The Secret of the Ninth Planet

By DONALD WOLLHEIM

SCIENCE FICTION NOVEL

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A Science Fiction Novel

By Donald A. Wollheim

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Cecile Matschat, Editor Carl Carmer, Consulting Editor

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For— Three denizens of this minor planet: Eleanor, Bill, and of course Janet.

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About the Author

The Mysterious Ninth World

While the circumnavigation of the solar system seems farfetched, it may not be once the problem of effective anti-gravitational control is solved. In this book I have assumed that the many researchers now actually at work on this problem will achieve such a result in the next decade. It is not at all impossible that they may—for we all know that the more minds that work at a problem, the sooner it will be solved. The discovery of a means of negating, reversing or otherwise utilizing the immense force of gravitation for space flight purposes is now thought to be within the bounds of probability. It should occur some time within the next hundred years, possibly in even the short period I assume here.

Once solved, the severe handicaps imposed on space exploration by the weight and chemical limitations of rockets would no longer apply. The whole timetable of our conquest of the planets in our solar system would be tremendously speeded up, from hot Mercury all the way out to frigid Pluto.

In describing the visits of the spaceship *Magellan* to the planets, I have endeavored to adhere to known facts and the more reasonable assumptions about each of these worlds. The planet Pluto, however, deserves further comment, occupying as it does both an important role in this adventure and a unique one in actual astronomical lore.

Back at the dawn of this century, many astronomers, and notably Dr. Percival Lowell, studied certain irregularities in the orbit and motion of Neptune, at that time believed to be the outermost planet. They decided that these eccentricities (or perturbations, as they are called) could only be caused by the presence of another, yet undiscovered planet beyond Neptune.

Following this line of research, a young astronomer, Dr. Clyde Tombaugh, working at Lowell's own observatory, was able to announce on March 13, 1930, that he had finally found this ninth world, which he named Pluto.

In the years that have followed, Pluto has proven to be a truly puzzling

planet. Unlike its neighbors from Jupiter outward, it is not a giant world, light and gaseous in nature. Instead, it belongs physically to the small, dense inner planets of which Earth is one.

The latest viewpoint on this planet, whose size and weight seem quite like those of Earth, is that it may not be a true child of the Sun, but an outsider captured as it roamed the trackless realms of galactic space. Its orbit is highly eccentric and rather lopsided, taking it as far away from the Sun as four and a half billion miles and as close to the Sun as two and three-quarter billion miles, thereby cutting inside the orbit of Neptune itself. In fact, during the period from 1969 to 2009 (covering most of the lifetimes of the younger readers of this book) Pluto will not be the ninth planet, but the eighth, for it will be at its closest in those years. Huge Neptune will thus regain temporarily the title of being the Sun's farthest outpost!

This orbital eccentricity has lead some astronomers to speculate on the possibility that Pluto may once have been briefly held as a satellite of Neptune. And following that line of thought, the possibility also has been suggested that Neptune's larger moon, Triton, may once have been a companion of Pluto which failed to break away from Neptune's grip!

I think that the first men to land on Pluto are going to make some very astonishing discoveries. But I am also sure that they will never go there in rockets. They will have to make the immense trip by some more powerful means—like the anti-gravitational drive.

D.A.W.

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Chapter 1. Special Delivery—by Guided Missile

On the morning that the theft of the solar system's sunlight began, Burl Denning woke up in his sleeping bag in the Andes, feeling again the exhilaration of the keen, rarefied, mountain air. He glanced at the still sleeping forms of his father and the other members of the Denning expedition, and sat up, enjoying the first rays of the early morning.

The llamas were already awake, moving restlessly back and forth on their padded feet, waiting for their tender to arise and unleash them. The mules were standing patiently as ever, staring quietly into the distant misty panorama of the mountains.

It was, thought Burl, a dim day, but this he supposed was due to the earliness of the morning. As the Sun rose, it would rapidly bring the temperatures up, and its unshielded rays would force them to cover up as they climbed along the high mountain passes.

The sky was cloudless as usual. Burl assumed that the dimness was due to volcanic dust, or some unseen high cloud far away. And, indeed, as the expedition came to life, and the day began in earnest, nobody paid any attention to the fact that the Sun was not quite so warm as it should have been.

The Denning expedition, questing among the untracked and forgotten byways of the lost Inca ruins in the vast, jagged mountains of inland Peru, was not alone in failing to notice the subtle channeling away of the Sun's warmth and brilliance. They were, in this respect, one with virtually the entire population of Earth.

In New York, in San Francisco, in Philadelphia and Kansas City, people going about their day's chores simply assumed that there must be clouds somewhere—the temperature only slightly less than normal for a July day. A few men shaded their eyes and looked about, noticing that the heat was not so intense—and thought it a blessing.

In some places in Europe, there were clouds and a little rain, and the dimness was ascribed to this. It was raining in much of Asia, and there were scattered afternoon showers throughout Latin America, which were standard for the season. There was a flurry of snow in Melbourne and a cold blow in Santiago de Chile.

The men in the weather bureaus noted on their day's charts that temperatures were a few degrees lower than had been predicted, but that was nothing unusual. Weather was still not entirely predictable, even with the advances of meteorology that were to be expected of the latter years of the twentieth century.

The world was reading about other things than the vagaries of the weather. In the United States, baseball occupied the headlines, and the nonathleticminded could find some speculative interest in the completion of another manned space platform racing along in its eternal orbit twelve thousand miles away from Earth's surface. The U.S. Moon Base in the center of the Crater Ptolemaeus had described the appearance of this platform in an interesting radio dispatch which appeared on the first pages of most newspapers. The third prober rocket sent to Venus had been unreported for the tenth day after penetrating the clouds that hid that planet's surface from human eyes. It was, like its two predecessors, a minimum-sized, unmanned instrument device designed to penetrate the clouds and radio back data on the nature of the Venusian atmosphere and the surface. But after its first report, nothing more had been heard.

Some discussion was going on in science circles about what had happened. Speculation centered on the possible success of other types of prober rockets, but it was universally agreed that the time had not come when a manned rocket could safely undertake the difficult trip to Venus and return.

The years of space flight since the orbiting of Sputnik I back in 1957 had produced many fascinating results, but they had also brought a realization of the many problems that surrounded the use of rockets for space flight. It was generally believed that no one should risk a manned flight until absolutely everything possible that could be learned by robot and radio-controlled missiles had been learned. It now looked as if Venus and Mars trips were still a dozen years away.

Burl Denning was keenly interested in all of this. As a senior in high school, the newly expanding frontiers of the universe represented something special to his generation. It would be men of his own age who would eventually man those first full-scale expeditions to neighbor worlds. By the time he was out of college, with an engineering degree, he might himself hope to be among those adventurers of space.

Burl was torn between two interests. Archaeology was both a profession and a hobby in the Denning family. His grandfather had been among the first to explore the jungle ruins of Indochina. His father, although a businessman and industrial engineer, made annual vacation pilgrimages to the ruins of the old Indian civilizations of the Americas. Burl had been with him once before, when they had trekked through the chicle forests of Guatemala in search of a lost Mayan city. And now they were again on a quest, this time for the longforgotten treasure of the Incas.

Burl was thoroughly familiar with the techniques of tracking down the ancient records of mankind. He got along well with natives and primitive people; he knew the arts of wilderness survival; he knew the delicate techniques of sifting sand and dirt to turn up those priceless bits of pottery and chipped stone that could supply pages of the forgotten epics of human history.

However, later in the day it seemed as if their particular camp had petered out. There were ruins there—a broken-down wall, a dry well and a bit of eroded bas-relief lying on its side. Burl's father looked at him thoughtfully. The tall, sandy-haired youth was sitting astraddle a pile of dust, methodically sifting it through a wide-mesh strainer. A large pile of sifted sand gave evidence of the length of his efforts, and one broken bit of clay was the only result he had obtained. Two of the Indian guides sat patiently in the shade, watching them. One was digging slowly, turning up more dirt to be sifted.

"I think we've had enough here," said the elder Denning. "Burl, you can knock off. Tomorrow we'll pull up stakes and see what is in the next valley. We'll try to follow that old Inca road over the mountains. I don't believe anyone has ever penetrated there—and the airplane surveys indicated some evidence of human dwellings."

Burl nodded, and set the sifter down. He'd learned to curb his natural energies for the exacting tasks required of serious scientific research. "Okay," he said, "I was hoping you'd move on soon, Dad. This looked like a washout from the first. I'd say this place was sacked and ruined even before the Incas fell."

The older man nodded. "I suppose so. Well, let's wash up and see what's for supper."

They went down to the icy mountain stream to wash the dirt from their hands. "It's been a nice day," Burl commented. "In spite of the Sun being out steadily, it wasn't hot at all. Cooler than yesterday."

Mark Denning looked up at the sky and the Sun lowering toward the horizon. "There must have been some volcanic dust in the heavens," he said. "The Sun's been a bit dimmed, have you noticed?"

Burl squinted his eyes against the glare. "Wasn't any eruption around here. Maybe in Ecuador?"

His father shrugged. "Could have been thousands of miles away," was his slow reply. "Volcanic dust travels around the world, just as radioactive dust permeated the atmosphere from atomic testings. They say that the dust from the great Krakatoa explosion remained in the atmosphere for three years before the last of it settled."

When they had finished supper and the Sun was casting its last red rays over the rapidly purpling landscape, Burl got out the expedition radio, set up its antenna, plugged in its compact atomic battery, and tried to get the news from Lima. All he got was static.

He fiddled with the dials for a long time, twisting the antenna, ranging the wavelengths, but there was static everywhere. "Strange," he said to his father, "something's disturbed reception completely."

Pedro Gonzales, their official Peruvian guide, leaned over. "Could be the battery she is broken, eh?"

Burl shook his head. "Not this battery," he said. "It's a brand-new one, a real keen development. And I already checked the wiring. It's some sort of disturbance that's blocking reception. Maybe we're in a dead zone or something."

"Wasn't dead yesterday," said his father. "Maybe that eruption was radioactive."

Burl looked up sharply. "I'll check the Geiger counters, Dad. Something's blocking reception, something strong and powerful to interfere with this set." But when he returned, he had to admit he had found nothing.

When the Sun went down, they retired, for the temperature drops swiftly in the high, thin air of the Andes.

In the rest of the world people watched their color-vision shows without interruption. Reception was good with the Moon base, the space platforms had no difficulty making reports, and the radio news beamed out as usual. In Lima, there was a little static, and direct transmission with Brazil seemed partially disrupted, but that was all.

In the following five days, the Denning expedition had managed the difficult climb over the next range of mountains and had come down in the high plateau valley between. In this same period, the world began to realize that the dimness of the sky was not a temporary phenomenon.

Weather stations noted that the past few days had all been several degrees

under the average. Reports had come in that farmers were querying the unusual drop in the temperatures at night. And astronomers, measuring the surface heat of the Sun, came up with strange discrepancies from previous data.

One astronomer communicated with another, and a general exchange of advice began. In a short while, a communication was laid on the desk of the President of the United States, who scanned it and had it immediately transmitted to the Secretary General of the United Nations. The Secretary General circulated the report among the scientific bureaus of all member nations, and this led in turn to a meeting of the Security Council. This meeting was held in quiet, without benefit of newspaper reporters or audience.

There was no longer any doubt. The radiation of the Sun reaching the face of the Earth had decreased. The facts were indisputable. Where a day should have registered, in some places, at least 90° in the Sun, a reading of only 84° was noted. Measurements definitely showed that the face of the Sun visible to man on Earth had dimmed by just that margin.

This might not prove serious at first, but as the scientists called in by the Security Council pointed out, it promised terrible things as the year went on. A difference of five or ten degrees all over the Earth could mean the ruin of certain crops, it could mean an increase in snowfall and frost that could very rapidly destroy the economies and habitability of many places on the Earth's teeming surface.

"But what," asked the Chairman of the Council, "is causing this decrease in solar energy?"

This the astronomers could not answer. But they pointed to one factor. The reports from the U.S. Moon Base did not agree with the observations from Earth. Moon instruments claimed no decrease whatsoever in the amount of sunlight reaching the arid, airless surface of the Earth's only satellite.

The cause was somewhere on Earth. And the Security Council requested the careful scanning of the Earth from space platforms and the Moon to

determine the center of the trouble.

Burl Denning had not found the next valley of much interest, either. Evidence of an Inca road over the mountain had petered out. There were signs there had been human dwellings, but they were not Inca—just reminders of the onetime passage of an unknown band of primitives who had grazed their sheep, built temporary tents, and pulled up stakes perhaps a hundred years before.

So again at night, Burl, his father, and Gonzales took counsel. They were debating which way to proceed next; Mark Denning reasoning that they should go further inland, following tales natives had told; Gonzales urging that they retrack their path and proceed northward toward the regions where Inca ruins abounded.

For the past week Burl had not been able to get radio reception. The static had increased as they had gone eastward over the mountain, but not a word of news or any human voice came through. The Moon was rising on the horizon as Burl sat playing with the antenna. Finally he gave up and switched it off.

The discussion had died away and the three men were quiet. The Indian guides had retired to their own campfire, and one of them had taken out his pipes and was blowing a soft, plaintive tune.

Burl stared at the full Moon in silence, wondering if he would ever have a chance to walk its surface, or if his own future was to lie in probing mankind's past rather than surveying the grounds of his future. As he watched, he thought he saw a faint light among the brightening stars where none had been before.

He squinted, and, sure enough, he saw that one tiny white light was swinging more and more toward the center of the sky. He pointed it out to his father and Gonzales. "Too fast to be a celestial object," he said. "Is it one of the space platforms or a sputnik?"

The two men gazed at it in curiosity. Suddenly it seemed to grow brighter and

sharper and to twist toward them in its path.

"Look!" gasped Burl, but the others were already on their feet.

The light plunged down. There was a sudden outburst of yellow flame that caused the three to duck instinctively, and brought the Indians to their feet with yells. The glare brightened until they could see that something was just above them. The fire vanished as swiftly as it came, but a white spot of light remained.

"It's a parachute!" Burl shouted. "It's a rocket or something, braking to a stop above us, and coming down by parachute!"

In the pale light of the full Moon they saw that something metallic and glistening hung from the white mushroom of a parachute. There was a clanging sound as it hit the rocky earth with a soft, sighing whoosh. The cloth of the parachute settled.

They ran across the dry stone of the valley floor, but Burl's long, athletic legs outdistanced the others. He reached it first.

It was a cylinder of metal, about three feet long and a foot in diameter.

"It's the nose of a message missile—dropped from a guided missile," Burl announced. "And—look!" He dramatically pointed the beam of his flashlight upon its side.

There, written in black, heat-resistant paint, were the words: *To the Denning Andes Expedition, from U.S. Air Force Base, California Region. By Guided Missile Post by Moon Base control, Ptolomaeus Crater. Official. Open Without Delay.*

Chapter 2. *The Valley of Stolen Sunlight*

For a moment all three were silent with amazement. "From California—and Moon Base—for *us*?" gasped Burl, finally. "But why? What can they want of us?"

His father frowned. "Only way to find out is to open it and see." He squatted down to study the cylinder closer. Burl pointed a finger at the nose.

"Looks like a crack there. Maybe it unscrews. Let's lift it."

It was not as heavy as it had appeared, for, like all rocket missiles, it was made of the light but tough alloys that were necessary to conserve weight-lift costs and fuel reserves. They stood it upright and tried to turn the top. After a little resistance, it unscrewed slowly. Inside, they found a rolled document bearing the seal of the United States Air Force.

Burl took it out, and unfolded it with unsteady hands. His father read over his shoulder.

Gonzales poked at the empty cylinder, impatiently. Finally, he burst out, "What does it say? What do they want?"

Burl turned to him. "It's unbelievable! It's—it's just so darned surprising! The dimness of the days, the drop in temperature—it wasn't just around here! It was all over the world!"

Quickly, he went on to tell the Peruvian what they had just learned. The communication was from the U.S. Space Commission and it had been directed on its flight from California by the Moon Base, because only from the satellite could the exact location of the Dennings be spotted. It seemed that the Dennings were the only scientifically trained personnel close to the point on Earth where the disturbance originated. This also accounted for the blanketing of radio waves in their vicinity. Several airplanes had tried to

locate them, but strange disturbances in the ether and atmosphere had made it impossible to establish contact. Also, the back reaches of the Andes were poorly mapped and treacherous in air currents, even in normal times.

"During the last week, a certain fraction of the Sun's light and energy reaching the Earth has been diverted. It has been bent or focused in much the same way that a lens bends light rays—and the point to which it has been directed is a spot only seven miles from here! Over that last mountain range," said Burl, pointing.

Gonzales followed his finger. "Just over the mountains lies the source of the trouble," said Burl excitedly. "And we're the nearest to it. They want us to go over there, see what it is, stop it, or report back. It took the telescopes in Moon Base to locate us and to track the center of the trouble!"

Mark Denning pursed his lips. "We'll have to start tomorrow, and we'll have to go fast. A loss of light and heat, however slight, could have very serious effects on life if continued too long. We can make it by tomorrow night, if we start early and leave the Indians and pack animals behind."

The other two nodded. Mark looked at them in the half-light of the Moon. "You'll have to stay with the equipment, Pedro, otherwise the Indians might abandon it. Burl and I will start out at dawn."

Gonzales agreed and the three made their way back to the camp. At the first sign of light breaking in the morning horizon, Burl and his father started off. They carried only enough equipment for survival, plus the additional items that might be needed for the emergency ahead.

The trek over the mountains was a hard one, the path narrow, steep, sometimes nonexistent. There were few signs of Indians or animals, and it was plain that few ever traveled over this range. The air was cold and thin, vegetation sparse and hardy. All around them was the cold blue of the sky—a shade darker than usual—and the gaunt peaks of ancient mountains. The Inca kings may have claimed the land here, but even their hardy legions had never conquered these lonely and hostile sky domains.

Panting and weary with hours of climbing, Burl and his father made a quick lunch in a sheltered jumble of rock near the top. Then, shouldering their packs again, they trudged on. At last they reached a point where the view of the other side spread out before them—a breathtakingly clear vision of the little valley below.

As they looked down, the air seemed to shimmer and vibrate. Burl rubbed his eyes. "It hurts," he said.

His father squinted. "There's a powerful vibrational effect. It may be a very dangerous concentration of the invisible rays of the Sun as well as of light."

Once Burl had gotten used to the odd visual effect, which was like gazing into the twisting heat rays rising from an overheated oven, he saw that there was a small flat region between the mountains. And in the center of this valley was a large black structure of some sort. The twisting effect of the light around it made it impossible to tell more.

"That's it," said Burl. His father nodded, shifted the pack to ease his shoulders, unstrapped the hunting rifle slung over his back, and carefully checked its loads.

Burl saw what his father was doing and suddenly understood the danger. What could be doing a thing like this? What but something not of this Earth? Something of distant space, of a science beyond that of man—and *unfriendly* besides. Now, for the first time, Burl realized what he had not had time to before—this was an enemy he and his father were facing—an enemy of all mankind—and utterly unknown.

He gulped, gripped his rifle, and followed his father down the sliding rocky trail.

As they drew nearer the base of the mountain, the effects of the strange vibrations grew more pronounced. Burl avoided looking directly ahead, keeping his eyes on the ground before his feet, yet even so, he could not help noticing how the stones around them seemed to shimmer in the invisible waves. From the base of the valley the sky now seemed streaked with black

and gray rings, as if they were reaching the center of some atmospheric whirlpool. Out of the mountains, after hours of arduous scrambling, they started across the barren rocky plain.

Before them rose a vast circular structure several stories high, ominously black and without any sign of windows or doors. Above the building protruded two great projections ending in huge, shining discs. One of the monstrous cuplike discs was facing the Sun, the other pointed in the opposite direction.

As the two men came nearer and nearer, the strangeness in the air increased. They felt they were being penetrated through and through with invisible lances, with tiny prickles of heat. "Radiation?" queried Burl softly, afraid of the answer. His father trudged grimly on for a moment, and then put down his pack. He took out a Geiger counter and activated it.

He shook his head. "No radioactivity," he said. "Whatever this is, it isn't that."

They reached the wall of the building. Oddly, here they seemed sheltered from the unusual vibrations. Burl realized that the source was above them, probably the two mighty discs raised high in the sky.

The Dennings surveyed the building, but found no entrance. It must have been a quarter of a mile around its walls, but there was no sign of a door or entry. The wall was of a rocklike substance, but it was not like any rock or plastic Burl had ever seen.

"We've got to get in," said Burl as they returned to the starting point, "but how?"

His father smiled. "This way." He opened his pack and took two cans of blasting powder from it. "I thought these would come in handy. Lucky we had some left over from the blasting we did last week."

He set both cans at the base of the high wall, wired them together, and ran the wire as far as it reached. When the two men were a safe distance away, Mark

sparked off the explosive.

There was a thunderous roar: rocks and dirt showered around them, and bits of black powdery stuff. When the smoke cleared, Burl and his father leaped to their feet, rifles in hand.

There was a crack in the side of the wall where the explosive had gone off. And the rip was large enough to get through!

Without a word, they charged across the ground, still smoking from the concussion, and squeezed through the mysterious walls of the enigmatic building.

The walls were thin, thin but hard, as befit masters of atomic engineering. Inside, they found a roomless building—one single chamber within the frame of the outer walls.

A dim, bluish light emanated from the curving ceiling. On the uncleared rocky ground which was the floor of the building were a number of huge machines.

They were spherical glassy inventions, many times the height of a man, connected by strings of thick metal bars and rows of smaller globes, none of which was familiar. There was a steady humming noise, and above, the two giant, metal masts penetrating the ceiling rotated slowly. Doubtless, the great Sun-trapping discs were affixed to the top of these masts.

There was no living thing in sight.

Burl and his father stood silently, half crouched, with rifles at the ready, but nothing moved to challenge them. There was only the humming of the Sun transmitters.

Burl called out, but there was no answer. They advanced cautiously, fearing a trap. The place did not have the look of living things about it. "An automatic station," said Mark under his breath. "I think it's strictly automatic."

It gradually became evident that Mark was right. Everything was automatic. Whoever had built this structure to divert the rays of the Sun had simply set it down, put it in motion, and left. There was no evidence of any provisions for a garrison or a director.

They studied the machines but could make nothing of them. They found what looked like controls, but although they pushed and pulled the levers and knobs, the humming did not cease. It seemed as if the controls were either dummies or had to be specially motivated.

"What do we do now?" asked Burl, after they had tried pulling all the levers on one particular switchboard without any results. "Do you have enough powder left to blow up the machinery?"

His father shook his head. "I had only those two cans with me. We could try shooting into the machinery." Leveling his rifle, he fired at a glassy globe perched upon the central sphere. The bullet pinged off it, and they saw that it had failed even to dent the glistening surface.

"It won't work," said the elder Denning, after several more shots had produced the same result and the concussion reverberating from the enclosed walls had nearly deafened them.

They continued to hunt for a clue, but found none. Dejected, Burl kicked a loose pebble and watched it rattle against a column near the main control board. A small metallic ball rested on top of the column, apparently unattached. A replacement part, he thought to himself, wandering over to it. It was about the level of his head.

With the thought that if he examined it he might learn something of the nature of the working machines, he reached out with both hands to pick it up.

As his hands touched the metallic ball, there was a sudden terrible flash of power. He felt himself grasped by forces beyond his control, paralyzed momentarily like one who has laid hold of an electrically charged wire. He opened his mouth to scream in agony, but he could say nothing. A great force surged through his body, radiating, charging every cell and atom of his being. He felt as if he were being lifted from the floor. Then the globe seemed to dissolve in his hands. It became a glare of light, grew misty, and then vanished.

For a moment he stood there on tiptoe, arced with the potent violence of the force, glowing from within with energies, and then he felt as if the supercharge were dissolving itself, slipping into him, sliding into the ground, then disappearing.

He stood before the column, swaying, but still conscious and alive. His hands were still raised, but there was no ball between them, neither of metal nor of power.

He let them fall to his side and took a step. He was whole, he was sound, he was unharmed. He heard his father's footsteps running to him, and murmured weakly, "I'm all right."

And he was. He could see no sign of damage. "I must have absorbed an awful lot of that energy—or whatever it was," he said.

After resting a moment, he decided to try the useless controls again. Going over to one small board, he idly shoved a lever. This time he felt resistance. The lever was activated. There was a slight change in the radiance of one globe.

"Dad!" Burl shouted. "It works! It works for me now!"

Mark Denning watched as Burl turned dials and levers and got responses. "You must have been charged in a special way," he said excitedly. "That's how they lock their devices. They will only respond to a person carrying that special energy charge, whatever it was. Come on, let's get to the main control, before the effect goes away—if it does."

The two dashed to the panel which, they guessed, activated the main Sun transmitter. Burl grabbed the instruments and threw them back to what seemed to be the zero positions.