remember thinking of her as beautiful. Now, when I look at her, I see something cute perhaps, something pleasant, but definitely not a mate. I see*

an interesting animal, an intelligent, conversant animal, yet nothing more.

But he could not bring himself to say anything so shocking. He sat quietly, running over all his other attitudes, reviewing his recent past, his opinions, his plans. "I do seem to feel that somehow things have altered," he said slowly. "It's hard to put my fingers on it. Perhaps I might say that the strangeness has returned again. I was getting familiar with your world, your city. I was thinking of a place for myself in it—and now, somehow, I find everything again tinged with novelty. I find myself unable to visualize a future life here."

Tudal Luris nodded. "This is probably merely the result of shock, of amnesia. Can you find anything more definite?"

Then it struck Zack what the real change was. "I have lost a feeling of guilt about my brother," he said, dragging the words out. "Somehow I no longer feel myself an implied murderer."

Lury glanced at her father. "A feeling of forgiveness!" she said. "Why that is what the priests have always preached about the benevolence of the Great Sky Lights! Perhaps Zack did indeed reach Heaven!"

Halleck answered her. "No, I do not think it is that. I don't feel forgiven, but rather as if I were never guilty of actual murder. I think I can word it. I feel as if my brother and his wife are still alive—but how I know this, I cannot imagine."

They talked further, but could arrive at no conclusions. That night Zack lay awake pondering the matter, but he could add nothing.

All was not peaceful. The forces which had been stirred up in the *seroomi* world, balanced as it was on the edge of atom-war hysteria, boiled up again. Albar turned up in the news with new charges against Halleck and his protector.

This time he charged that Zack's apparent line-crossing was a mere trick to gain contact with airborne spies from the Kota-Savins, that he was the head of a vast conspiracy.

It was a fabrication based upon whole cloth, but it served Vodr-Vedris' purpose. Again an outcry went up for immediate arrest, but the demand now turned on a more sinister pivot. Albar's inflamed revelations had reached down and struck fear into the city. A cry was being raised for the physical destruction of Zachary Halleck and his friends. Once again, police were stationed before the Luris home; once again, mobs of the angry and frightened yelled from the streets.

Tudal Luris came back from a meeting of the city government one evening when the public storm was rising to new heights. He had had to be smuggled in the back entrance of his home by a flying squad of troopers to avoid being stoned and hurt by the waiting crowds.

He was distraught, worried. Calling Zack and Lury to him, he said, "I have been asked to get you out of the city tonight. The national government has agreed to take you into custody, and get you away from here to a safe spot where later you will stand trial. The city authorities cannot guarantee to keep the mob out of here much longer. Pack a few things and come out on the roof."

The two had no time to remonstrate. Outside, as the city lights winked on, they could hear the rising roar of the mobs. Zack could hear the chant for his blood being raised by groups of angry citizens. He knew what the news bulletins were saying now, and he thought of how cynical politicians could be. His detractors knew they were lying, but their purpose would be served, and he was nothing but a puppet. Albar hoped to be acclaimed as a national hero—and probably sweep Lury into his arms.

Zack didn't feel that he cared too much. He still had

the odd certainty that he didn't belong here, and that these *seroomi* were not and never could be his people. He packed a kit, joined Lury and her father in the hall. There was a hammering on the door below, a systematic thudding.

"They're breaking in!" cried Lury.

Her father grabbed her and Zack by the arm, and pushed toward the landing. Up the steep, ladderlike stairs they climbed—the *seroomi* with a peculiar wide-stepping ease, Halleck with stiff difficulty. There was a crash and a shout from below.

Then, as they climbed, they could hear the crowd pushing into the house, and a familiar voice called out below for them to stop. "It's Albar!" said Lury breathlessly.

They got to the wide flat roof, piled out onto it. They could hear Albar calling to them, as he raced up the ladders from below. They looked up into the dark night sky.

There were two helicopters hanging over the roof. One displayed the standard colors of the police; the other was a stranger. Both tried to swoop down, while Lury tried to drag the two toward the police plane.

The helicopters got in each other's way and banked violently, while the fliers exchanged profanity. From below, Albar's head appeared in the trap door; Lury grabbed her father, while the police copter fought for a landing.

Halleck looked up into the night sky and felt himself transfixed. He stood, suddenly oblivious to the noise and the excitement about him, unheeding the two helicopters. Somewhere in the mass of stars above him, the great canopy of twinkling constellations of the year One Million, he saw something move.

A dot of light, no more, but it held Zack's eye as a magnet holds iron filings. He stared at it, and felt the world waver about him. He looked at the stars and knew that somewhere up there, somewhere a billion, billion miles

away were two people waiting for him. A memory came back; a mental lock box slid open.

The dot of light seemed to draw nearer; it seemed to grow, to become now a moon, and now a misty white circle.

The copters ceased their efforts to land. The *seroomi* all around, those on the roof, those in the street, stood still, struck dumb. And Zack felt his feet leaving the ground, felt himself rising into the air, drawn by a magnetism that only he could detect.

Upward he floated, beyond the hovering machines, over the rooftops, as the circle of white light grew and grew. It was not a globe. It had a rim, had something visible inside it—a rung, a ladder. It was a door in the heavens and he was sucked into it, through it, and disappeared from *seroomi* sight.

The circle of light vanished abruptly and only the stars again shone down on the capital city of the second-growth humans. On the rooftop, an old scientist, his young daughter, and her former lover—now reaching the roof—looked at each other with a wild surmise and without enmity. They could not remember what they were doing there; they could not remember why they had been excited, nor why they were fighting. Suddenly, they had forgotten Zachary Halleck.

XI. The Ultimate Spaceship

THE moment that Zachary Halleck's eyes were caught by the strange light, he remembered all that he had forgotten. He knew that the spaceship had arrived, that he was being picked up for his mission. He felt no astonishment as his feet left the ground, felt only that it was fortunate the arrival was timed so well.

As it drew him up into the night sky, he strained his

eyes to see the shape of the vessel; but he saw nothing. There was the rim of light, the open door of what was obviously some sort of shaft or chute; but beyond it, the stars were not obscured and there was no trace of any hull. Then he reached it, was sucked inside, and a door closed behind him.

Now he seemed to be in a transparent bubble, for the moment the door shut, the light vanished. The bubble was hanging over the *seroomi* city and rising into the dark night sky. There was nothing inside it but Halleck himself; though he could feel the smooth walls around him, he could not see them.

The bubble was evidently a transporter, for it rose high and fast into the sky. Soon the city was far behind and he could see the terrain below spreading out. Far off, on the Western horizon, there came into view the glowing outlines of the sunset edge, out over what would have been the Pacific in Zack's time. Now it was a narrow belt of sea, dotted with giant islands and stormy straits.

He turned his eyes upward and still saw no shape of a vessel. When he looked down, he realized that the bubble had accelerated, was rushing with the speed of a rocket into the stratosphere. How fast it went he could not estimate; there was no sensation of movement within, no sound, no change of heat or vibration.

At last, when the Earth had become a wide convex surface below him, he approached the ship that was to be his to command. At first, one distant star blacked out; then, more gradually he saw the outline of an ovoid craft, the same as he had visioned during his weird talk with the globe. The bubble rushed up toward the dark mass hanging in space above the Earth; there was a click as it touched, a sudden sensation of merger, and Zachary found himself standing in a room somewhere within the star ship.

His first sensation was one of confusion and shining motion. His second sensation was of luxury and quiet. There had been some sort of readjustment, on the part of the ship itself, to his presence. Something had changed shape—its very insides—to accommodate him, and the accommodations were nothing like what he had expected. He had expected a warship; he knew that this was a vessel for warfare, the end product of such vessels. In his own day that had meant cold gray lines, utility and cramped space and death-dealing machinery. But this could not be such.

The floor beneath his feet was soft and yielding, beyond the capacity of the finest of rugs. The walls of the large and eye-pleasing chamber were architecturally perfect, melting into each other with a gentle and slowly shifting play of pastel colors. And there was music all about him.

He could not say what melodies were being played, for the music was beyond his experience—it seemed to tune into the very senses, to bathe the ear and mind in a current of sheer silk, a current that did not disturb, did not create emotional moods foreign to his desires, did not intrude unwelcome notes.

There was furniture, yet he could not particularly notice it. It did not attract the mental focus; it was there when needed, but melted into the background when not wanted. There were several objects of simple appearance—some balls that seemed to float quietly about the room, balls that were glistening and bubble-like, but nonetheless substantial and solid—and which were almost certainly utilitarian.

Zack looked around for orientation. As he gazed, the walls seemed to melt into transparency and he saw into each part of the ship that he wanted to see. He sought for the power, and saw blocks of matter somewhere in the hull, lying quiescent—yet apparently tuned to energies of a quarter million years of physical advancement. He sought for his

position in space, and saw the moon above him and the stars around him. He saw the sun, suitably veiled, in its place and one by one the planets in their positions.

He moved across the room and the walls lost their transparency. He eased himself down into a chair that rose, form-fitting, to meet him. Halleck caught his breath, shook his head in wonder and amazement, and realized that he had no idea of what to do next. Was he supposed to run this craft to the Quoxian sector on guesswork? Would there be nothing to guide him specifically? Was this place, this ship, the right one?

"This is the right ship, Commander," said a soft voice near him. And as he turned, the voice continued, "This is the Master Cruiser 12-12-12, power rating One, in the service of System Tyrr, of the Fifth Galactic Federation."

Standing beside Zachary was a being. No, not a man, yet not a machine. It was a being, short and shimmering, with a pleasing head in which there seemed to be eyes and nose and a mouth, yet which was apparently not of any race imaginable. Its texture was shimmering, partly translucent, and changing like the walls of the room. It stood about four feet high; it had arms and legs and a body—yet one which partook of the same chameleon qualities of the very furniture. The being bowed when it saw Zachary's eyes upon it.

"This ship," it went on softly, as if reciting a lesson, "was launched in the Earth-year 237,109 at the factory world of Bb-11-67 in Tyrr. It entered service under the command of Aaturhyo 11'dik in the flotilla on Quadrant Ear. It remained in service for two hundred and sixty Earth-years until the conclusion of the combat and, having escaped all injury, was docked and sealed. It remained in seal until the Third Epoch of the Ultimate Scale, corresponding to Earth-year 465,890 approximately, when it was transported to Central Stasis and aligned for commemorative study. It

has now been unsealed and placed at the service of Zachary Halleck for special duty."

Zachary simply stared, then gradually relaxed. There was nothing very frightening about the being; one couldn't get alarmed at it. He composed himself, wondering whether he was addressing an actual man or a robot. Surely the globe had intimated there were no physical men—and this thing resembled nothing in the scale of evolution that he had seen.

Finally, Zack voiced the first thought that was on his mind. "This does not look like a warship. It seems more like a palace of pleasure."

The being threw wide its arms and smiled. "How can you say that! This craft is trimmed down, void of all real luxuries. Here, all is business, and nothing but human necessities." It conveyed the feeling that Halleck was joking.

Zack started to dispute, then stopped. But, of course—the thing was right! How would even a modern warship seem to a soldier of the Middle Ages, a modern warship with soft-mattressed bunks, electric lights, good cooking, warmth and comfort, sanitation and running water? It would seem like luxury beyond the purchase of the greatest of emperors and khans. So with this—the ever-present music, the rugs, the furnishings, the calm—these were probably only the barest of necessities to human life as it had progressed.

He had better not forget just where he was. The *seroom* may have been creatures of a million years in *his* future, but they were not men. This was the real thing—the product of only a quarter million years in the future of Zachary Halleck's descendants—and he could not expect to be considered anything but a very primitive creature in its midst.

The being spoke again, apparently having read his thoughts. "This ship is yours to command. You will find everything you wish, and nothing that you do not wish. Tell

me what you want, where you want to go, how fast and when, and it shall be done."

Zachary turned then and asked, "Where is the control room?"

The being answered at once. "The control room is wherever you are, and I am your control board."

Zack knew then what the being was. It was just a piece of machinery, a part of the ship—just what it said it was. In the form of a man, it would take every order and transmit it instantly to the mechanics of the craft, for it was indeed the actual control panel, immediately answerable to his voice, even reading his thoughts and predicting his wishes. It was, Zack thought, the Ever-Perfect Lieutenant, and even as he thought so, the being nodded.

"When the form of control which I represent was first invented, the very name given it by its makers was that of the Ever-Perfect Lieutenant. After me, there can be no crews."

The EPL moved around to Halleck's side, and as he did so, one of the balls floating about the room descended and posed itself before Zack. "Our course," said the control being.

The ball seemed to swell and Zack looked into a miniature universe within it. In blackness therein, he saw a million stars arranged in the Milky Way Galaxy. He saw the sun and his ship's position; and even as he looked, he recognized that the ship was in motion, already sweeping out beyond the orbit of Pluto, out toward the stars.

The EPL pointed a luminous finger that became a beam of light penetrating the darkness, and sketched out the path the Master Cruiser would take. He diagrammed, in easily comprehensible fashion, the time that would pass, the methods of travel at each juncture—there were several, Zack noted—and the ultimate objective.

The Quoxian sector was tucked off in the depths of the Milky Way's starry mass. Here in the outer reaches of the galaxy, where Sol lay, the ship would proceed easily and fast; but in the depths of the star clusters, where suns were packed on suns, it would take a different style of travel—penetrating partly outside the system of dimensions, cutting a curious path that followed mathematics beyond visual grasp.

The ship was already under way. The EPL had the ship in hand.

Zachary relaxed and realized that he was tired and hungry. Almost instantly, things happened to him. He found himself resting on a bed more comfortable than he had ever dreamed of, and food was before him. As he ate, his clothes peeled off and others, softer and gently body-clinging, enveloped him. The Ever-Perfect Lieutenant stood unobtrusively by, serving him as no butler had ever served the wealthiest of kings.

He slept and began a period of days while the amazing ship slid through space toward its goal. He found no end of interest for, through the EPL, the whole knowledge and history of humanity—at least up to the time the vessel was sealed—was his. The EPL was not merely control board and ship's crew; it was also the log and the charts, the library and reference room.

He charted the history of that last war of humanity and found it fascinating but entirely incomprehensible. Why they were fighting, and what they were fighting for, was a mystery that Halleck could not solve. Though the Ever-Perfect Lieutenant explained it glibly in the terminology of the day, he could not translate it into references that meant anything to Zachary.

But Zack could and did watch re-runs of the vessel's actions, and the combat tactics of those similar to it; in that

way, he gained a good knowledge of its capacities and techniques.

As they traveled, he commanded the ship's fabulous televiewers to bring to close vision the surface of the suns and worlds they passed. He gazed into the fiery maws of mighty stars, erupting countless megatons of subatomic energy. He saw solar storms on stars, and watched tornadoes of frozen oxygen upon barren cold planets surrounding them. He saw a lush world on which primitive monsters hunted each other, amid the surroundings of carboniferous world-youth. He saw an aged world whose intelligent creatures had never mastered atomic energy; and who were condemned to slow starvation as the deserts ate away their fields and the air slowly escaped into space.

He saw many evidences of second-growth humanity pushing up on worlds that had once harbored humanity, and whose human colonists had left it even as they had left Earth.

But he saw no sign of the globes in space. Whether the EPL had been instructed not to show him such, or whether they simply could not be spied upon, Zack did not know. But he saw nothing of their actions or beings.

Now he passed into the close-packed realm of the Milky Way cluster, and the black sky of space became gray with the mass of suns that filled the view. The ship shifted eerily and seemed now to be almost half translucent as it tore ahead. It was clear that, to avoid the powerful cross-currents of gravity and solar energies, the ship had eased itself partly out of normal space and was proceeding along some extra-spacial orbit unknown and unguessed in Zachary's day.

XII. Combat

THERE CAME a day when the ship slowed, passed back into normal space, and began to crawl—to crawl in an interplanetary way, comparatively speaking—toward a group of suns. On this day Zachary Halleck was watching the suns approach him through the front walls of the ship, when from somewhere there was a ringing and the ever-present music changed pitch, became a paeon of alarm.

He rose and the EPL was at his side. "A spaceship is approaching," it said.

"Show it to me," said Zack. Immediately, a spot of light became visible through one section of the ship's wall. It enlarged and was fully detailed, showing a pointed-nose rocket-driven craft, with stubby gun ports and visible circular portholes.

As the image enlarged, the Ever-Perfect Lieutenant described the other ship's make-up, its capacity, its probable crew, speed, weight, armament. There was no magic in this and no guess-work. Zachary understood just how the manlike being could recite these facts. Being actually nothing but the speaking control board of the ship, it was merely translating into understandable terms the readings of its infinitely exact and incredibly perfected detection instruments.

"The vessel," said the EPL, "is very primitive. It belongs in the second century of spaceship construction, and is operated by second-growth humans. We have nothing to fear from it."

"Can it detect us?" asked Zachary, filled with the awe of his position. This other ship was quite formidable to him, considering that it meant something which was still at least

two hundred years in his own period's future. Yet it was tremendously primitive beside the craft he commanded. The comparison would be between a hollowed-out log canoe and an atomically driven ocean liner.

"It does not detect us yet," said the EPL. "We are several million miles away from its range of visibility and scope. If you want them to see us, I can arrange it. If not, they need never spot us."

"No," said Zachary, "let's keep out of their sight."

"It has been done," said the EPL, although there was no change noticeable in the surroundings of the ship.

They continued on, nearing the cluster of stars and their attendant planets. Every once in a while, another such patrol craft would be spotted. "I don't get it," said Zachary suddenly. "If the Quoxians rule this sector, what are these primitives doing with spaceships—and why are they so primitive?"

"The second-growths here serve the Quoxians, believing them gods. They inhabit the surrounding planets of the outlying stars in this cluster. On their worlds, they manufacture the necessary mechanical contrivances for Quoxian experimentation. There—" The EPL cut off suddenly as the music again alarmed.

"There is a Quoxian approaching," it said. Without Halleck's asking, there was a shift in the light and tone of the ship. It was nothing that one could put a finger on, but something had altered. "We are now disguised," said the EPL. "From the outside, this ship is a duplicate of the primitive battlecraft we passed. By all detectable means, it is one of them. Only if a Quoxian should deliberately suspect us, could they break down our appearance."

While he was saying this, one of the balls drifted down from the air of the chamber. In it, Zack saw the image of a tiny blue globe moving gently through black space. It looked

remarkably like the globe that had been his mentor, save for its tinge of color. It was recognizably the same type of life—another species but on much the same level.

So they continued to probe the outskirts of the Quoxian sector. There were handicaps to their disguise, as Zack learned, when the next patrol vessel to come into sight turned toward them and began to approach to investigate. The Ever-Perfect Lieutenant explained that to keep up the disguise, they had to maintain the pace and visible limitations of these investigators.

"But what are they guarding against?" asked Zack, watching the oncoming vessel.

"They fight among themselves," said the EPL. "They have factions and empires and wars. Their only point of unity is their service to their super-human lords. The first ship we saw, the one whose appearance we now have, is an enemy to this one. Shall we fight?"

Zack panicked for a moment; this was a crisis. But then he turned over the many scenes of the Master Cruiser's battles and realized that there could be no danger. "Yes," he said, and quoted a famous old line, "You may fire when ready, Gridley."

The EPL said nothing. Through the wall of the 12-12-12 it was apparent that the patrol vessel was clearing for action. It had blinked out lights and a thin veil of radiation was surrounding it. There was a blob of light as a forward cannon opened up with a torpedo. At the same time, a strange humanoid voice was heard tinnily in the room. Zack realized that his ship was picking up a radio challenge. To his amazement, a similar tinny voice answered it brusquely. That would be the 12-12-12's own reply, similar in style. Then the torpedo flared against some invisible screen, and in turn his own craft seemed to fire a torpedo.

But what might have looked like a torpedo to the unin-

itiated was certainly more than such in actuality. A quarter million years' difference was something the enemy could never have counted on. The enemy craft tried to evade them, but could not alter its course in time. Attempts to deflect the missile itself were also futile; the pseudo-torpedo simply went on until it melted into the body of the enemy ship. There was a sudden blackout, and space was clear. The other ship simply had ceased to exist.

"There's no need to attract too much attention," said Zachary. "Can't we get out of the neighborhood of these ships entirely and get about searching for our objective?"

The Ever-Perfect Lieutenant turned toward him, a curious, quizzical expression on its face. "This was the direct path, so I took it," he said. "Besides, it's been so long since I saw action."

Zack looked at him, struck by the unexpectedly personal reply. "You mean you like this sort of thing?"

The EPL actually smiled. "Certainly. After all, I was built for war. See, here comes another."

Halleck looked, and saw a second patrol craft heading for them, rockets blazing at full acceleration, torpedoes already on the way, and rocket-launching flanges swinging into position.

"Watch this," said the Ever-Perfect Lieutenant, a note of sheer joy in its voice.

One by one, the enemy torpedoes burst against the impenetrable barriers of the 12-12-12. Then a storm of fiery-tailed rockets shot out from the Master Cruiser's side, heading for the attacker. Zachary watched, spellbound, as the enemy ship tried to cut its forward speed enough to shift course and get out of the way. Amazingly, it succeeded—managed to effect just the minute alteration vitally necessary. One by one the rockets passed it by, vanished into space.

Once again the enemy fired shells at them; and again

the shells burst harmlessly far away. Then what looked like a metal polyhedron floated into sight away from the 12-12-12, to drift toward the enemy.

The enemy's fire concentrated on this object, which had the sinister appearance of a floating mine. But accurate as they were, they simply couldn't deflect or harm the mine. It continued its slow, relentless drive toward its target. The other ship finally tried to shift course again, but the mine heeled after. The enemy tried acceleration, but gradually the mine caught up, undamaged by steel and rocket, unhurt and impervious to ray screen, and slowly came into contact with the other spaceship.

As it did so, the ship simply fell apart. Plate by plate, bolt by bolt, it tore apart, until nothing was left but a mass of loose bits of metal and bodies, which dissipated in turn.

Zachary turned from the scene in horror, to look again at the Ever-Perfect Lieutenant. That being was watching the scene with rapt attention, a look of delight on its otherwise-machinelike features. "You enjoyed that!" accused Halleck. "You deliberately played with that craft like a cat with a mouse."

The EPL turned an apologetic look, its eyes still aglow. "I was built to fight. I am a warship—the last and greatest of them all. The desire and enjoyment of battle was built into my system. That little encounter was the first real fun I've had in three-quarters of a million stagnant years. It was nothing, mere child's play. Surely you cannot consider . . ." It stopped suddenly; there was a readjustment of its features, as if its mechanisms had checked it and reminded it. "But of course you do. You and that ship's crew belong to the same evolutionary scale. In the heat of combat, my mechanism is built to act first according to its inbuilt purpose."

Zack was still angry. "I order you to obey my commands.

Now get out of the neighborhood of these second-growth people and go directly to the planet of our objective. I order you to locate, without delay, the person and body of my brother, Carl Halleck, and take me to where he is."

"Yes, sir," said the EPL, and the ship clicked back into normality. It seemed to sideslip a second, and the system of the outlying Quoxian worshippers became again a distant star.

The Ever-Perfect Lieutenant then said, "Think of your brother, his height and weight, his appearance." Zachary visualized the blocky, heavy-set form of Carl Halleck, realizing that he had to keep his views dispassionate while doing so. The EPL apparently found out what it needed. Zack asked it how it was planning to go about the task.

"There are no two things exactly alike in this universe," said the EPL. "By setting this ship's detectors searching for an object of the exact shape, height, weight, mass, density, temperature, energy capacity, and entropy rating as your brother, they will sort over and discard every object on or near any planet that does not fit. They will survey the entire area within twenty light-years of us in all directions, until they find the one that corresponds. They are doing this now—without success."

Zachary sat down. He watched the face of the humanoid control board. There was a period of silence—the ever-present music excepted—and then the EPL's features lit up.

"We're on our way," it announced. Again the sky moved in the vision ball, as the ship headed for a certain star. "Your brother is on the surface of the second planet of that star, which is just on the edge of the specifically restricted Quoxian stars themselves.

"And we will have to resume the outward appearance of a lesser-type vessel again. Shall I?"

"Yes," ordered Zachary, his breath suddenly tense as he

realized that the end of a long ordeal was at hand. "But avoid combat."

And the 12-12-12, Master Cruiser of a long extinct fleet, headed for its most powerful opposition, the domain of a species three times farther up the scale of evolution than the primitive who was its commander.

XIII. A Planet Like Inferno

"YOU WILL have to go slow," said Zack. "You cannot appear to be a primary type spaceship and yet exceed that type's speed. Let me see what this ship looks like now in disguise."

A vision ball swooped up. Within it, Halleck saw a clumsy-looking, wide-beamed all-metal ship, propelled by rocket-fire. On its side were blazoned strange symbols. It had the appearance of something that had seen long service and little care.

"A typical freighter of these servant people, en route to an atomic factory planet near that of your brother," said the EPL. He added in an unhappy tone, "And it will take us thirty-eight hours plus to make the trip at the speed of such an aboriginal craft."

"Good," said Zack, thinking to himself that he had very nearly lost control of this vessel by letting its uncannily brilliant robot controls take direction. The ease of his trip had made him slack, as if he were only a passenger. He should not have forgotten that even a machine a quarter million years advanced might have quirks. *This one has—built-in quirks*, he thought. The entire ship was a conscious entity, a thing of immense resources. The manlike being was not a small man-robot; it was the vocal manifestation of masses of super-electronic relays, a thing with a memory and mental records vaster than any library on Earth in the Twentieth

Century. In every way save one, the Ever-Perfect Lieutenant was many times the superior to its human master. That one exception was a matter of purpose and will.

The ship had no purpose save to serve its human cargo. It had no will and no ambition of its own. But it did have built-in instincts—the question was, how many and what ones? Would it resist a command to destroy itself? Would it refuse an order that might prove disastrous if the ship knew this and the master did not? If the master at the controls died, what would the Ever-Perfect Lieutenant do then?

Zachary had learned one of its built-in instincts: It was made for war and the ship loved a fight. It could be cruel in such a battle. One more thing; the human in control must exercise that control.

Zack realized that he had failed to utilize his time in finding out all that might be known about the ship. In the time remaining, he would make sure he learned more about his craft.

He made a tour of the physical body of the 12-12-12, and found that it contained other rooms, equally as marvelous as the main chamber in which he had been lingering. The men of 237,000 had not been one-room people. There was a library in which many large balls floated, and each displayed constantly changing features, showing the recreations of marvelous events and stories. There was what the EPL described as an eating room, a room of curious shape and strange tone which seemed to make one hungry just to be in it. There was a sleeping chamber—a place of soft billowing cloud and deep-toned lullabies and invisible force-structure hands that massaged the body and smoothed the brow. And there was a prisoner-interrogation chamber from whose door Zack recoiled in sick horror; he could never recall the contents afterward.

The engines were fed by the very substance of the cosmos; memory relays, charts, and weapons were all built in. For the most part, they were force-structures, stronger than the strongest imaginable metal, without weight and visibility. At his question, the control board stated that the ship could sustain its human cargo for several million years—creating its own food and air, and drawing upon the universe for supplies. In effect, the ship was eternal.

This, Zack remembered, was the final spaceship; after this, there was no other. After this, humanity had roamed space on the force-structures of their own body, free of even this wonderful mechanical burden.

He studied records of the ship's log, its battles of the past, this time asking as he watched which actions were instinctive and which actions were human-directed. Time passed, until finally the 12-12-12 entered the solar system that was the frontier of the Quoxian home cluster.

Zack watched as his pseudo-freighter glided past the outer planets. There were no human populations on any of these worlds—they had been cleared out, the EPL ascertained. These were all storage and manufacture worlds for Quoxian use, from which the Quoxians doled out small bounties for their second-growth outer systems.

The first world they passed was one huge building from pole to pole, a mass of plastic and metal, unroofed, open to the skies. Probing into it, Halleck could see masses of shining, smoothly working machinery. What products were being made here, he could not tell; but as they passed one section near the southern pole, a stream of small green objects began to erupt from a volcano-like vent. These were of discoid shape, tiny but shining and whirling. They shot up into the sky, into space, forming a line like a flight of bees.

Zack wondered if the ship's disguise had been pierced. "What are they?" he asked.

But there had been no alarm on the 12-12-12 and the EPL answered, "Those are Quoxian robot-controlled planetary explorers and observation craft. They're force-built and unmanned. They are used wholesale to spy, observe, and record the doings of all the worlds in the universe—or as many as the Quoxians can reach—which is now actually quite limited.

"The Quoxians have been building up a colossal mass of information about everything they can find. What these discs sight is transmitted back, analyzed and recorded. The discs have but a limited life, and when their energy quota is used up, they simply dissolve."

"Can these spy discs go back into time, also?" asked Zack, as a thought passed through his mind.

"I have no information as to that," said the EPL.

The robotic discs shot past the pseudo-freighter without stopping and headed out into the depths of space. "We could shoot them down," suggested the Ever-Perfect Lieutenant in a hopeful tone.

"No," snapped Zack, "that would be giving ourselves away."

"I can do it safely," urged the EPL, its eyes agleam.

"I said no, and that's final."

The manlike control board looked visibly disappointed; it seemed about to say something, but kept quiet.

They left the manufacturing planet behind. Another that Zack examined—visible, but far away—proved to be a pocked mass of metal. It was clearly a mining base, on whose surface huge chain-belts ran continuously into the interior, and on which were landing and loading a number of freighters similar in appearance to the disguise his ship was using.

As they neared this world, a radio voice crackled out,

repeating what was probably a routine inquiry and direction. The EPL answered over the same radio in a similar voice, which seemed to dispel any further suspicion.

When they passed, Zack asked, "How did you know what was being said?"

"I have memory banks of over seven thousand languages," was the reply. "All necessary new tongues that have developed since the day I was sealed have been added to my stores." The EPL added, as if in afterthought, "This includes one very, very primitive language."

"That'll be enough of your sarcasm," said Halleck. "And I am beginning to understand why my descendants finally decided to scrap spaceships completely."

That took the EPL down a peg, he could see.

They continued on toward the star around which these planets were revolving. It was a small red one, sullen and sinister. A black dot in transit across it proved to be their objective, the second world.

They approached it from the night side, driving in toward the little planet that was no larger than Earth's moon. It was a deserted world, without factories, mines or use. Gazing on its face, Zack stared at a landscape of jagged rocks, huge black peaks, vast chasms whose interiors were lit with volcanic fires, hellish plateaus of smoking lava, and seas of boiling chemicals.

There were masses of radioactive metal exposed and radiant in many places; fumes and yellow clouds whirled in endless tornadoes across the hideous landscape. The atmosphere, thin and poisonous, was constantly veiling and unveiling portions of the terrifying surface.

"What sort of place is this?" murmured Zack to himself. "Surely no human can live here."

"It reminds me," said the EPL, taking Halleck's remark as a direct question, "of the planet Ku'Voora after our

siege. It is one of my happiest memories. A grand battle. We obliterated the foe completely."

"Enough of that," said Zachary. "Are you sure this is the right planet? Where could my brother and his wife remain here in safety?"

"I am always sure of my data," said the EPL. "I have located them already. See?"

On the vision ball appeared a precipitous mountain peak arising out of a sea of boiling clouds and fire-flecked shadows. Atop that peak, just above the level of the atmosphere, arose a small, metallic dome, glistening in the red light—obviously an artificial structure.

"Inside that dome is a being answering the physical description of your brother. There is also another person there, a female," said the EPL, glancing at Halleck, sharply.

Zachary was thinking of Sylvia, suddenly feeling chills run up and down his back at the thought of seeing and speaking with her again. *How will she greet me?* He didn't notice the EPL's discernment of his thoughts.

"Can you land there undetected?" he asked.

"It would not be wise. But I can land you in a force bubble from above. This ship will go into invisibility, undetectable from anything under the mental level of the Quoxians and the true-human globes. Let us hope the Quoxians are not looking for us." The EPL had a keen expression.

"Prepare to do so," ordered Zack.

The ship moved out from behind the night side of the planet, where it had been hiding. Invisible, it raced across the surface of the side lit by the baleful red sun, above the Dantean landscape, to a spot above the lone peak. There the ship rose beyond the stratosphere.

Giving the Ever-Perfect Lieutenant very specific instructions on its future course, Zack was ready.

A force bubble was created around him, similar to that which had rescued him from the *seroomi*. It emerged from the ship's side and instantly the 12-12-12 was lost to view. Zack hung alone above that ghastly surface.

He descended toward it, bathed in the blood-red rays of the sun, the flickering of the hungry tongues of hell beneath him. Softly he came to rest upon the burned and barren space of the mountain peak. Before him rose the curving walls of the metal dome, a huge place looming several hundred feet into the air, without windows. There was a single square door set flush in its surface.

Toward this door Zachary walked, his heart beating furiously, dumb with the immensity of the moment, the nightmarish enormity of it, atingle with a million years of time, and a billion parsecs of space. He stepped up to the door, the force bubble closing around him like an invisible protective skin, stretched out his hand, and knocked.

He knocked because it seemed the only thing to do. There was no bell, no knob . . . Who would expect such a need? There was nothing on this inferno planet that could walk up to the door. Entry and exit for supplies, assuming that such were delivered by spaceship, would have been prearranged. So Zachary knocked, wondering if he could be heard.

He stood there, before the great dome, beneath a dark and flame-flecked sky, sent on a mission he could hardly comprehend by beings whose thoughts and directions he could barely glimpse. And yet—it was only his brother he would see . . . and Sylvia.

Does a man kill his brother—and meet him again?

Zachary Halleck thought of the old religions, which all assured retribution for crime, posing the ancient question "Am I my brother's keeper?" *But a brother is so often a rival—and humans are combative. Where does the animal end, where the blood loyalty start?* Again came the question

that had tormented him for years, and had become acute since the moment he learned that Carl was not dead—that they were slated to meet again.

I sought to kill him, Zachary thought, as he waited before the featureless portal, *and with him the one I loved. When I had done it, I was sorry.* Now he had to face this all over again; now he had to resolve this oldest of personal relationships in a different way. *But how?*

There was no answer to his knock, and he realized that it would probably not be heard, for this was surely but the outer exit of an airlock of sorts. The atmosphere of Inferno, as he found himself thinking of this world, would be certainly unbreathable.

For a moment he was baffled as he looked vainly around for a clue. The huge dome was apparently a solid sheet of metal, with only the featureless blank of the portal door to break its spotless surface. Then Zack remembered that somewhere above him—a hundred miles or so—was the ultimate spaceship. He had forgotten to arrange a method of communication with it, and the EPL had not mentioned it. Yet it was highly improbable that such a craft would ever lose contact with its commander. He spoke aloud:

“Master Cruiser 12-12-12! I must have entry here without disturbing the contents of this place.”

Zack stepped back. A voice sounded beside him, in the empty air, the distinctive, soft voice of the Ever-Perfect Lieutenant. “The door is being unlocked. One moment, please.”

He felt a faint vibration in the ground, and in the air around him, as if some force were beaming down on the portal. He saw a shimmering around the edges; he heard a hissing sound and a series of clicks. The vibrations stopped.

Zack went forward and touched the door. It hesitated before his push an instant, then swung slowly back on deep

hinges. As he stepped through, into the small airlock chamber beyond, he noticed that the rim of the circular door was flaking and bending as if rusted by time. The door swung shut behind him with a sigh, barely hanging in its frame; a second door, also flaky at the edges, swung open to admit him to the interior of the dome.

The ceilings were vaulted and high; there were corridors and rooms opening in all directions. Zachary looked into opulence that must have resembled that of the average home of hundreds of millennia beyond his time. Down one hall appeared a face—a familiar face, framed in soft, honey-brown hair, whose wide green eyes stared at him with a growing astonishment.

He stared down it toward Sylvia, the girl he had thought he would never see again, and she stood there, still too astonished to speak. She did not retreat from him, but neither did she come forward.

He spoke her name and held out his hand, and she still did not respond. Then she put a hand before her eyes, closed them, and quickly uncovered them to look again. "It can't be," she said. "It can't be."

"But it is," he replied. "I've come for you . . . and Carl."

She stepped forward now, as he approached, grasped his hand, his shoulder, to see if he was real. "It's impossible. We've been in this nightmare, this impossible place, for so long. We were told that all our world has been a memory for a million years."

"It is," Zack said, "but I'm really here and this is not a nightmare but reality. Is Carl all right? Is he here?"

"Yes," said Sylvia, still looking at him with wonder, "he's all right. He's found his heaven, but he'll be glad to see you."

She turned and drew Zack after her into the room that lay beyond the passage. It was a vaulted chamber, whose walls

were ever-shifting variations of brown and yellow and gray, in shapeless but always soothing patterns. There were furnishings of strange but matching shapes; there were floating picture balls, similar to those Zack had used in his ship.

And Carl Halleck sat before a vast desk, an array of small globes hovering around him. Their interiors reflected various opened books, patterns of molecules, and bodiless figures floating in space. The desk was covered with sheets of paper; Zack's elder brother was in the middle of calculations and notes.

Carl looked up, a frown of annoyance on his features. He caught sight of the man, in the strange clinging garments of a far future period, standing with the slim form of his wife. For a moment he did not seem to recognize his brother, then a look of astonishment came over him and he sat back.

"Hello, Carl," said Zack, feeling not a bit at ease. Again there was a tension within him, the one he seemed always to feel in the presence of his sibling rival. He fought to control it, saying to himself, *I have a second chance. I shall rise above animal emotion.* He thrust his qualms aside, searched for the familiar in his brother's face and strode forward, holding out his hand.

"It's been a long search," he said softly, "but it's over. You and Sylvia are alive. I'm glad."

Carl stood up, took his brother's hand mechanically. "I'm glad to see you, of course. But . . ." He paused. "Are you real? You can't be. Unless," he looked around at all the space about him, "unless all this is illusion and fake."

"I'm real," said Zack, "and so is all this."

Carl still seemed doubtful, but he shrugged his shoulders and looked at Sylvia. She cast him an appealing glance, which he hardly seemed to notice. Carl stared at his brother carefully. "Maybe, maybe," he said. "That remains to be seen."

"Always the scientist," said Zack. The coolness of the reception hurt, but he held himself in check. After all, how could anyone have anticipated this?

Sylvia grasped Zack's arm. "Are you hungry? Can we give you something to eat while we find out where you came from and how?"

Carl nodded, and Zachary realized that they both welcomed this suggestion as a time for breath-catching.

Food came, and they sat in luxurious seats as they ate quietly, looking at each other. It seemed to Zack that Sylvia had changed. *She's become nervous, tense, uneasy*, he thought. Carl seemed little different, as sure of himself as ever.

They talked about the odd food. Sylvia described some of the strange rooms in the dome, telling him of servants who worked there—man-like beings with gray-green skins, apparently inhabitants of a nearby world who had been sent to serve them. Carl described this planet itself, which Zack recognized as one of those he had passed en route. It was in a stage similar to that of the *seroomi* Earth, except that its inhabitants were aware of—and directly under the supervision of—their blue globe "gods."

When he had finished, they leaned back and silence hung between them again. Zachary knew he had to come to the point. He turned to Carl and said, "Tell me what has happened to you since that day in the Cascades. I heard you talking about green dots coming down, and then you blanked out."

He waited, wondering if they would accuse him. *Did they know I hadn't shut off the power—deliberately?*

If Carl and Sylvia suspected his motives, they gave Zack no hint as the elder Halleck started the account.

The green dots had swooped upon the post in Chinook Pass and turned out to be the same as the robot discs of the

Quoxians that Zack had seen in his transit over their factory planet. Sylvia and Carl had been taken by them, fixed motionless, and carried into the sky in force fields. The discs transferred them to a sealed craft higher in the stratosphere. This, in turn, went on up into the blackness of interplanetary space.

The two, conscious but paralyzed, looked down upon the Earth from space, saw it dwindle, and watched the cold pock-marked face of the moon appear. They circled this airless, barren world of craters and desolation and landed on the farther side of it, the side never seen from Earth. On that side was a series of metal domes, at the base of a huge high-walled crater, and their green-dot captors had brought them to one of these domes and deposited them within it.

This was the base for the robot exploration of the Twentieth Century Earth; the Hallecks found no living things here. It was one hundred per cent mechanical, but the machines were of the advancement and complexity of the Ever-Perfect Lieutenant. The robot base itself was as if it were a huge, conscious body, the glowing discs its arms and hands.

It had a task, that hidden base on the moon: the intensive study and exploration of human society on the Earth of man's advent to species maturity. In the course of that search, the fact that a human had invented a means of detection that endangered their secrecy had triggered off the attack on Carl's base. Certain other orders had come to the robot base—orders involving just such a person as Carl Halleck, scientist and experimenter.

The two captives had been pushed into a cone of tension; its effect on them was similar to what had happened to Zachary. Carl and Sylvia had been snapped into the universe of a million years in the future. They found themselves in the identical robot base, in the identical crater on the unchanging far side of the moon.

But in this future base were living directors—great shining globes of translucent blue, who turned out to be the descendants of a million years of human evolution.

"The Quoxians are the highest development of intelligence," said Carl, leaning forward, "and I have spoken with them. They are glorious, the direct evolutionary descendants of *homo sapiens*." Carl's eyes were aglow as he tapped Zack's knee with a finger to emphasize this point.

Zack said nothing, but decided that he had better go carefully in describing his own mentors and their views.

The Quoxians themselves could not go into the past, although they had devised robots that could cross the time gap. They had asked Carl and Sylvia to help them.

"We have been working here for a long time on that problem," said Carl. "Perhaps your own experiences can help us solve it. We've got to figure the right way for their robots in our own period to adjust society. The Quoxians have made it clear to me."

"But not to me," said Sylvia. "Zachary, you've got to help show us the right thing to do. Carl is so sure of their intentions, of their aims, but something bothers me. I cannot believe that it is possible for us to understand the motivations and reasonings of creatures such as they must be. It cannot be as simple as Carl says. And there must be something wrong if they are truly our descendants—yet require tampering with their own ancestry . . . even as far as a million years ago."

Carl flashed fury as he turned on Sylvia. "I have faith in them and I understand! You are hardly scientist enough to follow their thoughts. You were told about the Others, the false-thinkers; I thought you sympathized with the Quoxian dilemma."

Sylvia looked hurt. "I could hardly oppose you, but I think

Zachary ought to know the full story. Perhaps he has something to add to it."

Carl got up from his seat and paced the room in agitation. He turned to Zack, finally. "Let me try to explain just what the Quoxian problem is."

XIV. Future History II

THE BLOCKY figure of the engineer-inventor that was Zachary Halleck's older brother stood in the middle of the room facing his brother and stared at him. "It seems that after the human species had achieved its highest form—a highly developed brain and nervous center, whose physical body was atrophied, merely an appendage to the concentration of pure energy humans drew from the cosmos itself—human society went through a series of vast philosophical convulsions.

"These had begun before the evolutionary change was complete. The views and attitudes of men were developing even as their bodies altered. The differences accounted for the last great physical wars of humanity, which shook the galaxy for a thousand centuries—beginning about a hundred millennia after our day. And though eventually men put aside the spaceships and war weapons as they outgrew them, they did not resolve all their differences."

Zack was listening closely, but in the back of his mind something was nagging at him. Something was wrong here—something missing. Then it came to him that the easygoing air of superiority about Carl had changed. He still spoke as if every word were a revelation, but the familiar grin was missing.

"Apparently," Carl was saying, "the new relationship of men to their environment opened up a whole series of

problems: purpose, destination, and method. It is impossible for us to understand the actual points—they are beyond the capacity of our dawn-age brains—but just think of humanity numbering countless quadrillions, and stretching across myriads of planets, and imagine the number and variety of philosophies that arose in answer to the change that was going on.

“At any rate, during the last hundred thousand years the debate and the differences crystallized in two vast camps. These were the Quoxians, who because of the very nature of their views found themselves gradually concentrating in one sector, and the rest—a great majority, incidentally—who occupied all other parts.”

Carl paused, concentrating on his words. “Now it wasn’t easy for the Quoxians to make clear to me just what the root of the difference is. One thing is certain: the long period of opposition has resulted in an actual evolutionary change in the two forms. The Quoxians are smaller in appearance, more concentrated in their energy condensation, and appear bluish. The others are wider spread, not as compact, and of a whitish, misty appearance.

“The Quoxian view appears to have to do with the uniting of powers in team operation—their aim is a sort of link-up of many brains to create a sort of over-brain, or super-charged multi-mind. The others remain individualists, opposed to this effort. They consider it either impossible or dangerous—I am uncertain as to which. Their views, however, are not of the live-and-let-live kind. The long background of conflict, going back over a half million years, have made the two forms completely inimical to each other, intolerant of each other’s existence. Each sees the other form as a barrier to the final achievement of their philosophic goals.”

Carl gestured at the dome around them. “The Quoxians

have studied the matter. They have concluded that the split in the human race of the past million years can be traced to events and trends that were present at the very dawn of sapient humanity. They believe now that by studying the past—by tampering with it, if possible—they can adjust these trends at their very origin. By so doing, they will achieve the complete mastery of the cosmos which they need in order to reach their goal.

"They mastered passage through time, but they themselves cannot traverse it. Mechanical devices, some closely resembling themselves, but having a green radiation, can do it."

Zachary took advantage of a pause to ask, "Did you find out the method used in crossing time?"

Carl nodded. "I think so—or at least I think I grasp the principle which underlies it. Entropy. The universe is slowly running down, as was obvious even in our own time. Every particle of matter is losing energy. This energy in the form of heat and light is gradually accumulating throughout the universe. The rate at which bodies lose their energy is the entropy gradient. It would appear that this process is also part of the process that we call the passage of time. The entropy gradient is steady, unceasing, and can be measured over centuries."

The implications of that statement were clear enough to Zachary, but he merely nodded. This was Carl's show; let him have the spotlight.

Carl cleared his throat. "The physical constituents of the universe—let us say, in the year 1900—are different in every respect from these constituents at any other time. That's fundamental, and something we've always known. The ancient Greeks noted that a person cannot step into the same river twice.

"Very well, then: this means that there's a difference in

entropic measurements in regard to capacity for energy, heat, and light. And the differences between the universal constituents in 1900 and the years 1,001,900 add up to quite a substantial difference. I mean, it's definite; the amount of energy and physical content of a cubic centimeter of iron is definitely different in this time from what it was in our time—even though these differences are infinitesimal to our own senses."

"But I suppose that, by now," Zack said, "men have found ways of measuring the differences."

Carl nodded. "Not only measuring—but actually altering them. How it's done is beyond us. But by reversing the entropy count of any piece of matter, either simple as a cubic centimeter of iron, or complex as a human being—by restoring it to the status of matter of, say, a million years ago—that matter returns to the universe of that period. That's what the Quoxians have done.

"For the past century, they have been engaged in the building up of their exploration base in the universe of a million years ago and in inventing the means of interfering with Earthly activities. The phenomena we ourselves witnessed in the last few years of our life were the start of their campaign. Since I found a way to detect them, and keep watch on their activities, I had the honor of becoming the first scientist of our dawn-age humanity to be brought ahead of their own time for their assistance."

"No, Carl!" burst out Sylvia. "I've tried to tell you that we can't be sure about that. How could you possibly be of value to them? What can we know of their purposes?"

She turned to Zachary. "I can't help feeling that whatever their purposes may be, it can't be anything good—at least not anything good in the way we consider something good. We're just clever animals to them."

Zack was surprised at the expression that crossed his

brother's face. It wasn't only anger; there was contempt, too, as he said coldly, "The least you can do is not to interrupt. You don't have the intelligence to see. Very well, then; that is not your fault. But you will please refrain from contradicting me."

Could this be the man who kissed my girl, thought Zack. He felt anger stirring in him, but the jealousy was gone. Sylvia's face was blank, and he couldn't probe her feelings toward Carl. He said quickly, "Let's not argue the point. We're all in the same boat. I'd like to hear Carl out now." He turned to the older man. "How did the Quoxians get us into their own universe?"

Carl looked back at him, "I don't know about *you*, but I gather that to move us here required the alteration and decrease of our entropy quotient to that of this time. Incidentally, just how did you get here? I suppose the Quoxians must have brought you—but how and why?"

This was not the time to relate his experiences, or say anything about the ultimate spaceship, Zachary decided. "Well," he stalled, "I guess it must have been the Quoxians who were responsible for me. It happened shortly after your disappearance, when . . ." He stopped as Sylvia suddenly got to her feet and looked around, her brow wrinkled, an odd expression on her face.

She sniffed deeply, turned to the two men, and asked, "Do you smell something strange? Is something happening to the air here?"

Zack sniffed but nothing came to his nostrils except fresh air. Carl stood up and nodded. "Yes," he said, "there's something going on. The air feels a little thinner and it has a smell in it. A little like ammonia, I think."

He turned suddenly pale. "Ammonia and chlorine," he said. "Why there must be a leak in the dome. The outer atmosphere of this planet must be seeping in somewhere!"

Zack sniffed again, but still detected nothing. *Why don't I smell it?* he asked himself. Then he realized the answer. He was still enveloped in the protecting, invisible force shield that had been around him outside. *His* air was still purified and cleaned by connection with the 12-12-12 somewhere in space beyond. Naturally this shield had blocked off the molecules of poisonous gas that evidently were now penetrating the dome. With a wry shock, he realized how and where the breakage had occurred; he had ruined the efficacy of the entrance airlock by the way he had come in. The two doors were no longer airtight; obviously the atmosphere of this hellish world was seeping through.

Carl hurried out of the room while Sylvia stood there, a hand to her mouth, looking about. Zack got to his feet and went over to her. He put an arm around her shoulder. "Don't be afraid, Sylvia," he said softly. "We'll get out all right."

She turned wide eyes on him, surprised at his arm, surprised at something else. "Why . . . the air suddenly changed when you did that! What is happening?"

"Never mind," he said. "I'll explain later. Call Carl. We've got to get out of here."

She didn't question him, but raised her voice and called her husband. Carl came running back into the room, his face pale. "The entrance is shattered. The doors have fallen in. We'll all be asphyxiated in minutes!"

Zachary walked over to him, Sylvia with him. Carl stared in astonishment at the sight, but Zachary's other arm went around his brother's shoulder. The change of air caught Carl by surprise again; he shut his mouth and furrowed his brow in an effort to figure out what was happening.

"Come on," said Zachary calmly. "Walk with me. I've got a spaceship overhead that will get us to safety."

With one arm over each shoulder, and Sylvia's also encircling him, the three walked toward the exit from the dome. There were several of the gray-green servant-beings milling around there, coughing, choking, helpless. These drew back from the fallen wreckage of the double doors, through which the poisonous outer air was pouring.

The three stepped over the metal mass of the thick doors. Zack noticed again how it crumbled beneath his feet as it rusted and aged.

Outside, they stood on the harsh stone of the mountaintop while about them flickered the smoke and roar and flame of the volcanic landscape. Zachary spoke aloud, holding tight to the other two. "Master Cruiser 12-12-12! We desire to return to you. Get us!"

Immediately they felt the tingle of an unseen current, felt themselves lifted from the ground. They rose into the swirling air, still holding on to each other, their feet apparently braced on an invisible shield of force. Beneath them, the dome of the Quoxian structure on the mountaintop of this mad world was but a dot of metal. It vanished beneath the raging currents of the inferno planet.

In seconds they were rising through the blackness of outer space. A few moments later, they passed through the ring of light which marked the entrance of the ultimate warship. Zack released his arms from the shoulders of his brother and his brother's wife, as they stood in the main chamber of the craft that was his to command.

The enigmatic humanoid figure of the control board, the Ever-Perfect Lieutenant, was hurrying to them. "General alarm, Commander! There are Quoxians coming!"

XV. The Quoxian Network

BEFORE Zachary could reply, Carl nodded and said loudly, "Good! I knew they'd be protecting us. Now as soon as they can repair our dome and move us back, I can get on with my research."

Zachary was caught unaware by his trend of thought. Before he could break in, his brother had turned to the Ever-Perfect Lieutenant and ordered, "Let's see the ones that are coming. How soon will they get here?"

The little manlike creature who was the mouthpiece of the vessel itself looked at Carl and then turned to Zachary. "Are those your wishes also? Have we changed sides?"

Zack snapped out, "No! Prevent them from reporting our existence. Spot them and stop them, or else take immediate evasive action."

The EPL smiled enigmatically. A large ball sped down from among those floating in the room and its surface darkened. Within it appeared an image of the 12-12-12 as it appeared in space, the inferno planet off to one side and, approaching in a group, three tiny blue dots.

Around the 12-12-12—which still looked like an old freighter of the factory-planet lines—appeared a zone of red which marked the protective borders of their screens. The three blue dots were amazingly already inside the zone, close to the ship.

"They do not yet suspect," said the EPL. "I shall use direct visual-spotter elimination."

Carl grabbed the little manlike figure by a shoulder. "What are you trying to do! Let them come in!" The robot slipped out of his grasp easily, paying him no further attention. Carl

turned hastily to his brother. "You don't know what you're doing! Stop him!"

But Zack was standing at the visual ball, watching the development of events. Sylvia stood a little behind him, fascinated by the scene.

Outside, the three Quoxians drew closer. Then suddenly, *flick, flick, flick*—three sparks leaped from the vessel in almost instantaneous succession. The three blue glowing dots puffed outward and vanished—a faint haze of gray marking the space where they had been. Gradually the visual ball dimmed, returned to opaqueness and floated away.

"They're gone! They're destroyed!" cried Carl, almost in anguish. "It's not possible. You can't have killed the great ones, the wonderful ones."

The EPL looked at him strangely, moved away, and said nothing. Zack turned sharply to his brother. "They may be wonderful, but by our standards, they're evil. They are the enemies of this ship and all of us on it. You have been deceived."

"What do you know about it?" snapped Carl. "I have seen them, talked with them. I don't know what you think, or how you came here, but attacking those beings was a ghastly mistake. Fortunately for you, they will understand—they are so much above you. But you'd better tell me your story so that I can intervene when those three return."

The Ever-Perfect Lieutenant observed drily, "They will never return. And they will never report our presence to their fellows. They're thoroughly dead, blown to shreds."

Carl cast a glance at him, turned again to Zack. "Tell your stunted servant here that mere material weapons cannot harm the Quoxians. Crude force, indeed!"

Zachary shook his head, frowning. "I'm sorry I have to disillusion you, Carl, but those three are indeed dead. You're allowing the Quoxian million-year advancement to make you

think they are gods. Million years or no, they are still a form of life, physical mortal *human* life. They came to this ship unprotected, and they were as easily killed as any other human would be. If this ship tells me they are dead, that's the truth. The ship does not lie. Its instruments are too efficient."

Carl glanced again at the EPL, threw Sylvia a look, and staggered to a seat. "What is this madness? What is this ship? Why do you come and interrupt me, kidnap me and my wife, and murder our friends? Are you still so jealous of me that you must vent your childish spleen even here?"

The anger that flashed within Zachary Halleck died almost instantly, replaced by wonder. This was a different Carl, a Carl he'd never suspected. *Why*, he thought, *he's acting the way I felt back home!*

Could it be possible that Carl had been jealous of his younger brother all these years? But why—why? Carl was the one who always came out ahead, the one who took the high honors with ease. Zack lowered himself to sit down, a chair sliding over to place itself beneath him. He sat and stared at his brother.

Sylvia went over to Carl and put an arm on his shoulder, and there was something about the gesture that puzzled Zack. He felt that he was very close to understanding her present relationship with his brother, that it was nothing like what it had been, certainly; but it wasn't quite clear yet.

He glanced in the direction of the EPL. "Get this ship moving back to Earth at once. Take all measures to avoid being spotted or followed, but prepare for full defense if necessary. Make every bit of speed possible under the circumstances."

He turned back to his brother. "I don't want to fight with you, Carl. I came across a million years and half a

galaxy to rescue you and Sylvia, bring you out of captivity. Not only have you misinterpreted my actions and my motives—you have taken the most unscientific attitude of accepting verbatim everything your captors have chosen to tell you."

Carl said nothing when Zachary paused. It was Sylvia who said, "The Quoxians have treated us well. They gave us a home, answered Carl's questions and supplied him with what he asked for. If you know something we don't know, you ought to tell us."

"If you call keeping you under guard on an uninhabited and volcanic planet giving you hospitality, then you have some strange notions of it," Zack started, but Carl cut in.

"They had to. That is what I meant when I explained the entropic difference between our times and these. Sylvia and I are still entropically maladjusted to this universe. The Quoxians had to isolate us, because a violent alteration in our substance would result in an explosion of planetary dimensions."

Zack narrowed his eyes. "That may sound logical, but I can prove it was a lie. I myself have been wandering freely in this universe and there has been no explosion, and no sign of any such danger. I have talked with beings as advanced as the Quoxians and they have made no such claims. These beings recognized my desire to rescue you, and they provided me with this spaceship and the directions to do it.

"As for the Quoxians, I have no doubt they have their reasons for using you, but benevolence is certainly not one of them. They admitted that they are meddlers in the world of the Twentieth Century. You know some of the effects—the destruction of your projects. You yourself testify to their activities. You yourself admit that they are a minority of the future human race, trying to impose their

will upon the majority. The globemen refuse to interfere with the development of other cultures, whatever advantage might lie in such activity, but the Quoxians show no signs of any ethical consideration. And in their plans to tamper with humanity at the dawn of its mature phase, they openly seek the physical destruction of thousands of our own descendants."

Carl shook his head. "You are reasoning like a child—like a petulant runaway. I have communicated with the Quoxians and, what is more, I have visited their cities and worlds. I have seen the glory with my own eyes—seen such wonders that leave no room for even the suspicion of malice."

Sylvia nodded to Zachary, though her eyes were troubled. "We were actually taken in a protective shield to one of their great centers. We saw a world whose beauty is simply beyond imagination. We saw a sky and a land glowing blue with the myriads of their forms. We saw great buildings, built of mental force, rise and arch through the skies. We saw the Quoxians, thinking in great hook-ups of hundreds and thousands of minds, create force-patterns that took on the appearance of new planets in space. It was a sight that took a million years of man's dreams to prepare."

"And we saw other things, too," said Carl reverently, his eyes still fixed on his brother. "We saw their work at creating a mass mind—their efforts to bring about a single thinking mass, composed of many individual brains, that would be able to grasp finally the meaning and purpose of existence itself—a meaning which has so far been beyond the capacity of any physical mind. I know their goal, and it is the ultimate one. They will see beyond infinity, find the truth before the beginning and after the end of the universe, and they will themselves create new universes. This is the final aim of science, Zachary, and they are on the road to it."

Zack shook his head again. "No—they are not on the

road to any such end. Perhaps that is the goal they told you they were seeking—and perhaps it is the goal they started out seeking. But the means shape the end, and the means they are taking have made any such end as you describe impossible.

"The others, who gave me this ship, have a chance to achieve the Quoxian dream because their ways do not pervert and destroy and falsify it. They are not committed to any one goal—or, if they are, they don't boast about it. But they are seeking joy and happiness in the universe as it is, without violating the rights of any other cultures or races. They're following a path which has been traveled before in human history and has proved successful, just as the Quoxians are following a course which has invariably led to destruction."

Carl stood up suddenly. "This discussion will get us nowhere, and the Quoxians are going to catch up to us, anyway. It's a waste of time trying to argue with you. . . . Where are we now?"

Zack summoned a vision ball. It showed their ship, still disguised as a freighter, moving through space, passing the orbit of the factory worlds which fringed the Quoxian sector. All about them were the multifold stars of the Milky Way; the sky was awash with the glow of the close-packed heart of the galaxy.

Hours passed. They rested; they ate; Zachary showed them about the ship. Carl was silent, sullen, thoughtful, but Sylvia had regained her spirits. She chatted gaily with Zachary, gazed with interest upon the worlds they passed, and queried him about the *seroomi* and his adventures on the Second-Growth Earth. He found himself dodging the subject of Lury, wondering, as he looked at Sylvia, how he could have possibly imagined himself in love with that non-human female.

They were standing in a forward room of the craft. At Zack's command, the walls had become transparent so that they seemed to open to the blackness of space, revealing a panorama of crowded suns. They were standing thus, the ever-present robot control board nearby, when Carl spoke up once more.

"Where are you going to take us? To this world of monkey-men? And what are you going to do with us? Did your mentors ever say?"

Zachary turned to answer, then stopped. It dawned on him then that he did not know the answer. The globe had aided him on his rescue mission, given him the means of doing so as part of the globe-people's plan to thwart the Quoxians. Yet at no time had his mentor indicated what was to become of the Hallecks afterward. A return to Earth did not make sense. It was no longer home to them, its people not their people. They surely could not make a home among the globes.

Could they return through time? But his mentor had indicated rather clearly that only the Quoxians had mastered time travel.

Zachary fumbled for a reply, and saw a gleam in his brother's eyes, as if Carl had guessed his lack of knowledge. Sylvia, too, had turned, eager for the answer.

The Ever-Perfect Lieutenant observed in an offhand but precise manner, "There is a column of Quoxians coming after us, Commander. They are armed and protected. What are your orders?"

"Prepare for action of all types. Retain the appearance and speed we now have, that of a freighter. It is possible they still do not know exactly what happened. I want to avoid open combat if possible, while we are so far within their sector." These were Zachary's orders and, although

the EPL heard them, there was no visible change in the ship around them or the manlike robot's actions.

Yet Zack knew that, throughout the ship, relays were motivated, force-fields were built up, memory-banks and maneuver-relays were readied. The three still stood in the transparent forward chamber, looking out directly upon the space scene. There was a sense of tension in the air; but aside from that, there was nothing of the hustle and turmoil that would mark a warship manned by a human crew.

On a large vision ball that had floated before them, poised between them and the apparent emptiness of space, appeared a reproduction of their own ship and the space around them for millions of miles. Coming to one side, far behind them, appeared a little duster of blue lights, some dozen or so; the lights were rapidly overtaking the 12-12-12.

At Zachary's orders, the image of their pursuers suddenly enlarged and they could see the compactly glowing forms of the Quoxians. At another command, the force-fields around the Quoxians were brought into visual inspection through the detectors of the warship. The Ever-Perfect Lieutenant looked at them. There were cores of whirling atoms, a complex structure of rays and forces that, combined, formed a machine of some sort, not one part of which was visible solid matter.

"Not quite the equivalent of this ship," said the EPL. "Their value is that of minor patrol ships, quite able to cope with any of the native productions."

"Could you destroy them?" asked Zachary.

There was a pause before the robot replied. "I cannot be certain. I have had long experience fighting solid spaceships, but never before have I encountered a force-craft. I can state that these cannot penetrate our defenses, but whether

we can overcome their own screens is unknown. Shall I try?"

Before Zack could formulate his answer, Carl commented, "Note the control over power exercised by Quoxians working in hook-up. There are twelve of them, and it is by the combination of their minds that they can build up and maintain that structure. I think you should give up this mad chase and go back with them."

The oncoming Quoxian force structure was coming toward the outer margin of the 12-12-12 screens—a matter of a million or so miles. The ship's audial apparatus came into action. A voice seemed to echo within the room, a voice understandable to each one, seemingly beside each one. It existed in the mind in the same fashion as the voice of the globe on the plateau of ruins, back on Earth.

"Identify this ship! Stop for inspection and lower all meteor guards and screens."

The Ever-Perfect Lieutenant spoke quietly in some language of that sector. What it said, the Hallecks could not understand, but it was obvious that the EPL was answering the question in an appropriately deceptive manner. But apparently, the answer was not sufficient; the mental voice repeated its order. The pursuer could now be seen on the edge of their outer screens.

"Give up!" whispered Carl urgently. "You can't do this!"

Zachary shook his head and glanced at Sylvia. She threw him an enigmatic, worried look. *Where does she stand?* he wondered. He thrust his hands into his pockets, glared at the vision ball, and said, "Give them the works. And then full speed ahead!"

The EPL grinned wickedly, and there was a sudden vibration about them. As they watched, the area of space all around and in front of the oncoming Quoxians flared white with heat and raw energy. The Quoxian structure, sur-

rounded and strained, seemed to flicker. There was a desperate whirling of the twelve blue globes who were its basic components. Again the force structure flickered, struggling to hold its shape in the sea of power that rocked it.

A seething fireball of power, a miniature sun, shot from the side of the ultimate spaceship and raced toward the Quoxians. There was a sudden shift in the rays of force, a twisting of blinding lights, and where the Quoxians had been was now a ball of blackness, opaque, non-reflecting, bouncing and tossing amid the sea of radiation.

"They have thrown up complete defense, retreated within a ball of negative space partly out of this universe," announced the EPL. "We cannot touch them there, but they cannot follow us. They cannot dissipate this negative bubble immediately. It will take a period of several hours before they can emerge again. We have gained time."

Even as he was speaking, the sea of raw energy that the 12-12-12 had thrown up was paling and washing away. The image of their own vessel in the visual ball altered subtly, taking on its original form. It could be seen, even visually, that the 12-12-12 had accelerated, was making speed.

"What was that negative bubble?" Carl asked.

"I cannot find the right words in your limited dawn-age language," replied the EPL. "You could say, however, that it meant turning their area of space-time inside out—digging a hole in existence and pulling it in after them. The experiment was tried in my time, but no means had been devised then to get out of it. Evidently that has been discovered since."

Carl mopped his brow. "This is all wrong, all wrong," he said to Zack. "And you have still not told us where we are to go and what we are to do."

Sylvia yawned. "Do you think it possible we can get

some sleep before anything else comes after us? We're all getting touchy—we must have been awake for days.”

Zachary smiled at her. She had apparently sensed his own quandary on the question Carl had asked. “I think you're right. We'd better catch up on our sleep while we can. We may be in for a hot time.”

They walked back through the ship and each found the chamber of sleep that suited him. Ordinarily, it would have been hard to fall asleep with the knowledge of their emergency. But it was true—they were physically exhausted and amidst those rooms of clouds and soft music, sleep came easy.

Just how long they rested, Zack could not tell, but they were awakened by a silent alarm that seemed to shock through their bones and bring them keening awake, and to the central chamber.

A long line of the robot exploration discs was approaching, ahead of them, directly in their path. From other directions, other columns of green dots converged. Sylvia was startled at what looked like an attack in numbers that could not be counted, but the Ever-Perfect Lieutenant was untroubled.

“Merely robot craft, guided missiles now,” he said.

Their screens bounced out a million miles in all directions. As the robot discs hit the edges they were seen to flare up and dissolve. The rest of the columns sheered off, swinging around to crisscross the area in space bounded by the warship's screens, but staying just outside. From each disc, a tiny ray of green light was focused on the 12-12-12, until the warship seemed to be in the center of a giant cage of light.

But whatever this concentration of small beams from every conceivable direction might have accomplished on any lesser vessel, the 12-12-12 was clearly equal to it. This was plainly a suicide tactic of expendable small craft. Against

a lesser ship, though nine-tenths of the small beams might have been blocked and their senders shorted, the remaining one-tenth would have been sufficient to rip the hub of the great encirclement apart.

But the Master Cruiser 12-12-12 had as many force-pattern portals within its framework as there were discs around them. Back of each beam sped a counter ray of similar intensity and reverse polarity; with the speed of light the encirclement flared into disintegration and vanished.

They sped on, out toward the edges of the Quoxian sector, out to where the stars were thinner, and Sol hung far distant on the galaxy's perimeter.

Within an hour, they were attacked again, this time by an entire fleet of manned spaceships. "The entire battle fleet of the outermost empire of Quoxian worshippers," was the identification of the Ever-Perfect Lieutenant. "A second-growth species, whose level of development is approximately 10,000 A.D. Earth civilization." The robot turned to Zachary, grinning. "May I play with them a bit?" it asked, alight with combat. "I haven't encountered such craft since the pursuit of Leng-Koharnos."

"Just as long as you don't diminish our speed homeward, you can handle them as you like," Zack replied, deciding that even a machine had to be humored occasionally.

There developed, then, a running battle, in which the 12-12-12 deliberately avoided showing its strength, letting one or another of their pursuers come close, try a trick or two, and then be bested. Carl watched the fight steadily, gazing at the attacking craft. The opposing craft might have been primitive compared to the Ultimate Spaceship, but they were still awesome structures to anyone born at the dawn of space flight.

The attacking ships were examples of an early form of cosmic space drive allowed for interstellar speeds. They

were blunt-nosed, massive, metal-armored craft, painted in red and gold, with large, visible hieroglyphic identification marks on their sides. They had bulging observation ports and turrets for rays and space torpedoes.

Sylvia moved closer to where Zachary was seated, head resting on elbows, thinking. "It's only a game to that thing," she murmured, "but inside those ships are living beings—things like men with homes and families, who believe themselves fighting for their nations and their gods. Can't we simply go away from them, let them be?"

Zachary shook his head slowly. "I know it. I know how you feel. Yet our concern is the human race, a million years older than theirs, and we cannot abandon it. I don't know all the meanings and neither does Carl. We can't possibly know. All this may be—probably is—nothing but the merest skirmish in a war that our humanity has been building up to since the time of the Peking Man. The representative of the majority globe-human species picked this vessel for me and I think this warship needs combat. I don't like this cat-and-mouse stuff any more than you do, but it may be necessary to teach the Quoxian worshippers some historical truths."

The battle continued. Attackers launched rockets, only to see them splashed aside. In turn, the Ultimate Spaceship occasionally used its own force-torpedoes—and these could not be turned aside. One by one, the mighty battle fleet was beaten, some ships hurtling apart in great explosions, others, crippled, limping out of the scene, still others flaring red and breaking apart into component molecules.

It was over soon enough. Again their ship was alone in space, moving silently through the stars.

There was a brief period of respite. Carl wandered around the ship, examining things, picking up various gadgets and asking their purpose. Sometimes the EPL answered him;

sometimes it ignored him. Then, as Carl was standing near the robot-control board, holding a long metal rod whose curious dials and markings had intrigued him, there was another alarm.

The Ever-Perfect Lieutenant faced Zachary and Sylvia, who had been studying a vision-ball showing specimens of interplanetary zoology. "There is another mass of Quoxians rapidly coming up to us."

"Coming faster than we are now going?" asked Zachary. "How many?"

"They can travel much faster than any physical spaceship, myself included," said the Ever-Perfect Lieutenant. "And they number thousands. Now we are in real danger. I can defend us, but that may be all."

Carl walked up behind the manlike being, his face taut. He suddenly swung the metal bar into the air, brought it down with all his force on the head of the Ever-Perfect Lieutenant. There was a crunch as it bit through the plastic and metal body; there was a sparkling and crackling as it shattered the force structure of the interior. The body of the little being fell upon the floor, twisted and jumping with loosed power. As they watched with stunned surprise, it flew apart into a mass of powdery metallic dust, a smell of ozone and a thin cloud of vapor.

XVI. Negative Knockout

FOR A SINGLE instant the scene hung static—and then there was blackness. Zachary's eyes still seemed to retain the image of the dust and debris that had been the ship's humanoid control board, the image of Carl Halleck still holding the bar, a look of concentrated fury on his face. He seemed to hold also the memory of a piercing shriek from Sylvia, but

all this was suddenly swallowed in the intense darkness that pervaded the ship.

He hung alone in space. There was air and the feel of the soft flooring beneath his feet, but his sight and his hearing had been snuffed out. He stood still, straining his senses.

Now he heard a shuffle and a noise of footsteps somewhere, faint, tamped down. His eyes strained and he began to catch hints of gray and bits of light. Gradually, very gradually, he began to see about him. Something moved nearby; it came up to him. He turned his eyes and saw the outlines of a face.

The skin was black and lightless. It was darker, he realized, than the background of the space beyond. He could see its outlines. In it were two eyes, white and gray in color, a mass of whitish hair, and two white lips. The lips opened and faintly, as if through padding, he heard a voice. "What happened? Why is everything so strange?" It was Sylvia's voice. The face belonged to her.

Zachary raised his hand and held it before his eyes. He saw a black hand, with traceries of white. It seemed that his eyes adjusted some more. Now he could make out the details of the room again—dim, as if but faintly lit. He saw Sylvia and she was strange. He looked down at himself and he was no different.

"Everything is reversed," he said at last. "White is black, black is white. You . . . you look like a photographic negative of yourself."

"Yes," Sylvia said; her hand touched his and held it tightly. It was warm, its touch reassuring. "That's how I see you. Everything is inside out."

Zachary understood then. "This ship has gone into emergency retreat. We did the same thing that the Quoxians did. We are in a self-made pocket of negative space. We punched a finger into the continuum of the cosmos, and

twisted it inside out. It must have been an automatic defense mechanism that operated at the instant of the destruction of the ship's controls."

"Then we're safe here," said Sylvia. "The Quoxians can't touch us."

"And we can't touch them," said Zachary. "We can't do anything until the ship comes out—if it ever does. It may require an order of the controls to do that—and there are no manual controls. I never saw any means of guiding this ship except that of giving orders to the robot. It was the brains and mouthpiece of the ship."

Zack looked for a seat, and saw one nearby. He started to sit down, confident that the chair would propel itself silently to him and be there. But it did not move and he caught himself. He walked over to it, sat down. "Did you see that?" he asked Sylvia.

She nodded, her black outlines and white hair bobbing eerily against the gray-blue of the surroundings. "The colors have ceased shifting on the walls, too," she said, "and the music has stopped."

It was true and Zachary noticed it now. Plainly, most of the ship did not function under conditions of negative space. "Does any part of the ship work now? Are we helpless?" He voiced his thoughts.

Sylvia had sat down, also, near him in the grayness. "Something must still be functioning," she said. "There is some light. The air still seems fresh. I think that getting into negative space must be draining almost all of the power from this ship's reserves, save for a thin trickle. That is enough to keep a little air and light, but not to operate luxuries."

"That's right," said Zachary. "And it means that somewhere there must be a means of regaining control of this ship. There must be manual controls."

He said the last to keep up his spirits, for it had occurred to him that this might not be the case. Such a ship as the 12-12-12 quite possibly could not be so operated. Yet its builders must have made provisions . . .

"Where's Carl?" he asked suddenly. The two looked around, but there was no sign of the older Halleck.

Zachary got up. "We'd better find him. I've got a reckoning to make with him."

Sylvia stood up, grasped his arm. "Zack," she said, her voice low and tense. "Zack, listen to me. Do you know what you want? What will you do to him?"

He turned and looked at her. "This showdown has been long enough in coming. Long enough. I've got to have it out now. All my life, he's been winning out over me, and trying to convince me that he *ought* to be on top. He . . ."

"No, Zack—wait a minute, please. Are you sure? Are you certain?" Sylvia's voice was tense, insistent.

"Yes, I *am* certain, now. For the past few months, I've been in hell thinking myself wrong. I thought I'd murdered him, because I knew I wanted to kill him. I let the globes take him—and you—away that afternoon. I hoped it would happen—and it did.

"Afterward . . . I was sorry. I felt guilty, felt like Cain. And I wondered for months if I hadn't been wrong in all my judgments of him. Maybe he *was* the better man; maybe he deserved all his honors; maybe he won your love by strength of character, compared to what I was. Maybe I was a weakling who could only cry over how mistreated I had been and run away."

"Zack," she whispered, "can't you understand that I thought you were dead? Don't you remember telling me how you felt about Carl that night, before you went away?"

"Yes," he said. "And you promised . . ."

"Please!" Her hands were balled into fists, the knuckles

white. "I should have waited longer, Zack . . . but . . . I was telling the truth when I met you at the station . . . about us being happy . . . about his liking you. I believed it then, Zack.

"You can't imagine how he was when he thought you had been killed. He was . . . penitent, Zack. He confessed all the petty things he'd done to you. He said I mustn't think that anything you'd told me about him was imaginary, or exaggerated, because . . ." She looked at him. "Zack, don't you know why? Can't you guess?"

And for Zachary Halleck, the pieces began to fall together into a pattern. It was not complete; it might never be complete, but the basis of understanding was there.

"He's afraid of me—he's always been afraid. I *was* wrong, about both of us."

"He admitted that he would never compete with you in anything once he'd beaten you—fairly or otherwise. That was why he wouldn't go fishing with you that day you wanted to show him what you could do. He'd cheated when he beat you the week before."

"Cheated? How?"

"You both had new, improved trout flies, but Carl got his the week before you got yours. He never told you that he was using a new fly the day he caught half a dozen fish and you didn't get any. He kept you distracted so you wouldn't notice."

So that was it! Zack swallowed and his breath started to come faster. "What—what about the daddy hare? Did he tell you anything about that?"

She nodded. "He didn't bag it, Zack. He met another boy who had shot it and traded his new hunting knife for it."

"But he said . . ." Zack started to protest, then fell silent. Somehow, the thought that Carl had lied about bagging the daddy hare was worse still.

"What did he say, Zack?"

"He said . . ." Halleck's eyes opened wider as the memory came back. "Why—why he never did *say* he *shot* that hare. I remember now: Carl took it out of the bag and held it up, and what he actually said was, 'Look what I've got!' I . . . I just assumed he'd bagged it himself.

"It was all fraud," he whispered. "And I helped. I was so ready to believe. . . ."

"He was lucky, Zack—just lucky a lot of times when your luck was bad. He played that up and made it look much more spectacular than it really was. But don't you see the most important thing?"

"I think I do now. Carl never risked a trial unless the odds were loaded in his favor, and he never consented to a rematch. He convinced me he was so superior that half the time I beat myself. . . . Then—he didn't really steal you away from me, did he?"

Sylvia shook her head. "No, Zack. And he never tried. When we both thought you were . . . gone . . . Carl played the part— Oh, you know how charming he could be. And it wasn't all pretense, either. He really believed what he told me at the time."

Zachary could feel the Big Brother image of Carl Halleck dissolving like a sand castle before the incoming tides.

"It all seems so unreal now, doesn't it, Zack? As unreal as my happiness. I was hurt—terribly hurt—when you wouldn't even stay overnight with us, that time you came back from overseas. I think I hated you for a while—even wished that you had been killed. But he never said a word against you, from the time the false report reached us to the time you came to stay at the project. Carl was relieved, you see. He could afford to be generous and repentant so long as you were not around to disturb the picture he had of himself."

"And that has been his life," Zack said softly. "All his

life he's worked at making an impression." Astonishingly, he felt his eyes misting over. "Why, Sylvia? He didn't need to. He always had ability—why, he really is something of a genius." A low chuckle broke in his throat. "Who am I to chide my brother for lacking self-confidence?"

"But now it's more than just a brothers' quarrel, Zack."

"It's more than the three of us—and you and I can see it. He can't. He sees nothing but his own position, his own vanity."

"When we fled, when this ship fought, that was for our lives—and maybe not just ours, but who knows how many other people and beings? And he did this—this sabotage. He's found some creatures who flatter him the way he's always wanted to be flattered, and that is all he cares about. If he hated us, or even if he believed in the Quoxians with all his heart and soul, it wouldn't be so bad. But Carl doesn't hate us, and he really isn't ready to make sacrifices for the Quoxian plan. He doesn't care for them or us. He wrecked this ship, not even considering that it might mean your death and mine. You understand that, don't you, Sylvia?"

She stiffened slightly and put her arms on his. "I've known it in my heart for so long, and I couldn't say it. I knew it would have to come to a showdown, but I wanted you to know why. Because if you had gone after him, seeking only the image he had built up in you all these years, then he would win. Even if you destroyed him, Carl would be the winner."

"He can't hurt you now, Zack, because you won't let him. You won't let him now, will you?"

Zachary grasped her hard. He held her a minute, then kissed her fiercely. He let her go, turned, and made off to find his enemy.

In the dimness the ship seemed huger than ever. In the silence he heard the echoes of his feet, his breath. The ship

was a jungle of black and white—nothing was familiar, no room could be identified. He recognized only the library. He looked into chambers he had never seen before—found an eerie room of lockers and bunkers with assorted tools, hand tools, mechanical tools against every conceivable use. This, then, was where Carl had found the bar. He paused to find a weapon for himself, found a curved glistening, glassy bar, hefted it, took it with him.

For a long time he searched, yet he found no trace of his brother. He guessed what Carl would be doing—probably looking for the ship's manual controls. If he could find them, make sense of them, Carl Halleck might be able to bring the ship out of its retreat, bring it back to the sane universe and surrender it to the Quoxians.

He returned eventually to the main room. Sylvia was still there, hunched in a chair, silent. He went over to her, knelt by the chair, talked softly, gently. She put her hand over his, and they were allied, silent in agreement.

Finally he got to his feet, looked again about him. He saw some white flecks against the dark floor, bent down, brushed some fragments. "I thought of him as the Ever-Perfect Lieutenant," he said to Sylvia. "He may have been just part of a machine—not even a real robot, just a voice for a monster mechanism—but he had personality. They built him with a capacity to enjoy his work. He liked being a warship, the best space warship that *homo sapiens* will ever build. Ever."

"Is that what he really was?" said Sylvia. "I thought he was a robot, just a servant that was part of a crew. You mean he was just the embodiment of a thousand dials and readings, in the simple form of a man, that could tell you only what you needed to know."

"Yes," said Zachary, "that's all he really was."

"But then," said Sylvia with a rising excited note, "even

in our own time, didn't big ocean ships have emergency controls? Surely this ship must have an emergency control board on hand against just such an accident."

Zachary looked sharply at her. "That's right. It should. Then why hasn't it shown up for orders?"

"Because," she said breathlessly, "nothing on this ship is moving that is not essential. Because all the power is in use to keep us where we are. Because . . . you never called it!"

Zachary nodded his head slowly. It might be as simple as that. But how did you go about calling it? He could think of one easy experiment only.

He raised his voice, spoke out loud and commanding. "Master Cruiser 12-12-12! The Emergency Control Board is ordered into action! Report at once to the commander in the central hall! Report now!"

His voice echoed eerily around the huge room and seemed to resound from the corridors. The two humans held their breath as they listened. At first, there was nothing; then somewhere in the distance they heard a click, then a soft padding sound which echoed ever so faintly through the silent spaceship.

A figure appeared in an entry of the central chamber. It was a blackish figure, about four feet tall; the eyes and hair and outlines glowed white. It came toward them in the same not-quite-human manner that the EPL had employed.

It stood before them, and its voice spoke out, soft, clear, *feminine*: "Standing by for your orders, Commander."

Zachary and Sylvia stared at it. They had expected a duplicate of the Ever-Perfect Lieutenant, an exact twin. But this was no twin; where the EPL had been male, this was female. This was a woman's form, its voice a woman's voice, its features a girl's.

And suddenly Zachary and Sylvia burst out laughing. It had struck them both at the same time that the builders of

this last of all spaceships, back in 237,000, had very human ideas. The shape of the control boards didn't really matter—so why not vary them? Especially make sure that no one could confuse the emergency board with the main board, since otherwise both boards housed the same personality, the same memories, the same abilities.

The Emergency Mate looked at their faces, and broke out into a delightful grin, putting its slender hands on its shapely hips. "Well?" she said.

Zachary choked down his relieved laughter. Still smiling, he said, "Give me a full report on the present condition and whereabouts of this ship."

The petite robot stopped smiling. "The ship is in negation, outside of the normal space-time continuum. It is being held there by the operation of our engines, drainage which leaves only a minimum for internal use. It can remain so about three subjective hours more—I can give you the exact figure—then it must return to normal space."

This confirmed what Zachary had already suspected. "What will happen when we return to normality?"

"The ship will resume its exact speed and condition of the instant of reversal. It will, however, be not too far from the point in space it departed. The drag will have brought it nearly to a standstill, as compared to its former speed." The Emergency Mate looked at him as if waiting for the next question.

"Then we would expect to find ourselves facing our pursuers in whatever position they deem to be to their best advantage?" This seemed an obvious conclusion and the EM nodded, a glint of action in her eye.

"We will have to come out fighting," she said, with the same expectant gusto that her predecessor had. For a moment, Zack was surprised to find the little female as eager for a fight as the late lieutenant. Then he had to re-

mind himself that, in fact, the two were one and the same. They were both simply the mouth of the ship itself—and the ship was a warrior.

Zack turned to Sylvia. "Looks bad," he remarked. "I expect the Quoxians will have been able to bring up their heaviest tricks—and I doubt that we can evade them."

Sylvia was calm, controlled. "If we have to face it, we have to. We must have faith in ourselves and in those who sent you this ship. But what about Carl? Now that we have this—control board—around, she—it—can tell us where he is."

The Emergency Mate looked quizzically at Zack, who explained about Carl and his absence. There was a moment of concentration, then the little humanoid shook her head. "He is not in any of the chambers or corridors of this ship open to passengers," she said. "If he were, I would know it. He may, therefore, either have left the ship—which is impossible in negative space—or have penetrated the sealed spaces of the hull and engines. I can have a cross-check of all circuits and channels to determine this, but we cannot spare the energy while we are under negative strain."

Zack made a fist, punched one hand into the palm of the other in frustration. He turned to Sylvia. "He wouldn't dare sabotage the ship while in this condition. We'll have to ignore him for the time being."

The girl looked at the robot. "Carl studied the system of energy-field mechanisms while in the dome. I think he could tamper with this ship if he had to. That bar he used—wasn't that one of the tools for manipulation of non-physical machines and lines?"

"It was," replied the Emergency Mate, "and there is other equipment of a similar nature missing from the stores. With the use of these, it is possible for a man to penetrate any

part of this ship, to gain entry to its space-lock mechanisms and its landing craft—both physical and force-bubble.”

Sylvia smiled. “I don’t think he’ll take any risk that is not necessary. Carl is pretty cool-headed where his own interests are concerned. When shall we—come out fighting?”

Zack knew the decision had to be made. “The sooner the better,” he replied. “Who knows? Maybe the Quoxians will not be fully prepared.”

He turned to the Emergency Mate. “Can we come out of it suddenly, or must the return be gradual, as in the case of the Quoxians who went into negativity?”

“We are better controlled than they. We can come out fast.”

“Very well,” was Zack’s order. “Get everything in fighting trim. Have all defensive screens ready to go into action at the instant of transition. Activate every weapon port and prepare me a large vision ball that will show the immediate disposition of space around us.”

The Emergency Mate, grinning devilishly, stood still, apparently communing with itself. Yet the silence was an illusion, Zack knew; orders were being transmitted throughout the ship, relays switched and tripped, and everything brought into taut preparedness.

The little robotic female looked up and nodded. Zack seated himself, steeling his nerves to keep himself calm. “Let’s go!”

The room was still wrapped in gray, faces and objects in reverse blacks and whites. There was an instant of tension; they felt a keening in every nerve—then, suddenly, everything turned again inside out. Where black had been was now lightness; whites became dark. The room flashed into full color. There was a hum which became a tone of background music, and color-patterns started to cover the walls.

The Emergency Mate, who had been a form seen as a

photographic negative, suddenly became a redhead, with flashing blue eyes, some astonishing make-up, and an oddly cut garment—which was representative of the fashions and scenes of the period the ship had been built for.

At the same instant there was a signal of alarm, and a big ball flashed down before Zack. In its depths he saw that space mirrored their ship in full color, moving again among the clustered stars of the galactic center. Directly facing them, in their line of motion, was a blue sphere, a sphere several times as large as the 12-12-12.

Without being told, Zachary Halleck knew that this was the enemy. It seemed to be a single Quoxian, though that must be but a surface appearance. Obviously, it was a vast mass of individuals, grouped together and acting in unison.

"Will we hit it?" asked Zack, startled.

"It is retreating from us at almost our speed," said the Emergency Mate. "I don't know what this will do; I have no record of any similar encounter."

At that moment, a huge beam of light from the tremendous Quoxian mass focused on them. It came to a sudden halt as the 12-12-12's screens blocked it. "Loose power," said the EM. "We can handle it."

There was a return emanation from the 12-12-12, as its engines diverted cosmic power into a similar beam. The two met and canceled each other; they flickered out. Instantly there sprang from the bow of the 12-12-12 a series of little flickers sparks which sped toward the blue planetoid.

"Force missiles," said the EM, "combined with several other form variations."

The sparks traveled on, closing the gap. One by one, as they passed a certain invisible margin, they exploded; but one spark seemed to go on, to penetrate even closer, to

touch the edge of the Quoxian mass. There was a puff and a dent, which slowly closed after it.

"Hurt it that time," said the Mate, glowing. "A solid shot—so old-fashioned that they never expected it among the others."

But now the Quoxian mass seemed to narrow the margin closing in on the 12-12-12. The Emergency Mate made a hissing noise. "Do they mean to hit us head-on?" she asked. "I've no experience."

Zack, glued to the sight of the action, suggested, "Do you remember any new equipment having been added since you were reactivated?"

The blue eyes flickered. "Yes," she said swiftly. "There are circuits I never had before. Thanks for reminding me." The words were equal to action; now a sphere of light flashed out around their own ship—a misty white glow that spread about them until the form of the 12-12-12 was but the nucleus of something that appeared as a gigantic globe-man, as huge as the mass-Quoxian facing them.

Zack whistled; Sylvia *oohed*, and the Emergency Mate let forth a most unladylike whoop. The 12-12-12, now a huge misty globe, leaped forward, accelerating faster.

The Quoxian mass seemed to falter; it stopped its onward rush, tried to draw back, to remain equidistant. But the 12-12-12 stepped up its charge, seeing that this was evidently the right tactic.

The two great masses of light and power moved toward each other. In the main chamber, the three watched with tense awe. "What is it?" asked Sylvia. "What is that surrounding us?"

The Emergency Mate said slowly, "It reacts on my detectors like a globe-man or a host of globemen, but there are none there. I think it is the essence of their cosmic en-

ergy, somehow brought about by this ship. I have no data on it abilities."

"Give it to them!" whispered Zack, catching the spirit. "They're afraid, so let's sock 'em."

The 12-12-12 sped forward ever faster, rolling on toward the planetoid-sized blue ball like a monster white volley-ball. And now the Quoxians came to a stand. They stopped retreating and began to roll forward, apparently determined to meet the challenge.

There were several seconds of unbearable tension as Zack and Sylvia waited for the collision. The two great glowing spheres seemed to flicker and discharge as they closed in. For a moment, the two edges were touching; then, with a shock felt throughout the ship, the two rammed together, became one flaring, pulsing, blue-green mass. Within the 12-12-12, waves of heat and shock penetrated the flesh and bones of the humans. For a moment, Zack thought he was being torn apart; he felt a crash, a wrenching blow, and then it was over.

For a moment he sat in his chair, unable to move, his head ringing, his eyes registering flashes of light. Gradually, his senses cleared; he looked around. The room was still there, the Emergency Mate was still there. Sylvia was sitting in wide-eyed shock in her own seat, and the vision ball still floated before him.

He looked into it. There was the 12-12-12 moving serenely through the blackness of outer space, the close-packed stars of the Milky Way forming a glittering background. The sphere of misty white no longer surrounded them.

He looked for signs of the enemy, but could see no blue sphere, no little blue globes of individual Quoxians, no green-glowing discs or spacecraft of any kind. There was just the Master Cruiser 12-12-12, from the year 237,000 A.D., moving alone.

Sylvia had gotten up and was staring into the ball. "They're gone," she said, and threw her arms around Zachary. "We've beaten them! We've left them behind!"

The Emergency Mate observed them sardonically. "They're gone, all right, but we haven't left them behind. There's no sign of their ever having been here. We are alone in space."

Zack felt too happy to give thought to the EM's words; but a few moments later, he disentangled himself as he caught the implication of the control board's remarks. "Where are we, then? How far from their sector?"

The Emergency Mate shrugged shapely shoulders. "I don't know. I don't know where we are. I have accurate charts for this entire galaxy, but they do not correspond with any observations I am now making. We are proceeding outward from the center of a galaxy that resembles the Milky Way galaxy in general size and weight. We are heading for some point on its perimeter. But there is not a single formation, constellation, or star familiar to me."

Sylvia looked at the scene in space. "Then . . ." she gasped, "we're lost!"

XVII. The Unmapped Universe

ONE THING that had been realized by humanity at the very dawn of their scientific maturity was the indivisibility of time and space. The mystery of space had seemed easily solvable, at first—there was matter and there was energy. True, but the problem of determining which was which became more and more complex. It turned out that matter and energy could be interchangeable; one turned into the other, and vice versa. The deeper men probed into the minutiae of matter—the building blocks of material things—the more

they found energy, and complexes of energy, at the bottom of everything.

There were those who insisted that ultimately all resolved into electrical charges; and since electric charges were apparently without physical substance, it could be claimed that everything was nothing. Pursuing this train of thought, if the universe and all its manifestations were nothing, then the universe was all in the imagination. Whether "the imagination" in question was supposed to be that of a being prior to, and superior to, the whole of existence, or was supposed to be that of each individual, was still under debate. The essential point here was that if all existence was in some way imaginary, then it need not *necessarily* adhere to any definite laws.

Unfortunately for this view, the universe did seem to follow discoverable patterns. In human phraseology, it obeyed specific laws, and an action did and does beget a reaction. How could this be, if all were nothingness? The problem remained unsolved.

Then there was the factor of time. Nothing remained at a standstill. What did exist—all that was known to men—was in a state of motion, of changing. Perhaps the answer to the riddle lay in this: electricity—whatever it might be—in the process of change and movement does not have the peace to cease existing. Perhaps this was the meaning of time; perhaps this universal motion was the glue that kept the universe in apparent existence.

Humanity had grappled with space, but time was not so easily to be mastered. How could a fly lift itself from fly-paper? How can those who are fixed in the motion of time extricate themselves from a stream which surrounds them on all conceivable sides?

The answer, as the Quoxians found, lay in the mystery of entropy. If everything in a plenum is a hundred years old,

then an object only ninety years old must be from a different plenum. It cannot fit into the hundred-year-old plenum; once there, it must either cease to exist or find its way back into its own ninety-year-old continuum.

By tampering with entropy, the Quoxians had sent machines back into earlier periods of the universe. They had, however, failed to send themselves back—they were geared mentally to the sources of energy in their own time. It was easier to tinker with the entropic gradation of more physical humans—the Hallecks.

There were three individuals aboard the Master Cruiser 12-12-12. The natural entropy readings of these three were of the universe as it existed one million years before. They had been brought forward by artificially increasing their entropic measurements—but the fitting was artificial. In that future universe they were unstable elements. Carl Halleck's understanding had not been wrong, basically; he had merely underestimated the inertia of their existence. Once they had been transferred, it would take a similar amount of energy to blast the excess loose.

That blast occurred when the 12-12-12, the last spaceship ever to be built by man, carrying a surcharge of mental energy stored aboard it and within it by the globe-men of the Year One Million, crashed head-on into an equally vast battery of similar energy carried by the combined beings of a horde of Quoxian intelligences. Even a million years before the Quoxians, it was known that there is a critical mass for certain elements—plutonium, for instance—beyond which no increase is possible. Once critical mass is reached, part of that matter resolves itself into energy. History had shown that such limitations exist in many fields.

The globe-men knew what the Quoxians never suspected—there was such a "critical mass" limit to the number and quality of minds that can operate in linkage.

When the two masses of mental energy combined, something had to give. There had to be an escape of some part of that energy—but not into matter; there was no room for matter there. However, there were three beings whose existence in that space at that time was unnatural. The three were forced out, hurled back to a universe whose entropy was at balance with their own. And thrown back with them, following the fault that had opened, artificially deprived of entropy, was the vessel enclosing them, the bulk of physical matter in the area of the crash.

The globe-men had estimated what would happen at the end of Zachary's mission, and had drawn the Quoxians into doing as predicted. This was the road charted for Zachary Halleck, but the globe-men could not have told him in advance.

It took a while for Zachary to figure this out. The ship itself was lost; there was no map or chart in its entire existence that showed the stars as the 12-12-12 found them now.

Zachary, Sylvia, and the Emergency Mate studied the stars around them while the 12-12-12 moved on, pondered and weighed the galaxy they were in. The first conclusion was that it was indeed the Milky Way galaxy, and not some other one in some far corner of an infinite universe. The second conclusion was that there had been a shift in time.

Were they farther in the future, or had they returned to a distant past? Zachary ordered the ship to study its star charts, its records on the motions of stars, and to extrapolate the appearance of the galaxy during the next million years. With the magnificent force-field calculators, the Emergency Mate came up with chart after chart of the future. It did not conform.

It was Sylvia who suggested reversing the process. Take the star charts of the year of the ship's launching, back three-quarters of a million years, and then backtrack.

It was four hours later when the Emergency Mate, standing motionless and wrapped in inner thought, suddenly came to life. Zack and Sylvia had finished a meal, were idly talking about the wonders they had seen, when the sprightly red-headed robot uttered a whistle. They looked up.

"I've got it," said the EM, wide-eyed. "Back-tracking the stars in this cluster we are passing shows that they look the way they did one million years ago! We've slipped back into time. I'm working out the correct maps now, on that basis, for all the rest of the galaxy."

"Why," said Sylvia, "that means we've returned to our own time, to the Twentieth Century!"

Zack stared at the vision ball, watched the stars. "Yes, it must be that. The explosion, or whatever it was, restored us to our natural period. We've been returned—and the ship with us!"

The Emergency Mate continued calculations quickly, once it had found the key. In a short while, it was able to tell its commander exactly where in space they were. They were half a galaxy away from the sun called Sol, and its family of nine planets.

Sylvia was startled at this. "How can we ever get back? Surely it would be many lifetimes to make the trip."

Zachary shook his head. "Not in this ship. It made the trip with me once and can do it again." He turned to the control board. "Head for Earth at once. We want to get there as fast as possible."

The Emergency Mate nodded her red mop of hair. "We're on our way," she said. "We shall shortly slip into ultra-dimensional warp and cut through. It will be but a matter of days."

And so it was. As soon as they had left the star-jammed area of the galaxy's heart, they increased their speed, slipping into the kind of cosmic drive that bypassed problems which

would be too great for older styles of ships. For Zachary and Sylvia the journey would have been a constant delight, had it not been for the question of Carl Halleck, and the problem of their return to Earth.

The Emergency Mate had searched the ship through the fields and forces that interlaced it. It had reached a conclusion, namely that Carl had secured himself in one of several sealed, physical spaceships that the 12-12-12 carried, as ancient ocean liners had carried lifeboats. These ships were nestled within the framework of the greater vessel but were integral units, sealed and apart from the body of the ship. Once that conclusion was reached, it would have been simple for the Emergency Mate to have determined the one in which Carl was hiding. But Zachary and Sylvia refused to order a search.

They agreed between themselves to keep the matter in abeyance. The only question was: if Carl was in such a lifeboat, could he launch it and escape?

The Emergency Mate said he couldn't. To the best of the ship's knowledge, these little craft could not be launched—except at the bidding of the ship's commander, or in case of complete breakdown.

Zack and Sylvia searched the records and memories of the 12-12-12 for a world near Earth, yet distant enough, on which Carl could be deposited in perpetual exile. He would be alive, but alone on a planet that was livable, but uninhabited. He would have all the equipment he needed for comfort and research.

The records showed several such planets, one near 61 Cygni. They chose that one.

They were within twenty light-years of Sol when the Emergency Mate announced the presence of artificial bodies. Zack and Sylvia rushed to their observation room and ex-

amined the scene. At first, what they saw against the background of constellations that had assumed familiar forms and dimensions was a spot of light. As they drew nearer, it became a line of green lights, and finally, a line of discs.

"They're Quoxian discs—time-explorer robot craft, probably on their way to Earth," declared Zack.

"Want me to destroy them?" asked the Emergency Mate eagerly. "I can pick them off, one by one."

"No," said Zack. "I want to see where they are going. Follow them. I assume they are moving on fixed orbits to their destination."

The next day went by with the great ship tagging along in the wake of the discs, like a huge fish following a school of minnows. The discs were moving in star drive, heading straight for the Sol system.

They slowed down as they passed the boundaries of Pluto's orbit, slid in past the giant outer planets, lopped over the asteroids, and headed like an arrow for the Earth-Moon system.

Zack kept a constant watch now, for he wanted to see exactly where these discs would go. Sylvia had told him of the base on the outer side of the moon, but he wanted to see it for himself.

The discs operated cautiously, once they were close to Earth. They maneuvered to keep the moon between themselves and the Earth surface. Then, as the barren, crater-pocked landscape of the lunar surface filled the sky, they started downward.

In the ship was mirrored a great central crater. On its flat bottom, several dozen miles across, rose a series of metal domes and a row of grounded discs. This was the Quoxian robot base; this was the spot from which they hoped to begin their tampering with human society at its dawn.

"When we are close enough," said Zack to the Emergency

Mate, "we shall open fire. I want that base blasted entirely out of existence. I want nothing to escape, nothing at all."

"Ready, willing, and able," sang out the diminutive female figure. "Just say the word."

Closer they drew to the crater and watched while the column of tiny glowing points circled down and landed in a second row beside the first. Zack raised his hand, ready to give the order. And then there was a slight jolt. He paused; something came between the ship and the lunar surface several miles below.

It was a small, oval spaceship, a replica in miniature of the 12-12-12. The Emergency Mate identified their own lifeboat number three; Carl Halleck was making his escape.

"How did he do it?" asked Zack angrily. "I thought you said it couldn't be done."

"He severed the force controls," said the EM. "It couldn't be done in my time."

"He must have learned it under the Quoxians," said Sylvia, "but what is he going to do?"

"He's going to join the robot base. He hopes they can send him back again as they did once before!"

"Shall I blast him?" asked the Emergency Mate hopefully.

"No!" said Zack and Sylvia together. "We can't. It would be murder for us to do it. Can't we catch him?"

"Not if you want the discs to be destroyed. If we go for him, they'll spot us and scatter."

Zachary's heart pounded as the question of his brother arose for what might be the last time. He knew that he could destroy Carl easily, but a man does not kill his brother and escape the consequences of guilt. Carl was not threatening him; Carl had made no overt attack upon Zack and Sylvia. Had he forced Zachary to strike in clear-cut self-defense . . .

As he stood in hopeless indecision, the oval spaceship neared the crater, began to close in for a landing. And then it was spotted from below. There was a movement among the discs resting on the moon's surface. There was a sliding motion among the domes and suddenly a fan of beams came into being; a brilliant rush of energy sped up from the domes, bathing the little spaceship in their glare.

There was a splash of intolerable sparks, then a puff, and the little craft flew to pieces.

"They never gave him a chance," murmured Sylvia. "They shot on sight, automatically—like the robots they are."

"He's gone," said Zachary. "My brother has gone."

The Emergency Mate said nothing; it merely watched the mass of atoms sifting slowly down to the moon's dusty surface.

Zachary looked up, feeling inexplicably sad. *My little brother*, he thought.

He could only think of Carl as a child, now. "Somewhere, there was a block," he whispered. "All your life, you were a frightened child, Carl. You were doomed to play the part of a superior being before me, always afraid I'd find you out."

And it was so unnecessary, because you were superior in so many ways; you had gentus. But none of the real superiority counted. What you wanted was a child's make-believe.

There was a roar of power and the ray that came down on the crater bottom from the unseen ship in the black interplanetary sky blasted a hole half a mile deep. The abyss ran from wall to wall of the crater, and left not one molecule of Quoxian construction resting upon another.

XVIII. The Primal Enigma

THE EARTH spread out in space before them, filled their sky. A half crescent, its sunlit part was the vast glistening blue expanse of the Pacific Ocean, with here and there sections obscured by wispy cloud areas. Japan and the coast of Asia, Australia, and the white of the poles could be seen clearly. At the edge, along the darkening sunset belt, they could make out the western coast of North America.

The 12-12-12 was invisible as it came down slowly, moving in the direction of Oregon. Zachary and Sylvia stood in the forward chamber, its walls transparent, and watched the planet swell beneath them.

"Do you suppose we are in our own time?" asked Sylvia. "Returning as we did, we might as easily be a hundred years ahead as in the proper year. Or—even in our own past."

Zachary Halleck smiled. "No, I'm sure we're not in our past. That, I think, would be impossible under the circumstances. We were shoved back according to the entropic readings of our bodies—and those readings were of the time we left. It's my guess that we returned to this galaxy at close to the day, and perhaps even the hour, we disappeared from Earth.

"It can't be an exact return, because if that were the case, I'd have found myself in the 12-12-12, but you and Carl would have been out in space some hours ago, by my time—because I was taken some hours later than you were."

"No, Zack," she said. "We were taken to the moon—but the moon of our own time; it was later that we were transferred to the future. The difference may be very slight."

He nodded. "But it would have to be exact if there were going to be an exact return—well, maybe the fact that we were not separated when we were jolted back proves that we all went forward at exactly the same instant, but I'm not convinced. An approximate return is the simpler explanation. In any event, we will not have returned to any instant in our own past on Earth; that I'm sure of. But I think we'll find that only a short time—a matter of a day or so at the most—has elapsed back home since we all disappeared. I would bet on it."

She put her arm around him and watched the scene again. He consulted the Emergency Mate, and found that they would arrive at their destination within an hour. For a while, they remained in silence, wrapped in their thoughts. Then Sylvia said, "What will we do with this ship? You know, it could make us the most powerful force on Earth. We could reshape the Earth with it, defeat all the armies in the world if we had to."

He nodded. "I've been aware of that. We've got to get rid of this wonderful ship before we give way to temptation. Reshaping the world sounds very fine to the person who intends to do the reshaping. After all, darling—that is all the Quoxians are trying to do."

"Zachary Halleck, that is the most ridicu . . ." Sylvia broke off in the middle of the word and stared at him, open-mouthed. "Why . . . you're right. That's all they're trying to do."

"And it was all that Napoleon, Hitler, and Stalin—to name a few—were trying to do."

"But," she objected, "we can't hide a huge ship like this. We can't simply stick it in the woods and hope that nobody will notice it. And we can't send it back to its own time, either. Even if we let it float around in space, it would be found, sooner or later. And even if it's found a hundred

thousand years from now, it will still be too powerful for its finders. What can we do with it?"

"I don't know," said Zachary.

They stood in silence as they watched the ever-expanding mass of the Earth. The zone of nightfall had crept across the edge of North America now and was working its way slowly across the ocean. Night had fallen on the Pacific Coast.

Several hours later, they found themselves cruising invisibly and silently over the darkened land of the United States. Below them were the tiny lights of towns, the faint flicker of cars, the great black spaces of prairie and plain.

Then they were over their own area; the peaks and ranges of the Cascade Mountains caught the flickerings of starlight and moonlight. At Zachary's directions, the Emergency Mate—standing silently behind them—brought the ship angling downward, carefully, slowly, toward the Halleck homestead. They saw it then, the old building, the converted barns. It was dark and silent.

"I guess Carl's helpers went away, closed the place up," said Sylvia. "I wonder what they thought, how our disappearance was reported."

Zachary shrugged. "I think we'd better claim we were lost in the mountains. Tell them that you and Carl were stunned by the fire. You wandered around, and he fell to his death somewhere before I found you."

"Yes," she said. "That's supposing the ship isn't hanging around as big as life."

Zachary turned to the Emergency Mate, looked at her not quite human approximation of a red-haired temptress. "When this ship was reactivated, were any instructions for its return given?"

The redhead looked at him, a certain bewilderment in

its features. "Yes, a general order to return to the museum planet after you had discharged the command. But I am unable to obey this order. There is no such planet in this period of the universe." There was a certain wistful uneasiness in its voice. "Without a commander, I'm dead, lost. If you leave me, or order me to wander like an unguided missile, this will be death without end."

Sylvia sucked in a breath. The ship was so perfect, so intricate, it was like a living being. It was a robot, a machine seeking to serve—yet happy to do so, eager to exist and perform its function. "We could keep it, have it hidden in space, use it occasionally to explore the stars and planets just for our own interest," she suggested.

Zachary shook his head firmly. "No. We can't chance it. And after we have passed away, then what? Besides, there isn't much that would surprise us now—we've already seen the histories and secrets of several dozen worlds in this ship's memory-banks. I have a feeling that the only thing for us to do is to order the 12-12-12 away into space and give the command for its self-destruction."

The Emergency Mate gasped, but said nothing.

They hung a few hundred feet above the Halleck home-
stead. It was around midnight. There was no one around, none to witness the ship. Zachary brought it into full visibility, looked around once, and ordered the creation of a landing force-bubble to set Sylvia and himself down on the ground.

They emerged from the ship and were lowered through the air, two humans apparently hanging in nothingness. They set foot upon the ground, stood at last at home, breathing their native air. It was a strange moment, a thrill that seemed to go through each of them.

They looked at each other in the moonlit darkness. Sylvia was wearing some form-fitting garment of the Quoxian worshippers who had been their servants in an infernal

world. Zachary stood in what was probably the uniform of an unborn race of men, on a planet still undiscovered, for a war of unimaginable purpose—a uniform whose insignia was indecipherable, and whose tradition was incomprehensible.

They looked around them, and as one looked up. The vast bulk of the ultimate spaceship hung there in silence, blocking out the sky. Somewhere within it stood the figure of a little woman—just a control board, and yet Zack knew that if there were tears possible to a robot, it would have them.

He had still to make his last command. He hesitated, and Sylvia plucked his arm. "Look," she said. "What's that?"

There were several tiny lights moving in the sky; little white dots. The two stared. "More discs?" said Zachary. "But I'm sure we wiped them out."

Then he remembered the white diamond that had fought the green firepoint that was the Quoxian disc's projection. He drew in his breath sharply. "The Older Ones. The first globes of which the globe spoke," he whispered.

The several points of light flashed toward them. They became diamond-shapes, white, glowing. They hung in space and surrounded the 12-12-12.

"Your orders, Commander, quick!" came the voice of the Emergency Mate, down the invisible column of force that still connected the two with the ship.

Zachary spoke slowly into the night. "Withdraw your contact with us. Activate your new circuit, the one you used to fight the Quoxian assault."

There was a feeling of freedom about the two and the night air seemed somehow less hampered. Above them, a faint, misty glow began to surround the great ship. It grew deeper and as it did so there was a flickering movement among the hovering diamond-shapes. An answering, opposing

glow appeared; in an instant there was tension in the air, a vibration that caught and jarred all the air around them.

There was a sudden flare-up, a shattering crash of thunder, and a shock wave that threw Zachary and Sylvia to the ground.

When they struggled to their feet, the 12-12-12 was gone, the sky clear. And over the Cascades the last of the enigmatic diamond lights was disappearing.

Sylvia sat up, breathless. "It's gone! Back to its own time?"

Zachary climbed to his feet and helped her up. "Without us on board, its entropic reading was entirely wrong for this universe. I don't think it took much of a shock to jar it back into the future. The Emergency Mate is going to be able to obey that last command and return to its final base."

They walked slowly, thoughtfully, toward the house, arm in arm. Sylvia turned her head, looked again at the stars hanging in the sky like a billion jewels. "Do you think we'll ever solve the mystery of those lights in the sky? Do you think we'll ever know the real secrets of the beginning and the end of life on Earth?" she asked dreamily. "And do you think we'll ever get tired of each other?" she added.

Zachary looked at her and his voice was husky as he took her hand and helped her climb the steps of the porch. "Not in a million years," he said.

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