

## I

**WHAT** Harris (Andrew, Lt. Com., USN) later referred to on his notetapes as "the metamorphosis of my milieu" began when the *Starquest* was less than a day distant from her first Mars orbit. As was his custom, he had stepped into the drive room to make his daily inspection of the engines. The actual works were largely hidden from the eye of the beholder by heavy shielding and could be checked out realistically only by means of the monitor in the control room, but viewing the setup at first hand reassured Harris in a way that seeing it on a screen could not. This time around, however, he wasn't in the least reassured—quite the contrary.

The drive had vanished utterly. In its place, lying side by side between two huge concave braces, were two long cylinders that he at first took to be a pair of massive conduits but which, when he read the lettering on the black and gold surface of the nearer one, turned out to be a pair of alkaline Duracell 1.5-volt batteries, size AA.

To complete his mental devastation, the room's deck, ceiling and bulkheads had transmuted, since his last look-in, from steel plating to a green plastic material. A strange humming noise was emanating from below the deck, while an even stranger whirring sound was coming from beyond the stern firewall.

Shaken, he backed out of the room, instinctively reaching for the door. If he could shut the insane scene from his sight, perhaps it would go away. He found himself, however, thwarted—for the door no longer existed.

Although disliked by his fellow astronauts, ostensibly for a streak of cruelty he was not always successful in concealing but actually for his intellectualism, Harris had been the International Space Agency's overwhelming choice for the first one-man Mars mission. He was self-disciplined, emotionally stable and resourceful—the sort of person least likely to lose his cool no matter how bizarre the circumstances. He did not lose it now.

After standing quietly in the *Starquest's* aft corridor (*that* had transmuted to plastic also, grown longer and undergone several other changes) till his heartbeat subsided to nearly normal, he reentered the drive room. The two Brobdingnagian batteries were lying "head to foot," their positive and negative terminals respectively making contact with vertical metal arms protruding through slots in the deck. Since there was no way Harris could get below—at least none that he knew of—he had to surmise what sort of energy converter was installed there. His mind balked. Small wonder. How in hell could an electric motor powered by two 1.5 volt batteries (assuming such a setup had been in effect all along) have freed the *Starquest* from the moon's gravitic pull and have brought her to the verge of her first Mars orbit mere months after liftoff? Moreover, what means of propulsion did the theoretical motor employ?

A propeller?

**LOOKING** neither to left nor right, he hurried forward to the control room and homed in on the radio. He fumbled for the toggle switch. "*Starquest* to base—*Starquest* to base—"

Then he stood there, feeling slightly foolish. And slightly terrified. For the control panel, of which the radio was a part, had turned into the same green plastic material he had seen in the drive room and the corridor. Not only that—the panel had moved. And the control room itself—bulkheads, deck and ceiling—had transmuted to plastic and grown larger. Or perhaps it only seemed larger because most of its more sophisticated paraphernalia had ceased to exist even in plastic form.

Harris sagged into the control chair—fortunately it was still in the same place—and stared at the levers, switches, gauges, dials and screens arrayed before him. The levers and switches were realistic, though immovable, and the gauges and the dials had numbered faces pasted on them. When he had glanced at the ship's chronometer some fifteen minutes ago it had registered 1620 hours—the printed face of its plastic counterpart registered 0600 hours. Worse, he had no timepiece of his own to dispute it.

He gazed at the monitor screens. They had pictures painted on them. One "showed" what looked like a subatomic drive, another what looked like a gray generator, another what looked like an oxygen reconverter, and still another an apparatus that vaguely suggested a meteor deflector.

Harris returned his eyes to the picture of the oxygen reconverter. He took a deep breath. Another. The air *seemed* to be okay.

At length his gaze stole over to the forward bulkhead where the viewscreen had been. It was still in approximately the same place. It had transmuted to plastic and had a picture of Mars painted on it.

**F**OR a moment *deja vu* overwhelmed him. Then he forced himself to check out the ship—or at least those parts of it that were accessible to him—from stem to stern. It had been cast or stamped out of plastic in two lateral sections—then the two sections had been fused (glued?) together. (Harris didn't believe his eyes, but this was what they told him.) The ship's appointments and equipment, except for the batteries and, presumably, the theoretical electric motor, had been part of the original pattern—or die—from/ with which the two sections had been cast, or stamped.

There were other differences. The ship had become considerably larger and its appointments and equipment, when duplicated, were differently styled and no longer located in quite the same places. While the control room and the drive cubicle still occupied approximately the same sections, the tiny cabin that contained his bunk had exchanged places with the lock—and the little lavatory, formerly adjacent to his cabin, had exchanged places with the suit locker.

Oddly, the new arrangement only served to intensify his *deja vu*. But *was* what he was experiencing *deja vu*? Hadn't he, long long ago, in a different way, experienced all this before?

Formerly the ship's illumination had been supplied by strategically placed fluorescent tubes. Now it came from strategically applied daubs of phosphorescent paint. There was no longer a heating system—or if there was, he could find no evidence of it—yet the interior temperature was in the upper seventies.

But while there was light and heat and air, there was no food. Oh, there was a galley, all right, but no one had thought to stock it. In addition to its empty shelves it contained a quaint little plastic sink and two cute little plastic water taps. The trouble with the taps was, he couldn't turn them on—but even if he'd been able to his lot wouldn't have been improved. A subsequent search for the water reservoir and the recycling system revealed both to be no longer existent.

He didn't enter the drive room again—he didn't have the heart. Anyway, he knew that nothing had changed: the humming of the hypothetical electric motor and the whirring of the hypothetical propeller were audible throughout the ship. Occasionally sounds came from *outside* the ship—distant muffled crashes, strange long-drawn-out thunderings ...

After taking an inventory of his clothing and the contents of his pockets and finding nothing changed and everything still there, he returned disconsolately to the control room. There, he sat powerlessly in the control chair, staring at the painted picture of Mars. *What delightful polar caps you have, my dear*, he thought. *What a delightful orange complexion! And those charming little lines that crisscross one another so quaintly—are they your famous canals?*

If only there were some way he could see the *real* Mars. If only there were portholes in the hull ... But there were, weren't there? Ten of them. Five on either side ...

Throughout his "tour of inspection"—and even before—he had had the feeling that every aspect of the ship was the same as it had always been—that nothing really changed until he looked at it. Until he remembered it. Thus, while he was startled, he was not truly surprised when, glancing at the section of the starboard hull that the control-panel abutted, he saw . . . remembered? . . . a porthole.

Looking through it, he saw "Mars." It was the same orange hue as its two-dimensional sister on the viewscreen, had just as many canals, was tilted the proper degree on its axis and was resting on what appeared to be a stilt.

Bright bluish radiance bathed it from above and yellowish light from afar. Despite its distance from the *Starquest* it seemed no more than a stone's throw away. Orbiting it at perceptible velocities were

two ping-pong ball-like moonlets. Around and around and around they went.

Around and around and around.

### ***From his notetapes:***

... can be but three possible explanations for the phenomena I have just described—that constitute the metamorphosis of my milieu: 1) the utterly absurd one that the metamorphosis is the result of a photon storm through which the *Starquest* is passing and of which the detectors are apparently unaware; 2) the equally absurd one that no metamorphosis occurred, that for a reason or reasons unknown to me I am perceiving reality divested of its usual subjective accouterments—the noumenon, as it were; 3) the one I subscribe to: that the ISA medics were wrong in their conclusion that an interplanetary voyage of this duration could safely be undertaken by one man without his experiencing adverse side effects—that what I am experiencing now is a form of regression brought on by my subconscious to delete from my physical awareness the awesomeness of my real surroundings.

"To elaborate—when I was eight years old I received for my birthday a MINI-SOLAR SYSTEM KIT. Although much more sophisticated, it had considerable in common with the tinkertoy sets of my great grandparents' day. Correctly assembled, its various parts formed a sort of extensive orrery consisting of a 350-watt bulb centerpiece, around which nine painted plastic planets and thirteen painted plastic moons (for obvious reasons, only those moons closest to their primaries were included while the asteroid belt was omitted altogether) orbited at drastically reduced distances but at velocities reasonably in ratio to their real-life counterparts. This was accomplished by means of nine flat metal arms radiating fanwise from a hub centered beneath the `sun.' Each planet was affixed vertically to its appropriate arm by means of a vertical metal rod, and an electric motor and a differential housed in the hub effected the correct orbital velocities. The only thing lacking was axial rotation, but this was compensated for to some extent by magnetic-repellor cores in 'Earth,' 'Mars,' 'Jupiter,' 'Saturn,' 'Uranus' and 'Neptune' that kept their respective steel-cored moons at fixed distances from their primaries and, by revolving, lent them orbital motion.

"Once assembled, my mini-solar system literally filled the basement recreation room where my parents had permitted me to build it, the season being summer and social get togethers having been transferred to the patio. The plane of the ecliptic was some three feet above the floor and some four below the ceiling. At its outermost point, 'Pluto's' eccentric orbit barely cleared the doorway leading to the kitchen stairs. Augmenting the radiance of 'Sol' were four overhead fluorescent tubes.

"I peopled my extraterrestrial planets with all sorts of weird life forms, but for 'Earth' I created a race of beings very much like ourselves and a civilization sequence roughly parallel to our own. After fabricating a history of wars, famines, floods, earthquakes and what-have-you, I crowned my little world with a technological civilization not greatly different from the one I lived in. I then proceeded to play God in earnest, raining down upon the helpless heads of the poor beings I had brought into existence calamities and catastrophes and diseases of every description. I created power shortages, devised domestic tragedies, instigated riots, ignited wars. In a sense, I tinkered with the destinies of my mini-humans in much the same way I had, tinkered with the mini-solar system in which they lived.

"At first, the idea of 'spaceflight' did not occur to me, although a tiny toy spaceship had come with the kit . . ."

**H**ARRIS sat dozing in the control chair, dreaming of his wife and home. His wife's name was Georgiana and she was like a wind walking, a night wind, cool and lovely, with night-black hair and evening-star eyes. Georgiana. And the house where they lived sat by a river that sang, beneath trees that whispered amid the golden laughter of lazy summer afternoons ...

Awakening, he had no idea how long he had slept. He was hungry and thirsty and he saw little black flecks when he blinked. His tongue seemed to fill his mouth.

Clearly he had slept for quite some time. When he looked through the starboard porthole he saw that "Mars" and its moonlets were now much closer. It stunned him that a self-induced illusion could keep

such perfect pace with reality. But on the other hand, how could it fail to keep pace? Illusion or no illusion, the plastic spaceship he was riding in was still the *Starquest*. "Mars" was still Mars and "space" was still space. And he was still Harris, Andrew, Lt. Com., USN.

He pressed his cheek against the oddly resilient glass and looked along the line of the ship's trajectory. He saw both "Jupiter" and "Saturn." "Uranus," "Neptune" and "Pluto" were apparently elsewhere in their orbits and out of sight. "Jupiter's" famous marking was a vivid splash of crimson. "Saturn's" rings looked as though they were made of aluminum foil. Neither had its full quota of moons: "Jupiter" had only four, "Saturn" only three.

He crossed the control room and peered through the opposite porthole. He saw no stars (he had not expected to see any)—only bluish radiance tinged with the wan yellow rays of "Sol." And in the far distance a vast pale blur. As he stared, the blur seemed to move ...

He slammed the door on the logical conjecture that tried to step into his mind and moved back quickly from the porthole. Shivering, he returned to the starboard porthole and pressed his other cheek against the glass. Both "Earth" and the "sun" were hidden by the hull. He would not be able to see them till Moonbase activated the retro-rockets in the *Green Avenger's*—the *Starquest's*—prow and the ship went into orbit. The illusion was quite strict about such matters.

### ***From his notetapes:***

"Later, if there is a later in my life and if the veil that I have drawn over the face of reality dissolves, I will transcribe these notes, which I am recording on my pocketaper, to the *Starquest's* log.

"Although of necessity way out of proportion to the hurtling 'celestial bodies' it was meant to travel among, the toy spaceship that came with my mini-solar system was a masterpiece in the art of miniaturization. Delightful glimpses of its illuminated, incredibly detailed interior could be obtained through tiny saran-wrap portholes located at regular intervals in the plastic hull, and I spent hours peeking in on its Lilliputian control room, trying to make out the infinitesimal readings on the dials and gauges and the details of the picture painted, as though on the head of a pin, on the viewscreen. It was inevitable that when the time came I should project myself inside—and just as inevitable that I should project myself, not as an eight-year-old boy, but as the full-fledged astronaut I intended someday to become.

"The plastic material of which the ship was made was so feather-light that even with the additional weight of the batteries and the tiny electric motor, plus that of a small counterweight in the prow, less than half an ounce of heliumite had to be pumped into the ventral buoyancy tank to hold the little vessel aloft.

"As the 'creator,' there was no real need for me to employ mechanical means to explore my mini-cosmos. I could see all my worlds at a single glance and, having 'seeded' them, I knew what sort of life forms they contained. But there was a romantic need and eventually it surfaced. When it did I christened the ship the *Green Avenger*, located the remote-control box that had come with her and set her on a course for 'Mars.'"

**H**ARRIS was certain that when Moonbase commenced retrofire the resultant recoil would shock him back to reality. He expected braking action to begin at any moment. It was true he had no means of telling time, but his hunger and thirst informed him that close to twenty-four hours must have passed since he had looked into the drive room. Moreover, "Mars" and its moonlets were now opposite the ship's stern.

He felt strangely light-headed and the black flecks he had noticed earlier had bred like flies. He attributed both symptoms to his near-exhaustion and to his hunger. To get his mind off both he began fiddling with the plastic dials and switches in the vicinity of the plastic radio, hopeful of finding the real switch that had to exist somewhere.

He fiddled and he fumbled, but he found nothing. Abruptly he felt himself sway. He regained control of himself almost instantly. Nevertheless, he knew that for a fraction of a second he'd blacked out.

The experience opened his eyes, and he saw who his enemy truly was. It was neither hunger nor fatigue—it was asphyxiation. Frantically he broke off one of the longer control-panel levers and began

striking it against the porthole. When the "glass" gave it did not break, but tore. This did not particularly surprise him, nor did the life-giving air that wafted through the rent. Nor did the cooking—and other familiar—odors that the air contained.

He kneeled for a long time with his nose and mouth to the opening. Then, to make certain his enemy was permanently defeated, he crossed to the port side and gutted the other porthole. Returning to the first, he tore out the rest of the "glass." As he did so he noticed that "Mars" had a slightly different aspect. It was no longer tilted in quite the same direction, and its southern polar cap, so clearly visible before, was now almost out of sight behind the curvature of its southern hemisphere.

There was only one answer: Without benefit of retro-fire, the *Green Avenger* had swung into her first Mars orbit.

### ***From his notetapes:***

"I am *physically* on board the *Green Avenger*!

"I am *physically* present *in* my mini-solar system!

"There can be no other explanation.

"No illusion could *possibly* be of sufficient intensity to induce imaginary asphyxiation, or so impenetrable as to shut out the recoil of retro-fire. Moreover, it is inconceivable that I would even unconsciously have exchanged the glorious cosmos I belong in for a mass-produced tinkertoy affair built in a smelly cellar by an eight-year-old snotnose who enjoyed pulling the wings off flies.

"I did not regress mentally to a former set of physical conditions—I returned physically to them. Not instantaneously but by degrees—a circumstance that led me to conclude erroneously that I had regressed mentally. And to cloud the picture further, this time around I am playing a different role.

"How? Why? And what will become of me when my eight-year-old self tires of his childish game?

"If only there were some way I could apprise him that there is a real, not an imaginary, little man in his toy spaceship—a hungry, thirsty, frightened little man who wants desperately to go home!

"But if I could—would I dare?"

**H**ARRIS was able to obtain an excellent view of "Earth" when the *Green Avenger* passed the "sunward" side of "Mars." His home planet was just as he remembered her—painted a royal blue and stippled with white polkadots.

Her nearness told him what he should have guessed long ago: at the most she was only a "day's distance" from "Mars," and when he had first looked at the latter, the *Green Avenger* had only recently left the vicinity of the former.

He was also able to obtain an excellent view of the "moon" and the "sun." The "moon" looked like a tinsely Christmas ornament. As for the "sun," its radiance dazzled his eyes, hiding from them the stilts on which little red "Mercury" and satiny "Venus" stood. But not the one on which "Earth" stood. She looked silly standing on it. Like a little old lady with one leg. Harris caught himself giggling.

The *Green Avenger* continued to orbit "Mars." He estimated her orbital time at slightly in excess of one hour. His time. To the "creator" the one hour plus probably amounted to a few seconds—if that. But Harris was involved physically in the reality of the mini-cosmos. Its "creator" was not.

The *Starquest* had been scheduled to make three full orbits. Halfway through the fourth she was to have been launched on her homeward journey by a burst of booster fire in her stern.

Harris tried to remember how many orbits the *Green Avenger* would make before *she* began her homeward journey. Try as he would, he could not. Worse, he could not remember where the boy Harris had sent the ship afterward.

Worse yet, he could not remember what the boy Harris had ultimately done with it, or, when the novelty of his creation wore off, with the tinkertoy solar system.

Halfway through the fourth orbit he saw that his hands were trembling. He tried to stop them, but he couldn't. When the *Green Avenger* began her fifth orbit he heard someone laughing loudly close beside him, but he didn't look to see who it was. A distant crash reached his ears through the torn porthole. He

didn't look to see where that came from either. He could smell boiled cabbage, stale cigar-smoke and old shoes.

Upon completing orbit number five, the *Green Avenger* continued blithely on into orbit number six. Whoever was laughing beside Harris began laughing even louder.

***From his notetapes:***

"What—what did I do with the ship?

"Did I throw it out with the ordinary trash to be picked up and recycled?

"My God! Didn't I know there was a little man in it?

"And how long did I keep it in orbit around 'Mars'? How long? How long? How long?

"And my tinkertoy solar system—what did I do with that?

"Oh, God! I can't remember!"

NEAR the end of orbit number seven, Harris picked up the plastic lever he had used to gut the control room portholes and ran with it down the corridor to the drive room. He was quite mad. Entering the cubicle, he inserted the lever between the face of one of the batteries and the corresponding contact arm and pried for all he was worth.

The lever broke, catapulting him to the deck, but not before the arm bent and contact was permanently severed.

Gasping, he got to his feet and looked through the drive room porthole. A single glance apprised him that he had achieved his purpose, insane though it may have been. The *Green Avenger* was drifting slowly away from "Mars."

He listened. The humming and whirring noises were no more.

A look through another porthole told him of yet another development: a second, smaller blur had begun to protrude horizontally from the vast pale haze he had noted earlier, that had seemed to move. He remembered then what the boy Harris had done with the ship. When, on its maiden voyage, it had inexplicably ceased to respond to the remote-control signal he had been transmitting he had grabbed it out of midair and, in a fit of boyish anger, had thrown it into the "sun."

The ship had split in half and he had never bothered to glue it back together. Nor had he bothered to replace the shattered "sun." Already bored with his mini-cosmos, he had torn it down one day and gone on to a new boy. Ultimately both the system and the ship had been given, or thrown, away.

With the memory came a cold clearness of thought and an instant later the truth—or as much of it as Harris would ever know—burst like a nova in his brain.

***From his notetapes:***

"Causality!

"It was there all the time but I couldn't see it because I thought of it in terms of chronological time and conventional space.

"I know now that it is independent of both—that, like the velocity of light, it is a constant—a constant that bends all else to its will.

"I am in the *Green Avenger* because I put myself here.

"And I am about to throw it into the 'sun' because I caused it to go out of control.

"Cause and effect ...

"Unknowingly, I initiated a cycle, a cycle that in one sense took years to complete itself, in another minutes, and perhaps in a cosmic sense, no time at all.

"There is a strong chance that in so doing I made my becoming the first astronaut to undertake a solo Mars mission inevitable. That I do not know. But I do know this: the cycle is completed. Hence, I shall return momentarily to the *Starquest*. To real space. To the vast, the magnificent, the transcendently beautiful solar system I so flagrantly desecrated with my picayune imitation.

"God! It will be good to be home again!"

**H**ARRIS wasn't worried about the hand. It would be hours—his time—before it reached its destination.

He sat down in the drive room doorway and fixed his eyes on where the subatomic drive would soon appear. And after what seemed an eternity, it *did* appear, and the 1.5 volt batteries reluctantly faded away . . . And one by one, the six white mice turned back into resplendent coursers, and finally the pumpkin turned back into a coach.

He hurried forward to the control room. Entering, he dropped to his knees before the viewscreen and looked reverently down the black, star-bordered paths of space. He saw the red and the gold and the blue star-flowers, and the huge orange rose of Mars. He realized that he was crying.

He did not get up for a long while. When he did so his eyes sought the ship's chronometer. It confirmed what Mars' position had already told him: despite his inanition, despite his dehydration, despite his nerve-racking tour of duty aboard the *Green Avenger*, no time had elapsed between his departure and his return

He had surmised as much. It made no difference in any case. He was too glad to be back to care.

**H**E WAS still glad to be back when he learned, after his internationally celebrated return to Earth, that his wife was terminally ill. Georgiana. (*Ah love, let us be true to one another for ...* she whispered before she died.) He was still glad to be back when, early in the following spring, floods destroyed his home. He was still glad when the business in which he had invested all his savings after he retired, went bankrupt. He was still glad when a contretemps in an obscure African nation caused worldwide repercussions that ultimately ignited World War III. Even when the first bomb fell Harris continued glad. Only with the second did he begin to have doubts. When the third one fell he thought he saw a boyish face in the sky. At first he thought it was his own of long ago, but he knew instantly that it was not. The forehead was too wide, the mischievous eyes too far apart, the rosebud mouth too full. The vision faded swiftly as the colossal rod holding Earth aloft collapsed and she went plunging down to the cosmic cellar floor to break into a million pieces. The sun went out, and all was darkness then (though Harris never knew it) and the smell of boiled cabbage, stale cigar-smoke and old shoes.