

THE STARMAN SAGA
Volume 3

**THE WAR
OF THE LIGHT**

Revised and Reissued

The cover illustrates a scene on page 303.

**THE STARMAN SAGA
Volume Three**

**THE
WAR OF THE LIGHT**

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by Michael D. Cooper

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About the Author

Michael D. Cooper is the pseudonym for Jon Cooper, Mike Dodd, and David Baumann, each of whom played a vital role in creating the Starman series. Jon Cooper plotted the stories, Mike Dodd suggested creative plot elements and supervised the stories' scientific accuracy and plausibility, and David Baumann wrote the text, fine tuning details and developing the characters. Cooper is a computer programmer, Dodd is a social worker and zeppelin builder, and Baumann is an Episcopal priest and martial arts master.

THE STARMAN SAGA

Volume 1: The Dawn of the Starmen

Mutiny On Mars (May 19-July 22, 2151)

The Runaway Asteroid (July 24-September 10, 2151)

“The City of Dust” (July 30, 2049-August 2051)

“The Flight of the *Olympia*” (2110)

“The Caves of Mercury” (2112-2113)

“The Orphans of Titan” (August 2, 2130)

“A Matter of Time” (October 12, 2150)

Journey to the Farthest Planet

(January 1-August 22, 2152)

Volume 2: The Search for the Benefactors

Descent Into Europa (August 7-December 25, 2152)

The Treasures of Darkness (March 18-May 6, 2153)

“The Eight Treasures” (10085 B.C.)

“The Sand Tomb” (Summer 2060)

“The Infestation at Sulphur Creek” (June 1, 2153)

“The Plight of the Bumblebee” (June 13, 2153)

“The Ultimate Code” (September 26, 2153)

“Return to Europa” (October 15-December 31, 2153)

Doomsday Horizon (July 30-August 19, 2156)

Volume 3: The War of the Light

The Heart of Danger (September 1-November 9, 2157)

The Last Command (March 11-May 4, 2160; June 2161)

“A New World” (March 12-13, 2161)

“Stars of the Deep” (October 7-15, 2165)

Paradox Lost (summer 2168, but relating events
that took place March 21-April 23, 2155)

Master of Shadows (Summer 2169-June 26, 2170; 2171)

Volume 4: The Starman Companion

Cover artwork

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Internal illustrations

THE HEART OF DANGER

Josh Kenfield

THE LAST COMMAND

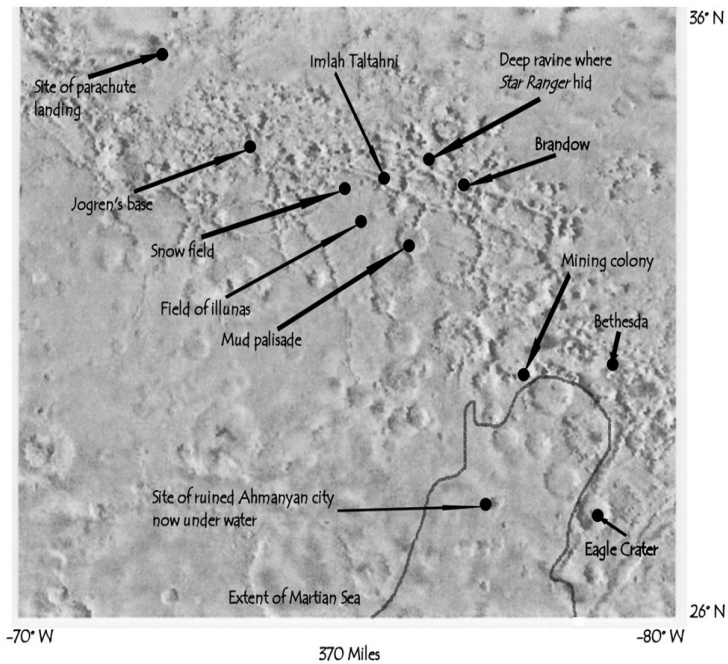
Josh Kenfield

PARADOX LOST

David M. Baumann

MASTER OF SHADOWS

Allison Oh



Map of the actual Martian surface
showing the location of sites
in the Starman saga.

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BOOK 7: THE HEART OF DANGER

*The light shines in the darkness, and the darkness has not overcome it.
(John 1:5)*

Prologue: Darkness in the Light

February 30, 2157

THE MILKY WAY GALAXY, more than a hundred thousand light years across, spun with consummate gracefulness through the universe. Its more than two hundred billion stars with uncounted planets, comets, gas clouds, and various types of space debris, wheeled together through the void. The densest part of the galaxy, an incredibly tightly packed ball of stars called Omega Centauri, was the site of frequent stellar collisions, abundant binary systems, and a few neutron stars.

It was also the home of the Xenobots.

Distant ages earlier, the Xenobots had been known as the Lucians, one of the First Races. Their race had become corrupt and degenerated into the fearsome entities that the Starmen had encountered on the dwarf planet, Nyx. One had even entered Richard Starlight's office on the Moon where it had been destroyed by instant freezing. Recently a fleet of Xenobot ships had invaded the Inner Planetary system with the intention of ravaging Mars and Earth, but had been decimated and turned away by defenders of civilization.

A year had passed since that unexpected defeat. The Xenobots, a weakening but still mighty race, were determined not to fail again. They were committed to the annihilation of Earth and Mars—whose own people called their home Ahmanya. The Xenobots' fanatical dedication to violence and rapacity demanded it. No race or planet could be allowed to continue to survive once it had defied the Xenobots!

Within Omega Centauri, around a binary star system comprised of a large yellow sun and a ferocious white dwarf star, three planets revolved. One side of the innermost planet was completely covered with molten rock. The side away from the two stars pulsed red and orange with a brutal surface temperature. The outermost planet was a huge ball of methane and acid rain, torn by unending storms.

The middle planet was 80% covered with noxious clouds; the surface was a hothouse of humid gases. More than half of the terrain was comprised of sucking swamps; the rest was unstable ground and a few places of rock. There were no mountains. This was the home planet of the Xenobots. It had outlived three suns and was now circling the fourth star since its first dawn uncountable ages before.

Its skies were constantly bright. Night could not exist anywhere in the Omega Centauri system, for it had a stellar density of 180 stars per cubic light year. In addition to their own suns, the three planets were forever illuminated by the unrelenting light of stars in a field eighty thousand times more dense than in the Earth-Moon-Mars system.

With virtually unlimited access to nearby stars and the by-products of the star cycle, over the centuries robotic Xenobot workers had located hundreds of planets with heavy elements. Those that were inhabited were brutally conquered and, if necessary, their populations wiped out. Now thousands of artificially intelligent command droids systematized the automated work of vast numbers of working robots. They mined the heavy elements, refined the ore, and produced the raw materials that the Xenobots demanded. Powered by heat and light in a system in which both were inexhaustible, the robots worked, never stopping until their parts wore out. And then others replaced them.

There were robotic miners, robotic refiners, robotic engineers, and robotic constructors. There were robotic examiners and data recorders. There were robots that maintained other robots. And there were robots whose sole function was to discern when an

object was beyond repair and ferry it to the closest refinery to be melted down and used as raw material for the unceasing labors of the Xenobots.

The Xenobots were constructing ships and weapons. Several construction sites were located in and near their own planetary system. A vast armada of warships and small fighters was coming into existence. Enormous transporter ships were nearing completion, each one capable of carrying several hundred warships through hyperspace at one leap.

And in one location, where the energy of tens of thousands of stars was most accessible, the Xenobots' greatest hope for success was being constructed. An energy wheel of unprecedented size, nearly thirty miles across, was taking shape. Its coils were ten miles in diameter, and its central opening would create a hypergate through which the Xenobots' warfleet would be able to pass in an instant to any point in the galaxy.

The Xenobots had been motivated into a single purpose by their common hatred of other powerful races. They, who were increasingly isolated from each other by the irreversible decline of their race, with feeble bodies of flesh wrapped in metal so that they could not even touch each other, had pulled their factions together in common cause against the enemy they all hated.

Fewer than eight million Xenobots existed, and there would be no more. Their race had lost the ability to reproduce. They could only continue to maintain their existence by artificial means, drawing upon technology they no longer understood and could not duplicate. Yet their metallic exoskeletons could maintain the life of the foul entity inside for an indefinite period.

Inside one large ship, several Xenobots communicated through radio waves. They came to an agreement. One manipulated a few controls on a command board. The whirr of charging engines filled the cabin, and the structure of their ship vibrated.

Suddenly the ship entered hyperspace. For long moments it traveled through utter, timeless darkness. When it broke through, it almost seemed as though it were still in a place without time or light. A starless blackness appeared in the front window of the

ship. A few stars were visible through side windows. The Xenobot ship had traveled to the farthest end of one of the arms of the galaxy. They oriented their ship so that it faced the closest star—the most distant from the center of the Milky Way. Beyond the star lay the utter emptiness of trans-galactic space. It was more than half a billion miles away from the Xenobot starcraft, radiating a cold light with a barely-discernible corona. Instruments showed that it had one planet circling it—a brown orb with a thick, toxic atmosphere. The planet's bulk lay no more than a million miles away, a hulking sphere barely discernible in the ship's window.

One of the Xenobots manipulated controls on the ship's panel. The starcraft expelled more than three dozen ovoid metal containers, like tiny pods blowing off a flower. On command, they began to sail toward the planet, spreading out in a wave. After a time, a spot in the upper hemisphere erupted into bright orange flame. Moments later, another bright blemish of orange appeared, followed by yet another. As the planet revolved, the orange blotches grew in number and size until the orb was covered from pole to pole. The brown atmosphere glowed with mounting intensity, and then slowly flew off from the planet. The crust of the planet became fully exposed, burning like a coal in a fireplace.

The Xenobots watched and recorded the destruction that their weapons had effected. The erstwhile atmosphere became a bilious veil of blowing vapor before thinning into near invisibility. When it was clear that no part of the surface of the planet had been left unscathed, the Xenobot starship vanished into hyperspace, returning to Omega Centauri.

Chapter 1: The Return of the King

February 30, 2157

DAWNLIGHT shone through a large open window. A mild aroma of dew-covered blossoms wafted into the room, and the warbling of birds provided a comforting, peaceful sound. No one would have guessed that the setting was far underground. Five miles straight up was a close-jumbled mountain range on the edge of a wide desert where frigid, driving winds frequently scoured the sand.

In spite of the apparent beauty of an early spring morning, the inhabitants of the room were unaware of its attractions. A cluster of tall, slender figures hovered over a gurney upon which lay an unconscious man. A soft, white cushion supported him, its contours matching the shape of his body. He was covered from ankles to abdomen by a light green sheet.

“Report,” said a woman without looking up. Her features were soft but intense, eyes fixed on the unconscious man. Long brown hair was drawn back over her ears and gathered at the nape of her neck with a silver ring.

Four other people in attendance responded to her request in turn.

“Temperature rising to normal,” said a young woman.

“Respiration less than three breaths in a minute,” responded a man.

“Rehydration complete. All systems functioning,” stated an older man.

“Blood flowing at near normal rate; pressure is within normal limits. Blood gases...” The man referred to a gauge that was connected by tubes to the unconscious individual’s extremities.

“Blood gases?” queried the first speaker, raising her eyes to look at a middle-aged man whose brow was furrowed in concentration.

“The last trace of *illunas* should be eliminated in ten to

twelve breaths. Blood gases will then be normal.” He looked up, raised his eyebrows slightly and pressed his lips together, then nodded briefly.

“Very well then,” murmured the brown-haired woman. She sighed, and looked around the room. Four monitors showed regular patterns. She turned to her right and saw the master screen suspended from the ceiling. She called out a sequence of somatic indicators. With each, the screen changed to show graphs, waves, or colors. A minute passed.

“Blood gases?” requested the woman a second time.

Without taking his eyes off the gauge, the man said quietly, “two breaths.”

~

Throughout *Imlah Taltahni*, the Refuge of Twilight, an unnatural pause had put a stop to all activity. The thoughts of all 182 inhabitants of the refuge were occupied with the events that were coming to fruition in the heart of the community.

Stenafi and Jogren were sitting silently together in the fern grotto.

“I am sad for him,” said Stenafi.

“Yes,” agreed Jogren. “He will not awaken to the world he had hoped for. He will return to a world like the one he left.”

“To him, the loss of Santilla his father will be fresh. His father’s death in the defense of Ahmanya will be only weeks in the past for him. And now he must rise to take his father’s place, and become High King of Ahmanya...not in a world of peace and beauty, but once again to lead Ahmanyans into battle against our ancient enemy. He was successful when he led the counter-attack against the Xenobots in Omega Centauri. He returned to see Ahmanya ravaged.” Stenafi swallowed. “More than twelve thousand years have passed, but he will see a world that has changed little. Do you think—” Stenafi paused for a moment and her voice caught. “Do you think that he will believe that we have failed?”

Jogren did not answer for a long time. Then, “No,” he said.

“Prince Izmaka is wise—so the histories tell us. He is wise and gentle, though his glance is piercing. It is not that Ahmanya has failed; it is that the Xenobots proved to be more resilient than any of that generation thought.”

“I feel so sorry for him. He will awaken to grief.”

“The Elder awoke to grief.”

“Yes, and his heart was broken. He barely speaks now.”

“He is old, and he is lonely.”

“Yes, but more than anything he is grieved, with a grief that no one can assuage. I wonder—” again Stenafi paused and her eyes filled with tears, “I wonder if Prince—King—Izmaka will be broken by grief.”

“He will not,” asserted Jogren. “He will give heart to the Ahmanyan race. There is much he must be told, but he will be eager to learn and to lead. And there are two factors that make his awakening different from the time of his suspension!”

Stenafi looked at him, her brown eyes showing depths of emotion.

Jogren continued. “The Xenobots are at the end of their racial life. Though they can still do much harm, and may even exterminate our race, they cannot survive much longer. The galaxy will soon be rid of them, even if we lose the war.”

Stenafi smiled. “And the other factor?” she asked.

Jogren smiled also. “You know. We have the heroic and strong and fresh people of Earth as our allies.”

“Yes,” whispered Stenafi gladly, staring over Jogren’s shoulder into the place among the ferns where the water was flowing briskly. “I know. That means everything.” She smiled again—a smile that looked as if it held secrets.

~

“Now,” announced the middle-aged man, quietly, and he raised his eyes from the gauge to the unconscious man. “The long process is completed. He is no longer suspended. Now he

sleeps a natural sleep.”

Izmaka’s features looked warm. Dark, wavy hair flowed back from his brow. His breathing quickened measurably. It was clear that he had moved from a deep, trance-like state to normal sleep, and then to shallow sleep.

“Remove the equipment,” said the brown-haired woman in a whisper. Slender hands quickly and gently removed tubes and wires where they had been affixed to the man’s extremities. The woman watched carefully to ensure that the movements were gentle and would not disturb the man on the gurney.

When she looked back at him, she saw that his eyes were open. Her own eyes opened a little wider and she inhaled quickly, a slight intake of breath. She froze. The others froze as well. One very slowly put down the tube he had been coiling, without removing his gaze from the figure on the gurney.

The man on the gurney took a shallow breath and exhaled, and his mouth worked for a moment. He blinked. Then he moved his eyes to the left and lowered his brows slightly. He took another breath. He turned his head to the right, and fixed his eyes on those of the brown-haired woman.

“Ah!” he said, and then took a deep breath and exhaled grandly. “How long have I slept?”

No one answered. Then, “Bring the king his clothes,” said the brown-haired woman.

September 1, 2157

Soft grassy turf ran to the very edge of the island where there was a small dock and several pleasure boats tied up. A boathouse nestled at the head of the dock, accessible by a short flight of stairs from the meadow above. At the top of the stairs began a profusion of thick grass and low flowers that shouted their colors of bright red, orange, and yellow in the early morning sunlight. For a hundred yards no tree rose skywards. Not even a bush overtopped the tall grasses until the sward came to a ring of palm trees, beyond which cultivated fields lay open to the tropic sun.

An eighth of a mile or so on either side of the dock two spits of land extended into the ocean, forming between them a sheltered bay.

There was nothing that would suggest to the casual observer that the island was artificial—that it was, in fact, an immense, self-contained floating city known throughout the worlds as Starlight Academy. The Academy was located 250 miles west of Espiritu Santo Island in Vanuatu, the closest significant landmass. The facility was home to nearly 15,000 personnel—students, instructors, administrators, researchers, and maintenance workers with a variety of skills.

Nine and a half square miles of meadows, palm groves, fields and farms, and flower gardens ringed a complex of buildings, stadia, and landing fields. More than 90% of the Academy was below ground, dropping down more than a mile into the deep ocean of the south Pacific. Beneath the surface were the dormitories, most of the classrooms, many workshops, refectories, recreation halls, quarters for support systems, and laboratories for deep-sea research and other endeavors.

Three Starmen—David “Zip” Foster, Mark Seaton, and Joe Taylor—had returned from Mars a week earlier and enjoyed several days’ visit with their families in Amundsen City on the Moon. Then they had gone to the Academy as celebrity lecturers for the winter term, where each had addressed classes on the topics of the dwarf planets, the European sea, and the mysteries of hypertravel for communication and transfer. Their visit had culminated in a presentation to the entire student body of more than 10,000 on Ahmanyen life and culture. This lecture had proved to be the most popular in the history of Starlight Academy.

Now the Starmen were able to enjoy a short rest, and were taking their ease in a small rowboat about fifty yards off the shore of the Academy’s grassy south meadow. To the horizon there was nothing to see but ocean, barely undulating in the near-perfect weather. The peninsula to the west showed one or two old buildings, almost ramshackle in appearance, but which

contained the weather monitors for the entire south Pacific. The peninsula to the east was bare.

"Get any nibbles yet?" asked Mark Seaton. Dark of hair, brawny, and reserved, at twenty-four years old he was the oldest of the three Starmen. He was leaning back on his seat with a hat pulled down over his face.

"Thankfully, no," answered Joe Taylor. "I'm too relaxed to want to make the effort to pull in any fish. I'm almost sorry I actually put bait on the hook." The lanky, blond Starman lay sideways on another seat and rested his feet on the side of the boat. In both hands he held a fishing pole.

The third member of the party, redheaded David Foster, was sprawled out next to Mark. Shortest of the three, he was the informally acknowledged leader of the trio.

"Good thinking, Joe," he said. "We've got—what, three days?—until we have to go to Tharsos for the strategy meeting. Things will begin to jump then, I predict, and we'll have precious little time for resting after that. Let's make the most of the time now. I'm enjoying being busy doing nothing." He arched his back in a pleasant stretch and then collapsed again into utter peace.

Ten minutes later, Joe said, "Well, I am getting hungry, though. Suppose we return this coracle to the dock and amble over to the closest refectory." He began to wind his reel in slowly. After he'd set his pole down, he and Mark each took an oar and brought the rowboat back to the dock, where Zip jumped out and tied it fast to the pilings.

A persistent calm and fullness impressed itself upon the minds of the Starmen at the sight of the slow, pulse-like rise and fall of the deep, unrippled waters against the bank of the island. The hollow sound of their steps echoed as they walked along the dock and then ascended the stairs to the flowery meadow. A narrow path cut its way through the grasses toward the inner parts of the island. The three Starmen followed it in quiet enjoyment of their friendship.

Chapter 2: The Ancient One

PLEERA, the Ahmanyen commander of *Ossëan*, which those of Earth called Tharsos, stood erect and confident before a bank of controls in the central command room that lay at the heart of the asteroid-turned-starship. She pressed the gold button that initiated the coordinated systems of sheathing, holographic distraction, and motion. Standing on her left, Richard Starlight was tense, and his breathing was shallow. Pleera, however, appeared calm and deliberate. After pressing the button, she brought her hands gracefully together in front of her, their fingertips touching. With a smile that looked almost coy, she turned her head a little toward Richard and arched her eyebrows. Her glossy black hair was pulled back into three ponytails, each confined by a silver and green band. As she took note of Richard's nervousness, the tea-brown skin of her face crinkled into a wide smile.

"Mr. Starlight," she began, "you look nervous. I am surprised."

Richard looked into the young woman's warm, dark eyes, and smiled back at her. "We are about to begin a conference that will decide how the civilized peoples will defend our Solar System against the Xenobots. I am surprised you are *not* nervous, Pleera! All our leaders and strategists will soon be together in one place. In a way, we will be at our most vulnerable."

"It is also the time of our greatest strength, Mr. Starlight." The rich baritone voice belonged to Izmaka, the King of Ahmanyen. In the six months since he had been brought back from suspension, he had absorbed with astonishing rapidity the history of civilization since the time of the first Xenobot War. With the counsel of Guardians and Governors, supplemented occasionally by that of several prominent leaders from Earth, he had exhibited keen insight and impressive analytical skills that were proving to be indispensable in addressing the looming Xenobot threat.

“There is no question of that, sir,” responded Richard. “It is a critical moment in our shared history. We will meet the challenge.”

“Pleera,” said Izmaka. “Can you give me a status report on all systems, please?”



The tea-brown skin of Pleera's face crinkled into a wide smile.

“Yes sir,” responded the capable woman, casting her eyes over the control panel. “The holographic image of *Ossëan* departed from orbit toward the Asteroid Belt and is on course. Meantime, our sheathing is completely functional and we are currently more than 100,000 miles below the plane of the ecliptic. We are protected against radar detection and intrusion by hypertravel. There are no unregistered personnel in Olovanda, or indeed anywhere in *Ossëan*. Ahmanyen soldiers are posted in all key areas of the facility, at any possible approach to the meeting area. Airbots and reconobots are on patrol throughout the inhabited portion of *Ossëan*. The power plant has been activated to full capacity—as much as possible without the

Key—and we are surrounded by a cloud of celestial micro-sensors at a radius of 100,000 miles. They will alert us instantly to the presence of any unauthorized incursion on our space—unless it is smaller than my thumbnail, sir. Even if an invading instrument is sheathed, we can detect it by the gravitational disturbance it will create.

“Moreover,” Pleera turned to face the two men, “sensors are spread throughout the Solar System. Although much more thinly distributed than those around us now, if there is any invasion within the orbit of Pluto, we will know about it with little delay.”

“You are most efficient, Pleera,” commended Izmak.

~

“The meeting’s about to start, Joe,” said Starman David Foster. He and his partners, Starmen Mark Seaton and Joe Taylor were aboard Tharsos in a dormitory where several years earlier the pirate Lurton Zimbardo had held them prisoner.

Joe glanced at his compad as he took one more bite out of his curried chicken sandwich, chewed a moment, and then said, “We’ve got fifteen minutes.” Then he swallowed. “You should get something to eat yourself. Who knows when we’ll get a chance to refuel ourselves next?” He took another bite.

“This is not a meeting we can risk being late to, Joe. And I can’t eat a thing now. My insides are too jumpy.” David Foster ran both hands through his dark red hair. He walked over to the window in their dormitory room and looked out on the great hangar. Firewasps and Ahmanyen battleships, large and small, filled the space. He knew there were hangars in other areas of Tharsos, smaller but also filled to near capacity.

“Well, you’d better not eat then,” advised Joe. “It wouldn’t make a good impression if you got sick in the middle of our planning.”

“Don’t you take anything seriously, Joe!?” sputtered Zip, turning back to face the center of the room. David was usually known as “Zip” since he was never calm. His mind was always

racing.

"I take this meeting seriously enough to make sure I won't get a hunger headache. Okay, I'm about ready. Just have to clean up and wash my hands." The lean Starman rose from the table.

"Mark?" said Zip.

"I've been ready for half an hour, Zip." Mark, well over six feet tall, with massive shoulders, was relaxing on the sofa. "I'm ready any time you two are."

"Let's go," said Joe, and led the way to the door.

~

The three Starmen passed along the corridor that opened onto the boundary area between that part of *Ossëan* that was open to visitors and the portion that the Ahmanyans had kept sealed until recently. Now authorized humans were allowed to enter the hidden city of Olovanda in the central portion of the large iron asteroid. Thousands of years earlier it had been a moon of Mars. The potato-shaped iron asteroid, more than forty miles long, had been converted into an immeasurably powerful warcraft with an entire city inside. The power plant alone was contained inside a room ten miles long.

A few minutes before the meeting was scheduled to begin, Zip, Mark, and Joe entered the conference room. Although there was a large viewscreen at one end of the room, and a table large enough to seat twenty people, it appeared that they had entered a sunlit grove of pepper trees with the meeting area prepared in a clearing. Golden grass grew in the areas under the trees, but a slate expanse provided solid footing for the meeting floor itself. A summer sun shone down peacefully through overhanging branches, and there was quiet birdsong in the air.

"Welcome, Starmen!" greeted King Izmaka as they entered the room.

"Greetings, sir," they said, and then shook hands with Richard Starlight. Commander John Lewis of Space Command was also present with two aides. Robert Nolan and his new

assistant Kateri Tekakwitha were also present. She had replaced Beowulf Denn, the traitor who had destroyed the lunar satellite facility that had been Nolan Mining Enterprise. A pureblooded Mohawk, her last name meant, “she who puts all things in order”. True to her name, she had quickly proven her immeasurable worth. With her assistance, Robert Nolan was rebuilding his manufacturing empire.

There were a few Ahmanyans standing nearby whom the Starmen did not know. They acknowledged them with friendly nods.

Izmaka gave a command to two assistants who were waiting for his orders.

“Transport the last participants to this conference,” he said. Earth’s greatest physicist Stephen Hoshino and the American President were to be brought to Olovanda by wormhole transportation, and Jogren and Saadervo and a few other prominent Ahmanyans were likewise to be brought from their home planet.

“Yes sir,” they replied. Moments later one technician returned. “The transfers were successful, sir,” he said to Izmaka, “and the visitors will be present shortly. However, there was some difficulty with the wormhole mechanism. We released our hypershield for the few seconds it took to bring the visitors to *Ossëan*, and we experienced some unexpected interference and had to strengthen our hypertube as it was generating, sir. Perhaps it was because it had to pass through our own detectors. Pleera checked the mechanism completely and all is well now.”

It was not long before the visitors had recovered their equilibrium and joined the others in the conference room. Richard Starlight and the Starmen greeted their Ahmanyman friends effusively.

One of the Ahmanyans who was not known to the Starmen rapped the table. The room instantly became silent.

“Greetings, and welcome to the conference chamber of Olovanda,” he said. “I am Karax, Guardian of this refuge. I am honored to introduce Cynia, sister to King Izmaka.” He gestured

to a woman with dark golden hair held in place by a red circlet. Her high cheekbones showed highlights of the summer sunlight that filtered through the branches of the trees overhead. "Please take your seats," Karax continued. "I expect that the meeting will begin shortly. King Izmaka has informed me that we are awaiting one more arrival." Karax seated Izmaka at the head of the table, and then took his own place nearby.

Once everyone had been seated, the President asked Izmaka, "Sir—everyone whom we had arranged to be here is accounted for. Who is yet to come?"

"One other has asked that he might attend," responded Izmaka. "It is not up to me to deny him. Indeed, I welcome his appearance, as will all of you. He is the Janitor of the First Races."

A collective gasp went up from the table. The Starmen felt a thrill of fear shoot through them. The Janitor! The galaxy's oldest remaining denizen, created with the first giving of sentient life uncountable eons before, an eyewitness to the corruption of the Lucians and a participant in the first battles against those who were to devolve into the Xenobots! To him, the first Xenobot War in the Solar System was recent memory!

"How...?" began Mark. Izmaka turned to the big Starman, but continued to address everyone at the table.

"Yesterday, the Janitor—perhaps better understood as Guardian, Ambassador, or Caretaker of the inheritance of the First Races—alerted me that he would attend this meeting. He spoke to me directly in my mind as I was resting. I do not know where he is coming from, how he will bypass our defenses to arrive, or how he knew that we had arranged this meeting at all."

At that moment, a field of colors appeared behind Izmaka. It had no clear boundary and beguiled the eye that stared at it. Mark felt himself drawn into it, though he was not moving. In an instant, a humanoid figure took shape from the colors, radiating incandescent gold and brilliant orange. The figure was about five feet tall and encased in an environmental suit that appeared to be made of finely-meshed wafers, like fishes' mail. Like the images

of the Lucians that Mark and Joe had seen while they were held captive on the rogue moon over a year earlier, the Janitor's hands had two opposable thumbs. From the neck up, his head was entirely encased in a clear globe. It was difficult to see his features, for heat waves rose from his presence. Within seconds the temperature in the room rose noticeably.

All stood and turned toward the last-comer.

"You honor us with your presence, most Ancient One," said Izmaka, with a slight bow.

"I come in the time of your great peril." The voice spoke directly into Mark's mind. He heard it in English, though the Ahmanyans, as he learned later, heard it in Ahmanyen. "Rarely do I leave my planet, one of the five homes of first life, where the five First Races saw the earliest stars together. My planet has survived through the life cycles of several hot stars, moving when necessary from star to star as each became unstable and unable to support life. But now I must venture to the cold places of the galaxy to counsel you in your resistance to the corrupt Lucians."

Cold places? wondered Zip, his brow furrowing with puzzlement.

"Yes, Starman Foster, the cold places," said the Janitor, answering Zip's thought. "On my home planet, so close to the beginning fires of creation, a temperature of 600° is balmy. Please forgive my apparent aloofness, but I keep distant for your own safety."

The Starmen felt infinitesimal in the presence of the Janitor. Apparently all at the table did, for the Janitor spoke again and said, "Do not be afraid nor think little of yourselves. It is you who stand between the corrupt Lucians and the extermination of life in this part of the galaxy as well as in Omega Centauri. Though you are newborn races, you are able to conquer them. You Ahmanyans are weaker now than you were the last time you faced this enemy, but their return to strength is, in part, illusory. Though they blaze now with fierce hatred and much power to destroy, their time is short. Moreover, your allies from Earth

bring you gifts that will make you strong, for they have virtues that you have lost, or never had.”

A feeling of pride and of place coursed through Zip when he heard these words. He was pleased that this representative of the First Races recognized and acknowledged that humans had a valued and necessary contribution to make in the defense against the Xenobots. And he seemed to be promising them victory!

“Victory is by no means assured, Starman Foster,” said the voice inside his mind. “It is quite possible that you, your fighters, and your entire planet may be destroyed by the Xenobots. What is guaranteed is that the Xenobots will fail; it is not guaranteed that you will succeed. You all may lose your lives and your planets before the final end of the enemy comes!

“See, now, what your enemy and mine can do!” With that the viewscreen at the end of the room came to life. An enormous spacecraft in a near-starless void appeared, with a murky brown planet beyond it. The people of the council watched the planet as several dozen powerful bombs tore it into ravaging fire. The humans were stunned, but the Ahmanyans were struck to the heart.

“Yes,” said the Janitor, “this is how the Xenobots destroyed Ahmany. In those days, they needed several dozen warships, each with one ‘crust-breaker’ bomb. Now they need only one ship, provided they have a solar station in place around the sun. This final trial of the Xenobots’ potential occurred six months ago. The planet they destroyed was the farthest from the center of the galaxy, but it was not too far for the knowledge of the First Races to reach. The Xenobots assembled a solar power station around this unfortunate planet’s star. Once it was in place, the destruction of the planet was achieved in minutes. The Xenobots are creating thousands of these ships and many dozen solar power stations. To overwhelm you, they will need only one—but that one will have to be circling your own sun.”

“How can we stop them?” It was King Izmaka, asking the question that all of them were thinking. “Eldest—how can we prevent the enemy from establishing a power station around our

sun?”

“The power stations are massive globes several miles in diameter. When—”

At that moment a clarion rang through the whole of Olovanda! Indeed, it rang with heart-stopping intensity throughout *Ossëan*!

A thousand feet away from the conference room, in the heart of the control center of the asteroid, Pleera stared at the datascreen in shock. There was evidence of a distortion in space, irrefutable evidence that a hypertube was opening. Suddenly, four Xenobot warcraft appeared, a mere ten thousand miles away! As she watched, their transfer through a hypertube was completed. The enemy was at their doorstep!

Chapter 3: Tharsos Attacked!

INSTANTLY, Pleera took defensive action. “Maximum power electromagnetic pulse!” she commanded, and provided the proper coordinates. At the speed of light, the massive charge rolled over the invading Xenobot warships. “Antimatter torpedoes, launch!” Pleera’s voice was clear and determined. The electromagnetic pulse should overwhelm all electronics inside the enemy’s ships and make them completely vulnerable to the torpedoes that would follow the pulse by a matter of minutes.

Before the torpedoes could reach their targets, however, a hypertube opened and the Xenobot ships wavered, thinned, and disappeared. The alarm inside Tharsos quieted.

Pleera stepped back a pace from the viewscreen, lowered her eyebrows, and pressed her fingertips together. She was puzzled.

Those ships ought to have been immobilized by the pulse, she thought. And with all our precautions they ought never to have found us at all. The Xenobots must have some sort of detection apparatus inside the Solar System—perhaps a network of very small sensors sent through hyperspace. We have kept meticulous vigil for any incursion, but we were looking for ships. Then she

made an intuitive leap. *The interference when we brought the leaders from Earth and Ahmanyā! There was no reason for that to happen, but its characteristics matched what might happen if hyper-activity were being monitored.*

Pleera's eyes widened and her heart raced. Tharsos was in danger! *The Xenobots know where we are! They wouldn't have sent just four warcraft against us! Those four must be the vanguard of a fleet. We stopped them so quickly that they hesitated to send the rest of their ships—but we can't be sure that we have stopped the attack!*

Her brief reverie complete, Pleera shouted her commands. "Deploy the firewasps! Deploy the battlespheres! Prepare for attack!"

Already on heightened security alert, the crews of these small but powerful and maneuverable warcraft were able to launch without delay. Within a minute of the command, the first of the firewasps sped out of the huge airlock at the pole of the asteroid, each carrying one human pilot. The Ahmanyān battlespheres followed the ranks of firewasps, each with a command pod at its center for the pilot and a small battlepod for a laser gunner. The battlepod could whip speedily around a spherical lattice framework in any direction at the gunner's will.

Pleera commanded them to stay in formation near Tharsos and to remain on high alert, ready to make an instant response to any Xenobot incursion.

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In the conference room, when the alarm rang out, conversation ceased.

Almost at once, a report came through the intercom system. "Four Xenobot warcraft appeared in our proximity and were instantly repulsed by an EMP. *Ossëan* is on highest alert."

All deferred to the Janitor for a decision about what they ought to do, but he said nothing. The Starmen were eager for action. All three of them turned toward Richard with inquiring, even pleading, looks. He nodded.

“Please excuse us,” said Zip as the three Starmen pushed their chairs back and stood up. Commander Lewis also arose to join them.

“You too, Kateri, please,” said Robert Nolan to his assistant. “Maintain contact with us.”

“A fleet of Xenobots is now attacking.” The message from the Janitor was impressed upon the mind of everyone in the room. Consternation broke out. Richard turned to the Starmen and gestured urgently for them to keep going. Followed closely by Commander Lewis and Kateri Tekakwitha, they raced for the exit.

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As the Starmen ran through the corridor to the command center, the alarm began again. With a surge of adrenaline, they redoubled their speed and in seconds shot into the bright room where Pleera was giving commands in a crisp voice.

“Scatterbombs launch, at once! Activate laser diffusion shields! Battlespheres and firewasps, deploy under your captains’ orders, wait on my command to attack!”

Pleera was obviously too intent on defensive operations to answer questions, so the Starmen did not approach her. The others in the room were equally busy following her orders. There was no one who could brief the Starmen, Lewis, and Kateri Tekakwitha, and they did not want to disturb the Ahmanyans.

Having done its work, the alarm died down.

“Over there,” said Commander Lewis, and led the way to the operations tank in the center of the great room. Inside the tank, local space was shown in three dimensions. Tharsos was depicted as a charcoal-colored mass, surrounded by tiny orange lights that were the firewasps, and small pearlescent orbs that obviously represented the battlespheres. A hazy green ball, barely visible, surrounded Tharsos, showing the laser diffusion shield. At the edges of the tank were red lights, moving rapidly toward Tharsos and spreading out to surround it. Sprays of white lines were extending out from Tharsos toward the sites where the

red lights had first appeared. Even as the five people took their places at the guardrail, the white lines burst apart like fireworks.

"The scatterbombs," grunted Commander Lewis.

"Eight fleets of eight," observed Joe. "Sixty-four Xenobot warcraft. They must have come through hyperspace eight at a time and then quickly separated. They're moving to encase us in a sphere."

"How did they know where we are?" asked Mark of no one in particular. Zip and Kateri paid close attention to the action that showed inside the tank. As they watched, several of the scatterbombs connected with their targets, and the Xenobot warcraft erupted into consuming fireballs that quickly vanished. Other scatterbombs, however, were lasered into oblivion, while still others passed their targets and sailed off into deep, starless space.

"Why aren't the Xenobot ships attacking Tharsos yet?" asked Zip aloud.

"Firewasps and battlespheres, attack!" called out Pleera. Instantly the fleet of defending ships shot out from the asteroid. Under their own captains each had selected a Xenobot attacker and raced to the engagement.

"The Xenobots are only a thousand miles away and closing," said Joe. There was an edge of anxiety in his voice.

"The Janitor said that if the Xenobots don't have a power station in place, we are able to defeat them," said Kateri.

"That doesn't mean that we will win every battle," snapped Commander Lewis, his concentration making him sound almost curt. His jaw was working. "With superior numbers and maybe some luck, they can overcome us. And they know that Tharsos is our flagship. They're trying to take it out before the war has begun!"

As Lewis finished speaking, the first of the defending ships came into battle proximity with its Xenobot foe. One Xenobot ship fired a laser cannon at Tharsos, but the diffusion shield absorbed the beam, flaring dirty brown briefly in the operations tank before returning to its usual green.

Suddenly everyone gasped! All Xenobot ships fired laser cannons at once! The laser diffusion shield turned murky brown, appearing as a solid, mud-colored ball. The lights dimmed inside Tharsos and the symbols inside the operations tank flickered and wavered. Gradually they returned to normal.

“Kateri!” The woman’s name burst through her compad.

“Sorry, sir!” she gasped.

“What’s happening?” It was Robert Nolan. His assistant reported the situation.

Suddenly there were cries of alarm from the personnel in the command center, and the shipwide alarm sounded for the third time. Inside the operations tank, more red lights were appearing—one group of eight after another took a place at the outskirts of the battle arena.

“There are too many!” said Commander Lewis. “If they all coordinate their attack, they can overwhelm the diffusion shield!”

Zip’s already rapid pulse quickened even more. He could feel his heart beating fast and hard in his chest. He felt abruptly that the Xenobots might actually be successful in destroying Tharsos! As he glanced at his friends, he saw that their knuckles were white where they gripped the guardrail. Then he heard Pleera giving orders.

“Charge the hyperdrive! Fighters, abandon engagement and return to *Ossëan* immediately! Lasers, lock on targets and fire on my command!”

In the tank, Zip saw that the orange and pearlescent lights had begun to race back toward Tharsos.

“Fire!” shouted Pleera. The laser diffusion shield that surrounded Tharsos disappeared for a split second and laser beams lanced outward from Tharsos in every direction. Only three of the closest Xenobot attackers exploded. All others put up their own laser diffusion shields.

They were watching for that, thought Zip. Whenever our shield goes down, theirs are set to go up automatically. They know that we will only drop our shield to launch a laser attack.

They have learned from their mistakes.

A second or two later, all the Xenobot ships fired laser cannons in unison once again. The shield around Tharsos, restored as soon as the defensive laser cannons had fired, turned mud brown a second time, and the power inside the asteroid dimmed noticeably.

The Xenobot attackers, now numbering well over a hundred, had nearly completed their englobement of Tharsos. Pleera shouted that the laser cannons on both sides of Tharsos should select targets in a narrow field. Tharsos' laser shield could absorb the concerted attack of a hundred ships, but no laser shield on a ship could survive the concentrated attack of several laser cannons from Tharsos. Zip nodded admiringly. Pleera was going to blow two holes in the Xenobots' formation. "Fire!" she commanded.

Six Xenobot ships on each side of Tharsos erupted into fireballs. As more than half of the personnel in the command center broke into cheers, Zip glanced at the screens that provided information on the hyperdrive. His eyes opened wide when he saw that the charge had only advanced to about the halfway mark. Then he understood—so much energy was going into keeping the diffusion shield at maximum strength and in firing all lasers when Pleera commanded, that it was slowing the charge rate for the hyperdrive. To speed up the charge would weaken the defenses—a fatal move. But to step up the defenses would remove Tharsos' only possible retreat. Pleera was trying to keep both strategies in balance.

Zip gazed into the operations tank and saw that all the firewasps and battlespheres had returned to Tharsos, and presumably were docking inside the hangar.

All at once a collective gasp arose from the personnel in the command center. Zip raced to Pleera's side, where she stood transfixed, gazing at the viewscreen. Information was scrolling across the screen. It was written in Ahmanyen and whipped by too quickly for Zip to read.

"What is it?" he dared to ask the commander of *Ossëan*.

“They’ve launched a swarm of nuclear weapons,” she whispered. “Our diffusion shield cannot stop them. We are at the center of the multitude. We cannot move. If even *one* strikes, *Ossëan* will be severely damaged. If too many get through, we will be destroyed.

“Lock onto the bombs!” Pleera cried out. “Fire on my command! All personnel secure your positions and prepare for impact!”

In the command post, the Ahmanyans rarely used chairs, preferring to work standing up. Now, all took chairs and strapped themselves in.

The hairs at the back of Zip’s neck prickled. *This could be it, he thought. The Xenobots know that we cannot direct our lasers at their ships the next time we fire. If they’re smart, they will automate their attack lasers on Tharsos when our shield goes down next, rather than automate their own shields. We can defend against nuclear missiles or laser cannons, but not both at the same time.*

He glanced over at the hyperdrive sector and saw that full charge was still nearly two minutes away. Joe and Mark had moved quietly next to Zip, and he could tell from their expressions that they had analyzed their situation as well as he had. While he watched the figures, Joe and Mark strapped themselves into nearby chairs.

How long would it take the missiles to reach Tharsos? Zip wondered. Could they make a hyperjump before the missiles would strike? How close was Pleera going to cut—

“Fire!” shouted the Ahmanyman commander. Simultaneously three things happened. The laser diffusion shield went down. Ahmanyman lasers destroyed most of the nuclear missiles. And Xenobot lasers struck Tharsos.

The ship’s lights went nearly out as energy was instantly drawn from non-vital systems to protect the ship’s vulnerable sites.

“Nuclear impacts in six seconds!” called out a voice in the halfflight. So monstrous an announcement was more than Zip

could register. He was suddenly distracted when he saw Pleera leap up out of her seat and bang her fist down onto the control deck. With a sudden shock, the Starman realized that he had not found a chair himself where he could strap himself in, and there was none close by. Just as he began to look around for the closest place of safety, the asteroid rocked violently. Everything went completely dark, and Zip could feel the floor dropping from under him.

Chapter 4: The Council Decides

THE NOW-FAMILIAR gut-wrenching feel of hypertravel caused sudden relief to course through Zip's system. Tharsos had obviously sustained a damaging strike but had survived and could still engage its hyperdrive. The journey took only seconds, and then he felt them enter ordinary space once again. Half-level light and power came on, obviously from the backup system.

The Starman had been thrown down, but had managed to break his fall. He rose to his hands and knees.

Zip saw Pleera lying flat and motionless a few feet away on the smooth floor of the command center, her head turned away from him. He crawled over to where she still lay unmoving. He didn't touch her, in case her spine had been injured, but leaned over to peer anxiously into her face. There was a heavy purpling bruise over her left eye. Zip slipped over her so that he could face her. Before giving her his attention again, he took a quick glance around the room. His friends were struggling out of their chairs. No one else seemed to have been seriously injured.

Two Ahmanyans came close to Zip and gave attention to Pleera. Behind him, a voice called out, "Damage report!" Information began to come into the command center, but Zip paid no attention.

"We will take care of her," said a gentle voice next to Zip's ear. "She was very brave in battle. Quick thinking under fire. We need her." Zip stood up as several people brought medical

equipment over and began to treat the fallen Ahmanyans. Reluctantly, the redheaded Starman turned away and joined his friends.

“What’s wrong with Pleera?” asked Mark, his eyes expressing sympathy and caring.

“Hit her head,” answered Zip. “She was knocked off her feet in the blast. She’s unconscious. I don’t know any more than that.”

“Let’s get back to the conference,” said Commander Lewis. “We can get more information later.” Lewis, Kateri Tekakwitha, and the three Starmen walked dejectedly back to the conference room.

As they walked in, several people had just finished putting the room back in order. The Janitor had apparently not moved. King Izmaka was just shutting down his personal communications system. He had concluded a private communication with the asteroid’s personnel, from whom he had received a report on the attack and its aftermath. Taking his position at the head of the table, he beckoned everyone else to take seats.

“Pleera has stationed us in the Asteroid Belt,” he reported, “back in our first place of concealment. The Xenobots may search for us here, but they will not find it easy to detect us. If they search here, most likely we will become aware of their presence long before they can locate our position. They cannot take us by surprise. Moreover, when we left the orbit of Earth, we sent a holographic image of *Ossëan* to the Asteroid Belt as a decoy. Perhaps they will not think to look here first.”

The leader of the Ahmanyans paused and his eyes swept the table, briefly looking at each one in turn.

“The attack on *Ossëan* was massive and well planned. Frankly, I did not consider that the Xenobots had the capability to do such careful strategizing. It is disconcerting to learn that they retain an ability to cooperate to the degree necessary for such an operation as we have just seen. They nearly succeeded in destroying this asteroid. We escaped their assault with only

seconds to spare. As it is..." He grimaced and lifted his hands. "As it is, we are badly damaged. Numerous laser strikes have pitted the surface deeply with craters and grooves, and two nuclear detonations were close enough to weaken the walls of *Ossëan* to the danger point. There are cracks in the iron shell through which the atmosphere is leaking slowly. If Pleera had not risked sending a half-strength electromagnetic pulse in the last few seconds, thereby causing the missiles to explode prematurely, we would have been lost. Her timing was exquisite."

The President spoke up. "Can this marvel of engineering be repaired, sir?"

"Yes, Mr. President," said Izmaka, "but it will take a matter of weeks. All airlocks on *Ossëan* were shielded by individual systems as a backup to the great shield, so they are undamaged by the laser strikes. One, however, was destroyed by a nuclear explosion. That will have to be repaired. For the rest, our crews must locate several iron asteroids to use as raw material to fortify the weak places and fill in the craters we sustained in the attack. Of course, a complete damage report is not yet available, but we should have one by the end of the day."

Dr. Stephen Hoshino raised his hand. "Our circumstances have changed, perhaps even significantly, in the light of this attack," he said, "but the original issue still remains: we must prevent the Xenobots from installing a solar power station in orbit around our sun. If we can learn how one of these solar power stations transfers energy to the Xenobot ships, we may be able to disrupt the process. Our current defenses may be adequate, but certainly no more than that. We must continue to work on devising a shield around the sun."

A shield around the sun? Mark was amazed at the concept. What kind of shield? How could one possibly be created?

Richard Starlight spoke up. "Do you have any suggestions, Ancient One?"

The Janitor of the First Races had been silent and unmoving since he had declared that Xenobots were attacking the asteroid,

yet he had remained fully present throughout the disastrous battle.

“You have two resources that you have not drawn from yet. The crystals that the Starmen brought back from the Lucian moon where they had been held prisoner are used for data storage. In crystalline format, data will not deteriorate over time but can remain to be read for countless eons. I suggest that you examine the crystals and read the information they contain. The crystals were most likely written in the early ages of the Lucians’ corruption and therefore at the height of their power. In those days they were beautiful, but cruel and utilitarian. Now they are dull and shrewd, but with cruelty grown into savagery. Information from their early years may be revealing.”

“Our technicians have studied these crystals, Ancient One,” began Saadervo, “but have made little headway. We have used crystal technology to store data before, but frankly, even our knowledge of light has not permitted us to open the secrets of these venerable artifacts.”

“Data storage on crystals such as these was common in the age of the First Races, Saadervo,” stated the Janitor. “The Lucians used this method, as did the other four First Races. Crystal technology is not unknown to me, though I was among the least skilled of my race in these matters. Perhaps I can prove of some assistance to the Ahmanyen masters of light as you seek to plumb the mysteries of these particular crystals. Indeed, I venture to think that without my assistance your race will be able neither to gain access to the data soon, nor read the meaning even if you do.”

“We would be honored to have your assistance, Eldest. Will you come to Ahmanyen?”

“I will.”

“And the other resource that we have not consulted?” asked Izmaka.

“The *alzenta*”—the humans heard the word as “greegles”—“retain the records of the first age. Manufactured by the Lucians at the height of their power and given artificial intelligence,

perhaps much of the knowledge of that era that I never had may be found there.”

A satisfying light of recognition shone in the faces of the Ahmanyans. “But Eldest,” began Saadervo, “our contact with the *alzenta* has been tantalizing but unrewarding. They hold aloof from nearly all who live in this Solar System. They appear to be neutral, or even indifferent, to our struggles. They are friendly with only one person—an unusual human who lives near them.”

“When you approached them before,” responded the Janitor, “you did not have me. Although it has been uncountable eons since they were made, my presence will make a difference.”

Gradually during the course of the ongoing conversation, the atmosphere of shock that was present after their headlong flight from the Xenobots had subtly altered to one of moderate hopefulness.

“Clearly, we must go to the *alzenta*,” said Karax, “but that undertaking must not deter us from our first duty. Now that Raffon Dorn is among us, we must retrieve the Key of *Ossëan*. Had we had it in our possession, we need not have feared the recent attack by Xenobots.”

“You speak truly,” affirmed Izmaka. “Indeed, this is our most easily achievable goal and our most urgent. Retrieving the Key must be our first duty.”

“Sir?” queried Mark tentatively. Izmaka turned his eyes to the Starman. “Forgive me. What is this Key?”

“The Key,” began Izmaka, “is the ‘brain’ of *Ossëan*. When it is installed, it allows the many systems in *Ossëan* to run in coordination. Indeed, there are several systems that cannot run at all without the Key. Had the Key been installed during the attack, we would not have needed ordinary laser shields; instead, we could have captured most of the laser light of our enemy and used it ourselves for energy. The Key also increases the power of the drive many-fold by shifting energy more swiftly and effectively. For example, when the Key is installed the hyperdrive does not need charging—it is ready for immediate use. Without it, *Ossëan* is a huge machine; with it, *Ossëan* is,

almost, an organism. It has artificial intelligence and can be attuned to its commander. It is because of the Key that we were able to attain victory in our counter-assault upon the Xenobots' planet in Omega Centauri."

"Why was it ever removed?"

A pained expression crossed the features of the Ahmanyman king. "Starman Seaton," he began sorrowfully, "when we returned from Omega Centauri, completely victorious in a time that seems to my waking memory but a few months ago, we found our beloved planet a scorched ruin. Although we had prepared for that possibility, few of us ever really believed that our plan would have to be enacted. In order for the remnants of our race to survive on a planet that could no longer sustain life, most of our citizens had to be put into a state of stasis. Only the Guardians of our sixteen refuges, and a few others, remained awake and aware through the generations."

Mark looked down at the table. He knew the story, but hadn't anticipated that he'd be bringing up the grief of planetary genocide when he'd inquired about the Key of Tharsos. He was embarrassed and acutely uncomfortable.

He felt a hand on his shoulder. He looked up into the compassionate face of Cynia, the king's sister. Sensing the Starman's discomfort, she had silently arisen and come to where he was sitting. She was smiling. He smiled back at her gratefully, and then gave his attention back to Izmaka.

"When the citizens of Olovanda were put under suspension, the asteroid that was the home of this city was concealed in the Asteroid Belt. *Ossëan* also was to sleep the sleep of patience. Out of more than 400,000 citizens, fewer than 500 would be left awake. These were too few to operate *Ossëan* with all its power, and were not trained to defend it in battle, should such a remote possibility ever come to pass.

"The Key, therefore, was withdrawn and hidden so that *Ossëan* could not be operated in its full power by any other than Ahmanyans."

Zip suddenly looked up in shock. He realized that the "remote

possibility” that Izmaka had mentioned had indeed transpired! George St. George had discovered the asteroid, and Troy Putnam had learned to operate its basic systems. His successor, Lurton Zimbardo, had driven it out of the Asteroid Belt and, in his madness, directed it on a collision course with Earth! As the realization hit him, Zip gasped aloud. His face paled, and his few freckles stood out.

“Yes, Starman Foster,” said Izmaka. “If we had not hidden the Key, the pirates would have conquered ‘Mars’ and Earth with ease. Both our races can be grateful that we had the foresight to remove and conceal the Key to *Ossëan*. But now the time has come to retrieve it.”

“Where—where is it hidden?” Zip asked.

“It was encased in black ice and secreted in the rings of Saturn. It has swung through space and tumbled among many billions of nearly identical chunks of ice for more than twelve thousand years.”

“Why was it not retrieved before now?”

“The Ahmanyans who were not suspended were those whose skills were necessary for the preservation of our race during its time of hypersleep. They were most carefully selected for that purpose. The retrieval of the Key and its reinstallation on *Ossëan* requires rare knowledge and skill. Few Ahmanyans have what is needed. Indeed, only one now awake can perform this task.”

“You mentioned a name a moment ago,” contributed Mark.

“Yes. It is he, Raffon Dorn. The process of awakening him was initiated two years ago. He is aboard *Ossëan* now for this very purpose.”

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A long period of silence followed this revelation as all present reflected on the image of this Ahmanyman artifact circling the sixth planet, waiting through many lifetimes of the race that built and hid it until the time it would be wanted again.

Then Dr. Stephen Hoshino spoke up.

"If I may sum up, we have decided on two courses of action. With the assistance of the Ahmanyans, the Janitor will visit Adamant and speak to the greegles about reading the crystals Starman Taylor has brought us, and then he will go to Ahmanya to attempt to decipher them. It is a good plan and must be done, but the endeavor may be fruitless or, if successful, may provide no useful information.

"We will also retrieve and install the Key to Tharsos. If the Xenobots' memories or histories are good enough, they now know that the asteroid they attacked today is far weaker than the weapon they faced thousands of years ago. Today's attack may even have been a test of our capability, and may explain why the Xenobots appeared in waves instead of one great armada all at once. It is essential, therefore, that this asteroid be fitted once again with the Key, so that they cannot take us by surprise again. Indeed, from a tactical point of view, our near defeat and our ignominious flight may work very much to our advantage.

"But there remains still the most important question!" Hoshino's bunched fingers tapped the tabletop to underscore every word of his last sentence. His face was grim. "All of this will count for nothing more helpful than spacegas if the Xenobots place a solar power station around our sun!"

He waited a moment, quickly scanning the faces of everyone at the table. No one moved. "Therefore," he said, "I have a proposal. Once the Key is installed, I want us to take this near-impregnable weapon to the Xenobot empire and capture a solar power station. I want to study it, take it apart, learn how it works...discover how to keep it from working." The astrophysicist's expression presented the group with a challenge. For a long time no one said anything. Then:

"By jingo!" Joe Taylor's hand slapped down on the table. His eyes were alight. "I want to go on that expedition!"

"It is possible," came the words of the Janitor into everyone's minds. "In the Xenobot empire there are star systems long conquered, and even now nearly lifeless. Around the suns of these systems there are solar power stations in orbit."

“The Xenobots believe now that we are weak,” said Richard Starlight. “If they have the slightest vestige of logic left in them, an attack by a strong Tharsos in their own empire would be completely unexpected and demoralizing.”

Dr. Hoshino’s proposal was discussed for over an hour. There were objections and reservations but at the end, the consensus was to go forward with the strategy.

“Then,” concluded the astrophysicist, “while Tharsos is undergoing repair, let us install the necessary apparatus for taking control of a Xenobot solar power station. If our mission is successful, we can return with a full knowledge of how the station works and, we hope, how to prevent it from working.”

King Izmaka added a warning. “In the first Xenobot war, in which I fought, no Ahmanyen was ever able to capture a solar power station. They always self-destructed before we could get at them. The success of your mission requires that you overcome that difficulty.”

Dr. Hoshino blinked and stared at the tabletop.

“I *thrive* on tough assignments!” stated Joe.

Chapter 5: Adamant

THE STARMEN were relaxing in their dormitory late that night before retiring.

“Dr. Hoshino is amazing, just amazing!” said Mark, shaking his head. “Imagine someone postulating how the Xenobots’ detection system worked and then actually confirming the existence of their tiny sensors all in one afternoon!”

“Well, it was an educated guess,” contributed Joe. “Don’t forget that Dr. Hoshino is the fellow who created the microwave net that located this speeding rock when Zimbardo launched it at Earth, and with the resources of Tharsos behind his search, maybe it’s not so surprising that he was successful. Hypertravel bends space pretty radically, like a whirlpool in a bath.”

“I am relieved somewhat,” said Mark, “that Dr. Hoshino was

able to determine just how the Xenobots located Tharsos in spite of its shielding. I guess we won't be able to use hypertravel until all their sensors are located and destroyed."

"Dr. Hoshino's team will be able to do that in time. We're fortunate that those tiny sensors were spread too thinly to find us after our leap into the Asteroid Belt," said Zip. "And just the Xenobots' good luck to have found us after the first leap. They were watching for any hypertravel from Earth."

"Once we retreated from the attack," began Mark, pursing his lips as he paused, "don't you think that the Asteroid Belt is the first place they'll look?"

"Naw," said Joe. "Pleera was smart. She must have brought us to the Belt since that's where she sent the holographic decoy when we left the orbit of Earth. She had to have come up with that strategy in a split second while under fire. What a mind she's got!"

"But by now the Xenobots know that that was a decoy," protested Mark. "And the Belt is where the Ahmanyans hid Tharsos after the first war. This should be the first place they'd look for us!"

Joe shook his head with a knowing grin. "Right! And the Xenobuckets know that we know that they know that this is the first place they'd expect us to go and therefore it's the last place they'll look for us." He spread his hands. "We could have gone anywhere. Going to the most obvious place is the least obvious thing to do."

"Whatever the reasoning," Zip said, "we're out of their sight now, and the Ahmanyans have got time to repair Tharsos. There'll be other work to be done while the repairs are under way. The President will be on his way back to Earth by normal spacecraft to avoid detection by any Xenobot sensors attuned to hypertravel, Dr. Hoshino will remain aboard Tharsos for the time being, and we've got our appointment with Richard tomorrow morning to find out what he's got in mind for us." His eyes began to glint. "And whatever it is, we'll be ready for action, won't we?"

“I’m eager to go wherever we’re sent,” exclaimed Mark. “Now that we’ve got the newest version of spacesuit from Starlight Enterprise, I can’t wait to try ’em out! Lots of new features!”

“Well...” offered Joe, but he shook his head doubtfully.

“What could be wrong with the new suits, Joe?” asked Zip.

“They didn’t install the popcorn maker. I’d asked for that first thing.”

~

Five days later, the redheaded Starman was on Mars. It was early morning, and Zip couldn’t keep his eyes off the *Star Ranger* where it pierced the violet sky. Zip caught his breath. He thought it was just about the most beautiful spacecraft he had ever seen! The young Starman had arrived at Mars Base after dark the previous night at the end of a solo journey in one of the firewasps. After more than four years of painstaking redesign and meticulous attention to detail, the Starmen’s spacecraft was ready to return to service.

The gorgeous ship had been severely damaged in an encounter on Mars with an unmanned destroyer launched by Andrew Forge. Flying the *Star Ranger* by remote control, Zip had managed not only to escape the vicious craft that was pursuing his own ship, but also to cause it to slam into the desert. To achieve this, Zip had brought the *Star Ranger* into a hairpin turn and flown it upside down directly at its pursuer until the unavoidable collision had sheered off the attacker’s tail. Damage to the Starman’s ship, however, was considerable. Barely able to fly at all, Richard Starlight had had it brought to Mars Base for a complete overhaul.

Best of all, it had been fitted with SE’s newly designed antimatter drive. Rebuilt from the inside out, the *Star Ranger* was now the fastest spacecraft ever constructed by human beings.

And the most beautiful, thought Zip as he rehearsed in his mind the last time he had seen his beloved spacecraft fly, and

recalled with what anguish he had caused it to collide with its relentless pursuer.

His assignment now was one of the most exciting of his career.

“The *Star Ranger* is ready to return to service, Zip,” Richard Starlight had told him when he and his friends had met with the head of Starlight Enterprise the morning after the attack on Tharsos. “I’d like you to go to Mars Base and take possession of it!”

“The *Star Ranger*? Ready now?!” exclaimed Zip. “We can leave within the hour, sir!”

Richard chuckled. “I thought you could be! Then you are to fly it back to Tharsos for your assignment. Then you and Mark and Joe will be going to Saturn to retrieve the Key of Tharsos! You will carry three Ahmanyans who will perform the actual retrieval. You will make the journey as soon as you can, while Tharsos is undergoing its repairs!” The three Starmen looked at one another excitedly. “Mark and Joe,” continued Richard, “you’re not going to Mars Base with Zip. I have another assignment for you, to be completed before you all go to Saturn.”

“We’re not going to Mars with Zip, sir?” asked Mark.

“You two and Saadervo are going to visit Montezuma Vly,” said Richard. “We have a favor we need to ask him, and you are just the men to ask it.”

~

In spite of the Xenobot threat, Zip could hardly have been more elated. The thin air in the northern climes of Mars snapped with cold as Zip and a crew of two were being driven across the landing field in a ground shuttle. The driver pulled up close to the brick red spacecraft, circling around so that he could unload the luggage close to the base of the ladder.

The Starman entered the old, familiar but long-unused code into his compad, and the main portal opened in the side of the ship. The ladder assembly unfolded and lowered neatly to the

ground. “Lifter,” said Zip, and a platform descended the ladder by means of the rails on both sides of the apparatus, and then opened up ready to receive its freight.

It did not take long to load the luggage and equipment. Moments later, Zip was back in the pilot’s seat and the crewmembers were in their places. The Starman was trembling with anticipation as he contacted the tower and received permission to launch. As the *Star Ranger* lifted up from the ground, Zip saw the sun rising over the distant southeastern horizon, turning the region of sand south of Mars Base into a ruddy gold expanse. A few frozen lakes glinted like gold coins.

~

The same day that Zip Foster began the journey to Mars, Starman Mark Seaton and Joe Taylor were passengers on an Ahmanyen spacecraft whose destination was Adamant, long the home of the greegles. Saadervo was at the helm.

After an uneventful journey of four days’ duration, Mark opened up communications with Montezuma Vly, the reclusive and ultra-resourceful asteroid miner who had lived for years on the banana-shaped splinter of rock known popularly as Montezuma’s Castle. It was in orbit around Adamant, from which it had been broken off eons earlier.

“Starman Mark Seaton calling Montezuma Vly,” he began. Before too long there was an answer.

“Greetings, Mark. I am glad to hear from you. Where are you?”

“We’re not far away, Mr. Vly. My friends and I request permission to land and pay you a visit. We need your help in contacting the greegles.”

“Friends? You mean Zip and Joe?”

“Joe is with me. Zip is not, but I have brought another friend of ours. He is Saadervo of Ahmanya.”

“Sounds fascinating. I guess you can break up my day with a little excitement. Come on in and welcome.” The communication

was broken.

Moments later the spacecraft approached a roughly spherical asteroid about twenty miles in diameter. Its surface was crusted and mottled, with loose plates a mile or two long. It looked roughly like a partially peeled orange. To the right a few miles distant from the asteroid was a sliver of stone, turned like a crescent.

“Adamant,” said Mark, “—and Montezuma’s Castle. Unique formations in the Solar System. Land centrally on the crescent, Saadervo, on the inside section.” Saadervo brought the spaceship to a soft landing and clamped it to the stony surface. Then the three of them debarked from the ship and walked to the airlock that led into the interior of the asteroidal fragment. They stepped slowly, allowing their “smart grip” boots to fasten to the surface as they walked. In the light gravity, each of them weighed less than a pound. Saadervo carried a small package.

When they passed through the airlock, Vly’s gravity grid took over. They removed their helmets and boots, and then greeted their host with a strong handclasp.

“It is good to see you again, Mark and Joe,” said Montezuma Vly. His wavy dark hair had grayed slightly since the Starmen’s first visit, but his warm eyes were as full as ever. “I’m sorry that Zip is not with you. Now introduce me to your friend.” He turned toward Saadervo.

As he was speaking, three koalangs were flitting over the machinery in the workroom; obviously they were not used to visitors. They leaped from shelf to rock-polisher to a stack of untreated stones in the corner.

“Howard!” shouted Vly at one of the koalangs. “Stop leaping about as though the place were on fire! Meat’s scarce around here—don’t forget that you could wind up in the stewpot any day now!” He reached out and grabbed “Howard” in mid-leap and pulled him tenderly into an embrace. He scratched the little animal’s head. Saadervo, who had not seen living animals before, was spellbound. The Ahmanyen approached Vly almost timidly and stared at the koalang.

“Saadervo of Ahmanya,” said Mark. The two men shook hands according to Earth custom, though neither was used to it.

“I am pleased to meet you, Montezuma Vly,” said Saadervo. “Thank you for receiving me in your refuge. I know the honor you do me by accepting me here.”

“Not at all, not at all,” breezed Vly. “I can see you’re smitten by this little recreant. Would you like to hold him?” Saadervo’s eyes got big and he lifted his hands in a warding off gesture, but then he approached slowly and stretched out a tentative hand until his fingertips touched the top of Howard’s head.

“If you want some for yourself, we had a litter a while back. I’ll be glad to get rid of a couple of ’em.”

Saadervo looked at the Starmen with an expression like a child on Christmas morning. “Can you show me how to care for them?” he asked.

“Why, why certainly!” exclaimed Joe. “Take them back to *Imlah Taltahni*. The place will never be the same!”

Vly spoke up. “Come inside now and tell me why you have come.” He set Howard down on the closest machine. The three visitors followed their host through the workroom into his study. There was only one chair, which Vly insisted that Saadervo take. He placed the Starmen on crates, and then stepped over to a mechanical calculating machine that he was in the midst of rebuilding. He pulled its cover down and sat upon it himself. He put his hands together, leaned forward slightly, and smiled invitingly.

Mark began the narrative. As he revealed the tale, Joe frequently punctuated the recital with his own commentary. For over an hour, the Starmen provided Vly with the history of the Solar System, the devastation of Ahmanya, its refuges, the account of Tharsos, and the nature of the greegles, and concluded with a recitation of the recent events that led to their visit to the Castle.

“Well now,” reflected Vly, rubbing his chin, “the greegles are my friends but not my servants, you know. We can flit over to Adamant but it’ll be up to them what they want to do.”

“Of course, Mr. Vly,” said Saadervo, “but another will come who may be able to command them.”

“Eh? And who might that be? Who can command greegles?” Montezuma Vly looked wary. “You don’t mean to tell me that this ‘Janitor’ will come to Adamant himself?”

“When we are ready, we will contact him and he will come to Adamant,” affirmed Mark. “He will talk to the greegles himself. I really don’t know why he needs us at all for this venture, but, well, we’re all in this together and he doesn’t seem inclined to do for us what we can do for ourselves.”

“Well,” Vly laughed, throwing his head back, “for someone who lives in isolation I sure have a lot of curious visitors!” He rubbed his hands together. “Let’s have a meal before we cross the gulf out there.” He withdrew a small communicator from his pocket and spoke into it. “Lily? We’ve got company, as you know. We’ll be comin’ down in a few minutes. It’s near dinnertime, don’t you think?”

The visitors could hear a feminine voice respond. “Come when you’re ready.”

Montezuma led them down a corridor, crowded with small boxes stacked up on one side and festooned with tools hanging on the other. He kicked one or two wrenches out of the way as he strolled down the passage. The Starmen had never been this far inside his facility before.

They came to an open door that obviously led to an elevator. Inside was a large crate, which Vly began to pull out, grunting as he did so. Saadervo set down his own package, picked up the crate, and placed it down outside the elevator.

“Hmmp,” grunted Vly, raising his eyebrows. “You’re stronger than you look.”

“It is not so much strength, Montezuma Vly, for you are stronger than I. My race has learned how best to use what strength one has,” responded Saadervo.

Their host took them down just a flight or two, then the door opened onto cluttered living quarters. A table and sofa and large chair were placed toward the center of the room, and a musical

instrument with a keyboard was set against the far wall. A large viewscreen took up most of the wall opposite the sofa. Every other wall in the room was filled with shelves groaning with books. There being more books than there was shelf space for them, several stacks of books three feet high and a couple of open boxes were set among the furniture.

"Lily? We're here!" Montezuma called out.

A short, pleasant-looking woman entered the room from one of several doors. Dark wavy hair parted just off-center fell down both sides of her head to just below shoulder-length. She had a stately yet informal demeanor, and greeted each of her visitors by name in turn.

"Please follow me to the dining area," she said after the introductions had been made.

"I have brought you a gift from Ahmanya," said Saadervo as they entered the dining room. He handed the package to Lily. The woman looked quite surprised and very pleased. She opened the package and took out a piece of fruit. "It is *moolafentori*," said Saadervo. "People from Earth seem to like these very much."

"We sure do!" affirmed Joe. "We called 'em Martian plums the first time we ate 'em, but they're a lot tastier than plums!"

"I—, I'll serve them with dinner," stammered Lily.

"No, no," all three visitors protested. "We have some aboard our ship, but these are all for you!"

"Thank you," said Vly. "If they've got seeds, we'll be able to grow them here."

"If you are successful, they will be the first *moolafentori* grown outside of Ahmanya," said Saadervo.

"I expect we'll be able to do it," said Vly confidently.

"I expect you will," agreed Joe, with a laugh.

Lily served them a meal of flatbread, yellow cheese, and fresh greens and vegetables seasoned with herbs and flavorful condiments. Dark tea was available in an earthenware pot in the center of the table.

When all had eaten their fill and given due compliments to

their hostess, Montezuma pushed back his chair and said, "Guess we may as well get on over to Adamant."

The visitors thanked Lily and said their good-byes as Vly escorted them back toward the workroom.

Vly spoke up as they were walking. "How long will it take this 'Janitor' to get there once we let him know we're ready for him?"

"He will be able to appear instantly, Mr. Vly," answered Saadervo. "I do not know how he transports himself, but nothing seems to be able to prevent or delay him. Currently he is aboard *Ossëan*."

"*Ossëan*, Tharsos—you all had better decide what you're going to call this unbelievable asteroid-spacecraft!"

"We use the names interchangeably," said Mark. "Its proper name is '*Ossëan*', but before we knew that, Zip named it 'Tharsos'. The word means 'courage' in Greek, and once Zip learned the history of Ahmanya, he wanted a name for its third moon that would counterbalance 'Deimos' and 'Phobos'—'panic' and 'fear'."

"I see. A good choice," said Montezuma approvingly. "Here we are at the airlock. Suits and helmets on, folks! Let's all go in your ship, shall we?"

~

Less than half an hour later, the four men stepped out of the Ahmanyan spacecraft onto the rocky terrain of Adamant. Saadervo had landed the graceful ship on a relatively smooth but uneven plain of solid stone about a hundred yards across and pocked by countless small impact craters. Before they left the ship, the Ahmanyan had sent a message to *Ossëan* that he was about to land on Adamant, and that the Janitor was to be informed.

"It has been several lifetimes of my people since Ahmanys set foot on this asteroid to learn from the *alzenta*, friend Montezuma," said Saadervo, "but you are their only spokesman now."

“I don’t think so, friend Saadervo!” said Montezuma, his voice crackling with excitement. “I think that’s the Janitor, or dice me up and feed me to the koalangs!” With a shaking hand, he was pointing to a place twenty or so yards ahead, but the others had already seen. The Janitor’s gold and orange environmental suit had appeared on the bleak, gray and black landscape. His voice imprinted itself in their minds.

“Bring the greegles here, Montezuma Vly, if you would, please.”

Vly stepped forward a few paces. “Greegles,” he called out. “Come on out. You’ve got visitors.” Almost at once, responding to Vly’s voice in his suit communicator, a dozen crablike entities no more than a foot across scuttled out from under a few small overhangs and came toward the group. As they circled around, others joined them, some emerging from holes and others from farther away, scurrying across the uneven terrain. More and more came, some flying, some rolling, and some even walking, none of them taller than a foot. They came in the shape of crabs, of balls, of birds, and even of humans. When the assembly had come to an end, at least a hundred of them surrounded the place where the four people stood.

In spite of the variety in their appearance, they all were made of mirror-smooth metal, shining like silver, with here and there a few pieces of quartz or some similar crystal.

“Here are the greegles,” said Montezuma Vly, “looking new but older than the Solar System itself!”

“Indeed,” said the Janitor, who had stepped up to the outer edge of the circle of greegles, “and older than all life in the galaxy but my own—and the Xenobots’.”

Chapter 6: First Mission Accomplished

“BUT THEY’RE NOT ALIVE, are they, Eldest?” asked Mark. “They’re not...they’re not alive?”

“No, Starman Seaton.” The words were born directly in

Mark's mind. The sensation was disconcerting. "But they retain the thought patterns of the Race that made them. They have the ability to protect themselves and to replicate themselves if conditions make it possible for them to do so. For the First Races, these are roughly similar to what you call 'robots' in your own culture."

With a shudder, Mark remembered the android that had masqueraded as Steve Cliff while it was a servant of Ban Zou Men.

"Yes; the androids of your manufacture are similar in kind to these creatures, though the 'greegles', as you call them, are much more capable."

Mark and the others looked down at the gleaming creatures that were crowded at their feet. The big Starman could feel his hair prickle slightly as he considered the immeasurable age of ... he didn't know how to think of them. "Machines" seemed far too small a word. They were completely unmoving, as if they were waiting for a command.

"Well, I'm rather nonplussed about this," interjected Montezuma Vly after a short silence. "This is the first time I've seen the greegles so quiet—not that I come over here to visit often. Maybe just..." his voice faded off into nothing. Like the Starman, he realized that something was happening. There was nothing to see or hear. It was just a feeling, like static electricity in still air before a thunderstorm.

"Look there," whispered Joe, lifting his right hand a little to point. The two humans and the Ahmanyen followed his gesture and saw one or two silver shapes toward the back of the crowd move slightly.

"I..." began Montezuma with a slight catch in his voice, "I hope the Janitor isn't going to take the greegles away with him. I... they..." Once again his voice ran down into nothing.

"You may return to your home." The Janitor's words came into their minds almost like the breaking of an enchantment. "I will be here for some time. There is no need for you to wait. When I am ready, I will inform you."

The four men looked at one another wordlessly, then quietly walked to their ship. In minutes, they had landed on Montezuma's Castle and returned to Vly's workshop, placing their boots and helmets in the vestibule as before.

No one said anything. After a moment's awkwardness, Vly gently lifted Howard from where he was curled up on the top of the closest rock polisher and offered him to Saadervo to hold. The Ahmanyen's face leaped into alarm.

"Go ahead," said Joe with a smile, and Mark nodded.

Carefully, treating the animal as if it were made of spun glass, Saadervo reached out his arms and clumsily took hold of the creature.

"Like this," said Joe, holding his arms in place as if he were holding a baby. With ungainly movements, the Ahmanyen shifted around until the koalang settled into a comfortable position. He was deeply moved. "No one from my planet," he said, "has held, or even seen, a living animal since..." His emotions made him tongue-tied.

"You like that, don't you, Howard?" murmured Montezuma with tender affection. "You're special now. Yes, you're special. You're making someone very happy, you know that, you little scalawag?" He ran his fingertips soothingly over the animal's head. Turning to the others, he said, "I'll be back in a few minutes. Make yourselves comfortable." Their host left the room.

Fifteen minutes later, he returned, carrying two small boxes, one on top of the other. "Take a look inside here, Saadervo," he said. He set the boxes down and removed the lid from the one on the top. Inside were six tiny koalangs, each no more than a few inches long. "These are for you. My gift to you and your people."

Saadervo was speechless. His mouth opened but he couldn't say anything. Montezuma removed the top of the second box and said, in a matter-of-fact voice to smooth over the Ahmanyen's discomfiture, "And here's some stuff you'll need to take with you—food they like, and all that."

Hours went by while the four men talked about the care of the koalangs and how they would fit into the community of *Imlah Taltahni*. Mark and Joe felt that they learned more about ordinary Ahmanyman life and culture in that conversation than they had in any of the formal classes or social contacts they'd had since they first met the Ahmanyans. The conversation was so pleasant and the bonds between the friends were being made so tight that the Janitor's voice was completely unexpected.

"Return to Adamant. I am ready to depart."

~

When they approached the Janitor, they noticed that all the greegles but two were gone.

"Where are the greegles?" asked Vly with a note of apprehension.

"They will remain on this asteroid, Montezuma Vly," said the Janitor. "They have already returned to their homes. These two, however, will come to Tharsos with the Starmen and Saadervo. Please take charge of them now. I believe I have found the knowledge the greegles had that is most needed for the present. It has all been placed into these two creatures. They will eventually accompany me to Mars. I thank you for your hospitality and your assistance. Farewell." And with that the Janitor was gone.

~

After another meal on the Castle, Mark, Joe, and Saadervo took affectionate leave of Montezuma and Lily. Saadervo was effusive in his thanks for the gift of the baby koalangs.

"No, no, don't mention it, Saadervo. You're doin' us a favor. If they stayed here, there'd just be an even bigger number of the rascallions under foot all the time, leaping and flying about while we're trying to get our work done. No, no—we should thank you for taking 'em off our hands. Let your little Ahmanyman kids enjoy these little botherations. I just wish I could be there to

see the children when they first lay eyes on 'em!"

Joe and Mark never told Saadervo that koalangs were the beloved pets of lonely asteroid miners, and that Montezuma could have taken the litter to Yellow City on Ceres and sold them for a considerable sum.

~

During the journey back to Tharsos, Saadervo kept nearly constant watch on the koalangs to make sure they were thriving. Joe tutored him in the care of the animals until Saadervo felt confident enough to continue on his own.

Over dinner one evening, Mark broached a subject he'd been thinking about off and on for some time.

"Doesn't it feel strange to have the Janitor reading your thoughts and communicating directly into your mind?"

Joe put his fork down and patted his lips with his napkin. "Now that you mention it, it does make me feel a little bit—well, invaded, I guess. But I just felt as though I were an inferior kind of life and that he had kind of, I don't know, a right—or at least a necessity—to communicate the way he does. But it does give me the willies to have words appear in my mind without coming through sound in some way, though. It rather makes my brain itch."

"What are 'willies'?" asked Saadervo. "How can your brain 'itch'?"

"It just means it feels very strange, Saadervo," said Joe.

Saadervo nodded.

"I wonder what kind of life he is," mused Mark out loud. "He's humanoid in shape, like us, but to live at the temperature he does! Around 600°! He's obviously not a water-based entity!"

"His life is sulphur-based," asserted Saadervo.

The Starmen's jaws dropped. "Sulphur?" gasped Joe.

"Hmm, yes. Sulphur. Liquid sulphur," said the Ahmanyen.

"Sulphur?" repeated Mark. "With a melting point of 235° and boiling point of 832.5°, I guess that fits the temperature range—but sulphur?"

“When life was first conferred in the galaxy, it was in the hottest star systems. The universe has cooled since then, but the First Races thrive in the heat of the first creation of life. The hottest stars are the shortest-lived. It is for that reason that the Janitor said that his Race has moved his planet from sun to sun several times.”

“How do you know all this, Saadervo?” asked Mark.

“We learned from the *alzenta* generations ago. It is among the easiest knowledge to collect from them.”

“What happened to the First Races?”

Saadervo’s lips tightened a little and his brow furrowed. “We don’t know. We could read only the surface knowledge from the *alzenta*, only the most basic scientific facts. Beyond that is mystery. The Janitor must know of course, but it is a little daunting, don’t you think, to ask him about such matters?”

“I know what you mean,” said Mark. “What seems like a very logical question rather fails on your lips when you approach him. If he is aware of what is in our minds, he knows what we want to ask even before we put it into words, and he is not answering. I have the feeling that he is operating on a level too high for me to understand, and that when he communicates with us, it is almost an effort on his part to slow down or descend or empty himself somehow in order to address us.”

Joe nodded. The lanky Starman had even forgotten to eat when the conversation took this turn. “Is he immortal?” The question, once it had been uttered, was suddenly frightening to him.

“No,” answered Saadervo. “I am sure not. But he can choose the time of his death. And if he or his kind decide to live for millions of years, they may do so without violation of the natural order. It is the prerogative of the First Races. The Xenobots, who are of the First Races themselves, are wearing out due to their corruption. They are grasping life now with desperation, and because of that they are losing it into the grisly decline we have seen ourselves. Or so it seems to me.”

“Do you know this for sure, Saadervo?” asked Mark.

“It is a guess, Mark. But I think it is a good one, based on what we *do* know.”

~

The Ahmanyen ship docked in the main hangar of Tharsos with its mission accomplished. Saadervo proudly and excitedly unloaded the koalangs and brought them into Olovanda. Among the Ahmanyans, they created even more of a stir than the greegles that the Starmen carried in. The two greegles had been as silent and unmoving as statues from the time Mark and Joe had gingerly picked them up from the surface of Adamant.

After the Starmen had settled into their quarters and rested a little, they came into the common room where the Ahmanyans spent much of their free time. When they walked in, they saw Pleera sitting comfortably.

“Pleera!” they exclaimed together. She came to her feet and greeted the Starmen warmly.

“Are you alright now?” asked Joe.

“Yes, Joe!” she said, her eyes sparkling with their accustomed liveliness. “I am fully recovered and eager to see *Ossëan* fully repaired. I understand we have an exciting mission ahead of us!”

“How are the repairs coming along?” asked Mark.

Pleera smiled wryly, giving evidence of barely-contained enthusiasm. “There is still at least a month’s worth of work to be done. We must chafe, but what can we do? I’m afraid I do not have my share of characteristic Ahmanyen patience!”

“A woman after my own heart!” asserted the blond Starman. “At least we Starmen get to go on another mission while you have to wait.”

“Ah yes! To retrieve the Key of Tharsos! I wish I could go along!”

“Can you?” Joe burst out eagerly.

“Eleh! I cannot, Joe,” said Pleera with a grimace. “I am commander of this ship, after all, and must remain to oversee the repairs and plan for our incursion into Xenobot territory. You

will be going with Seran, Sotik, and Raffon Dorn.”

“I like Seran,” said Mark, “and look forward to meeting Raffon Dorn. Do you know when we’re scheduled to launch?”

“That is for Richard Starlight to tell you,” said the woman with a smile, smoothing her beautiful dark hair with both hands. Two strands on either side of her face were confined by silver spiral bands adorned with tiny red jewels. “But I can tell you that Starman Foster has been back on *Ossëan* for three days. Your *Star Ranger* is docked in the second hangar. I doubt that he and your ship can be kept back from action for very long.”

She smiled again, and her eyes twinkled.

Chapter 7: Layover on Titan

MARK SAT SILENTLY in the *Star Ranger’s* lounge and watched the stars, galaxies, and nebulae, the bright treasures of the cosmic darkness, on display through the crystal window. The newly built ship had dozens of innovative features, including the window patina that could emphasize the spectrum shift in the cosmos, thereby allowing the viewer to see the splendors of the heavens in a wider range of colors than that observable by the unaided eye. As the celestial lights unfolded their splendor before him, he stared as if spellbound. Instead of the usual white and pale yellow points of light he was used to seeing, now he could see the blues, purples, and reds that shone in the medium through which he was traveling.

“Did your people ever consider space to be a ‘void’, Seran?” he asked the woman who was comfortably lounging next to him on the sofa.

The Ahmanyen pursed her lips and concentrated. “I don’t think so, Mark,” she said after a moment. “Maybe a long, long time ago, well before the Xenobot invasion. The image we have in mind when we think of traveling through space is of an ocean. You Earthlings often use the word ‘fly’ when you speak of moving between the planets—yet of course you are not flying.

We Ahmanyans often use the word *zanin*, or ‘sail’, though of course we are not sailing. But ‘fly’ and ‘sail’ express the concept behind the words our races use for traveling through space.”

“I understand,” said Mark, nodding. His facility with languages made it possible for him to pick up very quickly the ideograph, the idea impressed directly upon his mind beyond any word. “Though one method of space travel postulated on Earth well over a century ago was the solar sail.”

“Ah yes—the great sails made of microthin material that used the energy of the solar wind. Of limited applicability, but most effective in its place.”

Mark mused briefly about his own, almost poetic image of space travel that was much more like sailing an ocean than flying through a void. *In some ways, he thought, I think like an Ahmanyen. Maybe our races are not so very far apart. Sometimes it's almost as if we're different cultures rather than different races.*

Before he could voice this intriguing notion, Joe and Sotik entered the lounge and sprawled on the sofa opposite Mark and Seran. Joe was eating a sandwich.

Mark took a look at the sandwich and squinted. “That looks like...”

“Yep, it is,” affirmed Joe before Mark could finish his sentence. “It’s tuna and peanut butter.”

“You’re really eating that thing? You mentioned a recipe for that kind of sandwich when we were in the tunnels under Eagle City, being threatened by those ‘louts’ who followed us, but I thought you were just kidding.”

“Indeed not!” said Joe warmly. “This is a real sandwich. Real tuna! Real peanut butter!”

“Joe,” said Mark, shaking his head, “are you eating that thing just to make me shudder?”

Joe showed mock outrage. “It’s just nuts and fish. Both healthy, and not bad tasting together. This sandwich just puts ’em together in an easy and fast way.”

Mark threw up his hands, “What’s next? Chocolate covered

broccoli?”

Joe’s lips curled up in disgust and his eyes widened. “Eeeew,” he exclaimed. “That sounds revolting! How could you even think of such a combination? That’s as bad as, as...” He groped for the right word.

“Cinnamon flavored onion?” offered Mark.

Joe looked stunned with the idea, then enlightened. He muttered to himself happily and recorded a personal memo on his compad.

“Zip says that we’ll be making the final approach to Titan midmorning tomorrow,” announced Sotik.

“Six days to travel a distance that would take everyone else more than a month,” said Mark. “I’ll never forget how that felt the first time I traveled by antimatter. That was in a little rattletrap ship called the *Spud Peeler*, when Joe and I first landed on Ahmanya to repulse the pirates.”

“Maybe ‘flying’ is the better word, Mark,” chuckled Seran.

~

The *Star Ranger* settled down on three fins, its brick red color and lustrous design making a striking contrast to the utilitarian spacecraft on the landing pad at Elijah Base on Titan. Although its atmosphere was usually a gloomy blanket of swirling gas, currently the environment of the base was clear. The bulk of the fabled ringed planet filled most of the sky, appearing almost close enough to touch.

Elijah Base was an outpost for research and the most frequently visited stopover for journeys to the outer parts of the Solar System. A small but efficient hospital was located there in addition to a center for research in a number of fields, primarily for exploration of the Saturnian system. Most especially, Elijah Base was the seat of contact with the Titanian peoples.

Titan was the home for a small population of a diminutive humanoid race that the Ahmanyans had transported from their home planet of Malda during the first Xenobot War. The

Titanians had a simple culture. Their skills were mostly technological and they had little aptitude for the arts. They dwelt in several settlements beneath the forbidding surface of the large moon than revolved around the Solar System's sixth planet.

Primary researcher of the Titanian people was Kristina Bethany, the young wheelchair-bound woman who was one of the few humans to have mastered the complexities of the Titanian language. Kristina was a cultural sociologist, linguist, and translator whose job was to help the exchanges between the Titanian culture and that of Earth. A few years earlier, when the Starmen and the rest of the crew of the *Starventure* had had to make an emergency stop on Titan on their journey to the dwarf planet Nyx, Kristina had been a regular visitor in the hospital. She and Zip had developed an especially close relationship.

"There she is," pointed out Zip as he opened the door of the *Star Ranger* and prepared to descend. He had spotted her yellow wheelchair in the crowd that had gathered in the terminal on the other side of the airlock.

"You didn't really think that she might not be there, did you, Zip?" asked Joe, laying an arm on his friend's shoulders.

"No. I knew she'd be there." Zip was intent. He led the descent down the ladder to the surface of Titan.

The three humans and three Ahmanyans strode across the smooth gray stone of the landing pad. As they passed through the airlock, they left behind a temperature that was only a little warmer than 300° below zero and entered a place of comfort, light, and friendship. They removed their helmets. Mark inhaled deeply.

"Smell that!" he exclaimed. "It's a unique smell in the Solar System! Pure air, fertile soil, and that orchardy aroma of fruit! Aaahh!"

"Welcome back to Elijah Base, Starmen!" Dr. Aaron Couper, the director of the Base, was effusive in his greeting. He was a tall slim man beyond middle age with completely white hair. "This is the first time, I believe, that you've all been back together since your emergency visit some years ago. How long

ago was that? Must be about five years!”

“It was March 2152, Dr. Couper,” said Zip. “Five and a half years ago. I remember well, since I spent my eighteenth birthday here.”

“I am pleased that you are not in need of emergency care this time, Starmen! And welcome to you, friends,” added Dr. Couper, smiling widely at the Ahmanyans.

“Greetings, sir,” responded Sotik. “Thank you for allowing us to stop here on our travels.”

“Not at all, not at all,” waved Dr. Couper. “Welcoming travelers is one reason we are here, and we receive as much benefit as we hope to give. We are a small community and visitors are always a great boon to us!”

“Hello, Kristina.” Zip had pressed through the crowd to the young woman who was waiting for him. He quickly bent down and gave her a kiss. Her dark eyes sparkled with pleasure. Black hair fell loosely, framing a classically beautiful oval face.

“Come, come!” urged Dr. Couper. “Let me take you to your quarters. You are picking up passengers here, I know. Jack and Jill are eager to see you. Your final passenger has not yet arrived. She is expected in about two days. In the meantime, let us make you comfortable. Come!”

In spite of his advanced age, the director walked with animation, leading the way across the small terminal, through the wide access passage, and into the heart of the Base.

Zip stayed close to Kristina as she maneuvered her wheelchair through the labyrinth of passages. From time to time, as the party traversed a rough spot, she pressed a control that turned her wheelchair into a hovercraft before dropping back down to its wheels.

“Very nice!” observed Zip. “That’s a new feature, isn’t it?”

Kristina smiled. “Yes. I installed it just a few months ago. I don’t have to use it very often inside the Base, but it makes travel outside much easier!”

The square was redolent with cultivated flowers and trees. Elijah Base was noted for its successful horticulture program.

Fresh fruits were available at all times, and orchards surrounded the inside boundary of the dome under which the city was situated. Though horticulture was not the primary work of the Base, many of the residents had taken up gardening as a hobby, and their work aided the four professional farmers who were responsible for growing the community's food.

~

"Spacecraft landing," said Joe two days later as the Starmen were relaxing after an ample breakfast. Visible through the clear dome over the living quarters of Elijah Base, a one-man spacecraft was completing the entry trajectory for setting down on the landing pad.

The low, murmuring sound of a tiny rivulet was all that could be heard for a moment. It ran a few feet away from the table where the Starmen were sitting under a tree with leaves the size of dinner plates. Mossy banks spangled with white pea-flowers surrounded the cobblestone dining area.

They were seated in a courtyard with four tables, but the others were unoccupied. An archway at one side gave access to the quiet place where they were enjoying their meal. Mark lifted a spoon with the last of his blueberries and cream, then leaned back and sighed with contentment.

Joe sipped his cup of Darjeeling tea and stared at nothing. Zip picked up the last fragment of wheat toast spread with blackberry jam, looked at it for a moment, then popped it into his mouth. He made an inarticulate noise that expressed contentment.

"Guess I'll take a nap," announced Joe lazily.

"You only woke up an hour ago," said Mark.

"Yeah, well—we'll be back at work any day now. Better get some rest while we can."

Zip pursed his lips and furrowed his brow, then said, "The Ahmanyans won't be ready to leave Titan, even if we stay another week." He swallowed some coffee.

"They were sure amazed at the Ahmanyman power plant in the

gorge,” contributed Mark. “And Seran is particularly taken with the Titanians. She’s become a favorite of theirs, too!”

Just then their waiter approached the table. “Is there anything else I can bring you, Starmen?”

No one answered, and then Joe said, almost languidly, “I believe that we are in a state of complete satiety, though we thank you for your solicitude.”

“Umm...you’re welcome,” said the waiter, and left them to themselves.

For five minutes no one said anything. Mark and Joe leaned back in their chairs with their eyes closed, and Zip looked up meditatively into the canopy of interlocking branches that spread into cool shadows overhead.

“Defending the Inner Planets from the enemies of civilization, I see,” said a warm feminine voice with a mild Irish lilt. “The very sight gives me confidence that all shall be well.”

With a start, all three Starmen turned their heads and saw a woman in her mid-twenties wearing the brick red uniform of a Starman. Her strawberry blond hair fell below her shoulders. A few freckles were spangled across her nose below blue eyes that had a touch of green in them. She exuded health and confidence.

“Kathryn!” exclaimed Joe, leaping to his feet. Zip and Mark likewise stood up and the three men greeted the newcomer affectionately.

“Sit down, sit down!” urged Joe, pulling a fourth chair up to the table with his foot. “Are you hungry? Can we get you anything?”

“Hungry enough to say ‘Yes’,” said Kathryn, easing herself into the chair. “It’s good to see you three again! And happy birthday, Joe!”

Joe’s face widened in surprise. “How’d you know it was my birthday? That was a week ago!”

“I remember things,” said Kathryn. “You’re twenty-three now. Still younger than I am. Right now I’m probably hungrier than you are, though.”

“Wait here, “ stumbled Joe, uncharacteristically put off

balance by Kathryn's forthrightness. "I'll go find our waiter." He hurried off through the archway.

Zip and Mark looked at each other and smiled.

~

A short time later, Kathryn was the center of attention as she related her adventures on Nyx, the dwarf planet that even then was passing out of the realm of the Outer Planets into the far reaches of the Solar System. She had spent many months with a team of human and Ahmanyen explorers and researchers as they probed the secrets of the most unusual planet in the System.

"More than a month ago I lifted off that terrain of volcanic blades and rockflows," she said, "and this place here is, is..." she shook her head with a smile. "It's unbelievable, and I don't have the words to describe it. Take this blackberry jam, now. I..." She paused and then fervently bit into the piece of toast she had plentifully loaded with the jam made from the berries grown in the famous gardens of Titan. She groaned with pleasure as she chewed. After she swallowed, she lifted the delicate teacup that Joe had considerately filled for her. As she sipped the brew, she looked over at Joe and winked. She put the cup down with a tiny click and turned her attention to her plate, laden with scrambled eggs and cinnamon-baked apple slices.

"So I take it you won't be eager to take off to the Rings too quickly, Kathryn?" asked Zip.

"If you can provide food like this on the *Star Ranger*, I'll be ready this afternoon... Well, maybe tomorrow morning. I'm always ready for adventure, but it is very, very good to return to civilization." Her fork stabbed into the steaming scrambled eggs.

~

As it was, four more idyllic days passed before the *Star Ranger* left Titan. There was no hurry, since Tharsos would not be fully repaired for two or three weeks longer, and then it would

take more time to install and test the apparatus that would capture a Xenobot solar station. Kristina Bethany took Kathryn to the great gorge to show her the massive Ahmanyen power station. While Sotik and Raffon Dorn could usually be found in the cavern in the gorge, the Starmen relaxed. Joe wandered through the orchards. Mark visited the Titanians with Seran, and Zip spent nearly all his free time with Kristina Bethany. They all took walks in the amazing terrain of the Saturnian moon, read, or played games with each other. They talked over meals with dishes that featured fruits and vegetables from the renowned local gardens and orchards.

At last, however, the restlessness that was a part of the personalities of all Starmen inspired them to prepare to leave Titan and begin the last leg of their outward journey to retrieve the Key of Tharsos. Overhead the looming hulk of the great ringed planet beckoned. More and more often Zip and the others gazed upward through the dome and pondered the rings where the Key of Tharsos had been concealed more than twelve millennia earlier. Retrieving it would be a thrilling task.

M'hsjewantroi and Tr'hal-maheswari, the well-traveled Titanians known to humans as Jack and Jill, were eager to join Zip, Mark, and Joe on the assignment. They had not left home for a few years, but now prepared to board the *Star Ranger* with the Starmen and the Ahmanyans.

When all had been made ready, they all bade farewell to their hosts in Elijah Base.

"To say 'thank you' is not enough," rhapsodized Kathryn Mullaney to Dr. Couper moments before lift-off was scheduled. "You have made Titan one of the most wonderful, hospitable places in the Solar System! And what you all do with the fruit you grow makes me almost sorry to start another adventure!"

"You're not leaving it behind, Starman Mullaney," said Dr. Couper. He gestured to a couple of aides who presented the crew of the *Star Ranger* with three cases containing canned jams, freeze-dried vegetables, fresh fruit in stasis, and even fresh-baked bread.

“Wow!” exclaimed Joe. “This has got to be the most enjoyable venture we’ve ever been on!”

On the side of the crowd that had gathered to see the Starmen and the Ahmanyans depart, Zip was sitting quietly with Kristina Bethany. They were not speaking. The redheaded Starman was seated in a chair next to the girl, holding her hand. His expression was hard to read as he stared outward, seeing nothing. Finally, he turned to her and said, “Goodbye, Kristina.”

Kristina whispered “Goodbye,” and then reached out her arms and lifted her face for a kiss. Then David quickly turned, put on his helmet and passed through the airlock with the others, and led the way into the beautiful ship. Kristina watched him through the dome. She kept watching as it lifted off, until there was nothing left to see. She was the last one to leave the terminal.

Chapter 8: Needle in a Haystack

THE SPACECRAFT was built to accommodate a crew of three with one room set aside for guests. Now there were seven people aboard, plus the two Titanians. Seran and Kathryn shared a room and volunteered to make a place for Jill. Mark and Sotik roomed together, as did Joe and Raffon Dorn. Jack, who liked Joe’s company, took his place in that chamber. Zip remained alone.

Like all the “awakened” Ahmanyans the Starmen had met, Raffon Dorn was serious and taciturn. The return to conscious life after twelve millennia, only to face again a hideous threat of a Xenobot war, was deeply wearing.

“Do you mind if I take the helm?” Zip asked Joe.

“Not at all,” was the answer. Joe recalled the first time they had taken off from Titan, and he had teased Zip about his relationship with Kristina. The lanky Starman had the decency to blush a little at the memory, but he said nothing about it.

In a little more than an hour, the rings of Saturn filled the window of the *Star Ranger*. The ocher, brown, and tan striped

planet loomed to one side. All members of the mission were crowded into the forward space, peering at the breathtaking sight. The wide expanse of the sixth planet's rings lay less than two hundred miles below the cruising Earth ship. The Starmen's ship was positioned close to the outermost section of the rings. It was too far away for the viewers to see any details of the fabled rings, but the surface glinted and sparkled like glass dust, showing rose, brown, sandy, and yellow tints, with traces of violet, indigo, and sea green.

"Closer," said Raffon Dorn quietly. "Drop down a little closer."

Zip gradually brought the spaceship down, simultaneously matching its velocity to that of the rings. Big as Saturn was, the rings measured almost 259,000 miles across from closest to farthest boundary.

Seran exhaled, expressing wonder at the sight. "How can such a thin layer of ice and rock be so beautiful!"

"The ice creates a rainbow effect, like the spray of a waterfall in sunlight," murmured Mark.

"Closer still," said Raffon Dorn quietly.

Zip brought the *Star Ranger* down to barely five miles above the surface of the rings. Now it was easy to see the larger chunks of ice that formed them. A few were nearly a mile long, though most particles were much smaller.

"Man! I can almost see them grinding and smashing into each other," enthused Joe.

Zip caused the spaceship to drift ever inward along the rings, closer toward Saturn. After a while, after crossing the outer ring for 11,000 miles, a black, empty space appeared in the rings, separating the major outer ring from the next one.

"The Cassini gap," observed Zip. "More than 3,000 miles wide. You could just about stick Mercury in that gap and it wouldn't touch the edges of the rings!"

"Where is the Key, Raffon Dorn? How will we find it?" asked Mark. "Right now it seems to me that looking for it will be like finding a particular grain of sand in a Martian desert."

“It will not be difficult, Mark,” answered the Ahmanyman, “though we may have to be patient. The Key does not have a locator beacon, for fear that it might be found by the enemy. It does, however, contain a trace amount of an alloy blended by the Ahmanyans of an earlier age. This is why Sotik is with us. As one of the few wave technicians among the waking Ahmanyans, he will use spectrographic analysis to find evidence of the alloy. Since spectrography is only ancillary to his specialty in holograms, Seran will operate the equipment Sotik will need to examine the evidence. She is familiar with the intricacies of the search.”

“Shall we begin, Raffon Dorn?” asked Seran.

Receiving an affirmative response, Seran and Sotik took their places before the screen on apparatus they had brought aboard the *Star Ranger*. The two of them conferred quietly in rapid Ahmanyman while the others continued to gaze enraptured at the exquisite beauty of the rings of Saturn.

After a few moments, Sotik called out, “Zip, please slow the *Star Ranger* down so that the rings will rotate beneath us. We believe that the Key is located somewhere on the inner side of the A ring, within a hundred miles from the farthest edge of the Cassini gap. We will scan that much of the ring system first.”

Zip complied, occasionally asking Sotik for guidance on speed and position before he could place the ship on automatic pilot.

Hours passed. Kathryn and Joe partnered up to prepare a meal during the vigil. Jack and Jill showed little curiosity about the project, but enjoyed being included in the company.

After no one had spoken for nearly an hour, Sotik spoke up quietly. “There it is.”

“There it is?” repeated Mark, sitting up straight from where he had been relaxing. He and the others gathered around the screen. A split screen showed a total match between two spectrographs.

“Pinpoint it, please, Seran,” said Sotik. He was intent on the work, deliberate, focused, and unhurried.

"I have it marked," said the Ahmanyen woman. "We won't lose it now."

"Well then, let's get it!" urged Joe.

Seran's brow furrowed, then she reported, "It's about twenty-six miles inside the ring, and behind us now by about half a mile, and maybe half a mile deep inside."

"Are there any shepherd moons nearby that will affect our course?" asked Zip.

"No," answered Seran with certainty. "We can proceed on our current course without need for any but minor corrections."

She gave the particulars to Zip, who carefully maneuvered the *Star Ranger* over the surface of the ring to the spot that Seran had described. At her command, Zip locked the spaceship into place over the site where the Key was concealed.

"We can take a space sled," said Raffon Dorn. "Two of us can manage it."

But Kathryn and Joe both wanted to go with Sotik and Raffon Dorn, so they decided to take two sleds. The space sleds were little more than slabs with a storage area, a small control stick, and a low power propulsion system. They were not enclosed, so that space suits were required to use them.

Then Jack and Jill spoke up, speaking through the amplification system that made their voices audible.

"Take us along, Joe!"

"It's okay with me," Joe said. "Kathryn and I can wear the shoulder packs for you two partners." The Starman turned to Kathryn and raised his eyebrows inquiringly.

"Of course," she said.

"We might be gone for two hours, maybe more," announced Sotik. "We won't know how long it'll take us until we get there. Maneuvering the sleds through the rings will require some skill, I expect."

Joe shrugged. "Let's go," he said. "You take the lead."

Moments later, two sleds emerged from the freight hatch on the *Star Ranger*. Zooming like scooters, the sleds dropped the half-mile from where their ship hung motionless in space relative

to the ring, until they approached the first chunks of ice in the whirling band.

"This feels very strange," said Joe to the others through their helmet radios. "It's not really like being in space. I feel as if I'm falling. Down, down, down we go," he almost sang the last few words. "No sensation of gravity, but definitely going down."

Joe and Kathryn watched Raffon Dorn and Sotik encounter the grinding ice. Their own space sled was only thirty seconds behind them. As they moved into the thick mass, the sensation of descending became pronounced.

The effect was decidedly odd. Though they were in space, the proximity of so much floating material made it seem almost as if they were inside something solid. "Like dropping down into a mine shaft," said Kathryn. The two sleds bumped small pieces of ice out of the way and scooted around the ones that were too large to move. All the particles that made up the ring were in motion, moving all together in the same direction at about the same speed, yet occasionally rolling over or colliding.

The operators of the sleds had to keep constant attention on their surroundings.

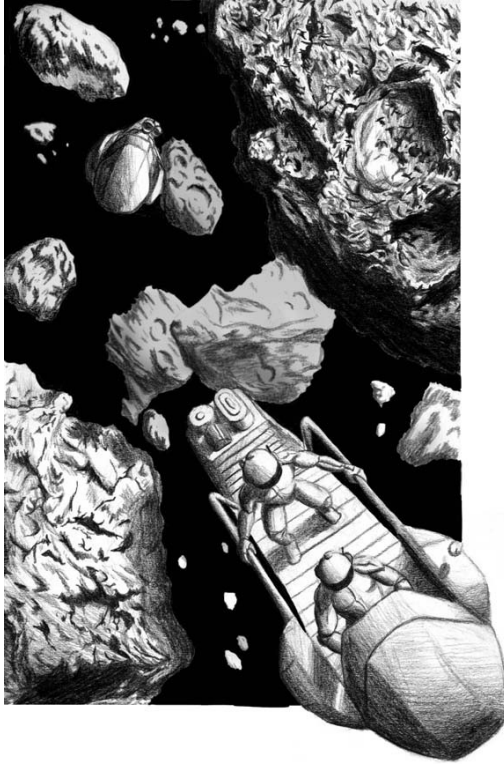
"This journey very nice, Joe," said Jack from the shoulder pack the Starman was wearing.

"Very beautiful, Jack, but also quite hazardous," said Joe. "A whole lot more hazardous than it looks! These chunks may look as if they're barely moving, but their mass is still pretty impressive. If we get squished between two pieces of ice, each the size of a space shuttle, it won't be any consolation that they had a relative velocity between them of only three miles per hour!"

"Almost there," came the ethereal voice of Sotik. Joe could barely see the other sled, far ahead in the endless motion of the rolling chunks of ice and stone.

A moment or two later, the second sled caught up to where Raffon Dorn and Sotik had stopped. The first sled had linked with a slab of dark ice about the same shape of the sled but twice as large. Sotik remained on the sled while Raffon Dorn had

stepped out onto the wedge. The ice was opaque in many places, but translucent in others. Raffon Dorn moved slowly so that he wouldn't float away. He carried a small device that apparently showed the interior of the slab. Then, with extreme slowness, he knelt down and withdrew a laser knife from his belt.



The operators of the sleds had to keep constant attention on their surroundings.

As he began to work, Joe looked around him. Above, below, all around, he saw lumps of ice and stone floating and rolling leisurely, as if in slow motion, in a dance they had maintained for many millions of years. Tiny slivers of frozen water, balls and

hunks he could hold in his hand, and here and there a hulk half the size of a spaceship, or even larger, moved and glittered around them. Through all was a barely discernible mist of tiny flakes. The Starman looked up and back the way they had come, but he couldn't see the *Star Ranger*.

"Ah," he heard Kathryn say. Joe looked back and saw that from the big chunk Raffon Dorn had cut a frozen cylinder of ice a foot and a half in diameter and three feet long. He was withdrawing it slowly from the larger body by a small handle he had carved at one end. When he had it free, he hefted it carefully and passed it over to Sotik, who received it with both hands. Sotik strapped it onto the sled while Raffon Dorn took his place back on the service vehicle.

"The Key is ours," said Raffon Dorn. The note of satisfaction in his voice was unmistakable.

Chapter 9: In the Territory of the Enemy

THIRTEEN DAYS LATER, Tharsos was ready for its foray through hyperspace into Xenobot territory. The return of the Key had been a matter of momentous celebration throughout the erstwhile moon of the fourth planet. Repairs had been efficiently attended to in the Starmen's absence so that the schedule of departure had been advanced by six days.

While the Starmen were on their mission, Richard Starlight had returned to Amundsen City, and King Izmaka and his sister Cynia had returned to their home planet. Saadervo had gone with them, taking the koalangs that Montezuma Vly had presented to him.

The Janitor had likewise gone to Mars, where he was working with the scientists on the information provided by the two greegles recently removed from Adamant. At the completion of the repairs on Tharsos, however, he had appeared briefly on the asteroid to consult with the Ahmanyen strategists and navigators regarding their journey into Xenobot space. He had selected a

star system in the proximity of Omega Centauri that the Xenobots had plundered long ago and then had mostly abandoned. Around its sun an old solar power station still revolved. The Janitor had provided plentiful information on the location and nature of this hostile system into which they planned to travel. Then he had returned to his primary work.

Karax was the authority on the asteroid, and the four Starmen and Stephen Hoshino, with a few others, represented Earth on the journey soon to be undertaken.

An hour before launch time into hyperspace, the Starmen were in their quarters. Kathryn had finished a nap in her own quarters and had joined the three other Starmen in their common area as they all waited to join Pleera and Karax in the central command room.

“Are you nervous?” Joe asked the others.

“Sure,” said Mark. “We’re about to travel farther than anyone from Earth has ever gone.”

“It’s not that,” said Joe. “Who knows how far we went when Paul McTorney and his goons snatched us out of Montana last summer. It’s not the distance—it’s going into Xenobot territory.”

Zip furrowed his brow and compressed his lips. “We’re in Tharsos and the Key has been installed. This ship alone was able to put the Xenobots to flight in their own territory the last time it ventured into enemy space. That was a long time ago...” His voice trailed off.

“Yes. Things may be different now,” said Mark. “Generations have passed. Still...” he shrugged. “I’m ready to go!”

“We all are!” said Kathryn. “Joe’s not expressing any reservations. He’s just honest enough to talk about the nervousness we all have. And for good reason.”

“Oh, I know Joe’s not one to hold back,” said Mark. “Nervous we may be, but still eager!”

“Yes indeed!” emphasized Joe. “Actually I’m looking forward to it! I think that appearing under the Xenobots’ noses is something I’d thoroughly enjoy!” He clapped his hands and rubbed them together.

“We’re hoping that they won’t even know that we’ve arrived until we’ve already left,” said Zip.

“Yeah, I know the plan. But if the Xenobots *do* find us there, it’ll get hotter’n election day in a hornet’s nest.”

Kathryn sputtered with laughter. “C’mon,” she said, “let’s go to the command center.”

~

“Launch!” said Karax. With a smile, Pleera sheathed Tharsos against normal detection methods, and then confidently engaged the hyperdrive. There was a subtle change in the ambiance, an indefinable feeling as if something had just clicked into place. A sense of well-being impressed itself upon each person present.

Zip noticed that the viewscreen had gone blank, with the pearlescent aspect that showed it was looking upon nothing.

“That—that’s it?” he exclaimed. “That was entering into hyperspace? Where’s the feeling of giddiness?”

“Guess it doesn’t happen on this ride,” said Joe.

“It feels as if we’ve entered into something that’s *more* natural than what we usually know,” said Mark, “not less. Hyperdrive always felt a little bit forced or unnatural before. But this...is smooth.”

“You mean it’s not always like this?” asked Kathryn.

“Never like this, not before,” said Joe.

“Well,” smiled Pleera, “maybe this is the way it’s supposed to be!”

“How long will we be in hyperspace?” asked Zip.

“We’re traveling many light years,” responded Pleera. “Halfway across the galaxy. It will take us several minutes.”

For some time, no one said anything. The sensation was so pleasant that no one wanted to spoil it. They all felt increasingly rested, yet always alert. Those present often looked at one another and just smiled.

Suddenly the asteroid emerged from hyperspace. Everyone gasped. A stunning display of stars filled the sky, more abundantly than had ever been seen from the Inner Planetary

system. But what drew everyone's attention was a stunning planet that had appeared on the screen directly in front of the observers.

The light of an ancient, red giant sun cast its dull glow onto the planet. One place on the orb was alight with electric fire that snapped and broke in a vicious, raging, orange-red lightning storm.

Pleera gave her attention to the indicators on her control board.

"It's neon," she reported. Her gaze returned to the screen. "The atmosphere is 56.7% neon."

~

About one and three-fourth billion miles from the sun, a planet hung in space, the seventh in its system. Surrounded by eleven thin rings and arcs and a family of 27 moons, it moved in its orbit nine hundred million miles beyond that of Saturn. Its axis was tilted dramatically, almost in alignment with the plane of the ecliptic.

An atmosphere with appreciable traces of methane absorbed most red light, producing a pleasing, nearly uniform blue-green color. Winds blew with terrible vehemence at mid-latitudes, reaching velocities of up to 360 miles per hour. At the equator, winds blew in the opposite direction at 220 miles per hour. The average temperature of the planet was 328° below zero. That part of the planet illuminated by the sun radiated large amounts of ultraviolet light.

Below the atmosphere proper, Uranus was composed of a mantle rich in water, methane, and ammonia. At the core of the planet was a huge chunk of rock and ice under high pressure. At the very center was an immense diamond.

Many miles beneath the surface of the mantle a huge, immensely strong, manufactured metal ball hung in suspension. Well over a mile in diameter, it was the base of a colony of Xenobots. Nearly a hundred individuals watched, worked, and

waited inside, along with a fleet of twenty immense warships.

In the control center of the metal sphere, one Xenobot brooded. He had been brooding for several hours. It was he who had control of the base. It was he who gave orders to the others. It was he who had had the idea of establishing a secret presence in the Solar System. He had been among the invaders of the previous year who had sought to attack Ahmanyia but had been surprisingly repulsed. Where his fellows had retreated to their bases in Omega Centauri, on his own initiative he had returned almost at once, ferrying through hyperspace the parts of the planetsphere that was now his base, and assembled it on the side of Uranus away from the sun. Once established, he had taken command of a small Xenobot presence on one of the moons of Neptune and consolidated that base with his own.

A Xenobot planetsphere had been designed for use in gas giant planets. Its gravity grid could be adjusted so that the metal base could be inhabited even in heavy gravity.

Outside the atmosphere of the tilted planet, three tiny detectors kept vigil on the Inner Planets. The Xenobot warlord had selected Uranus for his base precisely because of its unique configuration among the solar planets. Its tilted axis caused the planet to keep one side toward the sun for years at a time in spite of its rotation. When the planetsphere had been assembled, the Xenobot warlord had immersed it in the Uranian atmosphere out of sight of the Inner Planets, and then cruised it slowly through the opaque clouds until it was near the pole that, at this time, was always facing the sun. The three detectors remained above the atmosphere, serving as the 'sphere's eyes and ears.

It had taken more than a week of searching the Inner Planetary system before he once again located Tharsos. He expected that it would be sheathed, but he knew its configuration and gravitational "shadow". A long and painstaking search was finally rewarded when the telltale profile appeared and revealed that the goal of his search was concealed in the Asteroid Belt.

When Tharsos suddenly vanished through hyperspace and could not be detected anywhere within the Solar System, the

Xenobot warlord pondered. He could not know where “the bane of the Xenobots” had gone or when it would return, but he did know that it was gone. The Inner Planets were effectively defenseless.

His brooding completed, he gave orders. He had brought the parts necessary to assemble a small solar power station. Without the power from the solar station, his two behemoth spacecraft were clumsy and slow, and could only hyperjump across distances of a few hundred million miles. With it, he would have virtually unlimited power and could defend his warships easily from any of the Ahmanyen battlecraft he had seen in action. At the least he would test the readiness and effectiveness of his ancient enemy’s defenses. At best, he could win the battle alone! And then the Xenobots would be able to lay siege effectively to both Earth and Mars. As he pondered the defenses his enemy had placed around the sun, he knew that achieving solar orbit would be difficult, but, he thought, not impossible.

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“Status reports, please!” said Pleera into her communicator. The others remained silent as she received the requested information.

“Very well,” she said at last. “Bring *Ossëan* into orbit around the star. Pending further orders, keep it in the trail of the planet at a distance of 50,000 miles.” She set her communicator aside and turned to the small group.

“There are no Xenobot ships sailing in this star system. Though we are merely on the outskirts of Omega Centauri, there is still a huge number of stars, more closely compacted than just about anywhere else in the galaxy.

“The red sun is very old and may have consumed one or more planets in its enlargement. The neon planet is the innermost of four and the only one of its size. The other three are gas giants. This planet below is larger than Ahmanya and smaller than Earth—roughly midway between our two home planets. Its day

is about 27.3 Earth hours long. There's not enough information yet to measure precisely how long its year is, but a good guess is that it is about 300 days.

"Initial evidence indicates that it underwent sudden severe trauma many thousands of years ago. The neon atmosphere is somewhat puzzling and we cannot yet conclude for certain whether that is its natural atmosphere, it was deliberately changed to that composition, or it experienced some sort of odd cataclysm.

"We have found one Xenobot base on the surface, but it is small and minimally armed. Approximately twenty individuals are inside or near the base. There are three ships, all on the ground. The Xenobots show no sign that they have taken note of our presence. We cannot tell yet whether there are any bases underground, in the ocean, or on the other side of the planet. The Xenobot base is not a research center, exploration post, or even a way station. Most likely it is merely a site where they maintain a presence. The Xenobot home star system is roughly six light years from here."

Pleera hesitated a moment and referred to the report that was appearing on her communicator, and then continued. "It appears likely that the planet has only one large continent. It covers approximately 29% of the surface area we can see, though a peninsula is wrapped around the horizon. There is at least some land that we cannot observe yet. The rest is a huge ocean without islands.

"The planet has no satellites. Neon is the most prevalent element in the atmosphere, though there is abundant nitrogen as well. There is only a small amount of oxygen, so even with NPACs on highest power, any landings parties are going to feel short of breath in the first half hour or so. After that, the NPACs will have concentrated the oxygen levels in their storage units and then will be able to maintain it.

"The storm, as you can see for yourselves, is only in one locale, but it's rather fierce. The rest of the weather, at present, is mild. Both inland and over the ocean the air is calm.

Temperature in the mid-latitudes varies from 112° to 145° except toward the poles, where it drops gradually to 84°. Water is abundant, but no snow or ice exist anywhere.

“As far as we can tell from observing only one side of the planet, there are some cities but they are uninhabited and in ruins. There is some animal life in the air, on the ground, and in the sea. It’s sparse, considering the size of the planet, but some of it is fairly large. Can’t tell yet how docile or aggressive it may be, but either way, considering the kind of atmosphere it breathes it’s probably going to be pretty strange.

“Best news of all...” The young Ahmanyen woman paused, smiled, and quickly surveyed the faces of everyone who was listening to her with rapt attention. “Best of all, there is a solar station in orbit around the sun. It appears to be situated in the first Lagrange point, remaining in place on a direct line between the planet and the star it circles. I suppose it was set up eons ago to provide power for a Xenobot civilization that once existed here but has since abandoned it.”

“Whooosh!” Joe exhaled loudly. “The Janitor sure knows how to pick ’em! This place couldn’t be better for our purposes! What do we have to do to take charge of the power station?”

Stephen Hoshino replied. “A crew of Ahmanyens and I will reconnoiter the solar station first. We’ll have to make a careful analysis of its nature and particularly probe for any defensive or reporting capabilities it may have before we approach it directly.”

Karax spoke up. “After we have matched this planet’s orbital speed, we will scrutinize it carefully to ensure that there is no further unfriendly presence that we cannot avoid or silence unobtrusively and completely. In time, we will send a few exploratory groups down to the surface to search for any artifacts the Xenobots may have left behind. The ruins may be able to produce much information. Whether it will be useful to us is another matter, but we’ll look. The crystals Starman Taylor brought back from the Lucian moon may prove invaluable to our defense. We don’t want to miss any possibility of finding

something similar here.”

Chapter 10: Attack on the Sun

IN THE EARLY SUMMER of 2153, shortly after the Starmen had had their first encounter with Ahmanyans, the nature of the Xenobot threat became clear. Space Command immediately extended to Starlight Enterprise and other private companies an urgent invitation to work together to form a defensive strategy to prevent the enemy from establishing a solar power station around the sun. Dr. Stephen Hoshino was appointed to oversee the project.

Commander John Lewis of Space Command was integral to the project. Tharuji, a skilled Ahmanyman engineer, had also been invited to take part in the project.

The shape of the plan was devised at the first meeting, which was chaired by Dr. Hoshino. Dr. Hoshino arrived at the meeting with an idea that he had already well thought out. Central to his proposal was what he called the Tetrahedral Defense System, or TDS.

In proposing the plan, Dr. Hoshino said, “The Tetrahedral Defense System will be comprised of four ‘detect and respond’ solar satellites, designed by a consortium of human and Ahmanyman engineers. Rather than create a sophisticated system of solar detectors, I think it is wisest to select the minimum required number to keep effective vigilance over the sun—four. Tiny detectors similar to the microwave network I designed several years ago will augment this minimal but effective system. Built and placed into orbit as quickly as possible, the four satellites will form a network in the shape of a tetrahedron with the sun at the center. Each satellite will be in constant communication with the other three, and will have the capability of automatic orbital correction to maintain the tetrahedral network. They’ll be massive pieces of machinery—difficult to design and expensive to construct. Given sufficient time, we

could create a system of enormous power and high reliability. However, the human-Ahmanyen alliance needs something both effective and in place as soon as possible.”

Commander John Lewis said, “Space Command will provide Fleets of Twelve for constant patrol, in addition to whatever automated arrangement there may be.”

“We will assuredly need manned warcraft,” assented Dr. Hoshino. “In the future, additional solar satellites might be made to improve our chances, but for the present the TDS is the most effective plan we can implement in the shortest time.”

“What about danger from solar flares?” asked Commander Lewis.

Dr. Hoshino glanced at Tharuji before answering. “The Ahmanyens have adapted the sheathing system they use on Tharsos, and we have coupled that with Robert Nolan’s active shielding technology. The resulting system will need round-the-clock monitoring and, once in place, we don’t expect that it will last more than a year or two before it will require a complete overhaul, but it should protect the satellites from the effects of most solar flares.”

“Establishing a laser defense system in the neighborhood of the sun will require a high level of advanced physics,” said Tharuji. “Massive objects like the sun warp the curvature of space, so that the observer will see the laser beam traveling in a curve. Photons don’t have mass, but since they have energy, they possess effective inertial mass. Inertial mass is equivalent to gravitational mass—which is why photons are affected by gravity. In the solar zone in which the TDS would be operating, the curvature of space will be a major factor in the operation of the laser.”

Dr. Hoshino nodded. “Yes, of course. In the laser’s own frame of reference, it will be traveling in a straight line, but we will see it curving. It will be like a bird trying to fly against a headwind. It thinks it’s moving but to the observer it appears to be motionless.”

“I do not know about birds, Dr. Hoshino,” said Tharuji. “I

have not yet had the pleasure of seeing one. With Ahmanyen contributions to the laser design your TDS should be able to operate effectively and accurately against any sufficiently large object. I do know that everything in the universe is ultimately made of waveforms of some sort. Whoever masters light will eventually be able to learn the properties of all matter and all energy.”

In short order, the Solar Guard was created to design, build, and establish the Tetrahedral Defense System.

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Almost four years later the Tetrahedral Defense System was in place, a masterwork of engineering and the first product of a human-Ahmanyen alliance. Human ingenuity and experience were joined to Ahmanyen knowledge of light and ancient scientific heritage. In addition to the four solar satellites, a complex of tiny probes produced by Stephen Hoshino englobed the sun, watching for the gravitational footprint of any unauthorized object the size of a one-man spacecraft or larger. These probes were based on the design of the microwave network Hoshino had used to locate the runaway asteroid a few years earlier, but were significantly advanced beyond the initial pattern.

From almost any point in the neighborhood of the sun, three of the four solar satellites could detect any intrusion into their space. If necessary, they could draw on the virtually inexhaustible energy of the sun to empower lasers of incalculable might. With the delay caused by the time it would take their beams to travel through space, these lasers would be of little use in combating a fleet, but—it was hoped—could defend very well against a massive object like a Xenobot solar power station.

In addition to the satellites and the probes, twelve heavily armed Fleets of Twelve were placed around the sun at a distance just short of the orbit of Mercury. Several Ahmanyen warcraft had aligned themselves among the Fleets of Twelve, ready to do

battle against their ancient enemy. There were three squadrons for each face of the Tetrahedral Defense System.

Command ship for the Solar Guard was the *Orion*, a heavily-fortified and abundantly-armed space station in solar orbit.

The ships of the Solar Guard were kept on constant alert, watching for a Xenobot incursion into solar space that all were convinced was inevitable.

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The beginning of the incursion took place on October 12, 2157, the day after Tharsos had made the hyperjump to Omega Centauri. Three of the solar satellites kicked off their alarms at once. Aboard the *Orion*, bright yellow-green lights flashed in rhythm with the klaxon call whose sound caused adrenaline to surge into the systems of all who heard it. All routine work was instantly abandoned. Anyone who was relaxing dropped whatever he was doing and listened for orders. Those who were sleeping were jerked awake. With eyes open and hearts beating fast, they waited tensely for an announcement.

“It’s a cloud of debris,” announced the technician on the bridge as she monitored the TDS communication system. “Debris is appearing through a wormhole—lots of it.” More than a dozen people were in place, ready to respond to instructions.

“Identify the debris,” sharply ordered Commander John Lewis of Space Command. He was responsible for the solar defense project.

The technician provided the coordinates of the wormhole terminus and took measurements of the material spewing out of the end. “Chunks of ice, stone,” she stated, “artificially manufactured material. Junk, sir—it’s junk! Huge quantities! At its heart there is a ship of some kind. Now another is appearing. It’s also spewing junk, sir!”

“Second wormhole opening up, Commander,” said a second technician. “A freighter of some kind is coming through. It—it’s also setting a lot of debris loose. Now I can’t locate the precise coordinates of the freighter.”

“Prepare the TDS lasers!” ordered Commander Lewis. “Aim at the last known position of these freighters.”

“Yes sir,” responded the chief weapons expert on the bridge. He received the coordinates of both sites and caused the three solar satellites to get a fix on the intruders. Through realtime transmission, the initiatory signal quickly oriented the massive mechanisms to fix on the point of hyperspatial incursion.

“Filter out the debris,” commanded John Lewis to the technicians in charge of the microwave network and the radar operators. “Filter out everything smaller than ...”

“Ready sir!” the weapons expert broke in. His voice sounded efficient and focused. He was eager to fire the most powerful laser weapons known to history.

“Fire one,” ordered the Commander. The weapons expert complied. Drawing from the power of the solar maelstrom below, one of the massive lasers unleashed its beam, skimming the corona and searing through the solar wind toward its target. Eighteen seconds later it passed through the expanding cloud of floating rubble, cutting a swath through the debris, leaving only radiation behind. But it struck no freighter. Hidden from the radar in the swirl of decoying space junk, the freighter was difficult to locate.

“Fire two!” ordered Commander Lewis. Twenty-three seconds later the fierce laser struck the camouflaged freighter. A monstrous explosion resulted that scattered further amounts of radar blinding rubbish into solar space.

“Radar!” called out the Commander.

“Yes sir. The small debris is disappearing from our screens. Coordinates of ships and larger debris are here.” He provided the information to all weapons operators.

“The wormhole cannot be sustained much longer, sir,” advised one of the strategists on the bridge. “Those freighters have got to be decoys. The real attack will come any second now.”

“Fire all three lasers intermittently, seconds apart,” said John Lewis. “With the delay required by the different distances of our lasers and the time it takes for the Xenobot ships to emerge from

the hypertube, this will give us the greater likelihood of hitting them.” His mouth tightened and his nostrils opened wide. “Aim for the terminus of the first wormhole. Keep firing in rotation.”

Ten seconds later the first of the Xenobot ships appeared. It burst out of the wormhole and flew toward the sun. Ten seconds later a second ship came through the wormhole and was immediately struck by the first of the massive laser bursts. Its explosion gave off a colossal display of coruscating energy. Ten seconds later the third ship came through the terminus and passed through the wreckage of the previous invader. After it was clear, the second laser beam shot harmlessly through the end of the hyperspatial tunnel. A few seconds later, another ship emerged from hyperspace, missing by seconds the third laser beam. As the minutes went by, the fleet of invading Xenobot craft continued to enter solar space until the flow of ships stopped.

“Describe the enemy ships,” said Lewis grimly.

“There are two ungainly ships of behemoth class. They seem to be unable to maneuver well, sir,” said the first technician. “There are ten middleweight battlecraft as well as the three freighters that came through the hypertube first. We have eliminated three of the invaders, all of them of the middleweight category.”

“Deploy three Fleets of Twelve under the command of Captain Bors. Is there any sign of a solar power station?”

“No sir.”

“Tell Captain Bors that his Fleets of Twelve are to attack at will.”

Captain Derf Bors’ thirty-six ships had watched all the events of the past several minutes, itching for the command to engage the enemy. When the order came, they sped to the site of the Xenobot invasion, prepared to repulse and destroy the enemy.

“The Xenobot command ship has fired three electromagnetic pulses, sir,” announced the strategist, “most likely in an attempt to annihilate the microwave probes. They have failed.”

“Hoshino’s good design,” stated Commander Lewis. “They

won't find it so easy to neutralize us this time."

"Captain Parker reports another wormhole incursion, sir!" shouted one of the technicians. "On the opposite side of the sun!"

Commander Lewis received the coordinates and delegated the defense of that quadrant to Captain Timothy Parker, whose three Fleets of Twelve were responsible for that area. Moments later, a third incursion began in yet another zone of solar space. The Xenobot tactics were predictable by this time and the same defensive techniques met them. After the spewing of space junk through the hypertube, the invasions in these quadrants consisted only of fleets of small or medium Xenobot warcraft.

The engagement lasted for more than an hour, without any sign of abating. The Xenobot behemoth craft were unwieldy and armed no more heavily than a normal battleship. Their presence puzzled Commander Lewis.

There is a greater purpose here. Something subtle is going on, he thought. *We haven't discerned the real threat yet. This is all a diversion for the real assault.* He took counsel with his strategists and other advisors, among them two Ahmanyans.

"There can be no real advantage to the Xenobots merely to send in these fleets of attackers." The Ahmanyans confirmed Commander Lewis' deduction.

"The engagement is turning in our favor," observed the chief weapons tactician. "We are better prepared and better coordinated. Our communications and detection equipment are clearly superior. Our advantages outweigh the Xenobots' brute force of size and weaponry. At the rate of battle, all enemy ships except the behemoths will be destroyed in approximately fifty minutes. One behemoth appears to have been neutralized. It is spinning out of control and has taken no action or made any calculated moves for fifteen minutes."

"What losses have we sustained?" asked the Commander.

"Twenty-two ships out of the 108, sir. Captain Derf Bors' ship of the first quadrant has been disabled but not destroyed. His communication system is not responding. He is inside the

thickest part of the debris field, and that may disrupt his communications.”

~

Inside that very debris field, Captain Bors was working frantically to restore power to his ship. His chief engineer, Gray Bennick, was pressing his team to seal a sizable opening in the drive section and repair hundreds of tubes, pipes, connectors, and wires that had been ripped apart by an enemy attack. The Earth ship was drifting helplessly in the void, its four propulsion tubes idle while Bennick and his assistants crawled over the torn and ragged metal.

Below them the fiery surface of the sun blazed and boiled. Its unforgiving light poured out fiercely on the sunside of the ship. The workers' helmets were dimmed to the point that they appeared black, and seeing through them was nearly impossible.

“Get that shield up!” urged Bennick, addressing two workers who were erecting a collapsible cover to keep the sun's rays off the working area. Once the shield was in place, the intensity of the light diminished and the engineers were able to see better. They toiled with speed and precision to make their ship operable again.

“It's going to take hours,” Bennick reported to his captain. “One tube is completely unusable. The damage out here is extensive. It'll take us time even to bypass this rocket tube and reconnect the other three!”

“Keep on it,” responded Bors. “The battle's gone beyond us but there's a Xenobot behemoth spinning in our direction. It's out of control and looks as if it'll pass us by. There's got to be a large contingent of the enemy on that ship and I don't want them to think we're viable. We'll be between them and the sun when they pass us; keep out of sight when it draws near. You've got about fifteen minutes before the monster gets close enough to eyeball us. We're going to drop to minimal electrical activity and blow some hatches—that plus the abysmal mess at the business end of our ship should make it look as if we've abandoned it. It'll be 'bout forty minutes till it's gone and then we can

probably forget 'em."

"Yes sir. Tell me when we've got to lay low."

"You just work. I'll give you plenty of warning."

~

At the right time, Derf advised Gray Bennick and his working crew to conceal themselves among the wreckage of the rocket tubes. The collapsible shield was pulled in close to the ship to cover most of the crew. To any casual observers on the Xenobot behemoth, the Earth ship was a derelict, its drive destroyed and its crew gone in escape ships.

To the Earth ship, the Xenobot craft tumbled slowly through the void, looking as crippled as Captain Bors hoped his own ship appeared. Fascinated, Bors stared at the space leviathan on a low level screen. The craft was more than three times the size of the biggest battleship he'd ever seen. There were no windows or portholes, no obvious site where the bridge was located.

Bors felt his gorge rise for a moment with revulsion as he imagined what the Xenobots must look like. He'd never seen one, and no photograph had ever been taken of one except the spy that the Ahmanyen had quick frozen in Richard Starlight's office. That one had been limbless, however, and what was left of it couldn't give a true picture of what the things were like.

Suddenly Bors' eyes opened wide and his heart began to race. The enemy ship, now in the midst of the debris field, began to stabilize. Its rotation slowed and then stopped. The behemoth itself matched the speed of the debris field so as to remain hidden inside it. Great freight doors slid open and large panels began floating out into space. Tiny working modules emerged and began to swarm around the panels. Huge pieces of equipment glided out of the hold and were maneuvered by the modules into close proximity to the panels. More and more equipment emerged from the depths of the ship.

Slowly, with a morbid fascination, Captain Bors tapped into the observation equipment aboard his ship so he could get a

closer look at the construction site. With a shock of apprehension, he noted that the assembly wasn't appearing! It was being screened out by the Solar Guard's own debris filter.

All at once, Captain Bors perceived what the Xenobots' plan was: to create several battlefronts, flood various areas with huge amounts of debris, and then in the cloak of the debris to assemble a prefabricated solar power station. Solar Guard's own debris filter would mask the Xenobots' construction.

With a sinking feeling, Bors considered his inoperable long-range communications system and realized that there was no way he could call for help or even inform the others of the insidious scheme unfolding before his eyes. He would have to find a way to deal with this situation himself, and he would have to do so fast.

Chapter 11: The Behemoth

MOVING SLOWLY, as if he thought that the Xenobots could see him, Captain Derf Bors dropped below the level of the window. Bending low so that his movement could not be seen through any of the windows in the idled spacecraft, he scurried to the opposite side of the ship. He stuck his head out of the hatch closest to where his shipmates were huddled underneath the protective shield. He attracted their attention by waving his arms. When they had noticed him, he urged them to come aboard as quietly as they could manage.

When all were inside, he closed and sealed the hatch. He sealed all openings in the room where they had gathered, and then repressurized the compartment. When the atmosphere was normal, he removed his helmet. The others followed his example.

"What's up, Captain?" asked Gray Bennick.

Bors quickly apprised them of the Xenobots' ploy being enacted in the void on the opposite side of the Earth ship.

“They’re putting up a solar station right now? Right under our noses?” asked one of the mechanics.

“Under the cover of the debris field,” nodded Bors. “And that’ll be their undoing, if we’re careful and maybe lucky. Listen.” He went on to outline a risky strategy, his voice urgent and rapid.

“Guess you’re right, Captain,” said one of the crewmembers, speaking for them all. “That’s the best we can do; and if we’re alone in this, we’ll do it.”

The Captain stood up straight and nodded, his lips tight. “We’ll check the arsenal,” he said. “Helmets back on. Turn off your communicators and keep below the windows. The metalheads don’t seem to be paying any attention to this ship, but for Pete’s sake avoid anything whatever that might draw their attention this way!”

With nothing left to say, Captain Bors and his crew replaced their helmets, and the Captain removed the atmosphere from the chamber. After scuttling through two rooms with windows, the entire crew traversed an enclosed, narrow passageway that led to one of the holds. The Captain entered a code into the doorpad and the portal slid open. Silently he entered the compartment. He selected a dozen powerful mini-torpedoes one after the other and passed them to the closest crewmember, who handed them on until everyone was holding two. He also distributed to each person a personal torpedo launcher.

Then the Captain withdrew an object about two and a half feet long, with jets at one end and a sphere at the other, made of a dark green crystal covered with metallic silver lace. As he held that up, the eyes of the other crewmembers opened wide. Bennick smiled wryly.

With a quick nod of his head, Bors indicated that he was ready. Everyone returned to the room with the hatch that opened to the void on the sun side of the ship, away from the Xenobots. Without further conversation, all crewmembers gripped hands together. Then Bors opened the hatch, and all but the Captain drifted out into space, moving under the tiny thrust of air jets in

their equipment. Each crewmember made certain that he remained out of sight of the Xenobots.

Bors watched through the hatch until each person had latched onto a piece of floating debris. It took several minutes, but at last they all had located and claimed a suitable slab of space junk. They all fastened themselves to large chunks of drifting wreckage, and then began carefully to maneuver them into the positions that Bors had assigned to them. Slowly and with apparent randomness they drifted among the floating space junk.

When he was sure that his crewmembers were moving into position without being detected, Bors went into the gunner's pod on the side facing the Xenobot invader. With methodical precision he loaded the green sphere into a cannon and prepared it to launch on a signal. For a few moments, he operated the cannon through his compad, causing it to swivel slowly as he directed it. He calibrated its directional capability by remote control and ensured that he could aim and fire the weapon remotely. Satisfied, he returned to the hatch on the opposite side of the ship and stepped out into the emptiness. In front of him the sun boiled horribly, filling up more than three-fourths of the sky. Bors' helmet darkened appreciably. When he turned his back to the intolerable radiance, his helmet lightened slightly so that he could see his compad.

Noting that he had nearly forty minutes to wait until the behemoth was at its point of closest approach, he attached himself to one of the pieces of drifting metal and ensconced himself into a pocket inside the twisted wreckage. Incrementally he directed the chunk of metal to separate itself from the immediate vicinity of the spaceship and drift gradually sunward.

More than half an hour later, the Captain looked at his watch one more time. When it came time to act on the prearranged signal that had been timed to the second, he would have to act with speedy suddenness. He was nervous. One slip, one missed circuit, one lapse in a sequence of moves could spell ruin. Yes, what the rest of crew would do might still work, and that was

most important, but it would be far, far better if the entire plan succeeded.

He went through the moves in his head again and again. At the end of the time he was almost obsessive. He wondered whether overpracticing might numb his ability to perform. Shaking his head to clear his thoughts, he went through the manual actions again. He checked his watch. Thirty seconds to go. He pictured every crewmember also checking the time.

Once I do my part, Bors thought, there will be a gap of a second or two when the Xenobots can react. A short span, but still long enough to do some damage to us if they're quick.

Five seconds.

Precisely on the mark he engaged his compad, putting a surge of energy into the space cannon aboard the ship. The instrument immediately located and recognized the projectile in its breach. Bors wasn't even thinking. His hands flew over the controls. In a little more than a second, perhaps, but well under two seconds, he had aimed and fired the projectile.

Too fast! he thought wildly. *I was so eager I didn't aim it correctly.* An overwhelming sense of failure surged through him. He couldn't see the projectile soar like a meteor through the short space that separated the two ships and enter the Xenobot behemoth through the massive open hatch that had been disgorging the pieces of the solar power station, but his aim had been true!

The weapon detonated inside the enemy ship. The monstrous warcraft erupted into flame, bulging in the middle and then breaking into two pieces, each blasted into hideous metal flowers.

An instant after the cannon fired, the crewmembers launched their missiles at the partially assembled solar power station, each aiming for a pre-determined site on the assembly. Firing their weapons from hand-held bazookas, each weapon sped to its target. Six concurrent explosions blew the prefabricated work into hopeless wreckage.

Nonetheless, the Xenobots had had time enough to launch a

counterattack. The sudden upsurge of energy in the Earth ship drew their attention to the craft they thought had been abandoned and idled. Even as the cannon fired the explosive, four laser cannons tore into Bors' battlecraft. The Earth craft exploded at virtually the same instant as the Xenobots' partially assembled solar power station.

Derf Bors activated his communicator. "Fine shooting!" he cried to all his crewmembers. Celebratory yells and exultant shouts filled the airwaves. "Now let's pick off what's left of the enemy! We haven't won yet!"

A few solitary Xenobots drifted through the ruin of the power station. Two enemy shuttlecraft and four robotic assemblers had been tumbled in the shock wave that accompanied the destruction of the power station, but they quickly reoriented themselves and began to search for their attackers.

Bors' crewmembers had one missile left apiece and were free to use them at will. In short order, five of the six Xenobot vehicles had been blown into stardust, but the last—one of the shuttlecraft—eluded the missile that was aimed at it and began to hunt down the human attackers.

Laser rifles made short work of the Xenobots drifting among the wreckage, but the shuttlecraft, armed with two medium weight lasers, began to fire at the humans. Pieces of wreckage burst into incandescence in the fury of the Xenobots' retaliation.

"Attack the shuttlecraft!" commanded Bors. "If we can't stop it, they'll get us all!" The crewmembers relinquished their makeshift shields and flew toward the flotsam of what had been the Xenobots' first attempt to establish a power station around the sun. Gray Bennick and another spaceman were closest to the shuttlecraft. They sped across the short distance that separated them from the surviving Xenobot ship. The two laser cannons were at the front of the shuttlecraft, but the humans came in from the sides, out of range.

Making the approach at a good clip, they slammed hard into the hull of the enemy craft, and then activated smart grip boots.

Both clunked rapidly along the surface of the ship until they reached the laser portals. Almost at the same time, in a pause between the enemy's laser bursts, the two men thrust their own laser pistols into the mouth of the cannon and fired.

There was no appreciable result. Both men quickly withdrew their pistols from the openings. The enemy lasers did not fire, but a shudder went through the ship. A second later, it was gone.

"Vanished!" cried out Bennick. "It disappeared through a hypertube!"

"My suit!" cried out his partner. "It took a chunk from my ..." The words grew faint and then went to nothing, as though a volume control were being quickly turned down. Bennick looked over at his partner and saw the man grasping his knee with one hand and scrambling for his supply kit with the other. The mechanic zipped over, unpacking his own suit repair kit as he went. He tore off a four-inch square patch and slapped it over the opening. With amazement, he noticed that the opening was a cleanly cut circle about an inch and a quarter in diameter.

"How in the world did that...?" he muttered, even as his hands worked frantically but speedily to repair the breach in the other's life support. When the seal was renewed, air began to fill the man's suit. The man gasped and then began to breathe normally.

"Thanks, Gray!" he said with animation a moment later. "I couldn't get my own repair kit out in time."

Before long, the rest of the crew had gathered around the two men.

"What've we got?" asked Derf Bors.

"The Xenos got Dan and Donna, Captain," said a crewman soberly. "'Bout a second after they launched their second torpedoes the shuttlecraft got 'em with direct hits. They had no chance."

Bors ground his teeth and breathed out heavily. "Those accursed mollusks!" he muttered fiercely.

"Dan and Donna hit their targets, sir. They went down fighting, and fighting well."

“They did! Humans and Ahmanyans will soon know of their sacrifice—the first humans to die in battle with the enemy!”

Bors was silenced momentarily by his emotion. Then he turned to Bennick’s companion. “What happened to the knee?”

“It got caught in the hyperbubble, I guess,” said the man with the patch. “Wherever they went, they’ve got a piece of my suit. If I’d been any closer, they’d have had a part of my leg. I don’t know if we did any damage to their ship, but whatever we did, they retreated rather quickly.”

“I doubt you harmed their lasers much with that bold ploy,” said Bors, “but they chose to retreat—right through hyperspace. I don’t know where they went, but they’re gone! And so is their solar power station! We won!” exclaimed Bors. Without any help from their allies, and without any possibility even to ask for it, they had decisively repulsed the Xenobot invasion.

“What about our ship, Captain?” asked Gray Bennick. “We can’t last too long in these suits.”

“The Solar Guard must have taken note of the battle and will send a ship after us. We can hang on for a few hours if we need to.”

~

Two days later, the three captains of the Fleets of Twelve were in council aboard the *Orion* with Commander John Lewis and Val Kramer, Commander Lewis’ chief researcher and strategist. They had been invited to brief the strategists from Space Command who were responsible for long-term planning.

The council was held on Deck 45, a chamber made completely of clear substance and extending outside the Solar Guard’s command ship. The floor was fully transparent; a clear dome enclosed the meeting area. The tables and chairs were also crystal clear. Anyone on Deck 45 had an illusion of being in open space, free-flying without a spacesuit. The massive globe of *Orion* was visible in one direction, like a small planet. The fiery orb of the sun was always situated on the opposite side of the Solar Guard command ship. Even so, the clear substance of the

chamber filtered out all dangerous radiation and any excess light and heat. In every other direction, an immense spangle of stars spread out in a display of celestial glory. No one could be unaffected walking onto Deck 45 for the first time.

The captains—Timothy Parker, Benjamin Bennett, and Derf Bors—had combed the data they had gleaned from the Xenobot incursion, and shared in its analysis by the experts. Coupled with additional data acquired from several sources in the Inner Planetary system, both private and public, a picture emerged of how the Xenobots had entered solar space and nearly achieved the placement of a solar power station.

The assembly sat at a round table. Captain Parker, a genial man noted for his uncanny ability to ferret out meaning from obscure and minimal pieces of information, summed up the conclusions the researchers had drawn. Tall, slender, and dark-haired, he favored the group with his generous smile.

“All in all, friends,” he began his summary, “we have learned that our defenses are reasonably effective. More noteworthy is that it has become evident that the Xenobots are somewhat less formidable than we had feared—at least without a power station in place.” His features became serious. “By moving slowly and, in a sense, neither concealing themselves nor acting in a hostile manner, they were able to enter the Inner Planetary system by normal means without drawing undue attention to their fleet. When they came into the proximity of the TDS, they made the last leap via hypertube and used the debris from the freighters to create a diversion.”

“Sixty-three spacecraft, including two behemoths, were able simply to fly into our space and approach the sun without anyone’s being suspicious?” asked one of the visitors at the table.

“No, not sixty-three ships,” answered Val Kramer. Val, an imposing woman in her forties with shoulder length blond hair, spoke with a voice that compelled attention. “Only the two behemoths and ten Xenobot warships made the journey into our Inner Planetary system—the size of many of our own

commercial fleets. These were the craft that emerged from the first wormhole in Captain Bors' quadrant. The other enemy craft were sent directly from outside our Solar System. Undoubtedly this is why there were no behemoth craft among the second and third invasions. The evidence is becoming overwhelming to the point of conclusive that the Xenobots cannot send large craft for long distances through hyperspace—neither a solar power station nor a behemoth spacecraft.”

Commander Lewis continued. “The motive power necessary to move through hyperspace increases exponentially with ship size. Tharsos has huge generators, but even so it was only able to traverse distances within the Inner Planetary system. Once its ‘Key’ had been installed, however, its ability to travel through hyperspace became measurable by galactic distances. Evidently, the Xenobots’ behemoths can only provide energy for limited hyperspatial flight.”

Then Captain Parker spoke up again. “Since this is so, and since they did have two behemoths in our solar space just two days ago, these monstrous craft had to have been shuttled to our Solar System in prefabricated condition. It is not difficult to conclude that the Xenobots must have a base where this work was done—a base we were unable to detect.”

“Sheathed?” asked another of the visitors.

Parker shook his head. “No. Concealed.”

“How can we find it?”

“We have already found it.” All eyes fixed themselves expectantly on the tall man’s face. “At least theoretically.”

“We’ve found it,” asserted Val Kramer. “The data point to only one possibility. They have established a base on Uranus.” Waiting only a moment to glance at the querying looks on a few faces around the table, she continued. “The Xenobot fleet could not have originated inside the orbit of Jupiter. We’d have found it, especially something big enough to handle the assembling of behemoths. Therefore it must lie outside the orbit of Jupiter. We gathered data that showed the course of their traversal of the Inner Planetary system. By extrapolating the course the

Xenobots followed before they entered wormhole travel, the only possible origin for their journey is Uranus.”

“The same ploy they used more than 12,000 years ago,” said Captain Parker, “when they hid on Neptune before devastating Mars.”

“The threat,” began Commander Lewis in measured tones, “is real but not immediate. They cannot launch any major offensive without our being aware of it, and we can now watch Uranus and all the Outer Planets more closely for signs of Xenobot activity. We cannot, however, ferret them out of our Solar System as long as they remain on Uranus—at least, not without intense effort. We have no equipment that can wage war in an environment such as exists inside of Uranus.”

Captain Bennett spoke up for the first time. “With the Ahmanyans, we were able to devise the Tetrahedral Defense System and have it operational in less than four years. I expect we’ll be able to rout the Xenobots on Uranus, too.”

“Given time,” nodded Val, “you’re probably right. But while we plan and work, they will not be idle.”

Chapter 12: Minor Advances

A FEW DAYS after Derf Bors and his crew had driven off the Xenobot menace from the sun, Richard Starlight saw to it that the level of vigilance on the Outer Planets would be increased to maximum. He directed the settlements on Ganymede and Titan, being closest to the two innermost gas giant planets, to unceasing surveillance of Uranus, Neptune, Pluto, and Nyx with the entire bank of technology available to them.

Further, he directed Elijah Base on Titan to launch a set of probes to each of the four planets. Capsules would streak to the planets and, once in close proximity, disgorge many hundreds of microprobes that would swarm around the planets and their moons. These probes would report any unusual gravitational

disturbances, wormhole activity, or realtime transmissions that might occur. Even the planetoids were included in the watch. Quaoar and similar bodies in orbit around the sun in the distant reaches of the Solar System were likewise kept under observation.

In spite of these measures, the forces of civilization were painfully aware that these precautions, intense as they were, were woefully incomplete. Comets could easily slip through such a net, and nothing could prevent the Xenobots from entering the Solar System in empty space without landing on any natural body. They could build an artificial base far from any planet, moon, planetoid, or comet, and might go undetected for months before the far-flung gravitational detectors noted anything out of the ordinary. The Outer Planetary space was just too large, unpredictable, and in many places even unexplored for any close watch to be fail-safe.

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After giving the orders to the Starlight bases beyond Mars, Richard turned to a report that had come in from Mars Base, SE's major presence on the fourth planet. Starman Joe Taylor had piloted a Xenobot spacecraft from wherever it was that he and Mark had been held captive the previous summer. He had taken it through hyperspace to a crash-landing on Mars.

After a preliminary inspection in the largest hangar Mars Base could provide, Mika Watanabe, the head of security at Starlight Mars, had ordered that the craft be taken into orbit, far from any inhabited portion of the planet. A painstaking scrutiny was then initiated.

This progress report, at least, was somewhat encouraging. Richard read:

The disassembly and analysis of the Xenobot fighter is proving to be of value. We have discovered that the

fighter maintains a steady link to a solar power station over a tachyon band; when necessary, its internal power center draws more fuel from the power station. During the process, the fighter must cease all other operations and a very thin wormhole connection is established between the fighter and its power station. A stream of antimatter is sent over this connection and acts as fuel for the craft.

The engineers and physicists at Mars Base were fully aware of the limitations of their analysis and the unresolved questions associated with it. The solar power drive itself had been removed from the Xenobot ship. Since it had been provided as a decoy for the captive Starmen, nothing of value that was unnecessary to the Xenobots' ruse had been left aboard the ship. However, the connections for the absent apparatus were in place, and from these the SE scientists were drawing their conclusions. The connections for magnetic bottles and a wormhole creator specific to the solar power center were in place even if the actual apparatus was missing.

Still a puzzle was the issue that Mika Watanabe had asked within hours of the ship's arrival near her base: whoever was in charge of the Starmen's abduction was hoping that they would do precisely what they had done—return to their own Solar System with the captive ship.

That insight raised questions: Why would they do that? Was there something on the ship that shouldn't have been brought to Mars? True, the ploy was designed to cause the Starmen to lead their abductors to the Ahmanyans, and the ploy had nearly succeeded. Was there no more to the enemy spacecraft than that, or was there some further sinister complication to the enigma?

Those questions had been unanswerable at the time Joe had landed the spacecraft, and more than a year later the analysts and

examiners of the Xenobot ship were apparently no closer to a solution.

~

Dr. Hoshino's main office was at Starlight Enterprise Hawaii, in a tightly packed complex huddled at the foot of Mauna Loa. A cluster of one- and two-story buildings, white and gray edifices with large plate glass windows, nestled on the north side of the immense volcano. Palm trees more than sixty feet high waved in the mild breeze.

While the renowned physicist was on Tharsos, his other research responsibilities had fallen to his second in command, Dr. Andor Vornado. Dr. Vornado was a tall man with dark, curly hair and smooth olive skin. He was eminently trustworthy and fully dedicated to his work, but a little overconfident.

The man gazed intently at a screen, examining the reactions in subatomic particles to various stimuli when he became acutely aware of a heavy presence. The Janitor suddenly appeared in his laboratory, leaving the usually imperturbable physicist stunned.

"Dr. Vornado," said the Janitor. "Dr. Hoshino is occupied with the mission in Omega Centauri. Therefore I have come to inform you of the successful results of my examination of the Lucian crystals." Without further preliminary remarks, the Janitor began his explanation.

After some time, he concluded, "So you see, Dr. Vornado, the information in these crystals can make it possible for you to extend your defensive capabilities greatly, thereby reducing the immediacy of the Xenobot threat."

The tall physicist nodded vigorously. "It is magnificent! Even from your brief description, I can see that there is much more in the crystals than I can absorb in the short time available to us, but I understand the principles of what we need to do now. But it will take a lifetime—several lifetimes—to extract and master the data the crystals contain."

"I regret that I am unable to help you more," said the Janitor, "but my own knowledge of these matters is limited."

“If you can find the information and translate it for me,” responded Dr. Vornado confidently, “I think I will be able to apply it. When Dr. Hoshino returns, our work will go faster.”

“For a young race,” said the Janitor, “you have impressive capability. You have come far in a short time.”

“Indeed,” said Dr. Vornado, nodding his head in simple acknowledgement of the fact, “we have. Will the Ahmanyans be able to assist us in building the apparatus we will need?”

“They will. Your collaboration must begin immediately, and perhaps should include Dr. Hoshino by realtime transmission.”

The Janitor vanished. Dr. Vornado strode out of the laboratory to the communications center.

~

“Cosmic energy? Seriously?” asked Stephen Hoshino by realtime transmission from Tharsos, somewhere on the outskirts of Omega Centauri.

“Most assuredly, Dr. Hoshino,” affirmed Tharuji, speaking from his laboratory on Ahmanyia. “The Janitor, with the help of the *alzenta*, was able to provide for us the names of the data files inside the crystals. There are many thousands, perhaps tens of thousands of these files, but they are categorized by subject, from least specific to most. Many titles are intriguing, but once it became clear that they could not help us in our present need, we passed them by and investigated others. There are many files that even the Janitor could not understand.

“It was a wearing task since we did not have the capability to do an automated search. It took more than three weeks of painstaking exploration to locate and read the files on cosmic energy, and realize that this information could prove of immediate application. With it, we can construct a shield against wormhole intrusion that will cover the entire Solar System.”

Dr. Andor Vornado joined in from his office on Hawaii. “The Ahmanyans understand the necessary subatomic principles clearly, Steve, and the Janitor explained them to me as well.

Believe me, it is demanding all my self-discipline not to take this new knowledge and proceed directly to research rather than get to work building the equipment we'll need to establish a defense of the Solar System!"

"Energy from the quantum froth!" mused Dr. Hoshino aloud to no one in particular. Awe ran through his voice. He had an image of a frothing sea of churning foam, made of subatomic particles that appear and vanish in microseconds in the supposed vacuum of space. Devising a theory on how to harness the quantum froth to produce energy, much less the hardware to turn theory into accomplished fact, was so far beyond even his own speculation that he was dazed. "Why, we could have a staggering amount of energy at our fingertips! Virtually unlimited—far more even than stellar energy, since it would not diminish with distance from a star!" The noted scientist grounded himself. "How long will it be until you can have a prototype constructed?"

"A matter of weeks, Steve," said Andor. "We can perhaps have a small prototype ready in ten days or so, to prove that it will work and to discover any areas of endeavor that will need fine tuning. After that, if all goes well, I suppose it won't be too long before we'll be able to shield the entire Solar System."

"Amazing, just amazing," said Dr. Hoshino.

Chapter 13: The Neon Planet

FOR SEVERAL DAYS, with Tharsos depending upon its sheathing capability, a careful examination was made of both the solar station and the neon planet. Information was gathered in more than twenty different fields of endeavor—spectroscopic analysis, infrared photography, meteorology, zoology, electronics, archeology, and many others. Each day, for an hour before dinner, a video briefing was held throughout Tharsos for all personnel. Day by day, the solar station and the planet yielded up hard-won information.

On the fifth day, Sotik made several holographic forays into the planet's terrain. The Starmen had heard Richard Starlight describe Sotik's holographic appearance to him in Mars Base, but now they had the opportunity to witness the "sending" apparatus in action. The Ahmanyen donned a garment like a tight-fitting sensory deprivation suit and entered an empty chamber that was sealed after him. His hologram would be able to walk on the surface only as far as Sotik himself could walk inside the chamber—which was little. Nevertheless, though not physically present on the surface and unable to walk about much, he would be able both to see and to hear whatever was in the close vicinity of his appearance. He would even have a measure of tactile ability.

The technician entered several coordinates into the control device and initiated the mechanism. The walls of the chamber were made of a transparent but dark material, so the observers could see Sotik inside. When the holographic sender was initiated, Sotik was bathed in light. He remained unmoving for a few seconds, and then turned his head from one side to the other as if both looking and listening. He reached out a hand slowly, and then took a few steps. For some time he gazed about in all directions, then stooped to the floor and pawed through material that was obviously not present on Tharsos but had attracted Sotik's attention on the planet.

After a few minutes, Sotik joined his hands together and made a small circle with them—the signal that he was ready to return to Tharsos. The operator shut down the apparatus and the lights dimmed. Sotik pulled off the headpiece, ran his hands over his forehead, and stepped out of the chamber.

"Not a sign of life, except for trees and bushes," he reported. "Some heavily weathered ruins, little more than dust. Not too surprising, with a planet that has the kind of rough weather this place clearly knows from time to time. It's surprising that there is anything at all left of the ruins, old as they must be."

"What did you find on the ground?" asked Zip.

"I was feeling through the roots of trees that had grown up in

the alcove where I was standing. The ruins are far older than the trees.”

“Ready, Sotik,” announced the operator.

“Here we go again,” said Sotik. “Another site this time.” He stepped back into the chamber and the process of sending was repeated.

At the briefing that day, the Starmen heard with the others Sotik’s report of more than a dozen holographic journeys he had made to the planet’s surface. The Ahmanyen concluded with the recommendation, “I saw no signs of sentient life, though I found some insects. I recommend that we send an exploratory party out tomorrow.”

The Starmen looked quickly over to Karax, who stood staring at the viewscreen. He held his chin in his right hand with the forefinger over his lips. As they watched, his finger tapped his lips twice in a thoughtful reverie. After a long pause, he spoke aloud to no one in particular.

“Very well,” he said. “We’ll send a group out after breakfast tomorrow.”

~

The next morning, a landing party of four persons was sent by wormhole transfer to the surface of the neon planet. Two Ahmanyans, Seran and Raffon Dorn, and Starman Zip Foster who carried the Titanian Jack in a shoulder pack, materialized on a wide, stone-paved expanse. They wore atmosphere suits and carried NPACs adjusted to the highest drawing power. Both Ahmanyans were armed with high-powered laser pistols, and Zip carried a laser rifle. Their communication was constantly monitored by the command center aboard Tharsos, where Pleera herself was in attendance.

It was difficult to identify what the expanse had been used for. It looked as if it could have been a landing field, a parade ground, or perhaps even the foundation for a structure that had not been built. Massive slabs of rough-hewn gray and tawny stone were laid down in a random pattern. To one side were

pillars, most of which had fallen or even broken. Beyond them were the crumbling outskirts of a long-vacant city.

Across the stone field from the ruins was the edge of a desert. Close to the stone field the desert supported scrub brush sparsely placed, but found also in occasional thickets. The plants consisted of long spiny whips that curled and spiraled in places before straightening out and spreading over the ground or into the air. A mile or two away they thinned out and then disappeared. Sand like a yellow ocean reached to the horizon. Light breezes tossed the spines of the plants.

On the other two sides of the expanse where the landing party had appeared was a dense forest. The boles were thick and squat; the branches were short and bore leaves that appeared to be grossly oversize. The trees extended into darkness on rising ground in both directions and beyond the ruined city, so that the stone field lay at the bottom of a cup of land bordering on the desert. On the two sides of the expanse the forest was trying to encroach on the once level field, for thin woods of small trees crept out from under the eaves of the heavy arbors, seeking a place to grip and take root in the interstices between the slabs.

"So quiet here," observed Seran, who was the director of the landing party.

"And hot," added Raffon Dorn. He was checking the instruments. "126° right here, and it is still early morning."

Zip stared up in awe at the vast red sun that was boiling up over the eastern horizon. The bottom-most part of the rim was still concealed by the forested hills, but the giant ball of ruddy fire that was visible appeared horrifyingly large and heavy. Nearly one fourth of the sky was filled with its disk. Zip had an irrational but primal feeling that it was going to fall on them.

"We'll check for any animal life nearby before we begin to explore," said Seran. Her words brought Zip back to the task at hand. The Ahmanyans, not used to animal life of any kind, were a little anxious as they began their scan for faunal Kirlian auras, but they detected no animals within a mile of their position.

"Nothing," announced Seran, sounding a little disappointed.

“Something’s coming from the city!” announced Zip sharply. They whirled to face the direction in which Zip was pointing. They stood frozen as a gleam of white light moved rapidly toward the party. Everyone drew lasers. As it drew nearer, its shape became apparent out of the heat waves that were already rising from the sun-baked slabs of stone. It was a metal sphere about a foot and a half in diameter, black and silver, with two rings whirling in parallel around it. It was moving through the air without sign of any visible locomotive power.

“An airbot!” exclaimed Zip as he raised his laser pistol.

“Not an airbot,” stated Seran, consulting her analyzing scanner. The mechanism approached the group and began to circle slowly. The people did not move.

“Looking at us,” said Jack. “Only looking. It is curious—and puzzled.”

“How can you tell, Jack?” asked Seran.

“I sense its beam. It is a kind of radar but more.”

“Is it sending any data to the Xenobots? Or anywhere else?” asked Zip. He was not ready to relax in the presence of the alien device.

“No,” said Seran, continuing to refer to her scanner. “It is storing data, probably for later transfer.” She looked up. “I’m pretty sure it’s harmless—at least for the moment. But we’d better capture or disable it.”

“Shall I shoot it down?” asked Zip, hefting the laser rifle.

Without warning, almost as if it could understand Zip’s question, the sphere stopped its circling and shot back toward the ruined city. Its disappearance was so sudden that it took the party by surprise.

“Eleh!” cried Seran with alarm. “We have to follow it! Whether it sends data now or later, there’s only one race that has a base established on this planet, and the Xenobots cannot be permitted to discover that we’re here!”

The landing party began to race toward the old city. Before they reached the periphery of the ruin, they were all gasping with lack of sufficient oxygen.

“Whe—, where is it?” wheezed Zip.

“Already well inside the ruin,” answered Seran with an effort. “Whew! I’ve got to rest and breathe. I’m getting light-headed.” They all were compelled to stop to catch their breath. Even at full power, their NPACs had not yet been able to draw sufficient oxygen into their lungs for any sustained exertion.



“Looking at us,” said Jack. “Only looking.”

Seran kept her eyes on her scanner. “It’s off in that direction,” she pointed after they were all breathing normally again, “but it’s already a quarter of a mile away and still moving—more slowly now, though.”

“Let’s go,” said Zip with a groan.

~

The Xenobot warlord in the iron planetsphere that was secreted inside Uranus pictured the armada now being built in the Omega Centauri system. The closest feeling to satisfaction that he was able to muster coursed through his dissolute consciousness. Then beyond satisfaction came smugness—his incursion of the Inner Planetary system had failed to establish a solar power station, but he had learned that his ancient enemy and their puny allies had only a rudimentary defensive system. They had thwarted his plan mostly by misfortune, not by

technological superiority.

With pride that verged on gloating he contacted the Xenobot masters in their home system where they were overseeing the manufacturing of their monstrous fleet. He confirmed the absence of the Ahmanyans' chief weapon from its own solar system, even when the system was under dire attack.

The Xenobots had developed a group consciousness similar to that of an enormous nest of ants, sacrificing individuality for the sake of the whole. That made it possible for the news that the warlord had sent to spread rapidly among the higher echelon of the mollusk-like race. Two inescapable conclusions were impressed upon them, as well as the courses of action that these conclusions required.

First, the likely destination for the vanished Ahmanyman asteroid was Omega Centauri, most probably on a spying mission to the Xenobots' home territory. Second, in the asteroid's absence the Xenobot plan of attack on the ancient enemy must be advanced!

The orders went out. By all means, accelerate the assembling of the force preparing for the invasion of Sol.

Chapter 14: Electric Life

WITH SENSES ALERT, the party hastened through the ruins of the city. As Seran indicated the direction in which the sphere was located, their eyes picked out the path of least resistance and followed it. They skirted fallen pillars and climbed over piles of rubble.

"It's become stationary," said the leader of the party, drawing in air with an effort. She gasped to inhale, and added, "and it is sending no data. It's just stopped." No one had breath enough to answer.

After a time, Seran called a halt. The others stood in a circle around her, panting and waiting for her orders.

“We’ll catch...our breath...here,” Seran said. Her words were punctuated with gasps. “The sphere...is just ahead—on the other...side of...that wall.”

Zip drew upon his training to calm himself, breathe slowly and deeply, and recover his breath quickly. He brought himself back to normal before the others.

“Still stationary? Still quiet?” he asked. Seran nodded.

When all were able to breathe normally, Seran led the way across a tumble of slabs of stone and around a wall, half in ruin. Gingerly she stepped around a corner and peered into an alcove where shadows were deep. With her laser pistol out, she led the way into the alcove. The front wall had fallen into rubble, but the supporting walls on either side of the chamber and most of the roof were still in place.

“It’s here,” stated Seran. She stepped over a broken lintel into the dimness of the chamber. The black and silver globe lay on top of a severely dented metal table. A stone had fallen from the roof onto the table and distorted it. One leg was broken and the table teetered to one side. A sunbeam came through the opening left by the fallen tile, emphasizing by contrast the gloom inside the alcove. Seran’s entrance into the space stirred up stone dust whose motes rode the eddies in the air and glittered whenever they passed through the sunbeam.

Zip followed the Ahmanyen into the chamber, and Raffon Dorn came after him. The Starman’s eyes quickly adjusted to the dimness. He stared briefly at the sphere, and then scanned the rest of the room with his eyes narrowed. Various pieces of machinery, broken and long unusable, were situated along two of the walls, with debris littering the floor.

“Let me see,” said Jack. “Let me see the machines.” Almost distractedly, Zip reached up to his shoulder pack and removed it. He set it down on one of the counters where Jack released himself.

With no apparent threat in sight, the party relaxed its guard somewhat. Employing various apparatus, they took visuals and examined the ruined equipment. Seran provided a report to those

aboard Tharsos.

All at once Jack spoke up. "These machines very old," he said. "Made by people who lived here long time ago. All dead now." When Jack said, "all dead now," Zip thought, *I wonder if he means the machines or the people. Both, I suppose. Both true, anyhow.*

"Let me see sphere, Zip," said Jack.

"Sure, Jack," said the Starman. He picked up the small figure and placed him on the slanted table where the sphere was. When Jack touched it, the orb beeped once or twice, then crackled as if it were engaging in speech made up of static.

After a cursory examination, Jack said, "This device is artificially intelligent machine. It is wandering recorder for unfriendly terrain. It explores, following own commands. When it find something important, it run back here to give data. Run quickly. This place is central data gathering place. All machines broken long time. This sphere has much information inside, I guess, but no one to give information to. Now it wait here many years. No one to send it out. No one to want data. It still work because it moves. If something strange happen, it learns and goes to find something out. Then it come back here to give report. It wait for machines here to read its data and tell it something new to do. But no machines talk to it now. No machines talk for long time."

Zip was delighted when he heard Jack's report. "Did you hear that? This sphere is filled with information—information about strange things that happen in its territory!"

"Yes, indeed, I heard it, Zip!" said Seran, with solid satisfaction. "Many thanks, Jack! We will take this sphere back to *Ossëan*! Can you disable its mobility? I think if we take it back by wormhole transfer, its reaction would be unpredictable."

"Yes, Seran. I fix it so it cannot move."

When Jack had completed his task, Raffon Dorn took possession of the sphere. The party began to pick its way slowly back the way it had come. About halfway through the debris of

the fallen city, Seran gasped. “*Maura*¹!” Her head shot up and she began to search the sky to the west, her eyes large with apprehension. “A huge flying animal. Its Kirlian aura is massive! Hide!”

In seconds the party had disappeared to casual observation. Zip gripped his laser rifle and looked in the direction Seran had indicated.

He didn’t have long to wait. A flying beast, beautifully aerodynamic, glided into view from over the dark forest and sailed over the fringes of the city. It flapped massive, leathery wings only once in a while, coasting in between flaps. Passing by, it continued along the boundary of the eastern forest and the yellow desert until it disappeared from sight. Zip watched admiringly as it became a dark speck against the brooding red sun.

“It is electric animal,” said Jack. “I think it is electric.”

Zip was shocked. “Do you mean it is a machine?”

“No, Zip. It is animal. It eat electricity.”

“I’ve got it recorded,” stated Raffon Dorn. “We will see what our scientists have to say about it. Visuals, spectrograph, infrared—I’ve got it all.” The tall man replaced his recorder in its pack.

“Shall we get back home?” suggested Seran.

~

As soon as the landing party had returned safely to Tharsos, Raffon Dorn hurried with the sphere into one of the laboratories and began to examine the data. Zip and Seran visited one of the refectories for a leisurely snack, then moved to one of the lounges where the other three Starmen and several Ahmanyans including Pleera were waiting to hear about their foray to the planet’s surface. Before the conversation had got very far along, Raffon Dorn bustled in to join them, his eyes alight with

¹ Ahmanyans exclamation of supreme distress

excitement. He carried a small tray with some food on it.

“Fascinating, fascinating data!” he announced.

“Have a seat,” offered Joe, getting up and waving the newcomer to a central position. The Ahmanyen sat down happily.

“You’ve got it analyzed already?” expressed Zip with amazement.

“Got answers to my most pressing inquiries, but there’s lots more to learn, of course! That little sphere has centuries’ worth of data! It’ll take me many days to extract its treasures. But I learned something about that flying beast—the one that Jack said ‘eats electricity’!”

“What kind of an animal ‘eats’ electricity?” asked Joe, marveling.

“Electricity in the form of lightning has influenced both the flora and fauna of the planet so that they draw on the charge as a form of bioenergy. The electricity supplies the plants and animals with some interesting luminous capability. They can generate electricity that can then energize the neon in their bodies or in the surrounding air. We do not know whether the animals are hostile, or can be, but if there are other landing parties, they will want to know that there may be a shock hazard if the creatures can generate voltage high enough to energize the neon in the local atmosphere.”

“Neon is an inert element, of course,” contributed Pleera, “but it can combine with a number of elements to form compounds. That there is only one storm raging now appears to be unusual. There is evidence of severe electrical storm activity on the surface. The planet is more often than not undergoing many storms.”

Raffon Dorn said, “Quite right! Both the abundance of neon and frequent discharge of electricity have made for some interesting life forms!”

A ripple of amazement went through the crowd. Raffon Dorn took a bite of some cubed sustenance on his plate and followed it with a sip from the drink he had brought into the lounge. He was

enjoying his place as the bringer of intriguing news.

“The trees and other flora do appear to breathe out oxygen,” he continued, “most of it in compounds, but they breathe in the various compounds of neon. The lightning so common in the storms hits the ground and is ‘sucked up’ by the plants. After each flash, perhaps they glow a bit brighter, but I’m not certain about that yet. When electricity passes through neon, it gives off an orange-red glow. In the locale we visited, although the plants contain chlorophyll, it does not seem to be central or maybe even necessary for plant growth. The leaves on the trees are larger by proportion than we would expect, and in the red sunlight appear very dark—even black.”

In his excitement, the Ahmanyman was speaking rapidly. Having been awakened from suspension only recently, Raffon Dorn was not overly fluent in English. As he tried to speak rapidly in his excitement, his words were beginning to blur. He paused and made an effort to slow down. “Further, being electrical in nature, the flora have more metal than the plants of Earth or Ahmanya. In some places on the planet below, the plants are actually metallic in color—silver, gold, or copper. As our landing party saw in the plants on the edge of the desert, some have lots of long thin spikes. Should be a pretty sight when they glow at night.”

Mark got a look of intense concentration on his face. “I remember something about an Earth scientist who tried to grow plants by electricity. It was more than two centuries ago. Now what was his name?”

“Eben Adar,” stated Zip. “An old eccentric with unlimited resources that allowed him to pursue his own research independently. He was a genius who did a lot more than grow plants with electricity. Eventually he mellowed, wrote a book, and shared his remarkable achievements with the scientific world. No one followed up on his experiments, however.” Zip smiled wistfully. “He’d have loved visiting this planet.”

“Will there be another landing?” asked one of the Ahmanyans.

“That’ll be up to Karax, I guess,” answered Seran. “The data

Raffon Dorn brought back will tell us a lot about the biology of the planet, but we have high hopes that the sphere will teach us what we need to know about the Xenobots' presence in this star system."

"And from that information, let's hope we'll learn how to board their solar power station safely and without being detected," said Zip grimly.

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Three days later the first official report was made regarding the data gleaned from the captured sphere. Raffon Dorn, who had been the chief researcher, addressed a council made up of Karax, Pleera, Stephen Hoshino, the four Starmen, and a few others. Tachyon detectors had been discerned in the Xenobot base, so realtime transmission with the human and Ahmanyen leadership in the Solar System was restricted to communication between Tharsos and the Solar System in order to avoid the risk of detection. Transmissions between Tharsos and any landing parties would be conducted solely by radio.

The leftovers from an ample but plain breakfast had been cleared away. The group sat at a round table, on which a pot of coffee lay within easy reach of the humans. Joe was drinking coffee, but wishing that he had had a pot of Darjeeling tea instead. He hadn't had any since this trip had begun. He had a few packages of the tea in his quarters, and reminded himself to bring one out.

"Very well," said Karax. "We are ready, Raffon Dorn. You may make your report."

"With probability approaching certainty," began Raffon Dorn, "the ruined cities on the neon planet are former habitations of the Xenobots. That is, the planet below was not the home of a native race that the Xenobots conquered and annihilated, but rather an empty planet that the Xenobots simply took over and colonized. It appears that at that time they were more advanced than they are now. They manufactured the sphere we brought to *Ossëan*.

For reasons I have not discovered yet, they abandoned this planet after a stay of perhaps a millennium, at which time there was a major cataclysm of some kind. I wonder if there was a war between different Xenobot factions. Whatever the story, the planet was uninhabited before the Xenobots came, and became uninhabited again after they departed. Eons later, Xenobots returned to the planet and established the minimal presence we now see.”

“This certainly alters our assumptions,” said Hoshino. “If not to conquer another race, why did they establish a solar power station? The history you outline does not indicate a need for such a move.”

“I do not know,” answered Raffon Dorn. “If not for conquest or exploitation of any civilization in this planetary system, perhaps as a way station, an experiment, or some other purpose. Whatever their motivation, the solar station does exist and is indisputably connected with the base on the planet. The data in the sphere revealed that the Xenobot presence, and presumably the establishment of the solar power station, began roughly 3,000 years ago.”

Hoshino rubbed his jaw. Joe, who was sitting next to the brilliant astrophysicist, could hear the rasp of his hand over slight stubble. The scientist had not yet shaved that day—unusual in one who was noted for fastidiousness.

Raffon Dorn, with an occasional contribution from Seran who had assisted him in the research, provided additional information and answered the infrequent question. However, nothing more of significance was added to the account, other than the reminder that the Xenobot base was equipped with tachyon detectors. Discussion ensued with no concrete plan emerging. Then Dr. Hoshino spoke up.

“I need information about the solar power station,” he said emphatically. “To approach it directly, even with a nonsubstantial probe, may announce our presence in a disastrous fashion. Yet we must have data before we can plan how to take possession of this vital Xenobot artifact. I surmise that a surreptitious

inveiglement into the Xenobot base below can locate a link to the solar station in a much safer way than a frontal approach to the station itself. I have a plan.”

Conversation died down, and all fixed their eyes on the Earthman.

“The electrically-charged atmosphere of this planet can easily provide a cloak for micro-electric activity. We can create a series of intelligent machines about the size of my thumb. These could be sent into enemy territory disguised as native insects or whatever small life exists below. They will be designed to gather information directly from the Xenobot base by tapping into their computer networks and downloading information. Since the Ahmanyans have archived much history, we know how to interpret many Xenobot files.”

Raffon Dorn nodded. “This is a good idea. It is very practical in an atmosphere so rife with wild electricity. Could Jack and Jill assist you with their production?”

Hoshino pursed his lips. “Indeed they could,” he said animatedly. “Thanks for the suggestion!”

“But these ‘intelligent machines’ could not be controlled from *Ossëan*,” contributed Pleera. “Any link between here and the surface in the proximity of the Xenobot base would not be difficult for them to detect and trace.”

“We would have to establish a command post on the surface with a radio relay station,” suggested Joe, with enthusiasm. “And I know just the folks who’d love to do it! We Starmen will go down there, with Jack and Jill, and operate the little spies! Why, it’ll be like the dragonfly we made on Nyx ’bout five years ago. We’ve even got experience!”

“It’ll be a lot more complicated than that, Starman Taylor,” said Dr. Hoshino, “but the principle is indeed the same. And I think you’re right—you’re the people to take on this task.” The physicist looked up and began to reason quietly, as if to himself. “We’ll use a pseudorandom frequency shifter, of course, so the signal will appear to be only background noise. We can enter enemy territory and relay information, both visual and data

feeds. With a little time and effort, we could even network the machines with each other so they can act as a unit. Why, I could..." his voice trailed off.

Karax looked at each person around the table.

"Coffee's cold," said Joe, putting his mug down.

"We'll do it," said Karax. "We'll follow that plan. The mission will be to find a way to gain access to the solar power station through the Xenobots' own computer system without their becoming aware of it. If it is possible, and we harvest sufficient information, we will then act quickly. We will enter the power station, learn its secrets, and return to our own Solar System!"

Excitement ran around the table, and animated discussion followed. By mid-morning a solid and detailed plan had emerged. The landing party would consist of the four Starmen, the two Titanians, and Raffon Dorn. They would establish a command post in a thickly forested area several miles from the Xenobot base. A radio relay station would be set up in the ruined city where the landing party had first appeared, far from the Xenobot base and outside the range of their tachyon detectors. Once an hour the command post would send a message to the relay station, which would then be transferred up to Tharsos. If any danger arose, the landing party would be lifted off the planet's surface by wormhole transfer and, if necessary, the Xenobot base would be destroyed.

The seven members of the landing party would be equipped with food and supplies to last a month. The generous margin of time was established to free the landing party from any undue anxiety, although Dr. Hoshino thought they would be able to achieve their objective in a matter of a few days at the most—perhaps even hours.

"Ahmanyen utility food for a month," moaned Joe. "More than anything else, the very thought of that will ensure that we'll be back after a day or two."

"I'll see to it that we have a delectation every night before the mission begins, noble Starman Taylor," teased Pleera. "It will please even you! But when you set up your command post,

you'll dine on utility rations." With a wry smile, the beautiful Ahmanyen wagged a long, slender finger. "Good energy and good nourishment, with nothing to slow you down!"

"Ooh," said Joe, making a face. "Sounds terrible. But," he added, lightening up, "tell me more about the 'delectations'."

"A week or so, I think," said Stephen Hoshino. "I can have the little invaders ready in about a week."

As was his custom and responsibility, before retiring that night he made contact with Earth via realtime transmission, and provided an up-to-the-minute status report.

Chapter 15: Tea in the Rain

DEEP INSIDE THARSOS, the mission was about to be launched. The crew of seven that was to go down to the neon planet had gathered close together in a magnificent chamber about forty feet on a side. Several packages were set nearby. Tall, thin windows with small, beveled panes of colored glass admitted artificial light. The roof arched up in flutes and columns into panels separated decoratively by ridges.

Nearby was a gleaming apparatus of metal, tubing, and crystal, with disks and wheels and slowly rotating cylinders. In the center of the room was a small, unobtrusive platform—the threshold of the Ahmanyen personal wormhole transfer device.

"It is just past sunset at the site where you will appear," said Karax. "About a dozen miles from the Xenobot base. We have located a grotto in a thick place in the forest. A trickle of fresh water runs steadily down nearby outcroppings of granite, but mostly the terrain is lowland with broad areas of swamp. It is rather odiferous, I'm afraid; you'll need to adjust the filters on your NPACs. Be wary of quicksand."

"We're ready," said Zip. With the unrelenting attachment to duty that characterized the red-haired Starman, he led the group onto the threshold platform of the wormhole transfer, carrying one of

the packages. Dr. Stephen Hoshino, Pleera, and a few others wished them success, then stepped back from the platform. Zip nodded to Karax, who in turn nodded to the operator. The operator flicked a switch, space bent, and the group was gone.

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A gust of rain-sodden wind swirled around the band as soon as it appeared in the gloom of late evening on the neon planet.

"Swamp, nothing," said Mark. "He forgot to tell us it would be raining when we got here."

"Maybe he didn't want to discourage us," opined Joe. "Me, I always look at the bright side. It's...um..." Words failed him.

"There's level ground over there; protected too. Looks like a good place to set up," Kathryn suggested, pointing to a spot between two upright rock walls, well overhung with leafy branches. A hill rose sharply beyond them forming the third side to the grotto. The hill was covered with the grotesquely thick-boled trees that Zip, Seran, and Raffon Dorn had seen on their previous descent. The trees surrounded the party thickly in all directions as far as they could see. The leaves on the trees were black and nearly two feet across. In only a few places were the stars visible through the cover overhead. The rain was minimal, only catching the group when a gust came through the clearing. Mostly the precipitation dripped through the canopy of overshadowing leaves. The ground was wet but well drained.

Two or three minutes later, Raffon Dorn and Mark had set up the primary tent, a dark gray, dome-shaped structure made of translucent material similar to the substance used for making the Starmen's spacesuits. The fabric was virtually impossible to puncture by any normal means. As they worked, Kathryn erected the tent she and Jill would be using for their sleeping quarters and Zip and Joe set up the one that the men would be using. When all three were in place, everyone helped put short connecting tubes in place.

Before the party entered the primary tent, Kathryn opened up a

small box. Inside were twenty capsules. In the gloaming of the alien planet, she could barely see the capsules, glossy black with delicate highlights of magenta. "Bumblebees, activate," she said quietly. Attuned to the radio transmissions of the team members, the capsules sprouted wings and rose out of the box into a whirring cloud that surrounded the Starman. "Bumblebees, deploy," she said, and the swarm disappeared into the blackness of the hovering night.

"Gentlemen," said Kathryn, "let's make ourselves at home." She led the way into the tent. When all were inside, Raffon Dorn sealed it. Zip activated the illumination while Mark released the atmosphere into the tent and the members of the party removed their helmets.

"Bumblebees good machines," said Jill. "Stephen is good designer. Electronics very tight. We enjoy his project."

"You and Jack did an impressive job on them," complimented Mark.

Kathryn opened up a laptop computer and gazed at the screen. "They're all in place now," she said, "1,500 yards away in all directions. The network is working fine—the perimeter is clear." She looked up. "Appearing to be mere insects," she added, "but more solid and sturdy than any stones. They don't detect any defense network set up by the Xenobots."

"So either there isn't one," observed Zip, "or it's too advanced for us to find. I'll set up the apparatus for transferring our report to the database at the ruined city. Tharsos will worry if we don't check in right away." He set about establishing the communicator and then made the first report.

"Anyone besides me want some tea?" asked Joe, unpacking the cooking equipment and arranging the food parcels neatly to one side.

"Sure," said Kathryn.

"Count me in," joined in Mark. "I like the sound of rain on the tent, and a hot cup of tea will be just right." Zip and Raffon Dorn nodded their assent as well.

Expertly Joe set about brewing the tea. Kathryn opened one of

the food parcels and distributed a few Ahmanyen crackers.

"Hmmp," grunted Mark, smiling as he took one. "I haven't had one of these since that first morning on Tharsos after we broke free from Zimbardo's custody. 'Survival food', is how you described it, Zip."

"I remember," said Zip, "and we were sure glad to have it."

"Here's the tea," said Joe a minute later. "Not in the china cups I prefer, but it's tea." He passed to each one a steaming cup that appeared to be made out of porcelain or plastic. Jack and Jill had tiny mugs of their own. The monotonous drip of the rain continued outside.

"Raffon Dorn," began Zip, after a moment. "You're the first Ahmanyen we've met who has two names. Can you explain how Ahmanyens use their names?"

"Ahmanyens may have several names. It is like Earth, I think, Zip. Usually people use one name, but other names describe further individuality or uniqueness, even as they express one's heritage. Names can describe one's origin, or appearance, or skill. I am not of the guardian families, but was suspended in the time of the first Xenobot war. Always was I known as Raffon Dorn—I am proud of the name, for it told everyone that I am descended from Dorn. Dorn was my grandfather and one of the leaders who led the strong defense of Ahmanyen against the enemy."

Raffon Dorn stared into the far distance of time and his voice became quiet. "Of all my family, only I am left. My grandfather, father, and brothers and sisters perished in this star cluster when Ahmanyens attacked the Xenobots in their home. My mother perished in the devastation of Nsedna Zar, in the southern hemisphere of Ahmanyen. I was suspended in the refuge there, for my skills would be needed to restore Ahmanyen." He smiled.

"Now I am the only descendant of Dorn. In the time of the guardianship, the living families gave names as is customary among us, but they use only one. It was an act of bonding among them, since there were so few of them. No name was repeated in any lifetime, but the names of guardians who died were given to

the next born. For them, it kept hope alive through the generations and created a bond of intimacy, since the guardians became, as it were, one family.”

The Ahmanyen sipped his tea. “So it is today. There is only one Jogren, only one Seran, among all of those who live. But I am not of the guardian families. I come from the past, and I wear the name of my family—to honor my grandfather, who is famous in Ahmanyen. Soon, perhaps...” he paused a moment. “Soon, perhaps, will come a time when Ahmanyen will rise from sleep, and there will be many names once again.”

“May it come soon,” said Zip, and raised his teacup. The other humans followed his example. The descendant of Dorn joined them, though he was not familiar with the custom of offering a toast.

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“It’s 112° degrees outside with humidity at 97%,” announced Mark the next morning. “A desperately unpleasant place to be.” Joe and Kathryn were finishing the minimal cleaning up after a nourishing but plain meal of crackers, cheese, and fruit juice. Mark was at the laptop reading the information from the bumblebee network. “The connection’s working fine,” said the big Starman admiringly. “The frequency shifts are flawless.”

“Well,” said Zip, “it’s time that we send out our little spies.” He opened up a small crate that held more devices that looked like insects. Each was a puce color with a segmented body covered with sharp fuzz, wings made of membranes, and a hanging tail like a worm. Three dull eyes, two in front and one in the back of the head, implied viciousness. “Ugly,” declared Joe. “I mean, *ooo-gly!*”

“Dr. Hoshino patterned these after real creatures he observed on the surface of this planet,” said Zip. “The real ones appear to be as harmless as butterflies.”

“After Dr. Hoshino traipses after them with a butterfly net and comes back with a nice collection radiating his habitual jolliness, then I’ll believe they’re harmless. Until then, the sooner we

deliver these to the Xenobots the happier I'll be."

"That'll be now," said Zip. He stepped outside and gave the command, and the electronic insects flew away into the southeast. "It'll take them a few hours to reach the Xenobots' base," he said. "Then maybe we'll learn something worth knowing."

~

In mid-afternoon, Zip was staring at his large-screen laptop computer. He sat in a chair at a collapsible table with Jack and Jill on his shoulders, watching intently; the others stood close behind the Starman.

"How do these invaders work, Zip?" asked Kathryn.

"The Ahmanyans provided several programs from the equipment the Xenobots left behind when they fled Nyx more'n five years ago," Zip answered, "The easiest part was their translation apparatus. We've got the basics of that analysis on our compads. We added it to our system when we decided to enter this star cluster."

"Whew!" exclaimed Kathryn. "You mean all that work that the researchers and I did on Nyx has already been put to good use?"

"Sure," Mark said. "We've got all the protocols that the Ahmanyans knew were used by the Xenobots, and Dr. Hoshino's set them into the electronic insects along with a translation algorithm. With skill—and luck—these tiny invaders ought to be able to provide the data we're looking for."

"It shouldn't take them long to give us a pretty clear idea of the layout and condition of the base," muttered Zip. He had selected one of the insects as his primary source of information; through a videofeed the Starman leader identified the makeup and contours of the outlying parts of the Xenobot base, and immediately programmed the other insects to recognize and stay close to it. That would keep them from flying off into the surrounding forest. Since the details of the Xenobot base and culture were not sufficiently known to Dr. Hoshino, the

artificially intelligent miniature robots had to be programmed in the early stages of their investigation so that they would know what to look for.

Zip had a score or more of features he could send to the robots with the touch of a button, and could select which ones he wanted depending on what the videofeed showed him. He could immediately teach the robots to seek out electronic pulses and patterns, avoid living organisms, recognize manufactured material, and other aspects vital for the survey of the Xenobot base. When it became too complex for Zip to manage all the insects, he could turn control of one or more to another operator, who would work through an ancillary laptop.

Within the first half hour, Zip had taught the robot swarm how to identify the perimeter of the base and not go outside of it. They searched for passages, empty spaces, signs of habitation and activity, and other basic information.

Time passed. Zip remained intent on his task while the others came and went on various duties. Kathryn monitored the hourly beacon signal that was sent to the relay station and then forwarded to Tharsos. Finally, as the group in the forest completed its first full day on the neon planet and night began to fall, Zip leaned back and stretched, and then rubbed his eyes. He looked around and called the others together.

“Want to see what we’ve got?” he asked. Without waiting for anyone to answer, he pulled the network together and put a display on the screen.

“Ahh,” they all said together. A three-dimensional view of the Xenobot base appeared, as if it were seen from the air.

“It’s huge,” said Zip. “It sprawls over a hundred square miles. It must have been a stunning place at one time, but it’s in ruins now. Our little spies have located only eighteen Xenobots, but there are hundreds of semi-intelligent robots, performing various tasks. Much of what they are doing is beyond my ability to understand and may be directed off-planet. Our insects can locate the Xenobots’ droid workers easily but so far the workers seem not to have noticed their little visitors.

“I had two or three rough moments when I suspected that their droids might have been able to detect our electric activity or radio waves, but it appears that the masking procedure is working well. This is not a suspicious cluster of Xenobots.”

“Let’s see further into the base,” suggested Raffon Dorn. Zip relinquished his seat to the Ahmanyen, who then set out on a virtual exploration of the Xenobot base.

“It’s a maze of ruined glass, metal, granite, and a little crystal,” observed Raffon Dorn with amazement. “There are wires and cables of many kinds, but most of them are dead.”

“Yes,” affirmed Zip. “I haven’t found any active electronics, other than in the droids, but I haven’t gone into the Xenobots’ living and working quarters yet. I’d rather wait until tomorrow when I’m fresh. Go on, if you wish, Raffon Dorn.”

“There are a few very tall structures,” said Kathryn, “but they seem to be empty, or at least not being used.”

“There’s a lot I don’t understand, Kathryn,” explained Zip. “Our spies followed a few of the droids, but they seemed to move without purpose, or with some purpose I couldn’t grasp. It was as if they had no overseer. No one was giving them orders, so they wandered purposelessly. The Xenobots don’t seem to care. I’m not depending on that conclusion, though—there could be activities inside the base that I simply can’t identify as having sense or purpose.”

Mark spoke up. “If an alien culture were watching us, what would it make of someone reading, exercising, or gardening?”

“Or playing football, or sparring?” added Joe. “There could be a lot going on in that nest of Xenobots, and we wouldn’t know.”

“All we really need is information about the solar power station,” said Zip. “We know enough to track that down and recognize it if it’s there.”

“Let’s work on it tomorrow,” suggested Raffon Dorn. “I’ll put our probes to sleep in places where they won’t be noticed. How about some more of that tea, Joe?”

The following day dawned and the ground steamed. The colossal red sun appeared through the canopy of leaves with a poisonous glare. In its heat, the nearby bogs exuded their reek. The tents kept out most but not all of the malodorous stench from the swampland that lay sucking in terrain not far away from the grotto. The landing party endured their misery without complaint.

After breakfast, Zip divided up control of the robotic insects among the members of the party. He gave Jack and Jill responsibility for the bumblebee defense system. They were to monitor it regularly and frequently to make sure that nothing hostile was approaching. The others were intent on laptop computers, guiding the probes on their mission of exploration. They were mapping out further the infrastructure of the Xenobot base and looking for active electronics or a computer terminal of some kind.

Animating their robotic insects with precision and care, they made a cautious penetration of the Xenobot stronghold from different directions. The periphery of the working part of the base was obvious. Ruinous and unfrequented rubble gave way to stone flooring as smooth as polished marble. Walls were aligned and machinery was evident. To one side was the spaceport. Droids were in greater abundance than in the ruin. Here, if anywhere on the planet, the Starmen and their allies would find what they needed—yet here also the search would be more risky than anywhere else.

Fortunately there were no airlocks, doors, or windows. The self-contained Xenobots needed no such amenities. For that reason, the presence of a flying insect would not arouse undue concern.

In the late morning, a light but persistent rain began. It persisted throughout the afternoon and into the evening.

It was then that they got their break.

"A working computer," said Joe. "Insect 17 found it. I'm going in."

The others in the party caused their insects to sleep and moved

behind Joe to watch him work. He maneuvered insect 17 into position in an unobtrusive place near the computer and, after a few moments, caused it to interface with the Xenobot system. He took a deep breath, and then began to try various protocols to gain access to the files.

An hour later, Joe was sweating. "Man!" he exclaimed. "Fifteen protocols and none of them works!"

"The base doesn't look to me as if it gets too much attention from Xenobot central," said Mark. "Try one of the older ones," he suggested.

"Why not?" Joe sniffed. "I've got all day."

On his nineteenth attempt, he completed the entry. With his eyes open a little wider and a quiet exhalation of satisfaction, the blond Starman began to explore the Xenobot network.

"There," said Raffon Dorn, but they had all seen it at the same time. All sore muscles were forgotten, all tiredness set aside. Joe tapped into the file that had a clear reference to the solar power station. Minutes went by as he explored. Then—

"Blast!" Joe said, quietly but fervently. "There are no direct links to the solar station, and no information about the station in this network. Security, I suppose." He looked up and grinned. "And for good reason, I guess, 'cause here we are in their system and getting precious little for our trouble!" He bent over his laptop once again. "But there's one of their spaceships that goes out to the station, apparently regularly. Mark, can you tell how regularly? I can't interpret those symbols without some figuring. When is it going next? Raffon Dorn, anybody?"

Mark took over the laptop for a few minutes. "Okay," he said at last. "Those symbols must mean that it goes out about every three months by our measure. And, lucky us, it's going out in about...six days."

"We'll have to get some of our bugs inside that ship," said Zip. "That probably won't be too hard to do since the ship is easy to pick out of the three on the landing field. And hopefully the entry code will be basic. It'll be impossible, though, for the bugs to communicate back to us or anybody on Tharsos without some

kind of adjustment. Realtime transmission would be detected immediately, and as soon as the ship took off, our bugs'll be out of radio range real fast. We gotta think. Maybe we'll have to go back to Tharsos and let Dr. Hoshino work on the solution."

Suddenly, the image on Joe's laptop screen became distorted, and the computer made an ominous snapping sound. The image then went to snow. In seconds, the others began to buzz and show snow. Mark leaped over to his screen and began to work furiously.

"We're being attacked," he said tensely. "Probably some kind of automatic defense built in to the Xenobots' system. It must have identified a foreign influence in a sensitive file and retaliated aggressively. Now the retaliation is spreading through our network."

"Our defenses aren't able to counter their attack?" asked Zip.

"Dr. Hoshino's defenses are strong and they're slowing down the assault on our system," said Mark, his eyes and fingers moving rapidly, "but they're being overwhelmed. They're resisting admirably—but losing." He redirected all his laptop's power to its own defense system, but in less than a minute the screen went from snow to fading gray to complete darkness.

Jack, active with Jill on a separate system across the room, said, "Bumblebees dying, Mark. Defense system go bad." Zip leaped over to where the Titanians were working, and saw the perimeter go down. Then the Titanians' computer went dark also.

Zip whirled and faced the others. "The Xenobots' attack is spreading to our other systems! We're isolated and defenseless," he stated darkly. "If the Xenobots can locate us, they're probably on their way now." The Starman raised his compad and tried to contact Tharsos through the radio relay station. There was no answer.

"The relay station is gone too! How far has this retaliation gone? Could it possibly have gone all the way to Tharsos?"

"We're stranded, with no way to call for help!" cried Kathryn.

"We've got to run, just run!" said Zip firmly. "That's all we can do—get out of here before the Xenobots arrive! We'll take a

few essential items and go!”

In seconds the tents in the grotto were empty. The Starmen and their friends, so close to success a minute earlier, were now fleeing headlong into the wild, dense, black forest of the neon planet.

The rain came down.

Chapter 16: Caught Off Balance

WITHIN A FEW YARDS of the campsite, the darkness was nearly absolute. The four Starmen and Raffon Dorn, with Zip carrying Jack and Mark carrying Jill, saw each other only as dark silhouettes in a greater darkness, revealed by the dimmest of occasional water-sodden gleams that struggled through the roof of enormous black leaves. No one spoke, but each could hear the rough gasping of the others. Their hearts racing, driven by desperation, they clawed their way over the twisted and clutching roots of the ungainly, hulking trees.

They had vacated their campsite for less than a minute when the sounds of hard breathing and heavy rain were punctuated briefly by a whine that rapidly increased in intensity. It lasted only a few seconds before a “whump” sound erupted behind the fleeing figures. A sickly light flashed and lit up their fearsome surroundings with a garish orange glow. A shock of wind whipped past them, laden with dirt and small stones and pressing the fugitives off balance. Kathryn and Raffon Dorn were thrown flat into the ooze, while the others managed to keep their footing only by grabbing at branches.

The sudden influx of light accentuated the tracklessness of the forest by showing up the dire and utter blackness of the malicious terrain into which they were fleeing. The glow quickly diminished until it remained at a low level, pulsing randomly.

Joe helped Kathryn to her feet, feeling instant empathy for the look of dread that he saw across her features. In her

assignments as a Starman, she had never faced danger. Her large, sea-blue eyes looked back the way they had come, wide open with trepidation. Raffon Dorn was on his feet almost instantly, turning back toward the site they had quit.

Mark and Zip stepped carefully back along the way, retracing their steps over the tangled roots and branches toward the dull glow beyond. They did not have to go far before they saw the reason for the illumination.

Quickly they rejoined the others. With grim expressions they led the party deeper into the forest until they were swallowed completely by the darkness.

More than an hour later, they came to a stop. Zip initiated his suit lights at the lowest setting. Minimal as the level of illumination was, it seemed piercingly bright in contrast to the near total blackness through which the five people had been picking their way.

They all made themselves as comfortable as circumstances permitted, wriggling into the spaces between the roots and trunks of the trees.

“What did you see back there, Zip?” asked Joe.

“The Xenobots struck our campsite with an ultra-heat bomb,” he said. “That little copse we were in is now a pool of molten rock.”

“By now, it’s probably solidified,” said Mark. “With the trees blown away, the rain was coming down freely on the fire. Huge billows of steam were rising.”

“I’m surprised the Xenobots haven’t chased us or tried to locate us,” observed Raffon Dorn.

“Frankly, so am I,” agreed Zip, with a nod.

“Do you think it’s safe to stay here, especially with a suit light on?” asked Kathryn.

“Since there’s no sign of pursuit after a whole hour, I think so,” responded Zip. “They wholly destroyed what was obviously the center of our operation, and they did it just seconds after they located it. They probably thought they’d caught any visitors in the explosion, and there’re enough random electrical charges in

the air of this ghastly planet to mask any activity our life-support systems or communicators would show. Unless they have some way to detect Kirlian auras, if they were going to find us I think they'd have done so by now."

Mark tried to raise Tharsos directly through his compad, but received no response. "The signal is not rejected," he said; "it is as if Tharsos isn't there at all."

"Not a good sign," said Joe dryly.

"No, it's not a good sign," said Mark. "The electronic attack that jumbled our equipment probably went through our transfer station up into Tharsos itself. They won't be able to receive any signal from us until they repair their system. We'll just have to keep trying."

The rain continued to pound heavily on the canopy of leaves above them. Water dripped through openings in the cover; it ran down the trunks of the trees and pooled in the hollows. Overhead a blast of sheet lightning colored the sky and cast shadows in the depression where the party had stopped. It flared rusty red and left a sharpness in the air. A roll of thunder nearly overwhelmed their communicators, and then faded slowly away.

"Hool!" said Joe. "I can smell that through my NPAC! This is one of the quickest changes of fortune I've ever experienced!"

"Once, several years ago when we had some time off from our training at the Academy," began Mark, "I spent three weeks in Ireland. The weather was just about perfect. I set out on a three-day walk down the east coast, intending to spend nights in some of the inns in the ancient villages that are so common there. As I was going down a country road with the green fields on both sides of me, dotted with oaks that went back centuries, I got hit by a sudden squall. Rain-sodden wind blew up out of nowhere, pretty strongly. With my thin coat blowing around me, I sought refuge in the closest house, which turned out to be the rectory of the local parish. A Catholic priest, Father Eamon O'Gorman, urged me in, dripping as I was."

The others listened to the big Starman's story. Zip and Joe knew Mark well enough to be sure that he would make a point

that was applicable to their current situation.

“He brought me into his study where a warm turf fire was burning. He lent me a robe to wear while he hung my clothes on a rack near the fire. Then he brought in some heavy bread, thickly sliced, and a bowl with homemade butter in it. There was a pot of tea brewing in brown crockery, and when it was ready he poured it steaming into the cup he’d pressed into my hand. I still remember the warmth of it against my cold fingers.”

“Ah Mark,” said Kathryn, “you might be talking about my home town. You’re making me feel homesick, you are.”

“Right, Mark,” contributed Joe. “While you’re at it, entertain us a bit more, won’t you, by describing just how the butter melted into the warm bread? If any of us find our mouths watering, we’ll just satisfy our ravenous hunger by drawing in a bit of the tasty nutrients our suits so generously provide.”

“It’s a fine country you come from, Kathryn,” said Mark, “soaked in its history. I could feel it, sitting inside that old stone rectory with the rain pattering on the windows. Ancient paganism, a good kind, has been built over with the wisdom of the Father’s religion. I can still recall how he said it in his rich, deep-land Irish accent better than I’ve ever heard anyone else say it. He said, ‘If you don’t hear the music, the dancers look mad.’ It stirred in me a kind of longing, a longing I’d felt before only once or twice, and rarely since. But when it does come, it almost stops me in my tracks.”

“Besides making me wish powerfully for the cup of tea I can’t have, Mark, what are you telling us?” asked Joe.

“There’s something else he said,” answered Mark. “When the rain had stopped and my clothes were dry and our conversation had drawn to a close, he escorted me to the door and pointed out my way. Then he said, ‘Sometimes, lad, it’s a good thing if the wind catches you off balance. You’re taken by surprise with new insight into something that was always there but which you’d never seen—maybe something that comes from the foundation of the world itself.’ With an unreserved smile, he handed me an umbrella, and off I went.

“And now,” Mark concluded, “we’ve been blown completely off balance. On the brink of success a couple of hours ago, we’re now suddenly homeless and out of contact with our mother ship.”

“And no tea or turf fire, either,” Joe couldn’t help but point out.

“But new insight?” posed Mark quietly. No one answered. All retreated into their personal thoughts.

After a long silence, Mark spoke up. “Here’s my insight: this is an uncomfortable, depressing place, but our suits are keeping us secure. We’ve just survived a vicious Xenobot attack and escaped their vigilance. We have our weapons with us, and Raffon Dorn has our data. We have achieved our mission. Tharsos will reactivate, probably sooner rather than later, and will lift us to safety. While we wait, we have an opportunity to learn more about this planet.

“For example, even these black trees have a message for us: grotesque as they are, they are proof that a planet that was once devastated by our enemy is now returning to health. There are plants emerging amid layers of slag, and they are producing flowers. The trees are reclaiming deserts, and there’s water flowing in areas that were once poisonous. Goodness, truth, and even beauty will prevail against the worst evil can do.”

“There’s something in what you say,” endorsed Zip, “something very incredibly true! I think we see on this neon planet the long history of a world that had been conquered by the Xenobots, ravaged and wasted and torn and robbed and exploited—but it still lives. Its life was never fully taken away. Friends—this is a black place, but we’re going to win.”

After that, by unspoken agreement, they all settled down for the night, curling up as best they could on the uneven and overgrown ground. They set no watch. Joe’s last thought before falling asleep was of Richard Starlight, explaining to him and Mark years earlier, as he was driving them in a moonbus, why his father had changed his name to Starlight.

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They woke to thick, heavy, curling mist. During the night the rain had stopped, and now the dank soil was relinquishing its moisture under the day's early but already sweltering heat of the turgid sun.

Mark attempted once again, without success, to reach Tharsos.

"We'll stay here until we can tell where the sun is," announced Zip. "It's going to be tough going as it is without getting lost to make it worse."

"What's your plan, Zip?" asked Raffon Dorn.

"I'll set my compad so that it beams a constant appeal to Tharsos. As soon as they're able to respond, they'll know where we are and can lift us from the planet."

"If you use a constant signal," queried Kathryn, "won't the Xenobots be able to find us eventually, whether or not the native electronics of the planet mask it?"

"There is that risk, but I'll set the signal so that its frequency changes randomly every few seconds. It'll go to Tharsos, but will be much harder to trace from the surface of the planet. When Tharsos' system is up again, they'll be able to find us no matter where we are. But if they can't get their system running soon, the only way off will be by a Xenobot ship. We'll make our way to the edge of the city, keep an eye on their spaceport, and await developments—for a few days anyway. That Xenobot shuttle, as I recall, is heading for the solar station five days from now. If Tharsos doesn't take us out of here by then, we'll have plenty of time to reconnoiter and maybe come up with a plan to turn the launch to our advantage."

An hour later, the vapor had thinned enough that the party could discern the position of the great red sun in the sky. "This way," said Zip, and led the way through the undefined massiveness of the heavy, brooding forest.

In midafternoon it had become evident that the forest was at last giving way to more open ground, and that the party was coming to the crest of a hill. It was not unusual to see insect life

and small animals that either flew or crawled. In a few places, vines were wrapped around the boles of the trees and intertwined among the lower branches. Yet there was an increasing amount of open ground in which grasses the color of bronze grew thickly.

At last Zip called a halt and they all sat down under the shadows of the last trees before the terrain slanted down and away for a long distance. Outcroppings of rock comprised most of the slope, but there was plenty of turf in between, with the occasional spreading tree that had taken root in the rocky formations or some hollow of the hillside.

A mile or two beyond, where the slope leveled out, the outskirts of the enormous abandoned city began and extended to the distant horizon. To the left, beyond some large stone terraces, was a broad river flowing past the city. It became wider and wider until the far shore faded in the haze of distance. Its surface showed reddish-purple under the great sun's red disk, a huge, inescapable fact of the neon planet's daytime sky.

Zip and Mark removed the Titanians from their shoulder packs and let them get some exercise while the Starmen and the Ahmanyen rested from their exertions. The big people lay prone and gazed into the distance. The four humans adjusted the viewports on their helmets to engage their magnification capabilities, and began a careful examination of the scene before them at up to twenty power.

As they scanned the details of what was below, their plan developed.

"Spaceport, upper middle part of this section of the city, just off the riverbank," noted Mark. "Maybe a mile away."

"High banks on the river to hide us for most of the way—at least until you get into the city itself," observed Joe; "then maybe we can get to the spaceport without too much difficulty. Maybe."

"Getting from here to the river won't be easy," said Kathryn. "One big step after another without any clear path between—at least not evident from here."

"If we don't take the terraces, it's either back into the forest

or cross open country. We'll have to find a way down the terraces," stated Zip.

"Can we get down before nightfall?" asked Raffon Dorn.

"Let's make a start," said Zip. "If the climb looks too difficult or treacherous once we get to the first descent, we can come back under the cover of the forest until tomorrow."

After returning their viewports to normal, the Starmen rested briefly before setting out to descend the stone terraces to the river far below them.

"Are you two comfortable?" asked Mark, addressing the Titanians.

"Okay, Mark," said Jill. "Gravity strong on this planet. Stronger than on Moon or spacecraft."

"We get tired," explained Jack, "even if we do nothing. Always feel heavy."

Kathryn became alarmed when she overheard this conversation, and peered closely at the small people. "Are you in danger?" she asked.

"We okay, Kathryn," said Jill. "Better when we get to Tharsos."

The Titanians patiently took their places in the shoulder packs again. This time Kathryn took Jill while Jack stayed with Zip.

Mark, who had the most experience as a climber from his boyhood in the mountains of Montana, led the way forward. A walk of a mile or so brought the company to the brink of the first terrace.

"As I suspected," said the big Starman, "it will be easier than it looked back there. See, there are cracks in the stone where it's weathered. It's steep and we'll be free-climbing downward, but there are plenty of places for toes and fingers to grip." He turned around and slid over the edge with his face to the rock wall, his feet finding places to support his weight. In less than three minutes he had descended the forty-some feet to the top of the second terrace.

"Not too difficult," he said. "I'll stand here and point out footholds if anyone needs the help."

Joe came next, followed by Kathryn, Raffon Dorn, and finally Zip.

The terrace slanted lengthwise southward down toward the city, but dropped off steeply eastward toward the river.

“Bout four more terraces,” explained Mark as he peered over the edge looking for the next avenue of descent. After a careful search, he selected the next path downward. It was easy for the first twenty-five feet, but ended in a smooth drop of ten feet where there was no foothold of any kind. The Starman let himself fall that distance to the next terrace, bending his knees on impact to absorb the shock of landing.

“Come ahead,” he called. “I’ll ease you all through the last jump.”

Again Joe came next. When he dropped, Mark caught him just before he hit the ground and prevented him from landing too hard. He did the same for the others.

With the help of an aged tree that had taken root in a crevice and then broken the rock apart as it grew, the next descent was the easiest of the three.

“Only two more descents to the river,” said Mark. “The next terrace is very narrow—only about ten feet wide before it drops down directly into the water. No beach,” he added. “It’s a sharp cliff.”

“If we can’t figure a way to get to the bottom, we may have to stop for the night on the next terrace,” said Zip. “It’s getting dark now and we’re in the shadows. I feel a little uneasy climbing by suitlights.”

“Okay, Zip,” said Mark. He began to examine the descent to the fourth terrace. It didn’t take long before he began to feel dismay. There was no easy way down the thirty-five foot rock wall. There were no large cracks or crevices—for a hundred yards to both north and south, there were only the tremendous unbroken slabs of smooth stone.

At length Mark led the others northward, away from the city, to look for a suitable path down. After a walk of about a fifth of a mile along the clifftop, he found a crevice filled with loose

stones.

“We’ll go down here,” he announced, “and then see what it’ll take to get us to the riverbank.” Turning to face the wall, he slipped over the side, scrambling for a foothold in the stones. Slowly he lowered himself, step by step, gripping the stones with his fingers as his feet sought the next secure foothold.

Suddenly the stones rolled under his feet and he was hanging by his fingers! Frantically he tried to regain traction before his grip failed, but he was still scrambling when the stones under his fingers broke loose. The Starman plummeted more than twenty feet to the bottom of the terrace! His gasp as he fell and the cry as he struck the rock below rang alarmingly through the communicators.

“Mark!” cried Zip. There was a long groan and then a series of short gasps. The others peered anxiously over the side and saw the big Starman lying awkwardly below them.

His voice came with an effort.

“My leg’s broken!”

Chapter 17: Attack, Defense, and Counterattack

MARK’S VOICE CONTINUED with obvious effort. “My suit’s responding. I should feel alright in a minute.”

With the serious injury, the Starman’s new suit entered into automatic medical diagnosis and treatment mode. Sensors immediately found Mark’s broken left tibia, checked his vital signs, and injected a pain reliever and shock reducer into his bloodstream. It determined the position of Mark’s body. An electronic voice, designed for maximum soothing effect, addressed the injured man:

“Starman Mark Seaton, please relax. You are not badly injured. When I sensed that you were falling, I enhanced the cushions in your suit. Your worst injury is a simple fracture of your left tibia. You have also sustained several bruises on your left leg and hip, left elbow and shoulder, and the left side of your

head. I'm afraid that some of them are large, but fortunately none of them is severe. You have also moderately strained the muscles on the right side of your neck. All these areas are now being chilled. By this time you should not be feeling any pain. Is that correct?"

"I feel some pain in my neck and left lower leg, but it is becoming numb."

"That is good. Can you roll onto your right side?"

"Yes," answered Mark through tight lips.

"Please do so, and I will straighten your broken tibia."

The others listened to the exchange tensely. Slowly Mark rolled onto his right side.

"Please relax completely, Mark, and allow me to straighten your leg." Mark closed his eyes, relaxed as best he could, and cleared his mind. He began to breathe deeply and slowly, making sure that he used his abdominal muscles rather than his chest to inhale and exhale.

"Very good," commended the soothing electronic voice. "I am now increasing the amount of shock deterrent. Now I will straighten your leg." Those observing from the top of the ledge more than thirty feet above saw Mark's left leg slowly straighten. When it was straight, it inflated slightly to create a splint.

"You have no external bleeding," explained the tranquil voice. "The ligaments in your left knee were stretched but not badly. They are now in their proper position and will heal quickly. You will experience some restriction in the movement of your knee for approximately two days. Your tibia will need further medical attention. Please contact medical technicians at once. I will continue to monitor your condition until further assistance can be obtained."

Zip broke the brief silence that fell when the electronic voice ceased.

"I'm coming down, Mark, while there's still enough light to see."

"No need to take the risk, Zip. I'm quite comfortable now."

"You're lying in the open. I'll move you a few yards to the

clump of shrubbery to your right.”

“I can crawl there myself, Zip. Don’t take a chance on falling down here with me.”

A distant clacking sound arose in the background.

“What’s that?” asked Kathryn tensely, looking around.

“It’s coming from above,” said Joe. “Get back out of sight!”

With no other choice, the party quickly moved to the inner part of the terrace, farthest from the edge where the shadows of evening were deepest, though there was still plenty of light by which to see. The clacking became louder and irregular as its source drew near the party.

I’ve heard that sound before, thought Joe, his heart racing. His palms began to sweat.

Suddenly a silver shape with many arms leaped from above onto the stone ledge in front of the party. The others gasped, but Joe acted instantly. Darting forward he swung his right leg in a robust kick. His eagerness cost him some accuracy, and he struck the clacking invader a glancing blow, sending it spinning and scudding over the terrace almost to the edge.

“An arachnoid!” exclaimed Zip. The silver spider was smaller than the one that had captured Joe on Mars a few years earlier. It was a little more than a foot across, with its eight legs spread out to cover about a yard of territory.

It quickly stabilized and began to scuttle toward its attacker with great speed.

“You’re not...” screamed Joe at the same time the device let loose a shower of needle lasers. The angry Starman didn’t stop. A second time he kicked, on this attempt connecting squarely with a blow intended to put the repellent contraption into orbit. The arachnoid arced up into the evening sky, glinted momentarily in the light of the setting sun, and then fell into shadow. A second later the Starman heard the sound of a distant splash.

“Ha ha!” exulted the lanky Starman. “That should beat the ‘punting for distance’ record at Starlight Academy!” He turned and faced the others. “Oooh *man*, that felt good! I’ve had a kick

like that inside me for more than four years! Ha ha!”

“What was that?” queried Mark. “What’s happening?”

Crowing with delight, Joe explained. The others were crowding around Joe.

“Didn’t it shoot you, Joe?” asked Kathryn.

“Yeah, but it was just needle lasers. It stings a little, but it was worth it!”

“I know better, Joe. You’re going to have some painful blisters as big as marbles!”

“My suit’s already icing ’em up.”

Zip was carefully scanning the top of the terrace, now no more than a black silhouette in the setting sun. He held his laser rifle ready to respond instantly at any sign of attack. A sky filled with glowering brazen clouds was showing signs of a major electrical storm. The clouds were rapidly filling the horizon and spreading eastward toward their location. Sparks and flashes appeared frequently in the thickening billows.

“There will be more,” Zip said in a quiet but determined voice. “Get your weapons ready. The Xenobots must know where we are now. Those little droids move fast, but they’re mostly set up as sentinels. Their lasers are pretty low-grade. But the enemy will send along something high caliber any minute now. We can’t hide, and of course we’re not leaving Mark.”

Suddenly his compad alerted him to an incoming call.

“Starman Foster, this is Tharsos. Do you receive?”

“Indeed yes!” he cried out. “Do you have a fix on us? We are in immediate threat of Xenobot attack! Bring us up, quickly! Take Mark first! He’s been injured!”

“Very well, Starman Foster. It’s fortunate you’re not much closer to the Xenobot base. It is protected against wormhole incursion. A half mile closer and we could not have rescued you.” A moment later, the atmosphere became gravid and a feeling of deep sleepiness came over the party on the second ledge. Just as quickly as the feeling arrived, it departed. “Starman Seaton is now aboard Tharsos,” came the voice through the compad.

With a suddenness that shocked the party into action, a wave of silver avidroids zoomed over the ridge of the terrace below, firing a blitz of needle lasers at the company. Zip immediately returned fire with his powerful rifle, exploding two of their attackers in less than a second. Joe, Kathryn, and Raffon Dorn retaliated as well, quickly accounting for four other avidroids.

“Bring the others up!” screamed Zip into his compad, “but don’t take me yet! Keep track of me!”

“Zip!” cried Joe, “Whadda you think you—” A second wave of avidroids shot up over the ridge, and others began to come down from above. Joe’s voice was cut off as he, Kathryn, and Raffon Dorn were whisked off the planet and brought safely to Tharsos.

Before Joe felt himself completely wrapped up in the hyperspatial transfer, he saw the redheaded Starman running at top speed to the edge of the terrace and launching himself into space!

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Dropping down more than seventy feet, Zip spread his arms and churned his legs in a slow bicycling motion. At the last second before he struck the water, he gripped his rifle tightly and brought his arms and legs together. The instant he struck the water he began to cycle again to slow his descent into the river. He had no idea how deep the river was at that point, and had no desire to strike the bottom. When his downward motion stopped, he swam back upward.

Just before he came to the surface, he felt several dull pains in his right side. Turning quickly, he saw the arachnoid that Joe had booted, climbing up the wall of rock. It had detected an enemy and taken the offensive. Whirling in the water, Zip leveled his rifle and fired it. The ten feet of water that separated the combatants effectively sapped the arachnoid’s attack, but even with its power diluted by the water, Zip’s rifle made short work of the Xenobot sentinel. Alternatively fried by the laser beam and then quickly cooled in the river water, the contraption

released its grip on the submerged rock wall and sank to the bottom, permanently out of commission.

Zip swam to the wall and clung to it so that he would not rise to the surface before he was ready. His NPAC couldn't work under water, but he could breathe the air in his suit for several minutes without ill effect.

"Tharsos, come in!" he called urgently.

"Tharsos here."

"Please bring Karax and Pleera to the communication bank!"

"We're both here," came the voice of Karax.

Quickly Zip briefed them of the party's recent experiences, including the information that the Xenobots were planning to launch a ship to the solar station in a matter of days.

"Since you cannot penetrate the Xenobot base with a wormhole, I need you to send me a tracking and data gathering device. Deliver to me where I am now. Then I will carry it under the enemy's wormhole shield and secrete it aboard their ship. When it launches, you can track it and gather in all the data you can. After I've placed the device, I'll return to the river and float beyond the range of the wormhole shield and you can pick me up."

Zip could hear the chorus of objections from his friends in the background.

"I cannot permit so risky a scheme, Starman Foster," came the even voice of Karax. "We will bring you up momentarily and devise another plan to gain access to the solar power station."

"Please forgive me, Karax, but I must remind you that you have no jurisdiction over the Starmen," asserted Zip. "I am determined to follow this course. With all respect, I humbly affirm that it is not my wish that you bring me back to *Ossëan* at this time." Zip assumed that the sharp intake of breath he heard was Pleera's. "And I ask, equally humbly, that you provide the tracking and data gathering device. This, I know, you do not have to do. I ask."

"Starman," returned the Ahmanyen. "I am not forbidding you to take on this task. I speak merely out of concern for your

safety. What you propose is extremely perilous.”

“Some would say foolhardy, you dope!” Zip recognized Joe’s voice in the background, and smiled.

“I recognize and am grateful for your concern for my safety, my friends, but now someone must act boldly for the safety of us all.”

Several seconds of tense silence followed. “Very well, Starman Foster.” Karax’s words were precise and clipped. “As you wish. It will take us a few minutes to prepare the device and bring it to the transporter.”

“Thank you.” Zip rose to the surface and held his NPAC out of the water. His air storage unit was nearly full, but he didn’t want to take any risks with falling short of air in the oxygen-scarce atmosphere of the neon planet.

“What about Jack?” asked a voice. Zip thought it was Kathryn’s.

“Well, Jack,” Zip addressed the Titanian in his shoulder pack, “you heard everything we said. I’m sorry I didn’t have time to turn you over to Joe before I leaped over the cliff. If you want to go to Tharsos, I think it’s not too late for that.”

“I stay with you, Zip. Maybe you need help with Xenobot ship.”

Zip was relieved. He liked the little person. Simple as the Titanians were, they were loyal to the humans and the Ahmanyans, and had provided critical assistance on more than one occasion. The Starman’s compad reactivated.

“We are ready to send the device to you, Starman Foster,” said Karax. “We have included a light cloak, and we will create a diversion. Are you ready?”

“I am ready.”

“It will materialize in the water a few feet from your position. We are sending...now.”

A case with a shoulder strap appeared nearby, and quickly began to sink. Zip chased it to the bottom, almost twenty feet below, and snagged it just before it reached the sand. The Starman saw the blackened arachnoid, curled and motionless,

before he returned to the surface. Breaking through to the atmosphere again, he placed the strap over his right shoulder and under his left arm. He glanced upward quickly and saw that the sky was completely black and starless.

Zip turned on his back and let the current take him into Xenobot territory. As he drifted, he gazed into the cloud-haunted, electrically charged sky. Large drops of rain began to spatter down, but as yet there was no deluge. Random flashes of orange lightning snapped overhead and revealed the purple billows of the great clouds. Cracks of thunder followed swiftly.

Zip and Jack passed a steep headland of bush-crowned granite. The terraces gave way to haphazard ledges, crevasses, balds, and knobby peaks, but along the riverside the stone wall still rose so sheerly as to provide no places to grasp. Nowhere did the first break occur lower than ten feet, but usually fifteen or twenty feet from the river, or even higher. The walls had been polished so smooth by eons of floods that it was impossible to scale them.

Abruptly there was an outbreak of laser light northward, not far from the place where Zip had entered the water. He tilted his head up and stared, trying to descry what was happening.

"Three Xenobots and a host of armored robotic warriors have apparently tracked down the intruder," whispered a voice through Zip's compad.

"Pleera?" guessed the Starman, wonderingly.

"It is myself," said the soothing and wry feminine voice. "Their intruder is Sotik at his holographic best. He looks fearsome indeed, Starman, dressed in gold and carrying some daunting threat to the Xenobot haven. Safe up here in *Ossëan*, we know he is only toting a spare cylinder for the refractoscope, but if I didn't know what it was, I'd imagine he could take a mountain apart with it!"

The rock wall suddenly ended with artificially shaped structures. Pillars and wide steps came down toward the water's edge.

"Oops!" said Pleera. "Now Sotik has disappeared. My! I'll

bet the Xenobots don't know what to make of that! There was obviously no wormhole activity, for they could detect that, but their invader suddenly vanished just the same. In a minute or so, their golden invader is going to appear in the north side of their city. He'll be careless, however—one of their sleepless watchers will spy him and sound the alarm. The Xenobots will pour out after him. Are you near their spaceport yet, Zip?"

The Starman turned over and looked downriver. "About a hundred yards. The current should bring us there in about two minutes."

"I'll tell Sotik to keep the Xenobots active. Don't take any unnecessary risks, Zip. You are important to all of us."

"Thanks, Pleera."

When he slipped ashore, Zip huddled in the shadow of a tall stone pillar. Working quickly, he withdrew the light cloak, donned it, and activated its wondrous mechanism. Underneath it, he clipped his laser rifle upright to his belt. He felt the bag to make certain of Karax's device, a sphere about the size of an orange, and then eased into the spaceport. Passing through a few jumbled and fallen ramparts and pushing past a few dense shrubs that sparkled with electricity, he came to the edge of the open field that served as the Xenobots' landing area.

I won't show up on any video or motion detectors, but they can still find me by heat, he reminded himself. Two hundred yards away was the spacecraft he had identified as the ship slated to go to the Xenobots' solar power station. Boldly, he stepped out into the open. He paused only for a second to get his bearings now that he was not under cover, and then strode toward the alien craft. Its round hulk loomed out of the gloom.

"Sotik has moved again," Pleera informed the Starman. "The Xenobots have also begun to search for an alien spacecraft in their proximity. Radar has already passed over us. If they have the equipment and are sophisticated enough, they may try to find us by gravitational footprint. If they do, they will succeed, Starman Foster. Please do not delay."

"We are approaching the spacecraft now, Pleera," said Zip.

The redheaded Starman stealthily made his final approach to the enemy ship and began to investigate it for signs of the entry hatch. Precious moments were taken up until he located it. Then it took his compad another few moments to crack the opening code. The protocols that the Ahmanyans had provided made it easy, since the ship was a very old model and well-known to them. The portal opened onto a lightless interior.

Zip put his suit lights on low and stepped gingerly across the threshold into the ship. *Is there an alarm system in their headquarters that will show that someone has entered one of their ships?* he thought. *This is almost too easy. Can the Xenobots be this lax, even on so remote a planetary system in their own territory?*

“We’re entering the ship now,” Zip related to Pleera. “There is no airlock, of course. The Xenobots don’t need them.”

He had progressed only a few tentative steps when the hatch suddenly closed and the engines ignited. Alarmed, Zip threw himself down and flattened spread-eagled on his back to prepare for takeoff.

“Jack!” Zip uttered his companion’s name with marked tenseness in his voice. “We’re taking off! This ship shouldn’t have launched for another five days! Let’s hope we’re going to the Xenobots’ solar power station. If not—” He left the sentence unfinished.

The Xenobot craft launched and, at high acceleration, pierced the storm clouds and exited the planet’s atmosphere. Painfully crushed to the floor, the Starman endured the high G-level for several minutes. Then the thrust shut off. The Starman eased himself up.

“Are you okay, Jack?” he asked.

“Okay, Zip.”

“Let’s look around and see what’s aboard.”

Suddenly, to his alarm, Zip felt the customary turn of the stomach that presaged entry into hyperspace.

On Tharsos, there was frantic activity on the bridge.

“Where is the ship? Where did it go?” shouted Pleera, her arms thrown outwards.

“It did not go to the solar power station,” answered the technician who had been tracking the ship. “It disappeared. It entered hyperspace. We—, we have no way of knowing where it went!”

Chapter 18: “Maybe Nothing Outside”

ALMOST AT ONCE, the Xenobot ship dropped out of hyperspace. “If their hypertravel works on the same principles as ours,” said Zip, “we didn’t go far. We’re probably still in Omega Centauri, but far out of range of Tharsos’ detection capability.”

“Try to contact Tharsos, Zip,” suggested Jack. Even as he spoke, Zip was using his suit communicator and then his compad. There was no response.

Zip immediately leaped into action, putting off until later a consideration of what might have happened or where he and Jack had been sent. Realizing that the light cloak would no longer be useful, he removed it. Next the Starman, intense in his concentration, triggered the tracking and data gathering device that Karax had delivered to him. Then he brought his laser rifle into the ready position. Not knowing when the ship might be boarded, under lowered brows he scanned the interior of the chamber to find a place where he could conceal the mechanism. For the first time, he took stock of his surroundings.

He and Jack were in a small antechamber constructed mostly of panels of black and dark red metal. The wall with the hatch in it was rounded with the outer shape of the spacecraft. Directly opposite the entry hatch was a flat wall of massive plates bolted together. There were many pipes and conductors running mostly up and down on both sides of the chamber. Two passages led off at either end of the room, following the curvature of the hull.

Loud, almost ear-shattering machinery noises filled the air.

"Same atmosphere as the neon planet's, of course," observed Zip. "Without an air lock, that's all it could be. As soon as the hatch opens, we'll get whatever atmosphere is on the other side—or maybe vacuum." He chose the right passage and began to stride along its bowed path.

"More than likely they'll be able to find this wherever I hide it," Zip muttered, "but it'll be better to try anyway. Who knows what kind of beings we're dealing with? This place is a cacophony of clanks and clatters. I'm going to turn down the volume, Jack, or I'll be deaf in half an hour." The Starman made some adjustments in his suit's audio function until the outer sounds were damped but he and Jack could still communicate.

Following the inside contours of the hull, Zip came to a point in the ship opposite the hatch. On his left he found an opening that gave access to a vertical duct at least four feet across. Sticking his head in, Zip noted that it dropped down only a few feet to a solid floor, but it swept upward for a good twenty feet until its gradual curve toward the spacecraft's axis took it out of sight.

"This must be the Xenobots' elevator of some kind to get to the higher decks," he said. "But there're no handholds and no way I can see to get up. Maybe they just float up and down. How about if you take a look, Jack?"

"Sure, Zip," said his diminutive companion. Zip removed the shoulder pack from his suit and placed it on the floor. The Titanian emerged from the shoulder pack and dropped down to the floor of the shaft. At the bottom were many slots and small panels. After brief exploration, Jack switched on his own suitlight and slipped through one of the slots into the interior of the central part of the spacecraft, inaccessible to the Starman. Without the shoulder pack's electronic capability, the two could not communicate. Only mildly uneasy, the Starman waited for the Titanian to reappear.

A short time later, Jack pushed his little body back through the slot and climbed into the shoulder pack.

“Maybe place to hide machine in there, Zip,” came the soft voice of the Starman’s partner. “Need to open with big rod. Find big tool for lever, then open.”

Zip nodded and set out to explore the passage he hadn’t followed before. Without finding any tools, he returned to the chamber where the hatch was located. He looked at the pipes and conduits that lined much of the walls and selected one he could remove. From his tool kit he extracted the atmosphere tester, punctured the pipe he had chosen, and read that there was only vacuum inside. With other tools he cut out a section about four feet long, sealing off the openings as he did so in order that the ship’s atmosphere would not become mixed with the pipe’s system. He brought the section of pipe back to Jack.

“Good, Zip,” said Jack. “Now shape one end into point.” Zip did so. “Now put into slot after I go in. I will put it into place. Then push hard.” Jack left the shoulder pack, leaped a second time to the bottom of the shaft and squeezed through the slot. Carefully and slowly, Zip slipped the pipe into the slot and held it lightly in his hands. Then he felt Jack positioning the pipe as he wished. When long seconds had passed and the pipe had not moved, Zip prepared to push on it.

Just then, Jack emerged partway from a second slot, and waved Zip on. The Starman pressed on the pipe, gradually increasing force. Jack reentered the hidden part of the ship. A moment later he came out again and gave Zip the sign to stop pushing. When Zip relieved the pressure, the Titanian disappeared again.

For two minutes nothing happened. Zip became edgy again, and then one of the panels slid open. Jack came out and motioned that he wanted Karax’s device. Zip withdrew the pipe and lowered the device down to Jack, who then rolled it through the opening. A moment later, the panel closed and Jack emerged from the slot. He leaped back to the level where Zip was crouched and entered the shoulder pack again.

“All good, Zip.”

“Did you find any way we could activate the mechanism to

get to higher levels in this ship?”

“No, Zip. Machinery down there is for hypertravel. Very secure. Hard even for Xenobots to get inside where I was unless they take wall down.”

“Did you see any communication devices, especially realtime transmitters?” It was a hopeless question, but Zip asked it anyway.

“No, Zip. Only hypertravel machinery. Other machinery above, maybe.”

“Hmmm,” said Zip, his brow furrowed inside his helmet. “Well, there’s a way I can climb up the shaft—putting my back to one side and my feet on the other, and ‘walking’ up—but I’ll wait a while to try that. I don’t want to risk having something drop on us and I don’t want to be too far away from the hatch. In case something tries to get inside, I want to be in a position to fight and get outside quickly. Better reattach the shoulder pack so we don’t get separated.”

Moments later, the two companions were back in the entry chamber of the spacecraft.

“I’m glad you’re with me, Jack. Thanks for staying with me. Once again, I’m cut off from Mark and Joe and from everyone I know—except you, this time.”

“I like to be with you, Zip.”

“This time, I don’t know how we’ll get back. We’re in completely unknown territory. We don’t know where we are or what’s outside that door. It could be empty space. It could be a planet. It could be...anything. Odds are, there are enemies.”

Suddenly, a sharp memory came into Zip’s mind. He saw the empty canyons of Old New York, the same view he’d had when he was controlling Turp’s ship, the *Brown Crab*, by compad. He was surrounded by people who were trying to kill him. He felt vulnerable and exposed to the merciless hatred of countless enemies. He shivered. A sharp pang of loneliness and longing came through him. He felt the acute separation from his partners, Mark and Joe, and wondered if perhaps he had let them down by plunging headlong in his determination to board the Xenobot

ship.

More than one person had tried to talk him out of it, including Karax. He hadn't yielded, and now he'd put Jack's life at risk and Tharsos was no closer to analyzing the power station in the neon planet's system. His friends on Tharsos would now have to direct their energies toward finding him and Jack, and abandon their mission to examine a small solar power station and learn its secrets. Finding him and Jack would most likely prove to be just about impossible. In fact, he could not see any way in which he and Jack could emerge from their current dilemma alive. The Titanian was so loyal and so trusting. An overwhelming sense of guilt washed through the young Starman. He bowed his head. His shoulders drooped as if under a crushing weight.

"Maybe nothing outside door, Zip," said Jack, almost brightly. "Maybe we sent to place no one ever come."

~

For half an hour it seemed that way. The friends waited in silence, and Zip debated within himself whether he should open the hatch or not. Doing so would whisk away all the atmosphere in the spacecraft and, little enough oxygen as there was in its composition, outside of his suit's storage system that's all he had. He would tell Jack that if nothing happened in the next six hours, he would open the hatch.

Suddenly there was a loud *clunk* on the outside of the hull and the spacecraft rocked slightly. Zip straightened to his full height of five and a half feet and gripped his laser rifle. He stepped aside so that he would not be immediately visible to whatever was coming through the hatch. His eyes blazed with intensity, his nostrils flared, and his lips tightened.

The hatch suddenly slid open, revealing a passageway ceiled with lurid yellow concentric circles. Several armed Xenobots stood ready to pass into the shuttlecraft. Zip fired the instant he perceived their telltale metallic exoskeletons. Taken by surprise, three went down rapidly with smoking holes in their dull-gray

torsos. The smoke whipped backwards as the atmosphere from the ship Zip had entered surged into the Xenobots' boarding ship.

"Let's go, Jack!" shouted Zip, and leaped toward the open hatch. For only a second, in the shadows cast by his dimmed suit lights, he saw the yawning passageway of the new ship before his view was obscured by four more of the enemy surging toward him. He fired again and speared the first one with his weaponlight, but this time his fire was returned. A laser beam shot past his head and skewered the shoulder pack where it attached to Zip's suit. In swift alarm, Zip whirled counterclockwise to present only a side-body target to the Xenobots and to protect Jack from further assault. The shoulder pack, however, had been loosened and flew off Zip's suit as he spun.

"Jack!" he yelled, his bellow fed by intense alarm. A second burst from enemy lasers seared the space where Zip's head had just been and sheered off the end of his laser rifle. With a snarl the Starman flung his useless weapon down and, turning, sped along the right hand passage toward the opposite side of the ship, looking fruitlessly for the shoulder pack. He came to the place where he and Jack had labored at the bottom of the shaft.

"Aayahhh!" he screamed in anger, frustration, and to release the pent-up energy of battle. Weaponless, he saw the pipe he had used to assist Jack to place Karax's device and snatched it up. "Ah, Jack, Jack!" he lamented with teeth-clenching intensity.

As soon as the first Xenobot bounded into sight in the rounded passageway, its eyes gleaming with hatred and its pistol swinging into position, Zip leaped to the attack with reckless fury. He wielded the length of pipe faster than human eye could follow, holding his weapon with both hands in the middle and slamming his attacker alternately with the ends. Six, seven, eight blows hammered the Xenobot in less than two seconds. The laser pistol it held in its slender, black metal fingers shook with each strike. The metallic casings were too strong for Zip's bludgeon to do any harm to the structure, but the soft tissues inside were violently whipped and shaken.

Sensing an attack from the rear, Zip looked over his shoulder, his face gripped with dreadful passion. Without pausing, shouting a war cry that only he could hear, Zip drove the pipe straight back like a battering ram, its pointed end connecting with the metallic upper body of his second attacker. The force flung the Xenobot backwards into the third that was close behind.

Zip turned forward again and drove the blunt end of the pipe against the first Xenobot, which was still reeling from the vehemence of the Starman's initial blows. The creature flew off its feet. With full force, Zip swung the pipe like a pickax onto its ghastly forehead. Without pausing to see the result he whirled once again and pummeled the two that had come up behind him. The metallic limbs were no match for the speed of Zip's intense, adrenaline-inspired assault. Blow after blow fell on the skull-like heads with such rapidity that the Xenobots had no chance to grapple with the Starman or fall back to safety. For only the first few seconds of the attack, their clutching hands reached forward but were too short to reach their assailant. With each attempt they made, Zip struck downward with the heavy pipe against the multi-jointed arms, knocking them aside before he rejoined his feverish blows on their heads.

Eventually, both Xenobots fell limply to the deck. When there was no more movement in any of the hideous metallic limbs, Zip slammed the pipe down on the deck, yelled to blow off his overflowing energy, snatched at a Xenobot laser pistol, bounded over the two fallen Xenobots, and flew back toward the entry chamber. He almost ran over the shoulder pack, but skidded to a stop and scooped it up before continuing his headlong sprint.

The pack was empty, its connector nearly melted into oblivion by the intensity of the Xenobot's laser attack. "Jack," Zip whispered to himself and he dashed into the second spacecraft. On his way inside, he tucked the shoulder pack between his arm and the side of his body, and in two leaps jumped over his first four attackers. He snatched up a second

laser pistol from where it had dropped and raced down the passage with a pistol in each hand.

Just around the corner he came to the control deck. Two Xenobots were waiting for him. Simultaneously they directed their laser rifles toward the Starman. Zip pointed his pistols at them both and suddenly realized he didn't know how to fire them. They were not designed for a human hand. As a look of alarm spread over his face, the two Xenobots fired their rifles. Both weapons exploded and blasted open the cases that contained the attackers' fleshy bodies. The dark pinkish flesh suddenly turned light gray in the near-vacuum and severe cold of the interior of the ship.

"Whaa—," said the Starman aloud, amazed that both weapons would malfunction at the same time.

Then he saw Jack emerge from hiding under a bulkhead. "Oh, Jack," said Zip, his eyes misting up. Then he dropped to his knees and began to laugh. He laughed and laughed, uncontrollably. Jack climbed into the blasted shoulder pack that Zip had dropped to the floor and re-pressurized it.

"We somewhere now, Zip," said Jack. "I sabotage Xenobot rifles. What is funny?"

Chapter 19: Jack Becomes a Xenobot

"YOU'RE A FINE PARTNER, Jack," said Zip with feeling. "If I've got to be stuck here on this Xenobot barge located who knows where, I'm glad I'm with you."

"What we do now, Zip?"

"We'll see if maybe we can learn to fly this ship and get back to our friends." The Starman gave himself a quick tour of the bridge. There was no window, and the few screens in evidence were small. Operative switches, connectors, and other paraphernalia were outlandish and unrecognizable.

"Hmmp!" he snorted, "this is a lot different from the ship Joe

and Mark flew to Mars with. This,” he spread his arms, “is made for Xenobots, not humans. Can you understand any of it, Jack?”

“I explore.” The little humanoid figure left the shoulder pack and returned to the space under the bulkhead.

Zip saw that the apparatus was made for the long, thin digits that served the Xenobots as fingers. He might be able to operate some of them with the tools in his kit, but of course he’d have to know what he was doing first. The Starman shook his head and exhaled with frustration.

There was little to see. There were two short corridors, one of them the passageway that was still connected to the craft that had snatched them from the neon planet. The other led only to a few doorless rooms that contained nothing identifiable or remotely attractive. Zip felt a vibration in his feet through the floor of the ship and concluded that the propulsion system was still running. He returned to the bridge.

While Jack continued his exploration, Zip overcame his repugnance and approached the fallen Xenobots, and knelt down to get a close look. The explosions of the laser rifles had shattered the torso casings of both creatures. The flesh inside had turned a chalky white and apparently become a solid, frozen block. Zip stared closely into one of the shells at the peculiar remains inside. He curled his lip and his nostrils twitched. He recalled the stunning photographs that Mark and Joe had brought back from the gallery on the “moon” where they had been taken the summer of the previous year. He pictured the images of a beautiful race, and he remembered Mark’s innocent question to Jogren and the Ahmanyen’s unsettling answer.

What happened to the Lucians? the big Starman had asked.

They still exist. My friend, you have met their descendants. Today we call them the Xenobots.

This frozen, chalky, dead thing inside its broken case was a Lucian, a descendant of one of the First Races, responsible for bringing such evil and pitiless violent death to uncounted planets. A sudden powerful feeling of unease came over Zip as he gazed through the cracked and blasted casing.

The redheaded Starman retraced the steps he had taken moments earlier with such speed and fury, this time treading slowly and carefully. He stopped at each unmoving Xenobot in the passageway to peer closely into the faceplates. The four that were tumbled in the corridor were clearly dead. He had blasted them with his laser rifle, and their metal and crystal torsos were pierced.

What of the other three, the ones I struck with the pipe? he asked himself, *Are they dead or just stunned?* He crossed the boundary between the ships into the entry port of the larger spacecraft that had taken him and Jack from the neon planet. With dismay he noted that the fury of the Xenobots' attack had taken a great toll on the bulkhead. The Starman peeked through one of several openings that had been burned in the metal barrier and felt his heart drop within him. He saw that the apparatus inside had been ripped and melted by the powerful laser blasts his enemies had fired at him. They had shown no restraint whatever in their intent to kill him. The hypertravel apparatus was beyond repair. He and Jack had no quick way back to where they'd come from—or to anywhere else.

As he rounded the narrow walkway in the other ship, he stepped gingerly. With a measure of relief, he saw that the Xenobots had not moved from where he had left them. With trepidation he approached one, alert for the slightest movement, and peered into the face. The eyes were clearly dead. The other two Xenobots were in the same condition. The metallic arms were limp and flexible.

I think they're dead, but who's to know for sure? thought Zip.

He retraced his steps to the other ship and noted that Jack had returned to the shoulder pack.

"Find anything, Jack?"

"Some things easy to understand, other things confusing. Mostly this ship simple. Not made for journey through wormhole. This ship is small shuttle. Xenobots use electronics and artificial organs to move and control things. Now I can show you how to use screens, operate some equipment. Fusion engine

still running.”

“Good work, Jack. I think we should retrieve Karax’s device from the other ship and put it aboard this one, then detach and try to find out where we are.”

“Difficult, Zip. Many parts of this ship I cannot understand. I have to be Xenobot to know.”

An inspiration flashed into Zip’s brain. “Jack!” he exclaimed. “If we open one of the Xenobot’s casings, do you think you could tie in to their internal circuitry and maybe get access to their ship’s workings, or other information, or whatever else might be possible?”

“How, Zip? These Xenobots broken.”

“There are three on the other ship! They’re not broken. The living organism inside is dead but the electronics should be intact.”

“I try, Zip. Maybe so.”

For some time, Zip and Jack worked with vigor. First they retrieved Karax’s data and tracking device; for the time being Zip placed it inside his suit tool kit. Then they dragged one of the Xenobots that had not been struck by a laser into the shuttle but deposited all the others into the craft that had launched from the neon planet.

“Well,” said Zip, “let’s see if we can crack the shell of this mollusk.” He began by withdrawing an atmosphere tester from his tool kit and placing it against the side of the skull-shaped casing. “Here goes,” he said, and activated the item. It quickly made a tight bond with the plate and then pierced it with a needle. The reading showed a warm, stultifyingly humid, chemical-laced atmosphere, thick and heavy. After the reading, the Starman removed the tester without sealing the hole he had made. The atmosphere whistled out. The mottled flesh around the dead eyes, what little of it he could see, turned gray and then white.

Next, using his atmosphere tester as an awl, he made several dozen holes on a line from below the Xenobot’s chin up to the brow, and then over the head all the way to the nape of the neck.

Then he employed a small cutter until he was able to make a complete incision connecting the holes he had made. Then the Starman leaned back and closed his eyes. He tried to calm himself before making the attempt to remove the Xenobot's head covering.

When he was ready, he swallowed and compressed his lips, then looked downward again toward the body of his enemy. He was more reluctant than he thought he would be to look upon the frozen, dead face of the Xenobot. He stopped a moment and just stared.

"Why you wait, Zip?" asked Jack. "Open like shell," directed the Titanian, back inside the shoulder pack.

Zip reached out both hands and gingerly separated the two sides of the head covering as if it were a walnut. Inside was a withered, white, hairless head. The nose and mouth were only barely recognizable, not having been used for uncounted eons. The eyes were lidded and unevenly open.

The Starman quickly closed his eyes again, turned his face upward, and brought his racing heart and churning gorge under control. His mouth salivated with an unpleasant, metallic taste.

"This is hideously repulsive," said Zip after a moment—to break the silence more than for any other reason. Once again in control of himself, he looked back down. On the inside of the now open head-casing he saw a series of electronic terminals, miniature circuits, plates, and crystals.

"I understand Xenobot now," observed Jack, watching Zip work.

"You understand? What do you mean, Jack?" Zip asked.

"This being is cyborg. Want never to die. We know Xenobots once look like us. I think long time ago they become part machine so machine help them think and stay strong. Machine not always work enough so they add more machine. Use machine for hands and feet and ears. Machine always repair itself, so Xenobot stay inside machine, take away living hand and foot. Take away most of living body. Use only machine to work. What wrong, Zip?"

Zip had stiffened up and stopped working. His eyes were gazing into an imaginary distance.

"Jack," he said, his voice taut with stress, "you're right! That explains everything! It's..." The vision of an advanced race that had become so unbalanced overwhelmed Zip with horror. The Lucians had tried to protect and perpetuate themselves at any cost and had become monsters. With his eyes wide open he stared back down at the face of the dead Lucian.

"Jack? Can you connect with those circuits down there and learn something?"

"Okay, Zip."

The Titanian crawled out of the shoulder pack and began to examine the circuits on the inside of the Xenobot's head covering. A moment later one of the metallic arms twitched. Zip leaped back in unthinking alarm.

A few minutes later, Jack scuttled back into the shoulder pack.

"Put shoulder pack on top of Xenobot head, Zip," said Jack. "I connect to Xenobot's electronics."

Zip placed the shoulder pack over the expressionless, dead-white head, more relieved to have it out of sight than he would admit.

Before too long, a voice spoke inside Zip's suit intercom.

"Connecting now, Zip," said Jack. "I talk now through Xenobot machine."

"Great work!" complimented Zip. He rubbed his hands together with excitement, his previous revulsion forgotten. "What else can you do?"

"Need more time. Wait."

While Jack worked, Zip chafed. He stood up and paced. Frustrated by the lack of viewports, there was nothing for him to do.

A metallic, scraping sound came through his outside detectors. He turned and saw the Xenobot scramble to its feet. Its arms began to wave, almost like an octopus in water.

"Jack?" began Zip, hesitantly.

“Now I am Xenobot,” came the Titanian’s voice. “It is good. I can talk to you by suit intercom as before. I can also see and know like this Xenobot. I move now to controls. What we do now, Zip?”

“Let’s...” Zip gulped and then he swallowed. “There’s no airlock,” he said, “so we’ll just have to shut the portal and break free.”

The Jack-Xenobot shuffled over to the control deck. After a moment a metallic hand reached out and touched the panel. The hatch at the end of the corridor closed and sealed, and the shuttle disconnected from the other spacecraft.

“Now we see what is outside, Zip. We discover where we are in space.”

Without warning, the interior of the ship became filled with light—the celestial light of an unthinkable number of stars.

Zip gasped. “What did you do, Jack?”

“Operate mechanism for visibility. Walls of ship become transparent, so we see outside.”

The mechanisms and connectors, furniture, and interior walls remained opaque, but the exterior walls seemed as if they had vanished. To one side of the shuttle the greater hulk of the spacecraft that had pirated them from the neon planet blocked the view, but the rest of the sky was comprised almost entirely of stars. Zip gazed spellbound at the unutterable beauty of the luminaries around him. He had never seen so many stars, had never dreamed that so many could be in such close proximity to each other.

“Omega Centauri,” he breathed. “The Xenobot craft jumped us from the outskirts of the enemy’s territory to its core—or close enough. I’m going to connect with your system, Jack, through my compad and see what I can figure.”

“Okay, Zip.”

Zip bent his left arm so that he could manipulate the controls on his compad. Connected to the Xenobot network through the shoulder pack and the link Jack had established through the Xenobot’s exoskeleton, he figured out their position.

“Hoo!” He shook his head. “We’re about six light years from Tharsos and less than a light year from the center of Omega Centauri. I don’t know where the Xenobots’ home planet is but we can’t be far from it. Do you see any other ships nearby, Jack?”

“Many ships, Zip. Many ships nearby. Much activity. Ships moving. I think many machines. No one pay attention to us. Much junk, too. Many pieces of ships or maybe other kinds of machinery. Junk floating. Some machines push junk into one place so no ship collide with junk.”

“I guess we’re able to escape notice because there are so many Xenobot ships here. If we were by ourselves, we probably wouldn’t last any longer than a grasshopper in a chicken yard, as Mark would say.”

“What is grasshopper?”

“It’s not important, Jack. I mean we’re lucky there are so many Xenobot ships here. We can hide in the crowd—at least for a time. Somebody’s bound to miss this shuttle before too long. Can you intercept any communications?”

After a moment, Jack said, “Much noise in communications, but I cannot understand it. It is electronic noise. Goes very fast.”

“Maybe I can do something about that. Feed the ‘noise’ to me, Jack.”

The resulting translation was disappointing. There was simply not enough communication in the Xenobots’ exchanges that was intelligible to English-speakers.

“Well now, I guess there’s nothing to learn. So we’ve got two possibilities before us, I think,” concluded Zip. “I’m sorry to say that the other ship’s hypertravel capability has been destroyed.” He told the Titanian what he had discovered in his search. “So either we try to attach ourselves to one of the Xenobots’ bases and use their realtime transmitter to contact Tharsos, or we use this ship to escape from this Xenobot beehive. And I think the choice is easy.”

“We cannot escape. Even if we try and succeed, we cannot travel six light years to Tharsos in this shuttle.”

“Right. So we have to find and break into a Xenobot base.”

“Xenobot base near here, Zip. Big Xenobot base.”

“Where? How far away?”

“Short hop. This is simple shuttlecraft. It come from big base. Big base is on other side of ship we arrive in. Can’t see it from here because other ship is in the way, but base is very big.”

“Let’s take a look. Can you move us forward a little so the other ship isn’t in the way?”

“Sure, Zip.”

Inside the Xenobot shell, Jack applied a tiny amount of thrust to their shuttle. It moved ahead, leaving the other craft behind.

When he saw what had been concealed from their view, Zip was struck speechless. Aghast, he stared at the staggering sight that revealed itself as the shuttle eased forward.

“S-s-stop, Jack,” he managed to stutter. The shuttle ceased its motion.

Before the Starman’s horrified eyes a monstrous structure wheeled in space with a large bright star as a backdrop. The artifice was a partially-constructed torus with a sphere in the central opening. His hands shaking, Zip consulted his compad.

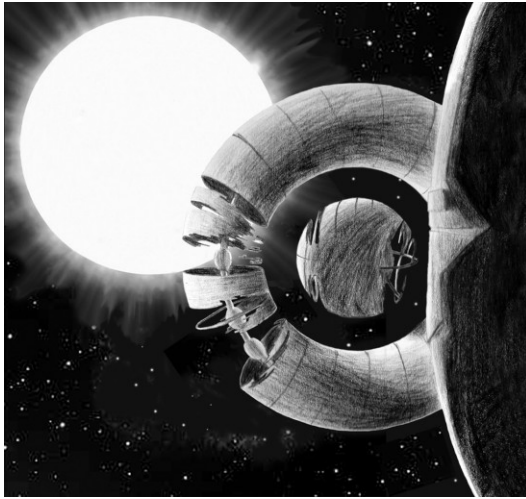
“I-it’s nearly thirty miles across,” he stammered, “and that sphere in the middle is more than four miles in diameter!”

“I examine it now, Zip,” said Jack. “Sphere is, I think, solar power station. Much bigger than power station for neon planet. Other big machine creates wormhole. Uses much power. Power from all these stars goes into that machine. It makes wormhole to send power station across galaxy. Maybe to our Solar System.”

Chapter 20: A Knock on the Door

JACK’S NEWS APPALLED ZIP as he stared at the immense project, two-thirds the size of Tharsos itself. All at once he fathomed the Xenobots’ plan. When the wormhole transporter was complete, it would create a pathway leading from Omega Centauri all the

way to the Solar System. Then the power station would appear suddenly around the Sun, fully operational and most likely able to fend off any attackers by drawing on the Sun itself for energy. The invasion fleet could then cross through hyperspace in overwhelming numbers, and arrive fully powered. The Xenobots had learned that they could not assemble a solar power station around Sol, so they were drawing on their greatest natural resource—solar power—to create the largest hyperspatial transporter ever made, and then send the power station and their armada directly from their own system.



*A monstrous structure wheeled in space
with a large bright star as a backdrop*

With dismay, Zip knew that Earth and Ahmanyia could not resist such an attack! So far, the alliance had been able to prevent the Xenobots from building a solar power station in the Solar System, *but soon that would no longer matter!* He was amazed that the Xenobots had been able to assemble such a construction. All indications had been that they lacked the ability to do so.

What he was seeing was a terrible blow!

“Jack!” burst out Zip. “We have to warn Earth! We have to contact Tharsos! We need a realtime transmitter!”

“No transmitter on this shuttlecraft, Zip,” explained Jack. “Transmitter on other ship?”

“Take us back. Reconnect us and we’ll search the ship!”

“No transmitter there, Zip. I read this Xenobot’s circuits now. Ship that brought us through wormhole is drone only. It supposed to monitor small power station, but if Xenobot enter that ship, it come to this system. I think when we enter that ship, it come to this system by itself because it think Xenobot inside. Then Xenobots we fight come to drone in this shuttle to see why it arrive but no Xenobot come out. I think soon, Zip, other shuttle come to see us because this shuttle not return to base.”

“What else can you find out, Jack?”

“I do not know Xenobot plan or language, Zip. I only figure what Xenobot machines do.”

Zip bit his lip in fierce concentration. His forehead furrowed and his thoughts raced.

“We can’t go back and we can’t stay here. We’ve got to go to the wormhole transporter and find a transmitter there.”

“Many Xenobots and very many robots there, Zip.”

“I would expect that, but there’s no other possibility. Do what you can, Jack, and see if you can find a dock for us on the transporter.”

“Okay, Zip.” The shuttlecraft began to move slowly away from the drone ship that had brought them six light years away from their friends and toward the enemy’s primary offensive weapon.

Suddenly Zip laughed. “The Xenobots will never guess that a lone Earthman and a lone Titanian would attempt to sneak into their transporter with no weapon but an iron bar.” He laughed again. “I think I’d better take a look at their laser pistols and see if I can find out how to use them.”

“I help you, Zip. Xenobot weapon easy to use.”

With Jack’s help, it was only a matter of moments before Zip

figured out how to use the Xenobot laser pistols. The Starman took possession of two of them. Then they gave their attention to the Xenobots' enormous wormhole transporter as the shuttle followed a course that drew it toward the object. Like wasps around a hive, Xenobot ships were going and coming or hovering nearby. In another section of the sky, Zip could see a large fleet of spacecraft of typical Xenobot design. Hundreds of warships were assembled, with behemoth craft scattered among them. *The armada waiting to invade our Solar System*, he concluded. *They'll send the solar station through, and then those warships will follow.*

Zip could feel his heart pounding as the shuttle made its final approach. He could see that the torus was in a slow rotation that would create a small measure of artificial gravity. He quickly estimated that the rotation would provide one-eighth G.

"Can you find the best port for us, Jack?"

"I think maybe so, Zip. This torus has more than 200 ports. Most are docks for worker drones. We can enter torus at one of those. Docking program make it simple."

"Can you find out where the realtime transmitters are?"

"Hmmm, not yet. Where transmitters are, Xenobots will be too. Where there are mostly robots, no transmitters."

"Maybe you will be able to find a terminal somewhere and tap into it without getting near any Xenobots."

"We get inside torus first. Then we see."

Zip didn't answer. He felt a marked tightness in his throat and dryness of mouth. His mind was determined, but his body was reacting to the sense of growing proximity to mortal danger.

Suddenly the intensity of the sunlight dimmed noticeably as the shuttle crossed into the shadow of the torus. As their ship passed out of the harsh light of the nearby sun, the still bright but diffused starlight revealed details of the immense object. Zip could see countless black, non-reflecting panels that he assumed were energy receivers. There were also connectors, panels, and here and there an aerial. In a few places hangar doors were wide open, with several spacecraft visible inside. Drones and

freighters lumbered through space, attaching to or detaching from loading docks. A dozen or more in his vision were fixed to the side of the torus.

On the side farthest from their line of approach was the portion of the immense wormhole transmitter that was still incomplete. There were gaps in the construction, and a flurry of freighters was concentrated in that area.

“Something strange,” reported Jack. Zip stiffened, waiting for the Titanian to say more. “My mind feel like inside big organism. More and more, many thoughts move and connect, very fast. Much activity in place where there is construction. We go there.”

Zip was surprised. “We’re going where there is the most activity? *Why*, Jack?”

“Easy to hide there if we want to be near place with realtime transmitter. Maybe one there. Dock nearby.”

Zip was assailed by a strong feeling of doubt about Jack’s prudence. His small companion could not understand completely the complexity of the issues involved. Moreover, the Starman wondered whether connecting with the Xenobots’ universe through the exoskeleton were clouding Jack’s ability to reason. Jack was flying their ship boldly through the Xenobots’ immense workspace without any noticeable regard for caution.

Now they entered the beam of bright sunlight that passed through the center of the torus. A few seconds later they passed over the giant solar power station itself. As long as he could, Zip stared downward as their shuttlecraft cruised over the huge sphere. Although in a few places the surface was incomplete, it was evident that the unfinished labor was only cosmetic. Zip felt a clutching tightness in his chest as he realized that the solar power station was already operable.

They are planning to place that ball into orbit around our sun, he thought. *At all costs, they must fail. The gray and black sphere fell behind and out of view.*

“Dock up ahead, Zip,” said Jack. His Xenobot arms awkwardly manipulated a few controls on the panel in front of him.

Zip could see where Jack was taking them. There was an opening straight ahead where they could link their ship. A freighter was attached to another port directly to the right of the opening that was Jack's goal. A half-mile below, the massive inner face of the torus came to an end and exposed girders and pipes continued beyond the finished surface. An abundance of freighters, worker ships, and dozens of robotic drones carried panels and other materials.

Then, in a moment, the Xenobot shuttlecraft made its final approach to the dock. Jack decelerated and turned the craft to one side. It snuggled up to the portal and clicked into place. The Titanian switched off the engine.

Without a word, the Starman and his companion moved to the hatch that led into the torus. Not knowing what to expect, Zip carried laser pistols in both hands. They were aimed forward, and the iron pipe rested across his bent elbows. "Open it, Jack," he said. Jack reached out and manipulated a control on the wall, and the hatch slid open. The scant illumination from the shuttlecraft revealed only the first few feet of the passage. Beyond was complete darkness.

"When we get inside, the direction and strength of gravity will change," he told Jack. "'In' will become 'down'. Let's hope we don't have far to go, or at least have something we can grab onto." The Starman shined a beam of light into the passageway and saw that it came to an end about thirty feet away, where it joined another avenue in a T intersection. Zip adjusted his suit lights on low and stepped across the threshold into the colossal wormhole transporter. He dropped thirty feet, but at such low gravity it felt like a leap of only three or four. Landing with knees flexed he came into a crouch and looked quickly in both directions.

"No Xenobot nearby, Zip," said Jack from above, where he waited in the exit passageway of the shuttlecraft. "Some Xenobots down corridor toward construction. Long way away."

"How far?" asked Zip as he turned in that direction and stared down the gray passageway until it curved out of the reach of his

light.

"Maybe half mile, maybe less."

"Can you tell how many?"

"Hmmm, maybe four or five. Other electronics, too. I think workers for construction. Very busy. Hard to read electronics."

"Maybe that will be good. It will mask our own electronics."

"I drop now, Zip?"

"Sure, Jack." Zip set his lasers and the iron pipe down and prepared to help Jack with his descent. The Xenobot shell that Jack had commandeered lurched forward and fell clumsily down the shaft. The Starman steadied the ungainly contraption and kept it from slamming hard onto the floor.

"You okay, Jack?"

"Hard fall, Zip. Hard for me without something soft to protect me."

"Did you get hurt?" the Starman asked with apprehension.

"Everything okay."

"Well, then..." Zip picked up his weapons and began to tread down the corridor. As he moved forward, cautiously but deliberately, he glanced at his instruments. He had enough air for about two days at the most. His NPAC had filled his storage tank with the proper oxygen mixture from the strange atmosphere on the neon planet, but it had nothing to draw from in this environment. His system was recycling his air but the oxygen was gradually being depleted.

Two days. And before that time, he would begin to suffer from oxygen deprivation. He'd get a headache and joint pains, and then feel sick to his stomach. Then muscle pains. Then in the advanced stages, pulmonary and cerebral edema before drifting into a coma and death. He figured he had maybe a day before the early symptoms began.

He noted further that it had been about sixteen hours since he'd awakened. A lot had happened since he and his friends had waited in the dense and moist woods for the morning fog to thin out on the neon planet, but he still had plenty of time before he'd begin to feel tired.

Low as his suit lights were, he dimmed them still further until he reached their lowest setting. His eyes were well adjusted to a minimal level of illumination and he could see far enough ahead to maintain his pace. The Starman was fully alert for anything that might disturb the silence and darkness of their passage.

Zip estimated that there were about ten miles of metal beneath his feet, probably crammed with conductors that could harness a staggering amount of stellar energy. The enemy was making the most of its abundant resource: the light of countless stars. How ironic, thought Zip, that starlight should be the greatest threat to what Starlight Enterprise and its many allies stood for.

Abruptly, Zip stopped thinking. He had caught himself daydreaming when he needed to be able to respond faster than thought to any threat. The very survival of the Solar System may depend on his ability to find a realtime transmitter. The Starman glanced behind him for a split second and saw that Jack was close behind, becoming proficient at the awkward gait of Xenobotic motion.

When Zip looked forward again, he came to a sudden stop. A minimal hint of grayness showed ahead.

"Anything up ahead, Jack?" he asked.

"End of passage soon. Much work."

"Know how many Xenobots yet?"

"Five. Many drones. Cannot tell everything, Zip. But only five Xenobots."

The Starman resumed his pacing, his eyes fixed ahead. He held the iron pipe across his elbows and the laser pistols in his hands. The grip was awkward but necessary if he were to be able to use them.

Before long he saw the end of the passageway. The gray light had become a bright opening that framed a view of open space. He paused a moment to see if there were any activity that might cut across the aperture, but he saw none. Slowly he advanced until he came to its end. He peered out.

Overcoming a slight feeling of giddiness, he gazed at the break in the construction of the immense torus. A mile or so

away the work was complete, but in between was a complicated latticework of girders, frames, and conduits. Many, but not all, of the conduits had already bridged the gap and, at least two miles below, the core of the great loop was complete. *The power circles they need have no gaps in them*, he observed. *This wormhole transporter is probably operational right now—maybe not at full power, but still operational.*

Having seen the wide view, he scanned the area for details. He increased the magnification level on his helmet's viewscreen and watched the work. Many freighters hung suspended in space, with robotic workers emptying what appeared to be debris from spacecraft or other sources. Some pieces were huge panels or chunks of machinery, but much was smaller pieces. The workers herded the junk into one of several enormous machines. The machines were open at one end to receive whatever the workers threw into it. At the other end, girders and panels or other finished material were extruded. Different robotic workers by the dozens took control of the finished material and guided it to the construction site.

"Xenobot ship there, Zip," Jack declared matter-of-factly. The Starman looked where his ally was pointing and then gave careful attention to what he saw. About a quarter of a mile away, among the several dozen freighters and supply ships scattered with apparent randomness in the space before them, there was a ship with a unique design.

"That's a control ship, or I'll shave my red head," said Zip grimly.

"Why you shave your head, Zip?" asked Jack.

"Just a saying, friend. I mean that that's where we're going. We're going to take over that ship somehow. It looks big enough and important enough to have a realtime transmitter aboard. Let's hope." Thinking quickly, he outlined his plan to Jack. Then they both leaped away from the end of the passageway into open space. The feeling of gravity, slight as it was, disappeared as they broke contact with the spinning torus.

Zip, followed closely by Jack, leapfrogged through space, flying from one piece of debris to another and keeping under cover as much as possible. Before long they came to the control ship and made the final approach from behind. Using the “smart-grip” function of his boots, Zip clambered quietly over the hull until he found the entry hatch. Jack took up a position directly in front of it. Then Zip set his laser pistols aside and took the iron pipe and pounded on the portal. Then he gripped the laser pistols once more.

The hatch opened. Two Xenobots were suddenly confronted with the sight of a Xenobot shell with a strange split-open head. In the split second that passed, Zip hurled himself around the edge of the hatch and fired his two pistols simultaneously. Then he reached in and threw the dead Xenobots outside. He entered the ship, felt the gravity grid take hold, and then sped down the passage, followed closely by Jack.

“Turn right, Zip!” urged Jack behind him. Without questioning the Titanian’s command, Zip took the first passage that opened to the right. Straight ahead but thirty feet away he saw that this was the corridor that led to the control center. He flung himself into the bridge, shooting again and dispatching two more Xenobots that were close at hand. One last Xenobot at the far side of the bridge was rapidly manipulating controls, but was skewered by two simultaneous laser beams.

“Any more, Jack?”

“No, Zip, but I think maybe that last Xenobot send message. It make big electronic activity.”

“Nothing we can do about that now. Do you see a realtime transmitter here? Hurry!”

Jack stepped up to the control deck and examined the equipment. Zip waiting impatiently for the Titanian to make the analysis.

“Here, Zip,” said Jack at last. “This realtime transmitter.”

Relief washed through Zip. “Activate it, Jack! Set it on Tharsos!”

“Sure, Zip.”

Suddenly the Starman's attention was drawn outside. He saw a large robot with hideous-looking arms, long and multi-jointed, shooting toward them. It passed out of view toward the still-open hatch.

"Keep working, Jack!" exclaimed Zip as he whirled and ran back down the passage. "I've got to stop that robot from getting in here. If I don't come back, you've got to deliver the message!"

When he rounded the corner, he noted with satisfaction that the robot had not yet entered the ship. The Starman, holding his laser pistols in front of him, moved gingerly to the opening. Much to his amazement, he saw that the robot had gathered up the two Xenobots he had thrown outside and was moving away with them. Not taking the time to puzzle over the incident, he returned to the bridge.

"That thing took the Xenobots away, Jack, but if you can close the hatch I'd feel a little safer."

"Okay, Zip. That robot programmed to find floating pieces of junk and take it to big machine that make building supplies for transporter. It sense that dead Xenobots were broken and took them away."

Zip's eyes opened wide with surprise. "A little ghoulish but somehow fitting," he said. "How are you coming with the transmitter?"

"Few seconds, Zip." Then, "okay now. This machine ready to hear you talk."

"Attention! This is Starman David Foster with an urgent message! It is imperative that this receive the highest priority!" He continued to give complete but concise information about the Xenobots' plans and to provide the location of the wormhole transporter. He concluded, "I am aboard one of the Xenobot control ships which I have commandeered. It is essential that you inform the authorities in our Solar System of this imminent threat against them, and then come to this space at once and destroy the wormhole transmitter!"

"Message received, Starman Foster!" came the response. "We are delighted to hear from you at last! We'd about given up

hope.”

The Starman signed off, and then slumped down in relief.

Chapter 21: Blitzkrieg and Aftermath

AN INSTANT LATER, Zip’s head shot up and his eyes opened wide.

“Jack!” he cried. “Tharsos is coming here, maybe seconds from now, to destroy this contraption, and we’re just about in the center of the target! Quick, quick! Open up the realtime transmission again and get us out of here!”

Before Jack could respond, the ship rocked and spun with sudden violence. Tharsos had appeared in the very center of Xenobot territory and launched a lightning-fast assault on the giant wormhole transporter. A high-energy electromagnetic pulse blew through space. As his spacecraft tumbled, Zip saw unsecured panels and girders in the construction zone twist and detach as if captured by a hurricane. Freighters, refinery-ships, and robots caught in the open were flung about like leaves in a gust of wind, Zip’s spacecraft among them.

Completely out of control, the ship collided with the wall of the great torus, then slid and bounced along its curved surface toward its center. It came to the gap between the inner wall of the transporter and the enormous solar power station. Then, spinning more slowly, it slipped through into the open space beyond.

Zip and Jack had been thrown to the bulkhead and pinned there as the spacecraft went through its gyrations. Bounced, bruised, and disoriented, Zip’s mind was assailed by bitter self-recrimination. He had been so single-mindedly intent on delivering the warning to Tharsos that he had given no thought whatever to his own safety. Of course his friends on Tharsos would assume that he had placed himself out of danger before he had called for an urgent attack! And now he was caught in an enemy ship as his allies released their fury. Even worse, he had

unwittingly put Jack in mortal danger for the second time that day.

“Jack!” he called out with an effort.

“Here, Zip.” The Starman winced as he heard the effort in his friend’s voice.

“Can you get control of the ship?” He saw the Xenobot body stretch out one tentacle to grasp the edge of a counter and pull the metal shell forward. In three stages Jack dragged himself back to the control deck and began to activate the controls. The ship slowed its spin and stabilized. Zip regained his feet.

“Can you contact Tharsos?”

“All circuits damaged, Zip. Realtime and radio transmission impossible now.”

“Oh, Jack! We’re in trouble! Our friends may turn us into stardust! Take us out of here! We’ll try to reach them later.”

“This ship crippled now. Only few circuits work. No radio, no fusion. Only small jets for moving small distances.”

“Hnngh!” Zip expelled a breath in frustration. “Well, can you turn us around so we can see what’s going on?”

“Okay, Zip.” The spacecraft spun slowly until it was facing back the way it had come, although it was still drifting away. The torus filled the viewport. Tharsos was on the opposite side, out of view. The huge wormhole transporter was sparking. Xenobot ships in great numbers were racing toward Tharsos. Zip could see many of the enemy warcraft break up into flaming fragments in waves. He began to exult, thinking that Tharsos would prove to be a match for all the Xenobot warships in their armada.

All at once, the sparks on the surface of the torus surged in intensity and began to pulse. Whirls of light began to run the circle with increasing power. Then, as the Starman watched, the solar power station disappeared!

“Oh no!” Zip shouted. “They’ve sent the power station through a wormhole!” The transporter continued to grow brighter and brighter, and then it became clear that it was overloading. Fiery gaps appeared in several places on its surface. The torus fell into pieces, each one being consumed by electric

fire. A chain reaction had started and the great wheel was quickly fragmented and consumed by explosions.

The battle appeared to be over. Zip couldn't see much from the far side of the glowing wreckage that had been the wormhole transporter, but the Xenobot warcraft were no longer flying to the assault. Such few ships as he could see were either drifting without power or moving among the debris without urgency.

"Tharsos is gone, Jack! Can you repair the realtime transmitter?"

"I try, Zip."

For the next half hour or more, Jack tinkered with the equipment in the partially crippled ship. Zip kept a restless eye on the events transpiring in the space on the other side of the wreckage of the Xenobots' giant wormhole transporter. He began to see a pattern that raised his level of disquietude.

"Are you making any progress, Jack?" he inquired at last.

"First attack was disrupter of electronics, Zip. Circuits part dissolved. I think maybe I can fix realtime transmitter with much time if I take parts from other machines. Big job."

"I'm afraid we don't have much time, Jack. The Xenobots have moved in several huge transport ships, and they're scooping up the smaller warships that aren't damaged too badly. The others, they're...they're destroying and then separating out the remains—probably for later recycling. The transport ships look big enough to hold a hundred or maybe even two hundred spacecraft the size of the one we're in. Before too long we're either going to be herded inside a transport or blown to pieces."

"Where is Tharsos, Zip? What about locator beacon on this ship? Why they not find us?"

"It's likely the beacon's circuitry is as damaged as the rest of this ship's electronics. And now Tharsos is gone. I didn't see what happened to it, but we know they wouldn't have abandoned us deliberately. They were either too pressed in the battle to check for our signal or they were damaged in the counter-attack and had to retreat." The Starman swallowed. "At least they destroyed the torus. The Xenobots' warfleet isn't going to make

any sudden incursion into our space at home.”

“What we do now, Zip?”

“Keep working on that realtime transmitter. It’s all we can do for the present.”

~

Much later, two robotic scavengers approached the ship carrying the Starman and his small ally, took hold of it, and began to ferry it toward a transport ship. The spacecraft was carried into the great maw of the open end of the transport and set down on a deck where over a hundred other ships were being assembled in close quarters.

Dozens of Xenobots were on deck, many of them having been inside the disabled warships that the scavengers had brought aboard, and others apparently part of the transport’s crew. Robotic mechanics and engineers were moving from ship to ship to analyze the extent of the damage each had sustained and to begin repairs.

“We’re safe for the moment, Jack,” reported Zip. “They’re starting at the far end of the deck with the first ships they brought in. We’re one of the last ships that were loaded, but they’ll get to us eventually. I think, maybe, the thing to do is to try to commandeer one of these large ships. We’ll need one with a working realtime transmitter and hypertravel capability.”

For a moment Zip had an acute sense of loneliness. He imagined Joe looking at him with a stunned look on his face and telling him he was crazy. But there was no one to tell him that his plan was foolish, but even if they did they’d follow him because they couldn’t think of anything better. Jack, Zip knew, would do whatever he decided without question.

“Oh, Zip,” said Jack suddenly. “My head feels heavy. There is pain.”

“What is it, Jack?” asked Zip, his words sharp with concern.

“Xenobot organism stirring with hatred and anger. Very strong. Hurts my mind. Very strong in this ship. Many Xenobots here.”

“Maybe you should disconnect from the Xenobot shell.”

“I think so. Xenobots feel something strange on this ship.”

Zip inhaled sharply. “Jack, get outta there! Now!” he shouted.

Jack hastened to disconnect himself from the Xenobot exoskeleton. Then Zip removed the shoulder pack from the shell and reconnected it to his spacesuit.

“How are you feeling now, Jack?”

“Okay, Zip.”

“We have to leave this ship now and try to find someplace to hide. It isn’t going to be any help to us anymore anyway. Can you fix the locator beacon?”

“Need to look at it, Zip. Maybe now we have time.”

“Maybe we will. If we’re lucky enough to find a larger ship in good working order, we can take it for our own. That beacon may come in handy yet.” He straightened, took a quick glance around, flexed his shoulders, turned, and walked down the corridor to the hatch that led outside. Once again he took the laser pistols in both hands, then activated the control that opened the portal. The hatch slid open.

~

Far away, in a near-empty part of the galaxy, Tharsos hung suspended in solitary quiescence. Over much of its surface there were places where a haze of droplets rose in gossamer clouds. There were few stars close by. Only rarely did a transitory particle in the vapor catch the light and sparkle before dissipating in the emptiness. Mostly the dark asteroid lay veiled in the black interstellar void.

Inside, having sought retreat in the personal quarters of two friends, a distraught woman was in tears, her anguish nearly inconsolable. One of her friends stood apart, silent and ill at ease. The other lay nearby on a couch.

“I couldn’t allow us to stay any longer,” the woman protested, her beautiful, long, thin fingers raised in helpless

appeal, her voice breaking with grief. "We had to give ground, or we would all have been killed!"

"We know, Pleera. We know," said Mark from where he lay on the couch, the tightness in his throat making his voice hoarse. When Pleera covered her face and began to weep through her fingers, the Starman took hold of a walking stick and levered himself up to a stand. Though his leg was wrapped in a splint, he hobbled a short step or two forward and gently, tenderly, slowly, almost shyly, took the Ahmanyar into his arms.

As she felt his embrace, Pleera opened her eyes in shock. "Mark," she cried, "you shouldn't be standing!"

"I'm not putting any weight on my leg. It's okay."

Freely taking comfort in the big Starman's arms, Pleera sobbed again. "Oh, Zip, I'm sorry, I'm sorry we couldn't find you. We lost you and found you, and then lost you again." She continued to pour out her sorrow. Mark lifted his right hand and caressed the back of her head.

Hesitantly, Joe, dry-eyed but still silent, approached the two of them and wrapped his long arms around them both. He couldn't imagine a world without Zip.

"Maybe they're okay," he said at last, after Pleera's outburst had subsided and no one had spoken for a long time. "They must have been in a safe place when Zip called us. Maybe we can go back and try to pick up the locator's beacon."

Pleera's tear-stained face looked up. "I was looking for the beacon all the time we were in Xenobot space," she said. "No matter how intense the action, I wouldn't have forgotten them. If they were in the area but outside the range of the EMP, we'd have found them. But there was nothing—no sign of them."

"Zip never told us where he and Jack were," contributed Mark. "They could have been anywhere."

Pleera lowered her eyes. "I launched the disrupter the instant we crossed hyperspace," she said. "It would have disabled the locator if they were in the Xenobot territory."

"It's not your fault," soothed Joe. "It would be just like Zip to be in the thick of things, but it's not your fault. You *had* to

attack on the instant, Pleera.”

The Ahmanyen raised her head and Mark released her. “I know,” she said. “I know. But where are Zip and Jack now?” Mark lay down again on the couch, raised his splinted leg, and placed it carefully on the cushion that had been arranged for it.

The communicator in the Starmen’s room became active. “We have a status report, Commander.” The voice was crisp and business-like. Hearing it, Pleera snapped into professional mode.

“Report,” she said.

“Our shields withstood most attacks, Commander. The Key operated with admirable effectiveness, capturing most of the enemy’s laser energy. The surface of *Ossëan* will need some minor repair. Indeed, it is still burning in several places. It seems to be a self-sustaining reaction.” He provided the details. “I have dispatched crews to extinguish the fires. Our electronic disrupter was completely successful. Review of the data indicates that, in the space we entered, there were approximately 1,750 Xenobot warships of various sizes. We disabled or destroyed more than 700 of them. Most importantly, their wormhole transporter was completely destroyed. Regrettably, it was able to send a solar power station through before it overloaded. Our authorities and allies at home confirm that a solar power station is now in orbit around the Sun inside the course of Mercury. They have not yet had an opportunity to destroy it, or even to investigate or analyze it. In conclusion, we suffered no casualties.”

“Thank you for your report,” Pleera said crisply. “Good work.”

“You’re welcome, Commander.” The communication ceased.

“No casualties,” she repeated hollowly, and took a deep breath. “Of that we are not yet sure.”

~

The hatch opened onto gloom. Zip stepped to the edge and peered outside in every direction. There was no movement discernible in the immediate vicinity. The Starman jumped to the

deck and turned slowly in a circle, once again taking stock of his surroundings. He could see only vague shapes and silhouettes in the murky interior of the giant Xenobot transport ship.

"We'll move under the ships," he said, "oblique to the direction where the Xenobots began their inspection. If we can get through their line and off to the side, maybe we'll be safer. Then we'll look for a ship more to our liking."

The young Starman took a moment to quiet his mind. He entered a state of calmness and minimal mental activity. He forsook all thought of what had happened or what might happen, and gave his sole attention to the immediate present. He stilled his emotions. In his mind he blended himself into the surroundings as if he were merely a stanchion or support for a spacecraft. His tranquility lowered his mental profile so that the Xenobots, who seemed to become aware of other beings by detecting their mental presence, would not be drawn to his aura.

Slowing his breath and lowering his heartbeat, Zip began to glide from one ship to another, staying in the shadows. At one point, he suddenly became aware of a group of three or four Xenobots coming in his direction. He instantly subdued the involuntary surge of awareness in his mind by imagining that he was immersing himself in a pool of dark water, warm and relaxing, falling out of sight of any observer. He slid over to the closest support pylon of a spacecraft and merged with its shadow. He did not even keep his laser pistols ready, but crossed his arms over his chest as if he were folding wings around himself like a bird going to sleep.

A moment later he sensed that the danger was past. Relaxed almost to the point of lethargy, he peered around the pylon and saw that the group of Xenobots had passed beyond him. Unbidden, he suddenly felt a pang of pity. *These were of the First Races, came the thought. Once they were far beyond me. Only because of their once-high stature could they have fallen to such depravity.* The Starman was overcome for a moment with a feeling of both humility and destiny. *I won't end here, he thought. I will survive, and I will be on the winning side.* He

masked his thoughts again, and glided away, silent as thought, undetectable as a shadow at night.

At last he came to the side of the great deck. There were many folds and fissures in the wall where buttresses and huge girders ran down from the unseen ceiling to the floor. He found an alcove deep in shade, out of sight of the main deck.

“We’ll sleep here, Jack,” he said. “We’ve gone almost twenty hours without rest. We’ll sleep, and when we wake up, we’ll be fresh. Then we’ll consider our options.”

“Sure, Zip,” said the Titanian.

Surreptitiously, so that Jack wouldn’t notice, Zip looked at his compad. His oxygen was beginning to get stale. He could already feel a light headache beginning. Without hope of getting an encouraging result, he tested the atmosphere inside the transport ship and found that it was nearly a vacuum. No source of oxygen there. He turned his input level down a little to conserve his air while he slept. Then he detached the shoulder pack where Jack was, and lay down on his back in the darkest part of the alcove. He was asleep in minutes.

The Starman was completely unaware when the enormous transport ship got under power.

Chapter 22: Into the Oort Cloud

ZIP WOKE with a throbbing headache caused by low levels of oxygen in his blood. It was a real skullbuster that made his eyes feel as if they were being pushed from behind. He tapped into his suit’s system and administered a dose of medication to reduce the discomfort. A quick glance showed that Jack was still sleeping.

The Starman scrambled to his feet and peered around the edge of the alcove into the open space of the hangar. The illumination was still negligible. Watching carefully with narrowed eyes, he discerned no movement. About seventy-five

yards away he descried the great portal through which his shuttlecraft had been carried the previous day. Other ships of various sizes and armament were nearby. To his right and out of sight the deck extended for several hundred yards, densely packed with Xenobot warcraft.

Zip sat back down and drew a little nourishment from the supply his suit carried, and then touched the control on his suit that produced a scalp massage. The worst part of wearing a spacesuit for any length of time was the impossibility of touching one's head or face. In SE's newly designed suits, jets of compressed air could address a nagging itch, and the scalp massager could provide welcome relief, but these remedies were decidedly second best.

"You okay, Zip?" Jack had stirred inside the shoulder pack.

"Yeah," he responded wearily. "You?"

"Sure. Fine. What we do now, Zip?"

"We'll try to tap into the electronic equipment aboard this freighter and see if we can learn something."

"This ship moving now, Zip."

"I know," said the Starman with a grimace. "What are the connections like between the shoulder pack and my suit? We fixed the attachment yesterday but I didn't even look at how badly damaged the electronic connections are."

"Some pieces melted and some circuits broken. I can fix."

"Okay, Jack. Here are the tools and supplies." Zip provided the material from his suit kit and watched as the Titanian set to work. He kept his breaths shallow. When the repairs were done, Zip reconnected the shoulder pack to his suit and allowed Jack to test his work.

"Good, Zip. I see into your compad now."

"Okay, fine. Let's work together. I want to get into the Xenobots' operating system without disturbing their interpersonal communications. I'll try to do that from my compad and you advise me about where we should go."

"Sure, Zip."

The work was tedious. Zip removed his compad from his

arm so that he wouldn't have to hold his arm out during the entire procedure. He sat cross-legged with the compad on his lap. With laborious and clandestine exploration, the two friends entered into the Xenobots' operating system. With minimal knowledge of the Xenobots' language provided by the translation algorithm, they managed to infer some information from simple logic and mathematics, with a lot of guesswork based on nothing more than past experience.

At last Zip closed the contact. He leaned his back against the wall farthest from the opening of the alcove and stretched his legs out. "Jack," he said, "I have an idea."

"What, Zip?"

"We've learned that the warships on this freighter do not have realtime transmitters aboard, nor do they have hypertravel capability. Only the freighter has those functions."

"Right, Zip."

"I want to record a message for Tharsos. Then we'll compact it so that it won't take any longer than a half-second. When it's ready, we'll tap back into the Xenobots' system and see if it's possible to take over one of their realtime transmitters for about a second. We'll send the message in a burst. We've got to tell them what we know."

"Maybe we can do that, Zip, but then probably Xenobots know we on this ship."

"I know it. It will be a risk for us, so I won't do it unless you want to do it too."

"Sure I do it, Zip. Make message. I wait."

"Okay. I'll make the message. But we won't transmit it until we're aboard one of the warships. There's one close by the hatch. We'll get inside it and make sure we can fly it. Then we'll transmit the message. After it's been sent, we'll use the warship to blow out of here—right through the wall."

"Okay, Zip."

Zip closed his eyes and pressed his eyelids together. It intensified the pain in his head to do so. The medication he had taken was having little effect, so the Starman opened his eyes

again, sighed, and picked up his compad. He set it to record a message, and then he began to speak.

“This is Starman David Foster. Jack and I are stowaways aboard an immense Xenobot freighter, operating under fusion propulsion. It appears that this freighter is carrying at least two hundred warships, some of which are damaged slightly. Most are new or undamaged.

“Indications are that there are several hundred freighters of this tonnage in the Xenobot armada, and each of them is gathering as many operable warships as it can. The resulting fleet can comprise an attack force in the tens of thousands. The solar power station that was transferred to our Solar System a few hours ago is quite capable of providing virtually unlimited power to this entire fleet. We have every expectation that the Xenobots will launch the armada against our Solar System in a matter of hours. The transport ships have hypertravel capability, and most likely plan to enter the Inner Planetary system at many sites nearly simultaneously. The warships they are carrying do not have hypertravel capability, but depend almost entirely on the solar power station for maximum effectiveness. Without the station, their ability to maneuver is limited to fusion travel.

“Wherever you are now, you must go immediately to find this solar power station and destroy it. Warn our allies that a massive attack is imminent.” The Starman paused to take a deep breath. The lack of oxygen was telling on him.

“Jack and I are currently safe and our presence among the Xenobots is unsuspected by the enemy. That will probably change as soon as this message goes through their realtime transmitter, so we plan to escape in a Xenobot warship immediately after this message is sent. We have with us the data gathering and locator beacon Karax sent me yesterday. It is not operational but Jack will keep trying to repair it.

“Foster out.”

The Starman speeded up the message so that it could be sent in less than a tenth of a second.

“Ready, Jack?” he asked at last.

“Okay, Zip.”

Zip reattached the compad to his left arm and secured the shoulder pack in its place. He took a laser pistol in each hand. Quieting his mind as he had done earlier, he slipped outside the alcove onto the nearest edge of the deck. For nearly a minute his eyes scanned the entire open space, watching for any sign of movement among the stationary ships.

Seeing nothing, he slipped away from the concealing wallspace and glided to the closest spacecraft. Moving like a midnight ghost through a forest, he slipped from pylon to pylon until he reached the warship he had selected for his escape. It was close to the portal.

Before he linked his compad to the hatch, he paused. “I think we ought to enter the master system now, Jack. If an alarm goes off while I open this hatch, you’ll have to send the message through the realtime transmitter before the Xenobots can block it.”

“Okay, Zip. But I think you can open door safely. Xenobots not worry about spy.”

“I hope you’re right. Are you ready?”

“Ready.”

Zip focused his attention on the warship’s hatch and linked his compad to its circuitry. The electrical system in the ship activated as Zip began to search for the opening mechanism. Before long, the hatch opened. The Starman quickly stepped through and shut it manually. In seconds he was at the control deck.

A cursory inspection gave him confidence that he and Jack could use the most important controls to fly the ship and operate its weapons.

“All right, Jack,” Zip said. “I think we’re ready to send the message, and then we’re blowing open the side of this freighter and making our escape.”

“Good, Zip. I send message now?”

“Go ahead.”

The two friends entered the Xenobots’ operating system once

again, tracked down a realtime transmitter, and then took it over for one second. During that interval they sent their message.

“Now I think Xenobots suspect something, Zip,” said Jack.

But before anything further could happen, the Starman felt the familiar sensation that presaged entry into hypertravel—as if he had just lost his balance on the edge of a cliff and knew he was going to fall.

~

Commander Pleera of *Ossëan* studied the instruments that governed the movement of the massive Ahmanyen warcraft that had once been the third moon of a lush, green planet.

“I don’t understand the readings,” she said. “Frankly, I am more than perplexed. I am uneasy.”

Karax, the guardian of Olovanda, and Starman Joe Taylor and Kathryn Mullaney stood on either side of the Commander. Astrophysicist Stephen Hoshino and several Ahmanyans hovered nearby.

“The hyperdrive is functional, Commander,” stated one of the technicians.

“I don’t doubt it. We were able to sail here from Omega Centauri. But now we are unable to create a terminus,” said Pleera, stating what had proved ominously obvious. She formed fists in frustration. “Our coordinates ‘slip off’ any fixed point we select in the Inner Planetary system.”

“Perhaps,” offered Dr. Hoshino, “our colleagues at home have been able to create the system-wide hypershield. It would be the only defense they could have once the Xenobots’ solar power station appeared in orbit. Dr. Andor Vornado estimated that it would be ‘a matter of weeks’ before they could make the hypershield functional. That was less than three weeks ago.”

“Open realtime transmission with Tharuji,” ordered Pleera, turning to the communications technician.

“Yes, Commander,” she responded. But even as the technician turned to her equipment, it lit up with the indicators showing that a message was coming in. Tharuji’s holographic

image appeared in the transmitter's compartment.

"Tharuji here," he said. "I have some impressive news."

Pleera quickly strode over to the transmitter and stood where the detectors could read her image and transfer it to Tharuji. "Pleera, Commander of *Ossëan*, receiving, Tharuji. We are pleased to hear from you. What is your news?"

"We have succeeded in creating a hypershield around the entire Solar System! No wormhole incursion is possible at any point in the system up to a billion miles beyond the orbit of Pluto!"

"Congratulations, Tharuji!" said Pleera, with a smile. "Of course, that means that *Ossëan* cannot return to you for the foreseeable future, either."

"Regrettably, that is true, Commander, though we will undoubtedly be able to coordinate with you and arrange an opportune time to provide a brief hiatus in the shield to allow you to pass through. Installation of the system-wide hypershield became of paramount concern when it became clear that the Tetrahedral Defense System was not able to destroy the Xenobots' power station."

"The TDS was ineffective?" queried the Commander of *Ossëan*, a note of alarm in her voice.

"That is the case, Commander. This power station is very much more advanced than the comparatively feeble attempt the enemy made a few weeks ago. We suspect that that initial foray was made to test our defenses before the major invasion. Whatever the reason, the power station now in orbit around our sun is impervious to the TDS's laser cannons."

"I see," said the Ahmanyen. "We are somewhat relieved here, since we could not fathom why our hyperdrive could not create a terminus in the Inner Planetary system. We will therefore travel to the Oort Cloud and await developments there. *Ossëan* out."

Pleera gave the order, and the great ship made the jump to the Oort Cloud.

“Jack!” shouted Zip. “We’ve entered hyperspace! At the *worst* possible time!”

“Xenobots coming to this space, Zip. Xenobots coming to this deck. Many Xenobots.”

“Jack,” said Zip slowly and deliberately. “We’re going to follow through on our plan.” The Starman pressed his lips together tightly. Then he spoke through clenched teeth.

“We’re going to blow a hole in the side of this mighty freighter and escape in this warship.”

“We in hyperspace, Zip.”

“I know, Jack. I don’t know what will happen if we leave the freighter while we’re in hypertransit, but I am sure that if we do nothing, they will find us in minutes and we won’t stand a chance. I’m going to fire up the engines.” The Starman laughed in exultation, and his eyes lit up. “Let’s go!”

~

“Commander!” The technician’s voice commanded attention. “A message on realtime transmission! Its source is Omega Centauri!”

“It’s Zip!” cried Joe. “Patch Mark through into the bridge! He needs to be a part of this!”

Without waiting for Pleera to confirm the Starman’s order, the technician complied.

“Transmit the message!” urged Pleera.

“It’s speeded up, Commander. It is not encrypted, but came through in a quick burst.” While both Starmen and the other listeners waited eagerly but patiently, the technician reset the message and played it at normal speed.

“Zip can’t know that the Solar System is shielded from hyperspatial entry,” said Pleera afterwards. “If he can get the beacon functional, maybe we can return to Omega Centauri and find him. But I can’t guess what the enemy will do when they discover that they can’t invade our home.”

Mark’s voice came through the intraship communicator. “He

and Jack will have to get their locator beacon to work! He can't have much oxygen left!"

"We'll monitor the locator without fail, Mark," responded Pleera.

Joe and Kathryn locked eyes for a moment, and then Joe turned his glance away.

~

Zip ignited the engines of the Xenobot warcraft. The ship lifted up from the deck and hovered in place. It swiveled to face the portal through which it had come just hours before. The close quarters of the deck below and the space behind the ship were engulfed with the exhaust of the fusion-powered spacecraft. Even without Jack's advantage of being directly connected electronically to the enemy's communications system, Zip could sense the intense, even massive, group consciousness of the Xenobot presence behind him. Red hatred washed over him from somewhere outside. Like a rock fixed in the rapids of a river as the current surged over it, Zip stood firm and unyielding. He felt invincible!

"Watch this, Jack!" he shouted.

Two high-grade laser weapons, designed for intercraft combat, seared through the short distance between the ship and the wall of the freighter. Two small fighters crumpled into brightly pulsing slag heaps and a large portion of the enormous hangar door in the side of the transport ship turned bright orange and then melted away. Beyond was a neutral, colorless, all absorbing barrenness. Against it the Xenobot freighter seemed to be motionless.

Still hovering, Zip swept the laser cannons from side to side and up and down, ravaging the side of the transport. The tide of hatred became colored with a strong sense of dismay, and Zip smiled. He slammed his hands down on the control panel and his eyes were alight.

"Here we go, Jack!"

The warcraft exited the freighter, then turned in place and

swept the interior of the hangar with powerful lasers, raking the deck.

"Enough," said Zip. "Now we'll attach this ship to the side of the freighter. When it comes through hyperspace, we'll come with it." Zip kept his eyes diverted from the interior of the hypertunnel. One brief glance was sufficient to make him realize that his mind could become ensorcelled by the eldritch swirls of raw hyperspace.

Just as Zip began to maneuver the ship he had commandeered so that it would attach to the side of the colossal transport, a Xenobot single-seat fighter shot from the gap and whirled to launch an attack against the marauders. Taken by surprise, Zip took immediate evasive action, and then adhered to the freighter. With strong consternation, he knew that he must stay in contact with the great ship or risk being lost in hyperspace. Being fixed on the side of the freighter, however, made him a sitting duck. A laser blast from his attacker burned through the back portion of the warcraft. Almost simultaneously a fierce blast from the captured ship's laser cannon ripped through the attacker.

"Jack?" queried Zip. "How did you do that?"

"Through compad. I take left cannon, you take right cannon, Zip. We fight other enemy ships."

"What other ships?"

"Those ships. Come now."

In quick succession two more small fighters, then a third, then a fourth sped out of the opening in the side of the freighter as if they had been flung by a slingshot. Their lasers were small but powerfully concentrated. Zip's ship could withstand several strikes without serious consequences unless one should hit a vital area. The tiny ships, whipping around like angry wasps, were nearly impossible to shoot down. Fixed in one place, Zip's ship received several direct hits.

Suddenly, the freighter emerged from the hypertunnel. The tunnel collapsed. The four Xenobot fighters disappeared, perhaps lost in hyperspace for all eternity. Zip and Jack raced away from

the freighter, free for the moment. Their ship was shot through with nearly a dozen holes but was fully operational.

“Whew!” exhaled the Starman. “We couldn’t have taken much more of that. One strike in a vital spot and we’d have been dust. Can you figure out where we are, Jack?” he queried.

“We in Oort Cloud, Zip. Many Xenobot freighters here, close by.”

“The Oort Cloud?” The Starman’s tone showed extreme surprise. “Why the Oort Cloud, of all places? If the Xenobots want to attack Earth and Mars, why stop here?” He was puzzled, and more than a little concerned.

The moderation of adrenalin after the battle aboard the freighter brought back his awareness of the insufficiency of his oxygen. His headache gripped him with renewed force, and he began to feel soreness in his knees and finger joints. The symptoms of oxygen deprivation were advancing. He slumped to the deck.

Chapter 23: The Xenobot Invasion!

“ZIP?” The whispery voice of the Titanian stirred under the Starman’s consciousness. “Zip? Are you sleeping?”

“Hmmp, huh?” mumbled Zip, lifting his eyelids with an effort.

“You sleep, Zip. You tired,” said Jack.

“Oh. Yes. Tired,” said Zip, producing the words with an effort through the rage of his headache.

“Something strange with Xenobots, Zip. Freighters moving very fast. Almost out of range now. I cannot read them.”

“What?” Zip was suddenly awake. Involuntarily, he groaned with the effort of speaking.

“You sick, Zip?”

The Starman sighed. “I’m running short of oxygen, Jack,” he stated simply. “I haven’t been able to draw oxygen into my

storage tanks since we were on the neon planet. That was..." He looked at his chronometer and labored to do the math. "That was just about twenty-four hours ago exactly. Man." Here Zip inhaled quickly and shallowly, "we sure packed a lot into that short time!"

"What you do now, Zip?"

"I don't know, Jack." Zip's speech was interrupted by frequent short gasps for breath. "There is no oxygen out here, and nowhere close enough for us to fly to in this warcraft. I'm afraid there is nothing I can do. What... what did you say about the Xenobots?"

"Xenobots gone, Zip. All big freighters speed up, go very fast. We left behind."

"What?" Zip repeated, leaping up. His eyes throbbed painfully with the sudden exertion. He activated the radar.

"They're gone," he said quietly. "They've left us behind. We're not important to them anymore. They are gone—speeding away from here faster than we ever imagined they could. They're not operating on fusion anymore, and it's not wormhole travel. I don't understand. They're heading toward the interior of the Solar System. Still accelerating." He stepped back and shook his head. "They'll be out of radar range soon."

He looked up and stared through the window into the infinite distance of interstellar space. "The solar power station is in place around the sun. The closer that fleet gets to it, the more power it'll have. We have nothing that can stop them. This is the day of the Xenobot invasion. We're the only ones to know, and we can't do anything about it. We can't even contact anyone. We're alone in the Oort Cloud. No one knows where we are. We have only, uh, a basic Xenobot warship without hypertravel or realtime transmission capabilities. We're going to lose, Jack. The Janitor told us very clearly that there was no guarantee that we would win, or that our planets would survive."

Overwhelmed, Zip sank to the floor. "Jack," he said with an effort. "I need to rest. You try to fix the locator beacon. It's all we've got."

“Sure, Zip,” said Jack.

The soothing voice of Zip’s spacesuit came into his ears almost like mockery. “Starman Foster, I regret that I am unable to assuage the pain of your headache. Would you like to sleep?”

“Yes.” His voice was almost a sigh. In seconds, he was asleep.

~

“The armada has passed the hypershield, Commander.”

The report came to Pleera as she stood tensely at the controls of Tharsos. “Thank you,” she said automatically. Then she stepped to the realtime transmitter.

“Tharuji,” she said. “The Xenobot armada consists of 2,178 freighters. The enemy is accelerating with a drive far beyond anything we imagined they possessed. The entire armada has passed through the hypershield.”

“Thank you, Commander,” returned Tharuji. “We will now establish the second shield between the orbits of Neptune and Pluto.”

“Pleera out.” The transmission came to an end.

The Ahmanyen stepped away from the transmission dock with her eyes fixed on the ground. Her face exhibited a hardness that was highly uncharacteristic of the usually good-humored young woman.

Suddenly the sound of a chime rang through the command deck.

“Zip!” shouted Joe and Kathryn together. They had been seated on the side of the operations center, but now jumped up as if they’d been stung by bees and ran to the control center. Pleera met them at the detector’s board.

“Yes!” she proclaimed. “It is Zip! It’s about time we got some good news!”

“Where is he?” shouted Joe.

“Less than a light year away—right on the edge of our receptivity field.” Pleera gave orders and Tharsos made a hyperleap to within a hundred thousand miles of the drifting

Xenobot warcraft in which Zip and Jack were lost. Under normal power, the great ship drew near until only a few hundred yards separated the two vessels.

“Zip!” shouted Pleera into the communicator. There was no answer. She looked up at the others with an expression of dread.

“Scan the ship,” said Pleera; “find where he—“

“Pleera,” came the voice of Jack. “You found us.”

Joe exhaled loudly with relief.

“Status report please, Jack,” said Pleera.

“Zip sick. He asleep now. I fine.”

“We’ll bring you aboard. Are you ready?” asked Pleera.

“Ready, Pleera. Bring us fast. Zip sick.”

The feeling of relief was replaced by a new wave of dread. Pleera gave the order and the Starman and the Titanian were brought aboard Tharsos. Pleera called for a physician, and then she and the others raced to the transporter room. When they arrived, the physician was already there, bending over Zip as the Starman’s suit was opened.

“Zip sleeping,” repeated Jack, climbing out of the shoulder pack. “His suit make him sleep.”

“His vital signs are okay,” said the physician. “We’ll give him oxygen and let him rest. I expect he’ll be fine within a few hours, but we’ll keep a close eye on him.” They carried the redheaded Starman away toward the medical facility, leaving Jack, Joe, and Kathryn standing on the white deck of the courtyard outside the main entrance to the complex.

“That brickhead is the luckiest Starman in space,” said Joe. He turned to Kathryn and laughed. Then suddenly he became sober. He remembered the Xenobot armada.

“Let’s go back to the control deck,” she said softly. “They’ll let us know when Zip’s ready for company. C’mon, Jack. Everyone’s waiting to see you.”

When they returned to the bridge, they found Pleera intent on the indicators. There was no conversation. Twelve people were focused on their tasks. When Joe and Kathryn entered the room with Jack, everyone paused and gave them a subdued but

warm welcome and commended Jack for the work he had done.

“What’s happening?” asked Joe quietly of Pleera.

“The Xenobots have achieved one-third light speed,” she stated, “and seem to be holding at that velocity. It’s amazing, absolutely amazing. We had no idea...”

“Will our forces be ready for them?”

“Possible. We’re six and a half light hours from the Inner Planets. With the time it took them to reach their velocity, and assuming they’ll have to decelerate, we estimate the Xenobots can be within striking distance of our planets in a little less than a day—one *day* from the Oort Cloud to Ahmanya and Earth! We had no idea...” She shook her head.

“They’ll reach the second hypershield before too long.” It was Mark Seaton. He had come to the bridge in a wheelchair.

“They will pass through it without even noticing it,” said Pleera. “That’s part of the plan, but it’s chilling to know that it’s happening. They are blowing right through our defenses!”

~

An hour later, Joe, Mark, and Kathryn visited Zip in the medical facility. He was sitting up in his bed with an oxygen breather over his nose.

“I feel fine now,” he protested. “Oxygen deprivation hadn’t gone too far. It had only been a day, and I didn’t even notice any symptoms until last night!”

“Sure,” agreed Joe. “You *usually* act as if your brain doesn’t get enough oxygen, so if we’d been with you I doubt we’d have noticed anything different for a long time.”

Kathryn leaned over and kissed him on the forehead. “You had us worried, you foolish, independent, impetuous, ...”

“Yeah,” said Joe. “What made you want to go off on your own to Xenobot central, anyway?”

“I wasn’t alone,” said Zip. “If it hadn’t been for Jack, I’d have been lost, completely lost. That little man is the real hero of this escapade, and I’ll bet he doesn’t even realize it. But tell me

what's going on with Tharsos and the Xenobots. You must know that the armada has been launched toward home! They've started their invasion!"

"Sure, we know," said Mark. "We know a lot more than you do."

Joe and Kathryn pulled chairs up adjacent to Zip's bed. Joe adjusted the pillows so Zip could lean back. His eyes opened wide as Mark filled him in on recent developments. When the big Starman had finished, silence fell inside the room.

"Guess I am feeling tired," Zip said after a long time. He rubbed his eyes, then looked around at his friends. "Thanks for coming to see me. I... I couldn't ask for better friends. I'm glad to be back safely. At the end there, aboard the Xenobot ship with Jack, I didn't think we would ever escape."

"You're the luckiest brickhead in space, that's all," stated Joe. "Maybe we'd better come back after you've rested some more, if you're tired."

"No, I don't need more rest. My suit put me to sleep. I just need a little time for oxygen to get back into my system."

"Well then, tell us what happened after the Xenobot ship took off from the neon planet with you in it," urged Mark. Zip drew a deep breath and began to talk. Just as he finished his tale, all four Starmen received a message on their compads.

"The Xenobot armada has just passed the second barrier, and is approaching the orbit of Uranus."

~

Zip was released from the medical facility late that afternoon. His friends had stayed with him throughout the day, although he had slept during part of the time. In spite of his protestations that he needed no rest, he had gone through enormous mental and emotional strain as well as lack of oxygen, and his body demanded respite. He had fallen asleep shortly after the midday meal.

"I feel great now!" he exulted as he bounced through the

corridors of Olovanda. “With all that pure oxygen and plenty of sleep, I don’t remember ever feeling better!”

With Mark still in his wheelchair, the four Starmen entered the bridge where Zip was greeted with loud acclaim. Jack and Jill were there too.

“Here’s the hero!” Zip proclaimed, indicating Jack. “This is the man that saved our lives more than once.” He thanked Jack profusely, and praised his courage and ability to do what was needed to save the mission. The Titanian seemed not to understand.

“Why you excited, Zip? I help. Not hard work.”

~

Later that evening, Pleera hosted the Starmen to a dinner in her private quarters. A delicious candlelight meal was served, of light fare accompanied by a rare Californian wine that the humans had brought aboard Tharsos for a special occasion. Similar meals were being enjoyed in many places throughout the great ship.

Through a sizable viewscreen, empty space showed cold and infinitely black. The Milky Way was on the other side of the ship from the camera that was the source of Pleera’s panoramic view, and few stars were visible to the diners. Although the Ahmanyen could have selected another vista, she had left it unchanged. The slow rotation of the asteroid would eventually bring into sight a scene rich with stars.

Mark held up his glass and looked at the candle flame through the pale liquid.

“You look pensive, Mark,” observed Kathryn. “What’s on your mind?”

“We have known for years that the Xenobot invasion was coming,” he said somberly. “Now it is here; it is happening at this moment. We have maintained realtime silence with home except for the brief, most necessary reports. There is so much I want to say to people back home that there is really no one thing

that seems fitting. We're all remembering our families and friends, and I...well, I wonder how they're doing and what they're thinking right now. I miss Stenafi, and Saadervo and Jogren. We don't know what's going to happen tonight, but by this time tomorrow, everything will be changed—one way—or another."

"Now we are cruising peacefully in the Oort Cloud, impossibly remote from any other living being," contributed Pleera, "but tomorrow will begin a new era—one way—or another. No matter what happens tonight, it is certain that there will be no peace tomorrow."

"For tonight," said Zip, raising his glass, "we are together, with people we love and who love us. Earlier today I thought all was lost, but now," and here he touched his glass to Mark's. The others raised their glasses, and Zip continued, "now I am confident that we will win."

Many glasses clinked. Joe's eyes shone in the candlelight.

"Commander," said a voice over the intercom. "The enemy has passed the third barrier, beyond the orbit of Jupiter, and is now beginning to decelerate. The Xenobot freighters are close enough to the solar station to begin to draw power from it. We expect that their warships will deploy very soon."

Kathryn placed her glass on the table, and tears ran silently down her cheeks. Joe drew her to himself in an affectionate and comforting embrace.

Chapter 24: To Dust You Shall Return

THE SUN was an anchor at one of the foci of all elliptical orbits of planets, asteroids, and comets in the Solar System, from the nearly circular orbit of Mercury to the impossibly long orbit of Nyx. Dozens of sungrazing satellites ranged close to the untamable gas giant at the center of the Solar System. The satellites drew energy from the sun and transferred it to power

plants in the Earth-Moon-Mars network and to the colonies beyond. The mighty globes that formed the Tetrahedral Defense System were part of the in-close solar family of orbiting instruments.

A day earlier, one extra satellite had taken its place among the sun-followers. The dreaded Xenobot solar power station had appeared in space, already at orbital velocity and trajectory. It was, even now, coming into position where it would be able to transfer virtually unlimited energy to the invading armada.

The Xenobot armada had sped toward the Inner Planetary system much faster than the human-Ahmanyen alliance had anticipated. No one could imagine what kind of propulsion the freighters had at their command—without a doubt something incredibly more effective than fusion. Now, however, the enemy's method of propulsion was not important. The urgent, pressing concern was the allies' response to the advent of the long-feared invasion.

From the vantage point of the Asteroid Belt, the sun shone brightly, appearing as a commanding spark of dazzling solar fire set in the background of black space that was bedizened with stars. From the sun's surface, coronal fountains violently released tremendous amounts of energy and plasma. Solar light and heat were vital for all life that existed in the Solar System, even the life in the absolute blackness of the ocean of Europa that lay under miles of ice, whose denizens did not even have words in their language for "planet", "moon", "star", or "sun".

"2,178 freighters," Commander Pleera of Tharsos had reported. If each Xenobot freighter contained roughly 200 warcraft, as Starman David Foster had guessed, then an armada of nearly half a million warships was hastening toward the threshold of civilization, approaching at one-third the speed of light—ships that would become powered with the limitless energy of the sun. The human-Ahmanyen alliance had banked its defense on one stratagem—the only one at its disposal.

"The armada has just passed the orbit of Jupiter," reported Commander John Lewis of Space Command. "Deceleration

began two and half hours ago. The warcraft are not yet deploying from the freighters, but we expect them to do so at any minute.” His encrypted message rode on the microwaves of space to the nearly two thousand battleships that were sheathed and concealed in the valleys, craters, and folds of the asteroids in a swath a million miles wide—the area that the Xenobot armada was approaching.

All of the ships under Commander Lewis’ authority had wormhole and realtime transmissions capability, and had been placed in their positions with unprecedented swiftness after the first indication that the Xenobots were invading at such fearful speed. The defense plan had been accelerated from about three months to less than a day. All other ships in the defense of the Earth-Moon-Mars system were deployed in space not far from their home bases.

Captains Derf Bors, Yancy Dufaure, Benjamin Bennett, Timothy Parker, Mary Marks-Owens, and other Starlight and Nolan Enterprise pilots sat calmly at the command of their ships in the frozen hollows of the Asteroid Belt. Ahmanyen warcraft with their captains had taken their places alongside their human allies. Saadervo waited placidly at the helm of the *Sa Zomne*, the *Bolt of Fire*. Construction on this and other Ahmanyen battlecraft had been completed only months earlier.

Only fifty thousand miles away, in the space between Jupiter and the Asteroid Belt, the fourth and last barrier to the Xenobot armada was in place. Hurling through space at about one-tenth the speed of light, the enemy warcraft would reach the barrier in minutes. The Xenobots were rapidly decelerating. Should they be able to pass through the Asteroid Belt, Mars was directly in their path. The Earth and its Moon were on the same side of the sun as the fourth planet, ready targets for the invaders.

Vast as the enemy fleet was, there was nothing visible to the eyes of those in concealment until the first ships reached the fourth barrier. Then, in a matter of seconds, the entire arc of the heavens flared into fiery prominence. Xenobot freighters collided by the hundreds with a barrier that was comprised not

only of the recognizably useless hypershield, but a curtain of antimatter whose tiny particles had been spread along and concealed by the boundary the shield had created.

In the Asteroid Belt, the ships of the human-Ahmanyen alliance were stunned by the vehemence of the Xenobots' encounter with the wall of antimatter. In less than a minute, most of what had been a mighty warfleet of more than two thousand colossal freighters carrying more than 400,000 warships had been reduced to shredded metal junk, stardust, or radiant energy. The aftermath would affect communications in the vicinity of the Asteroid Belt for days to come.

Saadervo, Stenafi, and Jogren stared spellbound at the explosive curtain of unrestrained energy that had appeared with shocking immediacy. In an instant, their view had altered from a serene stellar panorama to a wall of solar-strength incandescence.

"Can *anything* survive that?" asked Stenafi, awe-filled dread marking her words.

"Nothing," responded Saadervo, "but not all Xenobot craft will reach it. Fast as they are going, most will not be able to avoid the barrier, but the last ships will have time to engage their hyperdrive. They will escape."

Even to the naked eye, the wall of bright, unbounded energy had begun to fade slightly when the rich baritone voice of Commander Lewis reached every human and Ahmanyen defender in the Asteroid Belt. "Victory is ours! Every ship, to your designated position, now! Follow the plan! Tharsos, to the attack!"

~

Starman David Foster simply could not grasp what Mark had related to him hours earlier in his hospital bed.

"Tell me what's going on with Tharsos and the Xenobots," he had urged. "You must know that the armada has been launched toward home! They've started their invasion!"

"Sure, we know," said Mark. "We know a lot more than you

do.” Zip’s eyes opened wide as Mark filled him in on recent developments.

“The Lucian crystals that Joe brought back from wherever he and I had been sent,” Mark had begun, “contain hundreds of times more than the amount of data the researchers have been able to glean so far, but what they searched for first of all, and *found*, made it possible for them to harness the energy from the quantum froth!”

For nearly a minute, Zip had just sat as if dumbfounded, trying to understand what Mark had said and what it implied. He failed.

“What?” he had replied at last, his brow wrinkling in puzzlement.

“The Ahmanyans, who we know are masters of photonic energy and manifestation, were able to use the information the crystals provided to harmonize into one relatively controllable network the subatomic particles that appear and vanish in microseconds in the supposed vacuum of space. It’s as close to what the imaginative scientists of two centuries ago called the ‘ether’. Although what they meant by it was discredited within a couple of generations, later studies showed that they were not so far from wrong. The lambent radiation left from the initial fires of creation continued to propagate until they virtually filled all of space—even between the galaxies.”

“I know, I know,” said Zip with an impatient gesture. “That’s been known since the end of the twentieth century. But—”

“But—” interrupted Mark, lifting his own hand, “this radiation is comprised of a ‘froth’ of subatomic particles, dark matter, and the like, with its own energy. This energy is not dependent on light—that is, on stellar sources—since it is everywhere present. Up until now, no one has been able to draw upon it. It was all we could do just to identify it. But the data in the crystals showed how it can be harnessed and used to support and extend some of our current technologies—like wormhole shielding.”

Zip’s mouth widened in a lopsided smile. “Ancient Lucian

technology,” he said, “used against what’s left of today’s Lucians.”

“Fitting, I say,” interjected Joe.

“Fitting, yes,” agreed Zip. “But what are we going to *do* with this energy?”

“The first thing was to expand current technology behind the creation of wormhole shielding, and build a hypershield around the Solar System—the entire System, far out beyond the orbit of Pluto. That’s what kept the Xenobots—and us, too, unfortunately—from entering the Solar System by wormhole travel. We were essentially ‘locked out’ of our own home.”

“But the Xenobots could still use conventional travel to launch their attack.”

“Yes, and this was precisely what was anticipated, of course.” Mark frowned and looked down. “But what we didn’t anticipate at all was that the enemy would have the kind of drive that made it possible for them to accelerate up to one-third light speed. The minimum of a three-month journey from the Oort Cloud to the Inner Planets was suddenly reduced to a day.”

“That couldn’t have been their first strategy, though,” contributed Joe. “We assume that they intended to send their fleet through the torus immediately after the solar power station was transported. Most of the Xenobots’ fleet was assembled in the vicinity of the torus and apparently just waiting for the final touches to be put onto their big donut. When Tharsos destroyed the donut *after* the power station went through but *before* the fleet could make the jump, the bucketheads were put on the spot. They *had* to get to the Solar System as quickly as they could, before we figured out a way to destroy the power station! The only way they could do that was to put their warships into the freighters that would ferry them through hyperspace. When the hypershield went up beyond Pluto, they had to finish the jaunt by conventional propulsion.”

“If their attack by conventional propulsion was anticipated, what’s the defense plan?”

Mark smiled. “This is where genius lies. The strategists

planned to establish four hypershields, each in turn. The first was far beyond Pluto, as I've explained. The second will be between Pluto and Neptune, and the third this side of Jupiter. These hypershields are the usual kind—effective against wormhole incursion but useless against a fusion drive, or any other kind of conventional propulsion. As the Xenobots pass one hypershield, it will dissipate and the next will be created. This strategy is intended to create the impression in the Xenobots that this is the best defense we have and that we are desperate—that we will, basically, be ‘sitting ducks’ when their armada arrives.”

“But we won’t be.”

“No, we won’t be. The fourth shield, established just beyond the orbit of the Asteroid Belt, will be a hypershield like the others. It will also contain a blanket of antimatter dust. Ever since the Xenobots delivered antimatter bombs to Troy Putnam on Mars back in ’51 and we captured them, they’ve been concealed and stored in the least populated places of the Belt. Antimatter is blasted difficult to keep contained, even in magnetic bottles, because so often its particles repel each other, and these bottles were very, very old, and perhaps becoming unstable. The Xenos, most likely, don’t have the capability of manufacturing them anymore or we’d have seen them used against us before now.

“We also have the reserves of antimatter that Starlight Enterprise has been creating and storing to power their newest line of starships like our own *Star Ranger*. With the ancient Lucian technology now available to us, Tharuji devised a method of spreading the antimatter into a thin sheet alongside the hypershield, kind of like paint on a wall. It won’t stay in place for long, so the timing has to be just right. Using the Lucian hyperspace technology, he’ll scatter the stuff minutes before the Xenobot fleet reaches the fourth barrier. After that, well, we hope we can depend on the Xenobots themselves to make sure that most or all of the antimatter gets used up.”

Zip gaped. “But that’s a huge risk!” he expostulated. “Either the antimatter will be depleted and a number of Xenobot ships

will pass through the barrier safely, or there will be a lot of antimatter flying around our own home system!”

“That was my question too, Zip,” contributed Joe, nodding his head. “The ships that collide with the antimatter curtain don’t need to be completely annihilated to be rendered ineffective, since the reaction just in contacting the wall will be violently explosive. At the least, the hulls will be torn to shreds, and the Xenobots themselves will be ripped apart inside their own ships. And any antimatter that comes into contact with the power supply or weapons will liberate whatever energy there is in those sources in the midst of the enemy fleet.”

Kathryn kept silent during the exchanges, but her eyes followed each speaker with rapt fascination.

Zip spoke up again. “But there’s a good possibility of a lot of antimatter being left behind! That’ll be a serious navigation hazard forever after.”

“There’s a cleanup plan, Zip,” Mark assured his partner. “The antimatter will be deployed very soon before the Xenobot fleet collides with it. After their encounter, our own freighters will scatter many tons of magnetized sand throughout the area—sand created by crushing innumerable asteroids. Magnetizing it will make it easier for us to control whatever is left after we remove the antimatter, so it won’t become a long-term hazard to navigation in the area. It’ll be a big job, but—of course—worth it if, uh, much of the debris that’s left is the bulk of the Xenobot armada.”

“The sand will be scattered by robotic freighters,” added Joe, “and the entire area will be strictly off-limits to any flights for a long time—until it can be verified that antimatter reactions with sand or Xenobot debris have dropped to negligible. In fact, clearing the area today with just about no notice whatever is the biggest challenge to the whole plan. Fortunately the space beyond the Belt is not heavily trafficked—that’s why Space Command picked it as the site of the final shield.”

Kathryn sighed and shook her head. “A kidnapping plotted by the Xenobots garners the Lucian crystals. Lucian technology

makes it possible to establish a hypershield beyond Pluto and then couple the antimatter in Xenobot bombs with a hypershield to catch the Xenobot armada.”

“Fitting again,” said Zip. “Their own weapons.” He looked up. “But if these crystals contain so much data, and if that data makes this defense possible, why would the Xenobots send you and Joe to the moon where you two could find them?”

“We can only guess about that,” contributed Joe. “First, they had to send us to a planetary system that resembled Earth and the Moon. That narrowed their choices down severely. Having made their selection, they simply must not have considered that Mark and I would search the facility, even to the point of entering the part that had been sealed for so long. They probably assumed we would be driven by the desire to escape. Maybe they didn’t even know about the sealed, Lucian part of the base themselves. The engineers of the hoax were human, after all, and not Xenobot. Their hope, as McTorney admitted himself, was that we would reveal the location of Ahmanyia. They didn’t anticipate that we’d strand them in hyperspace and then take control of the ship and take it to Mars. We, uh,” for a split second Joe evidenced a smirk, “exceeded their expectations. It was pretty clear to us that once the ship broke down in the middle of the hypertransfer, the louts had to improvise. We, um, just improvised better than they did. That was probably why the Xenobots attacked us as soon as we dropped out of hyperspace. All in all, the adventure turned out to have been the key to our success.”

“What we *hope* will be our success,” corrected Mark. “That’s all in doubt now, since the hypershields and the antimatter screen have to be set up in a matter of hours instead of three months. And we’re maintaining realtime silence except for the most urgent messages, so we won’t know much about what’s happening—until it’s happened.”

When the big Starman had finished, silence fell inside the room.

~

“Tharsos, to the attack!” Commander Lewis’ voice came to the bridge on the Ahmanyman flagship, drifting in the Oort Cloud but poised for instant action when the signal came.

Starman David Foster shouted aloud. His pent-up energy, which had been building up for months, even years, was released.

“We return to Omega Centauri with our battle fleet!” shouted Pleera in a voice of command. “Prepare for engagement!”

No one needed the order. All hands had been in place for hours, waiting eagerly for the order, and hoping it would be necessary. The ragged remnants of the Xenobot armada, a mere twentieth at most of the original force, had jumped into hyperspace still traveling at a tenth of the speed of light. Tharsos, the bane of the Xenobots, and twelve hundred warships manned by human and Ahmanyman crews, would not be far behind.

One hundred ships under the command of Starman Yancy Dufaire would lay siege to the Xenobot base on Uranus. Seven hundred allied warships would stay on guard in the Inner Planetary system, vigilant for any trickery of the merciless foe, still far from conquered.

Chapter 25: Defeat in the Field of Stars

IN SHORT ORDER, Tharsos was back in Omega Centauri. The ruined remnants of the torus had flown away from each other, scattering in the void. The star that had powered the Xenobots’ huge wormhole transporter cast the debris into sharp silhouette.

The Starmen did not take time to gaze upon the wreckage. Pleera was at her best, commanding the Ahmanyman flagship. The great asteroid-turned-spacecraft had arrived back in the heart of the Xenobot home system ahead of the human-Ahmanyman fleet. Immediately upon its appearance, it went on the offensive. Electromagnetic pulses radiated outward, disrupting the swarm of Xenobot warcraft that had quickly but hopelessly set out to repulse the intruder. The EMPs were followed by laser bursts

from dozens of sources on Tharsos.

"There is no danger to us that we can perceive," explained Pleera to the Starmen and the other observers at the command center. Her attention was focused on the operations tank in the center of the control room, but she kept up commentary whenever she could. Hundreds of red lights showed the positions of the attacking Xenobot warcraft, and a bright green light showed the place of Tharsos relative to its attackers. Radiant, expanding, concentric blue spheres showed the progress of the EMPs. Red lights closest to the green light winked out.

"We have taken the enemy completely by surprise. Apparently they never considered that we might be able to stop their armada, much less mount a counter-attack. Their defensive ships are little more than shuttles and a few behemoth craft. They have almost no effective weaponry to use against us. They sent the bulk of their arsenal on the attack."

Just then, a host of green lights appeared in the tank, interspersed among the red sparks.

"Ah! Here is our own fleet." For several minutes, no one said anything. Very few of the green lights disappeared, but the red lights were becoming fewer and fewer.

"It's a rout!" said Joe at last. Mark and Kathryn watched with little display of emotion, Mark peeking over the railing from where he sat in his wheelchair. Zip gripped the rail around the operations tank and was intent upon the scene below. His breathing was shallow and his hands on the rail were like fists.

"Where is the remnant of the Xenobot fleet?" asked Mark at last.

"They were moving at one-tenth light speed," answered Dr. Hoshino, "and when they come through the hypertube they'll still be at that speed. Wherever they decided to transport to, I doubt it'll be here. Whatever decision they made, they had to make it fast, but they could have gone anywhere."

"The Xenobot ships here are about exterminated," said Pleera. Zip exhaled with force, as if he'd been holding his breath.

Commander John Lewis' voice came through the

communicator.

“Attention, all ships! This is Commander Lewis. The Xenobot remnant in this place has been conquered. We will now explore this system to search and destroy all Xenobot bases and constructions.” He gave orders that divided the allied fleet into six squadrons of just under two hundred ships each and sent them out in six directions. He asked Pleera to search the systems closest to the complex where the one-time great torus had been assembled, and assigned a cohort of ten battleships to accompany her.

For the next few days, they explored and charted the nearby star systems. Whenever they located a Xenobot settlement, construction site, or other facility, they destroyed it. In most cases, however, the Xenobots were gone when Tharsos arrived. They had fled and completely disappeared.

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“I have a sense of unease,” said Starman Zip Foster over breakfast one day. The four Starmen were together in a lounge where they had decided to take their meal. “It almost feels as if ants are crawling over me. Something isn’t right.”

Kathryn looked up. “I feel it too,” she said.

“Maybe it’s just that we’re not active,” Mark suggested. “Pleera and her crew are doing all the work. There’s nothing for us to do.”

“It’s not that,” said Zip, laying his spoon down. “I feel as if we’re being watched.”

“I think,” began Joe, and then paused, his features tightening with the effort of concentration. “I think it’s because we don’t know how many Xenobots are left, where they’ve gone, and what they’re doing. They jutted their chins out and then got their faces suddenly pushed to the backs of their heads—but we haven’t got ’em all. There’s plenty left, and we don’t know where they are and we’re never going to find ’em in this trackless cluster of stars. With the equipment we’re using, we

can be touring this part of space for several lifetimes and never find them all.”

Zip rubbed the back of his neck as if it were itching. “Well, maybe that’s it,” he admitted. “I just won’t rest until I know that every last one of them is gone. And this search and destroy mission isn’t going to accomplish that.”

Two days later the order came from Commander Lewis for all human and Ahmanyen ships to return home.

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The *Star Ranger* touched down on the extensive landing field adjacent to Amundsen Base. They had made a brief stopover in Ireland to drop Kathryn Mullaney off for a long visit with her family. She had not seen them for a very long time.

Now, as the gleaming ship landed at its home port, the Starmen were silent but deeply satisfied. They looked forward to a long time of rest with their families. Only a few people were on hand when they debarked, crossed the field, and came through the airlock into the receiving area.

Wryly, Zip remembered the time he had landed here after Lurton Zimbardo’s plan to destroy Earth with a huge asteroid had been thwarted. A huge crowd had greeted them with uproarious excitement on that occasion, and his little sister, eight-year-old Kathy, had ducked under guard ribbons and leaped into his arms.

This time it was only their families, waiting quietly but eagerly. Keith and Barbara Seaton and Charlie and Laura Taylor greeted their sons warmly. Elizabeth Foster took her son into her arms, and then Allen gripped his son’s hand in a firm handshake. Kathy waited her turn, and then gave her brother a quick kiss on the cheek and a hug. *She’s fourteen now*, Zip said to himself, — *almost fifteen*. He held her at arm’s length. She was tall, slender, and beautiful, with dark hair waving about her shoulders.

“I can’t call you ‘little one’ anymore, Kathy,” he said.

Her eyes misted slightly even as she smiled. “I’ll always be

your ‘little one’, big brother,” she said, but both of them knew that the days had passed when Zip would refer to her with that term of affection.

“Let’s go home, son,” said Allen.

~

A week later, Starmen David Foster, Mark Seaton, and Joe Taylor were inside the office of Richard Starlight, more than a thousand feet above the surface of the Moon. Richard had invited them up to listen to their stories and to bring them up to date on the war with the Xenobots. John Rwakatare was with them, as were Robert Nolan and Kateri Tekakwitha. Mark was walking quite ably now with a cane.

Behind Richard, the lunar landscape stretched out in gray splendor, with a spangle of stars showing in the infinite blackness beyond.

“From Kathy, sir,” said David as he opened up a large box of homemade oatmeal cookies.

“Just right!” exclaimed Richard Starlight with delight. He placed them on a silver tray and set it on the table within reach. Coffee and tea were readily at hand. After each person had served himself, Richard leaned back, stretched out his legs, and said, “Go ahead.”

More than an hour later, after each of the three Starmen had told his part of the tale, Richard pursed his lips and stared up at the ceiling for a moment.

“It’s not over, of course,” he said. “The war is not over, but the end is no longer in doubt. We will win, and our planets will not be destroyed.”

“What about the solar power station, sir?” asked Mark.

“Impervious to laser blasts,” answered John, “but we have slowed it down below orbital speed. It is even now drifting closer and closer to the sun. By the end of the month it will have fallen into oblivion.”

“What is the strategy now?” asked Joe. “What’re we going

to do against the Xenobots?”

“First, the central portion of the Omega Centauri system will be englobed with a hypershield so that no Xenobots can escape by wormhole travel,” stated Richard. “This is the portion of the star cluster where the Xenobots have been operating. That’s a sphere about twelve light years across. In fact, that has been done already. Then we’re going to flood the Omega Centauri system with uncountable millions of microprobes. They will have the capacity to self-replicate. They will search for any kind of electronic activity, locate it, analyze it, map it, and report it to us. We will search for all sites where the Xenobots have any presence at all. When they are located, they will be destroyed.

“We will start with the solar power stations—they will be our first targets and should be the easiest constructions to find. Then the probes will draw ever closer to the center until we can be hopeful, if not certain, that all Xenobots have been located and annihilated.”

Joe poured himself a second cup of Darjeeling tea out of the silver teapot marked with the infamous “R”, and noted with satisfaction that it was still hot enough to send up a curl of steam. He stirred in a small amount of sugar. “Where did the Janitor go, sir?”

“He bade us farewell after the Xenobot fleet collided with the antimatter wall,” answered Richard. “‘You have done well,’ he said. ‘You have succeeded against the enemy.’ He added that there was no need for him to stay at this time.”

“I must say,” remarked Joe with a wry expression, “that he wasn’t very comfortable to be around. He helped us when we needed it, but to be frank, I wouldn’t feel like inviting him to too many parties.”

“Well,” said Zip after the conversation had lagged for a moment, leaning forward and staring through the window into the lunar distance, “I just don’t feel at ease yet. This enemy is merciless, vicious, and now it is cornered. The Xenobots act without conscience. I—I only hope that none of us will become overconfident. The enemy is unpredictable. We are just not used

to relentless, callous evil. More than twelve thousand years ago the Ahmanyans underestimated the Xenobots' ability to revive after near-extinction. We cannot make the same mistake."

Chapter 26: The Land of Big Sky

"Remember your children that sleep, because I will bring them out of the hiding places of the earth."

—2 Esdras 2:31a

ABOUT EIGHT MONTHS LATER, three people stood on the edge of a cultivated field—a man, a woman, and a child. As far as the eye could see, rows of seedlings extended across the land. To one side was the field of *illunas*, under fastidious protection and conscientiously harvested. Behind them to the north rose foothills that lifted up to mountain heights. A few hundred yards from where they stood was the terminus of a striking stone arch, along which a path led upward until it intersected with bewildering, interlacing trails. Only those who knew the path could find the hidden entrance to *Imlah Taltahni*, the Refuge of Twilight.

The sun shone down through a copper sky onto the first crop that would feed the population of a planet, most of whose people had slept for more than twelve thousand years. In other places of the northern hemisphere of the planet, there were fields showing green. Over the red planet, many hundreds of square miles were now being cultivated. In fifteen refuges hidden deep beneath the earth and another inside Tharsos, a world's population was awakening—rank upon rank, family by family, community by community.

A sophisticated water distribution system was being built, and in many places was already operational. Ahmanyans atmosphere plants were going up by the dozens, adding manyfold to the effectiveness of the four modern plants that people of Earth had built to replace the ones that Lurton Zimbardo had

destroyed seven years earlier.



Three people stood on the edge of a cultivated field.

As humans sought to provide assistance to the emerging people of Ahmanyā, big businesses had grown up quickly. Seeds, seedlings, cuttings, bulbs, and raw materials were crossing from Earth to Ahmanyā. More than three hundred ships had already made the journey, and they were only the beginning.

“Nskao, my mother’s mother’s mother,” began Stenafi as she stared over the fields, “was a writer of poems. She lived to be one hundred and twenty-one years—a long time for our people. All her life she lived in *Imlah Taltahni*. She came to the surface only one time, when she was a young woman. It was enough for her to see the endless desert and hear the howling winds. She stayed on the surface for three days, wandering alone among the foothills and treading the soft sand of the desolate wasteland that she knew had once been a fruitful plain.

“When she returned to *Imlah Taltahni*, she did not speak for many days. Her parents could not coax a word out of her until she was ready. Before she spoke, she wrote. When she decided to speak, she called the entire population of the refuge together and then read a poem she had composed. It was an epic, and has since become one of the treasures of our refuge. I believe that when our planet is renewed, it will become a classic, to be known by every citizen and learned by every child.”

“I know the poem, Stenafi,” said a slender, almost gangly girl child who stood next to the Ahmanyman woman.

Stenafi smiled tenderly and looked down at the girl, who was looking up to her with large, liquid, brown, guileless eyes shining through the helmet on her atmosphere suit. “I know you do, Tayan. Nskao taught it to me when I was seven—that was sixteen years ago, just before she died.” Stenafi looked up at the plain. “She would have loved this day. In her mind and heart, she had already seen it. She could not have known that the child to whom she taught her poem would see it fulfilled just a few years later.”

Starman Mark Seaton scanned the cultivated land for long minutes without saying a word. At last he said, “Wheat. Corn. Beans. Lettuce. Tomatoes. Lots of things.” He laughed. “I remember when I sped along this empty land on a land-sailer just seven years ago, when it was blanketed with snow. Never would I have imagined that I would stand here now and see it covered with crops.” He laughed again, an exultant outburst. “You’ll be able to feed a multitude soon, Stenafi.”

“Yes. Indeed we will,” she said with a quiet and confident gladness. Then she laughed also. “We will need it!”

For several minutes there was silence. Then Mark spoke up.

“I am puzzled about something,” he said after a time. He grimaced and then spoke again.

“Stenafi,” he began. “The damage done by the terrorists on Earth more than a century ago was extreme—more than anything that our race had ever seen. Yet as soon as the terrorists had been stopped, we began to rebuild. There are still places on our planet

that show the signs of devastation of course, but in about fifty years we had rebuilt our culture.

“The scouring of Ahmanya was much worse than what we experienced, but still... I wonder what would have happened if your race had decided to rebuild Ahmanya after the Xenobots had been conquered. You had no enemies, nothing to fear. Yet instead, you chose to create the refuges, and for all this time you have remained in hiding, waiting for the people of Earth. Could you not have begun to rebuild without us?”

Stenafi looked out over the ruddy sand, and saw where a few dust devils flitted over the emptiness before blowing away into nothingness.

At length she said, “I have asked myself that same question, Mark, more than once. The answer, the only answer I can come up with, doesn’t really satisfy me, and I do wonder what would have happened if indeed we had begun to rebuild long ago rather than waited. We would certainly have been prepared for any return of the Xenobots. Now we are almost helpless before them, for the Xenobots, like the people of Earth, chose to rebuild without delay.” She sighed.

“There were several schools of thought on Ahmanya,” she continued, “before and during the First Xenobot War. Some were more active and some were more passive; some were in favor of wiping out the Xenobots when they had the opportunity, and others were in favor of showing mercy.

“In the end, before the war Ahmanya did two things: prepared for the war but also prepared the refuges in case they were needed. When the planet was devastated, I think it would have been a time when the ‘passive’ element could say that they had been proven right, and going into the hypersleep was the right thing to do. The ‘active’ party had shown their flaw by not anticipating the sneak attack, so an active followup for action after the devastation would have been somewhat suspect. Not because the plan was faulty—it wasn’t—but because the ‘active’ party had lost credibility with the bulk of the population.

“Moreover, an incredible, planet-wide depression set in as

the survivors saw that their destruction was imminent and that they were helpless before it. In depression, one is hardly able to function. Even the very thought of preparing food or getting dressed can seem to be an insurmountable task. Even if there were an element among the Ahmanyans that counseled action, I think they would not have been heeded. There must have been such people, but at the time their voices were few. Nearly all of the Ahmanyman warriors, after all, were not on the planet; they had gone to Omega Centauri.

"The survivors on the planet were cautious. Some would say fearful or even cowardly, and maybe they would have been right. Many generations went by and, well, caution became all we knew. We waited cautiously before revealing ourselves to the Wind People, and we waited cautiously before allowing contact with you, the Starmen. In both cases we were actually driven to the contact by circumstances and not really by our own choice. I wanted to initiate the contact and act on it, but, well, I was kept pretty muzzled."

Stenafi turned and looked at the big Starman, wearing a lopsided grin. "Maybe you can recall the first time we met, and how excited I was." She laughed aloud. "You had no idea then how excited I really was!"

Mark laughed with her.

Then the Starman turned to the young girl.

"What do you think, Tayan?" he asked her. "What do you think about your first journey to the surface of your home planet?"

"It is big, Mark," said the girl. "Of course, I saw the likenesses in our home below, but no likeness could show me how big it really is."

"You are only a little younger now, Tayan, than Nskao was when she came here. How old are you?" asked Stenafi.

"I am fourteen."

"Fourteen. Nskao was seventeen when she came to the surface. Perhaps she stood right here, a little more than a hundred years ago, and beheld the desolation of more than a

hundred centuries. Now..."

"Now," continued Tayan, "it grows! It's a farm!"

"Miles and miles of farmland," said the big Starman.

"When can I bring Vixa up here?" asked Tayan.

"Not for a long time, I'm afraid," answered Stenafi.

"Koalangs cannot survive on the surface yet."

"But the atmosphere is becoming stronger and stronger all the time!"

"Yes, it is growing faster than we thought possible, but it will be at least two or three years before we can lay aside our atmosphere suits and breathe the air of our own planet."

"Well, then, I will be as old as Nskao was when she came here."

"Yes, Tayan, you will be."

"I want my mother to see this, and my father and brother!"

Stenafi laughed. "Your mother is my older sister, Tayan, and she has never been as adventuresome as you and I! Our family will come to the surface, but I think it is too soon for most of them. There are huge changes ahead for the people of Ahmanya, and for many it is, perhaps, a little frightening."

"You came up for the first time when you were only twelve!"

"I was eager for changes, Tayan, and I had skills and gifts to share with our leaders, and they accepted them! I longed for the day when we would meet the people of Earth and together we would conquer the Xenobots, and our race could walk again openly and freely upon its own planet. But not everyone is eager for the changes that are now coming upon us."

"Don't they want Ahmanya to be made new?" The girl seemed shocked.

"Oh yes, they do! It has been the dream of our people for a hundred lifetimes! But now that the time has come for it to be fulfilled, for some it will not be easy. They have become comfortable living in a hidden, confined, and safe place. Now, whether they are ready or not, they must take on a completely new way of life. All are excited, but most are also frightened. Most have never seen the big sky."

Mark chuckled and lifted his chin with delight. "Big sky," he said with a laugh. "That is the nickname of the place where I grew up! The land of the big sky!"

"Can you take me there someday, Mark?" asked the Ahmanyen girl.

The Starman looked at her affectionately. "I think the next few years will see many visits between the peoples of our two planets," he said.

For a time no one spoke. The child looked up at the sky more than at anything else. At last Stenafi asked, "Tayan, are you ready to go back down now to your family?"

"Yes. I want to recite Nskao's poem for Mark. I will sing it while we walk back."

~

Five miles below, at that very moment, a well-featured man stood silently, staring down at a large glass capsule. Young and strong, yet bearing already the weight of responsibility, he ran his eyes over every part of the face of the child within the capsule.

"It will be only about forty days more, sir," said an attendant.

"She looks almost ready," said King Izmaka. "It looks as if she could breathe now, and open her eyes."

"A little longer, sir, and Kennatha will awake. She and her brother are young and healthy, and will see the sun a few days before your wife does."

The King smiled, and his eyes expressed near infinite tenderness. "They will awake to the world they hoped to find when they were suspended. Most of our people will. We have succeeded."

"We have, sir."

~

Starmen Zip Foster and Joe Taylor paid close attention to the three-dimensional beamscreen in the display room of the Office of Tactical Maneuvers under the direction of Dr. Wilbur

Verderber, Chief Manager at Mars Base. He was an elderly man with grizzled gray hair. His bulky body caused him to move slowly, but his mind was sharp and quick.

The room was fifty feet high and sixty feet square. Filling up almost the entire space was a light-enhanced display in which Omega Centauri was recreated in miniature. With the touch of simple control levers, Dr. Verderber and the two Starmen could move on a magnetically-powered platform anywhere inside the display they wished.

"Here," said Dr. Verderber, indicating a site inside the field of off-white points of light, "is where the most recent discovery was made—a fleet of Xenobot warships numbering more than two hundred. That," he emphasized the word with a shake of his forefinger, "is the largest colony we've found so far."

"That still accounts for only about four per cent of the number that escaped the antimatter curtain," said Zip.

"Of course, of course, young man," said Dr. Verderber, nodding vigorously, "I can count. Ninety-seven freighters survived last fall's brilliant defense of our planets. If we assume that each carried two hundred warships, we had just under 20,000 warships to locate. We have now accounted for only eight hundred and two of these. Obviously, obviously," he continued to speak even as he maneuvered the platform out of the exhibit to one side where the entire display could be viewed at once, "the last Xenobots have spread themselves throughout the Omega Centauri system. It's even possible that some of them have fled elsewhere, but we have no information about that.

"Now here—" Dr. Verderber pressed a button and a large lavender shape like a deflating balloon appeared inside the depiction of Omega Centauri, "is the area our search of the system has not yet gone. The extremities of the cluster, you see, are all explored and now accounted safe. Our forces found only a few Xenobots in those areas, although there was evidence that some had fled before our ships arrived. The Xenobots can only move into the core, however—they can't get past us. We're driving them into the center."

“How long will it be before we have confined them to a space small enough to launch our final attack?” Zip asked.

“Well, now, that’s not up to me to decide, but I guess,” the elderly man paused and squinted with one eye, “in about two and a half years, the Xenobots’ zone will look about like—this.” On the word, the lavender shape diminished to a ball just about five feet in diameter. “‘Course, the smaller it becomes the more difficult it will be to annihilate the Xenobots inside it. There’ll be more of ’em in any given place, and they’ll be desperate. But there’s no doubt that we’ll get ’em all—in less than three years, I should say, the war will be over.”

Joe said nothing. He stared out into the display and noted the bright orange light that showed where the great torus had once existed. On the far side of the globular cluster he could barely see the blue light that marked the position of the neon planet that revolved around the red giant sun.

Zip’s attention, however, was fixed on the pulsing red light just off the center of Omega Centauri, a short distance from the bright orange light. The pulsing light reminded him suddenly of a heartbeat.

There, the redheaded Starman thought with a flare of his nostrils, is where the last battle will be fought. There is the last, stinking home of the Xenobots, where they will make their last stand. There is Luxa, the swamp-like planet that is the home of what was once one of the First Races. There it will all come to an end.

In the next installment in the Starman series, **THE LAST COMMAND**, even with victory all but assured the Starmen will find that the Xenobots are far from beaten, and many surprises will await Zip, Mark, and Joe before the intense, incredible climax of the second Xenobot War.

BOOK 8: THE LAST COMMAND

*When he finds a pearl of great price,
he goes and sells all that he has and buys it. (Matthew 13:46)*

Chapter 1: Celebrating a Birthday

“NOW HOW ABOUT some of my apple pie?” tempted Aunt Clare with the twinkle in her eye that showed her confidence that no one could possibly resist such an offer. “It’s as good as fresh! The apples were picked ripe right off the trees last summer and kept in the stasis chamber ever since!” Her face, becomingly wrinkled with laugh lines, was attractively framed by auburn hair that was pulled back into a bun. Her slender body leaned over the brown wing chair in which her nephew was sprawled.

“Oh, Aunt Clare, I’m stuffed, absolutely stuffed!” protested Starman David Foster.

An expression of shock appeared suddenly on his kindly aunt’s face. “B—but you’ve come all this way...?” she said weakly.

David laughed. “Oh, I’m not turning you down, by any means, Aunt!” He hastened to assure his mother’s oldest sibling that he would indeed have some of her apple pie. She had served him and his sister Kathy a lavish and scrumptious meal, and he just needed a little time for it to settle before he pulled himself back to the table for dessert. “I think Kathy and I will take a short walk to build up our appetites again—that is, if you’re game, sis?”

“Of course, David, providing Aunt Clare and Uncle Frank don’t mind.” Kathy was sitting nearby in a chair that was a companion to the one occupied by her brother. With her head tilted slightly to one side, she was looking dreamily into the fireplace where a comfortable blaze was on the verge of falling into coals. Her long, shiny, black hair reflected the highlights of

the blaze in the dim room.

"Go ahead, go ahead," waved their Uncle, sitting in his easy chair with his feet stretched out before the fire and his head wreathed in the smoke from his pipe. His grizzled hair stuck out a little untidily from over his ears, and his mustache was past its usual time for trimming. "No, don't take the time to help with the cleanup. You're our guests, and we like to do it our own way! G'wan, get outside and leave us old folks to the kitchen. We'll have your pie and cider hot'n ready for you when you get back. G'wan!" He waved his hand again, more insistently this time.

Somewhat mollified, Clare added her urgings to those of her husband. "You two take your walk. We'll have dessert when you get back."

Kathy stood up and donned her long coat, wrapped a shawl around her neck, and put on her woolen cap and fur-lined gloves. With a groan, David heaved himself out of the chair and likewise put on his gear.

"Thanks, Aunt Clare, for a marvelous meal. I haven't eaten anything like it in years!"

"You haven't been here for your birthday since you were ten, Starman Foster! We had to make up for lost time!"

"It was his eleventh birthday, Clare," corrected her husband, easing himself up from his spot by the fire and heading for the table to begin clearing it. "I remember that Kathy had just turned two and got into everything, and your sister and her husband didn't keep a good enough eye on her. Why, that little pixie plunged her hands into the ..."

The brother and sister quietly closed the door behind them, shutting out the heady scents of baked turkey, yams, and sweet apple pie. They stepped out onto the wooden porch of their aunt and uncle's home just outside of Clark's Bridge Crossing, West Virginia, the village where David had been born. It hadn't changed much in the twenty-six years that had passed since then.

"Let's go through the apple orchard to the pine woods," suggested Kathy. There was a delightful chill in the air, and as she spoke, her breath made little puffs in front of her face. She

blew out and created a cloud of vapor.

“Okay,” agreed her brother. He strode out into the front yard with Kathy close behind. Their boots crunched in the crusted snow in the places where it crossed their path in the shaded parts of the wide yard. They passed through a gap in the wooden fence that separated the yard from the orchard on the north side of the property, and continued their walk under the bare fruit trees. There was no path here, and the snow covered the entire ground about four to six inches deep.



They passed through a gap in the wooden fence.

For long minutes neither said a word. They progressed through the grove, leaving two sets of prints that occasionally intersected. The ground sloped gradually downward. At the far side, where the trees came to an end, the land dropped off rather steeply to a creek at the bottom, and then rose again to thick pinewoods. David sidestepped his way down the slope, turning his feet to gain more traction.

“Step in my footprints, Kathy, so you won’t slip.”

After a moment he reached the bottom, then turned to receive his sister’s outstretched arm. She slid the last two or three feet and collided with her brother, who put his arms around her to keep her from falling. Then he turned and gave his attention to the creek. The ice was thin and brittle, and they could see the water flowing under it. It was only a few inches deep. David stepped into it, cracking the ice, and let the frigid water flow around his boots.

“Come on,” he said. “It’s easy.”

Moments later the two of them wandered under the snow-clad canopy of the pinewoods. David pulled his cap down a little tighter over his ears.

“You’re not paying very much attention to me, David,” Kathy reproved him mildly. “You’re preoccupied.”

The Starman turned toward his sister and smiled broadly. “I’m sorry, Kathy,” he said. “I *am* preoccupied.”

“You’re *always* preoccupied, or something,” Kathy complained. “You need to enjoy each day as it comes. Uncle Frank and Aunt Clare went to a lot of trouble for your birthday, and they’re so excited to see us! When we leave tonight, they should feel completely happy that we came, and not wondering what’s wrong!”

“You’re right,” David said, looking down at the ground, abashed. He turned back up to look into her grinning face and brushed a snowflake off her cap. “I’m just so tired all the time. This break we’ve got—it’s a nice long one—four months. But I know that the final offensive against the Xenobots is coming before summer.” He turned away and sighed loudly, and a large cloud of vapor appeared in front of his face. “Mark and Joe and I have fought the Xenobots on Nyx, at the bottom of the Pacific, and we had a harrowing search for them on that planet wandering in deep space, far from any star, that was inhabited by swarms of incredibly dangerous firewasps. I’m just...tired.”

Kathy looked directly into his eyes and laid a hand on his shoulder.

“I don’t like to fight, Kathy!” exclaimed Zip, turning his face away from her. “Not even Xenobots! I just see the utter stupid waste of war, not only material waste but moral and spiritual! It is so staggering to those who have to endure it. It always has been, no matter what the poets say, and always will be, whatever the propagandists tell us!” He sighed again. “Of course, it’s always been required to fight in an evil world—and right now, we’re the ones who have to do it.”

Kathy’s eyes watered up, but she smiled. “This year marks the end, David,” she said tenderly, putting her hand on his cheek and turning his face gently but firmly toward her again so that he had to look her in the eye. “Next year when we celebrate your birthday, all the burdens will be gone.”

For the rest of the walk, David stepped with a measure of exuberance. Much of the weight on his shoulders had lifted—at least for a time.

Nearly an hour later, when their steps pounded on the hollow porch, they were both laughing. They stamped the snow off their boots and opened the door to a rebuilt fire and the scent of warm apple pie and steaming cider.

“Come in!” roared their Uncle Frank. “We’ll have the table set in twelve seconds! Shut the door behind you, Kathy, you little pixie—you’re letting the cold in!”

~

As the sun fell below the western horizon and darkness filled in the hollows of the farm like spilled ink, David and Kathy made their reluctant farewells and tramped over to the *Dart*, David’s personal shuttlecraft, two hundred yards away from the farmhouse. The temperature had dropped at least ten degrees since their walk. Brother and sister crossed the frozen, empty fields, walking with haste to keep their circulation going. Moments later, the five-seater had blasted into the sky, and its pilot had turned it toward the sunset.

“We’ll have you back at the Academy in less than three

hours, Kathy,” said David. “This craft can do 2,200 miles per hour without even having to breathe hard.” As he piloted the streamlined, charcoal gray ship, they enjoyed the bizarre spectacle of seeing the sun rise in the west. Slowing over Arkansas and eastern Texas, David zipped and zoomed over massive cloudbanks that were opulently colored ochre and orange. Kathy laughed with glee as they skimmed the contours of the upper surfaces of the cloudscape, plunging into valleys and over mounds and sometimes through an archway of colored water vapor that would vanish before another hour had gone by. Her hilarity buoyed David further, and he began to laugh as well.

“How about taking the controls?” he asked.

For the next two hours they took turns piloting Starlight Enterprise’s newest personal shuttlecraft. Streaking over the western coast of Mexico, the last land they saw was the tip of Baja California as it dropped quickly behind.

All too soon the Starman began the descent. Cruising just north of Tahiti, they spotted the islands to their left just before landing at Starlight Academy. The massive artificial island was situated fifty miles west of Moorea. They stepped out onto the tarmac in the late afternoon of an early autumn day in the south Pacific.

“Two hours earlier than when we left the farm,” observed David. “You’re in time for a second dinner, Kathy.”

“Very funny, brother,” chided his sister. “Tomorrow it’s back to work. The end of term’s just two months away and then I have to get ready for my summer project on Ahmanya. Tell mom and dad hello for me, and have a happy birthday tomorrow, brother,” said the Starman’s sister, “and you make sure you’re here next year when I graduate!” she added with mock sternness. “I’m hoping to be created a Starman!”

David smiled at his sister with fondness and looked directly into her eyes. “You know that even a planetful of Xenobots can’t keep me from being here!” he whispered. He kissed her on the cheek and she kissed him back, and then Kathy turned and hurried toward the terminal. She didn’t look back. Slowly,

almost unwillingly, David reentered the cockpit of the *Dart*.

When he got the “all clear”, he launched. Once he was in space, he entered a course for Amundsen City, and then set the pilot on automatic. In spite of the excitement of the day, or perhaps because of it, he was asleep in minutes. He slept for most of the thirteen-hour journey to the Moon, awakening in plenty of time to put the controls into manual and begin the descent.

~

In the early morning hours of March 12, 2160, Starman David Foster brought the *Dart* in to an effortless landing on the Starlight Enterprise field outside Amundsen City. A walk of a hundred yards or so brought him to one of the major slideways, which he allowed to bring him to Hangar 36 where he knew he would find friends.

At a few minutes past 6:00 a.m., there were few people in evidence. One or two isolated mechanics were standing idly on the side of the hangar farthest from the landing field. A small group was gathered in another area, each person holding a mug of what was probably coffee. David paid them no attention as he crossed the hangar and came to the framework of a ship, built for deep space but far from completion. Two men were peering into an aperture lined with conduits. Several circuit boards had been pulled and laid aside on a worktable. Inside were levers, rockers, and open tubes.

“Good morning, Zip,” said one of them without turning around. The Starman smiled, knowing he could never take Jesus Madera-Cruz by surprise. The other, an olive-skinned man of about forty with curly black hair and fine white teeth turned and greeted the Starman as well.

“Hello, Zadok; hi, Jesus,” responded Zip. “What’re you working on?”

The master ioneer pulled his head out of the aperture and turned to face his friend with a big grin. “We’re checking the transfer circuits between the master control board and the port

maneuvering jets. Happy birthday, Starman!”

“Thanks,” said Zip without too much enthusiasm.

“How was your visit Earthside?” queried Zadok, dusting off his hands. Zadok Cohen was Madera’s chief assistant.

“Great,” answered the Starman. “I’m really glad I took the time off.”

“Yeah, a whole day,” said Madera wryly. “Didn’t I just see you here yesterday morning on your way out?”

“That was two days ago, as you know well,” said Zip with a grin. “Got any coffee around here?”

“Sure do, but for your birthday that’s not good enough. Let’s go to Beulah’s Place. Breakfast will be on us.”

“Aw, you don’t have to do that,” balked Zip.

“Of course we don’t,” said Zadok. “That’s why it’ll be special! Come on.” With a wave to the others on the other side of the hangar, the three men made their way out of the main airlock and jumped into an electric ground vehicle commonly known as a “popper”. Madera-Cruz steered them through the entrance of the Starlight Enterprise spacefield and zoomed into Amundsen City. In minutes they wheeled into one of the commercial sections of town, parked, and walked toward what was obviously a popular eatery. It was surrounded by vehicles. As they opened the inside door of the airlock, the buzz of multiple conversations and the clatter of plates assailed their ears.

“Looks crowded,” said Zip.

“It’s always crowded,” said Cohen, “but Beulah will have a table for us.”

Zip turned toward his companions. “She knew we were coming,” he charged.

“Of course,” said Madera. “We knew you were due in this morning and we know it’s your birthday. We told her we’d be here about this time.” He led the way through the doorway into the foyer. The decibel level about doubled once they were inside, but Beulah’s voice had no trouble being heard.

“Ah, ya’ll’re here at last!” she bellowed with an American Deep South accent strong enough to give pause to those who

were not used to it. She glared at them with her hands on her hips. She was a massive woman, a native of Alabama and its former governor who had made the Moon her home for more than two decades, and now reveled in following her first love as a restaurateur. “The latecomers’re here to celebrate Zip’s birthday!” With a sweep of her right arm, she shouted the news to every patron on the floor. A spontaneous round of applause erupted. Many people beat the sides of their glasses with their silverware. The din was earsplitting. Acutely uncomfortable, Zip acknowledged the tribute with a shy wave and a bashful grin.

“We’ll, uh, we’ll go in the back room, if you don’t mind,” said Madera-Cruz, sidling up to the owner of the restaurant. “Maybe it’ll be a little quieter there.”

Zip saw a ripple of amusement cross the face of the proprietress, and then she split her face with a grin. “Sure it will, honey!” she blared. “Don’t let it be said that Beulah O’Brian don’t satisfy her customers! I’ll take you there myself! Follow me to a quiet table overlookin’ the landin’ field! Ya’ll can watch the ships land ’n take off.” She laughed at her own joke. The conversation and clatter resumed as she maneuvered her bulk between tables, clearing a path like an icebreaker for the three men who followed.

She pushed her way through a double swinging door, and broadcast, “Here you go, a nice quiet ta—”

“WAHOO!!” erupted a boisterous cry from a familiar voice as the party entered the room, followed quickly by a loud chorus of “Surprise!”

David’s eyes goggled as he looked into the room and saw two dozen of his friends from the Starlight Enterprise community standing and laughing. Someone began to sing “Happy Birthday” and everyone quickly joined in. “Wahoo!” shouted Starman Joe Taylor again when the song ended. He took Zip’s right arm and, with Starman Mark Seaton on the other, propelled him to the head table and plunked him down in the seat of honor.

“Great job, everybody!” shouted Joe, directing his praises

especially toward Jesus Madera-Cruz, Zadok Cohen, and Beulah O'Brian.

"Alanthus! Alanthus Highboy!" blasted Beulah through the door. "Git yer crew in here and serve these folks! We got a birthday to celebrate!"

"Yes, ma'am! Right away, ma'am!" came a distant shout. In less than a minute, a tall beanpole of a man with a chef's hat burst through the doors and stepped aside, holding one open. He was a native Cameroonian whom Beulah had recruited years earlier to serve as master chef in her restaurant. In short order three carts were wheeled in, groaning with appetizing provender. Steaming scrambled eggs, several rashers of bacon and sausages, aromatic muffins and buttered toast, pots of jam, flagons of juice, bowls of fruit including the toothsome Ahmanyen *moolafentori*, and other delicacies appeared in quick succession. A huge urn of coffee was set up against one wall, and against another was a Belgian waffle maker. Attendants sped to these mechanisms and set out to make them produce.

The guest of honor was so utterly overcome that he was having a hard time breathing. Finally he sat back and watched everything happen. The laughter and excited conversation continued to buzz around him.

"H—how...?" he managed to stutter at last.

"It was your buddies, of course!" Joe burst out. "Mark and me—we did it! And look who's here!" He pointed out in the crowd.

Zip gasped. "George St. George! Well, I'll..."

"Greetings, my fiery-headed boy!" trilled the Starmen's companion from years earlier. They had all met when Lurton Zimbardo had held them captive aboard what had then been called simply the Pirates' Asteroid. It was St. George who had first discovered the Ahmanyen supership now known officially as Tharsos.

"George! What are you doing here?" stammered Zip.

"Celebrating your birthday, of course!" He held up a glass of orange juice. He still had a full head of blond hair, and it still

showed evidence that he cut it himself.

"But to come all this way from the Belt..."

"Oh," said St. George dismissively. "I'm retired now and moving down to Earth."

"Retired? You?"

"Sure," interjected Mark. "George is affluent now! He struck it rich a few months ago. Found a small asteroid made of pure thorium!"

Zip gasped again. "Well, congratulations, George! That's fantastic!"

"Thanks, Zip, my boy. But I don't think I'm going to stay on Earth very long. I expect I'll eventually suffer from ennui and have to get back to traveling."

"How—how is Montezuma doing?"

"He's decided to run for President," interrupted Joe. There was a huge roar of laughter from everyone who was listening to the exchange. "It's an election year, you know! I think he's just what we need!"

With that, the high table began to be served. In front of Zip was placed a plate about a foot and a half in diameter, stacked with a portion of food from every tray that had been brought in. Likewise in front of Mark a plate was set nearly the size of a wagon wheel, laden with bounty. Lastly, in front of Joe, Beulah herself set a small bowl of oatmeal. Now it was Joe's turn to show surprise.

Beulah roared with laughter.

"This isn't what I ordered," said Joe feebly.

"That's what I live fer, honey—yer orders! They're always an entertainment and a pleasure to fill! Yer a man who knows food and how to enjoy it!" She pulled the bowl away and indicated to the closest server that Joe's real breakfast was to be brought in. "Take those cinnamon flavored onion crescents you invented, now—that delicacy is one of our most popular hors d'oeuvres!"

Mark dropped his fork. "Hey! *I* invented that!"

"You *suggested* it, Mark," said Joe grandly as a substantial

plate was set before him, “but *I* invented it—we can split the residuals Beulah will be paying for the idea².”

“Here’s a present fer you, Zip,” said Beulah, setting a small wrapped package in front of the Starman.

“Oh, Beulah, you don’t need to do that. This breakfast is enough.”

The woman chortled. “This breakfast ain’t free, son! Yer rich friend St. George is payin’ for it all. But this here is a real present from me.”

Zip stole a quick glance at St. George, but he was occupied in conversation.

“Thank you, Beulah.” He drew it to him and unwrapped it, revealing a jewelry box. Zip looked up at his hostess with a wondering expression. *Jewelry? From Beulah?* He flipped the box open. Inside was a golf ball.

“A golf ball?” he asked with a puzzled expression. Both his friends were watching him with heartfelt affection.

“Yes, honey,” said Beulah with uncharacteristic softness. “It’s a golf ball.” She wrapped a hand tenderly around Zip’s wrist. “This is one of the two golf balls hit by Alan Shepard on the Apollo 14 mission back in 1971.”

Chapter 2: The Eve of War

LATER THAT SAME DAY, Allen and Elizabeth Foster sat in their customary viewing chairs in the alcove before the great bay window in their home on the outskirts of Amundsen City. Their son David and his guest George St. George sat in two other chairs. Allen was at one end next to his wife, and David was at the other end with George next to Elizabeth and closest to the refreshments. A large pot of tea rested on an octagonal table within easy reach of everyone, next to a sugar bowl. A plate of

² For the background to Mark and Joe’s discussion about the cinnamon-flavored onions, see *The Heart of Danger*, page 63 of this book.

oatmeal cookies and another of dried apricots crowded out the last space on the table.

Through the window the watchers could see across the dusky plateau and beyond the horizon into the blackness of space. The sun, hovering on the edge of sight just to the right of center, cast long, black shadows wherever a boulder or slight elevation relieved the level desolation. Several moon vehicles crawled like caterpillars across the gray plain, following well-worn avenues to supply points and research stations beyond the wall of Shackleton Crater.

"Delicious, Elizabeth," stated George with a solemn nod of his shaggy head, "too good for a wastrel like me. I'm afraid that the cooking I've provided for myself and my crew for the past twenty-four years has made my innards unfit for the cuisine they have enjoyed at your table today."

Allen covered an involuntary snicker with a discreet cough.

With a quick glance of disapproval in her husband's direction, Elizabeth said, "Nonsense, George. David has told me that you're a skilled chef."

"Alas, Mrs. Foster. I'm afraid that the first time I cooked for him, back on the SE supply asteroid O344, he and his friends were so exfluncted and famished that dog food would have seemed like a banquet fit for a king."

There wasn't much that could be said after that, so David's mother filled their guest's teacup with a demure smile, and pointed him to the plates of after dinner treats. David had never much liked the traditional cake and ice cream for his birthday, but he loved oatmeal cookies.

"When will your treatment be finished, dad?" asked David—a question intended to change the subject since he already knew the answer. Allen, knowing that that was his son's reason for asking, hastened to respond.

"Eleven days," he stated firmly. "Then I'll be fit for space duty again! And just in time, too!"

Elizabeth's face suddenly registered tension and anxiety. "In time to go to war, Allen," she said in a tone of voice that sounded

almost like an accusation. "I'd rather that you were still grounded."

"You know how I've chafed for thirty years! *Thirty years*, Elizabeth! No spaceman should be grounded for so long. No spaceman should—" The old Starman paused. "I'm sorry," he said quietly at last. "I can sure understand how you feel. I just wish that you could understand a bit more what it's been like for me."

George St. George did not appear to be uncomfortable at all with the unanticipated eruption of a family squabble. "Perhaps the new technology that has made it possible to restore your husband's damaged tissues has come at the right time, Elizabeth," he said. "No right-thinking person ever desires war, but if we are forced into it to defend our lives and our homes and our culture, then we want the best people we've got to do that defending. And there are none better than Allen Foster."

"A bit of an exaggeration, St. George," said Allen, obviously gratified, "but I thank you for your words."

"What's happening in the Belt now?" asked David, his eyes staring out the window.

"A great many people are leaving," said St. George, with sudden soberness. "They've been leaving for more than two years, but the pace of the exodus picked up about six months ago. Settlements are down by about a third of their customary population, and the miners seem to be disappearing too. At least business at the supply posts and the social centers has diminished by about the same amount. Word is that a lot of people expect that the Xenobots are going to begin an invasion in the Belt, which is where they always seemed to appear first whenever they came into the Inner Planetary system."

"How is Montezuma Vly, George?" asked the younger Starman. "I didn't get an answer when I asked that question earlier."

"He's still in the Belt, hanging onto his home. He's got a lot of confidence in the Starmen. He says that if anyone can succeed against the Xenobots, you will—and if you fail, then it doesn't

really matter where he'll be when the enemy comes into the Solar System. So he says that he might as well stay where he is. He isn't going to leave. He doesn't have a very high opinion of the crowd that's fleeing."

"Sound reasoning," said Allen. "We've got our hypershields up, and our warships are increasing in number every day. The Ahmanyans are moving faster than we ever thought possible. Any enemy'd have to be beyond foolish to launch an attack anywhere in our Solar System right now. It's the Xenobots who have reason to worry, not us!"

"I agree with you, dad," began David, "that the Belt is under no greater risk than anywhere else in the Inner System, but I have an uneasy feeling that we and our allies are becoming overconfident. The Xenobots—"

"Confident, yes," David's father interrupted, "but *over* confident, I don't think so. We're being careful. Our best strategists and analysts are working with all the information we've got or can guess. Why, I've never seen the people of Earth labor so effectively or with such cooperation, and having the Ahmanyans working with us just adds to our strength! Our probes have located every Xenobot-held star system in Omega Centauri, and they haven't won any battles against us since you came back from there more than two years ago."

David looked over at his mother and saw the anxiety written across her features, and decided to let the conversation drop at that point. But to himself he said, *It's just not going to be that easy*. He looked back out to the spartanly beautiful terrain. The scene was fixed in his memory, for, except for the road created by the passage of many vehicles, it hadn't changed from before his memories began. He nibbled on one of the oatmeal cookies and took a sip of tea. The cookies were good, as always. Oatmeal cookies, no matter where he ate them, invariably made him think of his home, but the ones his mother made were always his favorite.

His gaze wandered around the inside of the viewing room, and he took note of the way the chairs were placed, how his

parents sat close together. The gray carpet appeared almost as if he were seeing it for the first time. He observed its texture and the subtle design worked into its threads. Had it always been that way? Of course it had; he had grown up with this carpet. His eyes traced the graceful curves of the legs of the small table that held the teapot and refreshments. How lovely it was. He smiled slightly, and then quickly sobered. The war with the Xenobots would be launched very soon. It was quite possible that this carpet, this table, this house, the entire city could be turned into disconnected atoms by summer's end.

"What are you thinking, David?" asked his mother, breaking a long silence.

"I was just thinking how much I like this house," he replied. His mother smiled broadly and sat back, content.

~

Robert Nolan flew his personal spacecraft, the *Nova*, over the extensive orchards in the northern hemisphere of Ahmanyia. Even at an altitude of five miles, the spread of fruit trees ran to the horizon in every direction. Nolan laughed with earnest satisfaction.

"This is wonderful, wonderful, Kateri!" His assistant, the Mohawk woman Kateri Tekakwitha, also smiled broadly. Her long dark hair was pulled back in three strands after the fashion of Ahmanyian women, but braided after the tradition of her Mohawk forebears. A choker of wrought silver was wrapped delicately around her throat and featured a yellow topaz in the front that beautifully set off her clear copper skin. Her smile revealed even, milk-white teeth.

"You were well named, Kateri," said Robert. The woman's last name meant, "she who puts all things in order".

"You have said that many times, Robert," she said, but still pleased with the compliment.

"Because it is true. If it were not for your assistance, Ahmanyia would not have come as far as it has in so short a time.

Nolan Management and Distribution Company is, is..." words failed him.

"...is responsible for the rebuilding of Ahmanyans," Kateri completed the sentence.

Nolan laughed. "I wouldn't go that far," he said, but pleased just the same. "Landing the contract to assist the Ahmanyans made it possible for us to build a new company. This is far more satisfying than the old Nolan Mining Enterprise. I hardly remember those days now, but our best staff from those days now makes NMDC better than ever. While Richard and Starlight Enterprise have been doing research and building spacecraft for battle by the hundreds, we've been helping to rebuild a planet! We're partners now in a better way than at any time in the past!"

"We're almost at the animal breeding center, Robert," said Kateri.

Nolan confidently brought the *Nova* in to a landing on a field inside a large complex of buildings and open ground, located several miles beyond the far edge of the orchard. The terrain in which it was situated resembled an African veldt. The complex itself included large fenced-in areas in which a number of animals roamed. Buildings the size of spacecraft hangars were arranged like the spokes of an immense wheel. The landing field was located in the center. One building, nearly twice the size of the others, was the headquarters for the project.

Robert and Kateri debarked from their ship, and greeted the half dozen Ahmanyans who had hastened to meet them.

"The animal breeding programs are proceeding on schedule, Mr. Nolan," said one of the Ahmanyans in response to a question Robert had asked. "We can count on as much success as the seeding programs to the west."

"Really?" responded Nolan, with his eyebrows raised. "I am surprised. The old 'crop dusters' out there are turning the desert into fertile fields faster than we had hoped. One good rainy season to help the irrigation, and we'll be able to feed another two million by next year at this time."

"Our small animal departments will be able to provide the

worms, beetles, and all the insects they'll need on schedule, sir."

"You hear that, Kateri? Why, the project is picking up speed!"

"Yes, Robert! There is still an entire planet to be transformed, but we've made a start!"

"A start? That's an understatement! In two or three years, Ahmanya will be able to support its entire population of sleepers!"

As the party approached the main entrance to the headquarters, the distant sound of children laughing and playing came to their ears. In the midst of the happy sounds, there was a loud "crack", followed by shouts.

"What was that?" asked Nolan.

"Sounds as if someone got a hit," said the Ahmanyan.

"A hit?"

"Maybe a home run, judging from the shouts."

"Baseball?" exclaimed Nolan, incredulously.

"We are importing more than seeds and animals, Mr. Nolan," said the Ahmanyan with a smile, opening the door to the headquarters.

Over the doorway were a few words written in flowing Ahmanyan letters. Below, in English, were the words,

RECOVERING THE FIRST TREASURE: HEADQUARTERS

~

"Two hours precisely until launch!" The voice of King Izmaka of Ahmanya was measured and confident.

"Yes sir," responded Pleera, commander of Tharsos. "We are ready."

It was three weeks after David Foster's birthday. The central command of the Earth-Ahmanya Alliance was gathered on the bridge of Tharsos, the premier Ahmanyan warship. Technicians were at their posts checking figures and confirming the locations of more than 10,000 robotic battleprobes, poised for a

simultaneous command to invade Xenobot space.

The asteroid-turned-Ahmanyen flagship was inside the Asteroid Belt and sheathed against any normal or extraordinary means of search. In other places throughout the Inner Planetary system, nearly 35,000 warships of both Earth and Ahmanyen were on alert and ready for orders.

On the bridge of Tharsos, Commander John Lewis of Space Command was in close conversation with Karax, the Guardian of the bustling Ahmanyen military city of Olovanda inside the great asteroid. Nearly a dozen Starmen were to be in place for the launching of the battleprobes, including Mark Seaton and Joe Taylor. All had arrived but two, who were expected at any moment.

All at once the main access door to the bridge opened, and two famous Starmen entered: David "Zip" Foster and his father, Allen. When the elder Foster crossed the portal and entered the bridge, spontaneous applause broke out, and everyone present rose to greet him. Starman Foster's broad smile and jaunty salute expressed everything he needed to say. The applause did not die down for nearly a minute.

Zip quietly and unobtrusively made his way to where Mark and Joe were standing, where they greeted him with a couple of slaps on the shoulder. Allen strode over to where Izmaka, Karax, Commander Lewis, and Pleera were assembled.

"Starman Allen Foster, reporting for duty, sirs," he said dashingly as he bowed slightly to each one in turn. "And miss," he added when he bowed to Pleera.

"Welcome to Tharsos, Starman," said Izmaka, and shook his hand warmly in a double grip. "We are pleased that you have been healed and are now released for space travel once again." After further congratulations, the three men excused themselves and strolled away to inspect the preparations for the coming launch. Pleera stayed with the older Starman.

"It is a privilege to meet you, Starman Foster," said Pleera, obviously thrilled with the encounter. "I am pleased to meet the first Earthman to make contact with extraterrestrial life in the

Solar System, and honored to be the Commander of the ship that is your first posting since that venture.” She was referring to the ill-fated Deep Space Expedition of 2130 that Allen had commanded, during which initial contact was made with the denizens of Titan. “Welcome back to space!” she concluded warmly.

“Thank you, Pleera! It is a pleasure for me to meet you in person. My son has told me a lot about you. I am grateful to you for saving his life.”

“Many people are responsible for the success of that expedition, Starman Foster, and on their behalf as well as for myself, I receive your thanks. However,” here Pleera dropped the formal speech, turned her head slightly to one side and smiled disarmingly, “the Titanian Jack was most responsible of all. Perhaps one can trace your son’s survival directly back to your own actions thirty years ago.”

Allen smiled, and then turned his gaze around the bridge, taking in the controls, monitors, indicators, and especially the operations tank in the center of the great room.

“I, uh...I have to admit I’m somewhat daunted by the technology of this spacecraft, Pleera. Even the Starlight shuttlecraft that brought David and me here was something new to me.” He lowered his voice. “I’m afraid that I won’t have much to contribute to the effort.”

“Starman Foster,” she began.

“Please call me Allen,” he interrupted.

“Very well, Allen,” she said. “Don’t underestimate yourself. The anticipation of your arrival gave enormous encouragement to us here. We know that you do not have current training, but that can, and will, be overcome. Your presence has already boosted morale. Even before you stepped through that portal, you contributed to the success of this mission.”

“Thank you. If you’re not otherwise occupied, would you mind explaining to me what is about to happen? My son has described it to me, but I’d like to hear your account as well.”

“Of course. I shouldn’t be needed for at least another hour.

You may recall that examination of the Xenobot ship that Starman Joe Taylor landed on Mars nearly four years ago revealed that the Xenobots' solar power stations are connected to their spacecraft and selected bases by antimatter feeds. We discovered that their fighting ships maintain a steady link to a solar power station over a tachyon band. When necessary, its internal power center draws more fuel from the power station. During the process, a very thin wormhole connection is established between the fighter and its power station. A stream of antimatter is sent over this connection and acts as fuel for the craft. The power is virtually without limit.

"During the past two years and more, since we decimated the invading Xenobot fleet, we have searched out all Xenobot presence in the central Omega Centauri region encased by the shell of our hypershield, both by robotic probe and manned ships. Our probes were designed by Starlight Enterprise to search for and detect any unusual activity in space that involved antimatter as well as the artificial bending of spacetime that indicates wormhole travel. As you probably know, this is the tell-tale signature of a functioning solar power station."

"An immense undertaking," said Allen, impressed. "In fact, I can hardly believe that it was possible to search an entire star cluster in the time you had."

"The probes were seeded by an ingenious algorithm designed by your Stephen Hoshino and many assistants working with supercomputers. The launch of a master probe would, by prearranged time delay, make possible for the launching of two others contained inside it. These, after another measured delay, would launch two others, up to a total of sixty-three probes in each unit. With wormhole travel and tachyon communication, the entire star cluster was searched in a little less than a year. With the increase in technological ability made possible by the continuing research into the secrets of the Lucian crystals, Dr. Hoshino was able to design this system along lines similar to the microwave net he used to thwart Lurton Zimbardo back in 2151. The probes were sheathed and non-invasive in the hope that the

Xenobots would not be able to detect them. However, even if they were detected, they would still function.”

“The entire operation was put together by Dr. Hoshino?” asked Allen, astonished. “In just *two years*?”

“No, Allen,” replied the Ahmanyen with a slight shake of her head. “That would be a miracle indeed! Remember that Ahmanyen fought the Xenobots, and won, twelve millennia ago. Not only were many of our original warships preserved in Olovanda, but our data gathering network from that age is still in place. It covered nearly a third of the galaxy. The Xenobots, as they recovered, managed to locate and destroy every piece of Ahmanyen apparatus within their own star cluster, but 92.4% of the system outside Omega Centauri is still functional. We were able to reactivate that much of the network, and it is now operational. With our help, Dr. Hoshino and his team were able to modify and improve the former system, and then tie into it to make it productive for our current needs.”

“I see,” said Allen, nodding his head energetically.

“As a result of the probes,” Pleera continued, “a vast map was created that showed the distribution of all Xenobot activity that used antimatter and wormhole transfer. Although our own probes could pass through it, the enemy has not permeated the great wormhole shield we imposed around the core of their star cluster. In the past two years, further data gathered from the Lucian crystals has made it possible for us to redefine this shield into an impressive lattice capable not only of preventing travel by wormholes, but also all attempts to cross it by sublight speeds. An immediate defensive flare is created by any unauthorized passage that is strong enough to destroy the greatest ship that the Xenobots can boast.”

“Yet our own ships can pass through it?”

“Yes, and even achieve wormhole travel. The shield is in constant flux—flickering up to half a trillion times each second. Based on the principle of the RRFC system—the “rapid random frequency change system” used in compads—our own ships can be attuned to the sensors in the hyperlattice and pass through the

barrier unscathed.

“Any attempts by the Xenobots to cross this barrier, by wormhole, sublight velocity, or even by realtime transmission, from within or without, have been noted, measured, and charted. Every attempt made from outside to enter the central portion of Omega Centauri has been traced so that we were able to determine its source. We trust that that method, coupled with our restored network, made it possible for us to locate the sites in the galaxy where there was a Xenobot presence. There were fewer than a hundred of these, and they are now included in our present plans.”

“Then you are confident that you have located all the Xenobots in the galaxy?” Allen looked a little dubious.

“We are hopeful that that is the case,” responded Pleera cautiously. “If there are any Xenobots who did not attempt to contact their home base by tachyon or wormhole communication, then their whereabouts are still unknown to us. It is not possible to search the entire galaxy, so even if our current strategy is successful, we plan to maintain our guard for generations to come.”

“What is the current strategy?”

“Rather simple, at this point. Over the past year, Earth and Ahmánya have deployed robotic attack drones a single hyperspatial-jump away from every site in the galaxy we have located that is controlled by the Xenobots. These attack drones have one purpose—they were designed to enter the Xenobot-held star systems and disrupt the tachyon waves the enemy is using in such a way that their solar power stations and anything connected to them will become unstable and explode. The time to launch these drones is now...” Pleera took a quick glance at the shipboard clock, “just over an hour away.”

“Theoretically, then, all the Xenobots can be destroyed with this attack?”

“Theoretically, Allen,” said Pleera with another disarming smile, “but we do not expect so. We believe that we are able to pierce the Xenobots’ shields, thanks to further research done on

the Lucian crystals that Joe provided. Xenobot technology has not changed in centuries and we expect to have no trouble launching a surprise attack and invading their power systems. But we also think it likely that their central headquarters will be powerfully defended—better than any outlying base. The Xenobots' central defenses have not ever been tested—not since the war over 12,000 years ago. We Ahmanyans overwhelmed them then. Indeed, King Izmaka, then our prince, led the attack as he is leading this one. Since that time, however, the enemy has had a long time to regroup. We know that the Xenobots have been in decline for many centuries, perhaps a millennium, but we can only guess at what stage their technological growth peaked. On that, we have no information at all.”

After only a brief pause, Allen said, “If this action is successful, then the Xenobot power stations will be annihilated and the vast majority of the enemy fleet will become dust and radiation.”

“Yes,” affirmed Pleera with a quick nod of her head. “The remaining Xenobot presence, in whatever state it is in after our attack, will still have to be dealt with. There are several plans for the course we must take, but first we must know how successful our attack is.”

“Commander,” said a technician who had approached the place where the Ahmanyans and the Starman were conversing. “Forgive my interrupting you. The King asks that you join him for the final countdown.”

“Thank you,” said Pleera. “I’ll come at once.” She favored Allen with a confident smile, and then turned away.

After the Ahmanyans commander left him, Allen looked around the bridge and saw many people at their tasks. For a moment he felt useless; then he saw his son and his friends staring into the operations tank and began to stroll over toward them.

“Forty-five minutes!” came an announcement.

Time passed. On the word, a realtime signal was sent to the robotic fleet of drones to commence the invasion. Within

moments, they had leaped across hyperspace and entered all known Xenobot territory. Now the leaders of the Alliance simply had to wait to learn what would happen.

Chapter 3: The Enemy Is Cornered

BY OUTWARD APPEARANCE, nothing at all changed on the bridge. No one who didn't know better could have guessed that the Alliance had just launched a devastating offensive, two years in the planning, against every known Xenobot holding in the entire galaxy—and that, if circumstances were better than anyone actually expected, the war was over.

“How long will it be until we know what happened?” said Joe quietly to the group that stood around the railing of the operations tank.

No one answered. Mark stared aimlessly into the tank, entranced by the ethereal beauty of the wraithlike lights that marked the positions of the stars, spacecraft, and bases in the environs of the Asteroid Belt where Tharsos was in orbit. Allen fidgeted. Zip stared coldly across the chamber, seeing nothing. His nostrils flared every once in a while.

At a dozen consoles, Ahmanyen technicians were absorbed in their measurements as data streamed into the control center. On occasion, someone's head would turn to check a data feed or refer to a side screen, then return attention to the screen in front of him. No one conversed. There were only the quiet sounds of a random tap, softly spoken command to the computer, or the squeak of someone shifting position in a chair.

Izmaka, accompanied by Commander Lewis and Karax, moved from station to station and stared unblinkingly for a time at each screen in turn. Pleera focused on inspecting the systems that maintained *Ossëan's* position and sustenance capabilities.

Zip turned his eyes on the Ahmanyen woman and watched her actions. The more she paid attention to the programs, the more uneasy he became. The systems were automatic. If there

were any danger, an alarm would sound. No one needed to watch them, least of all the commander of the spacecraft. Something was wrong.

Eventually everyone sensed it. Though no word was said, a feeling of heaviness pervaded the bridge.

After about half an hour, Izmaka moved to the operations tank and stared into it. Mark watched as his eyes shifted under thick brows from point to point as he stared into the tank. His face was drawn. Zip felt the oppression that filled the room soak into his body like tropical humidity. Suddenly he felt drained and heavy, as if he were on the surface of a large planet laboring under strong gravity. Without knowing why, bitter anger came over him and he began to breath heavily.

“Pleera, send in the first and second observation teams,” Izmaka said at last without moving his gaze from the tank.

“Yes sir,” answered the commander of *Ossëan*. Her voice was quiet and she did not turn to face the speaker. She gave the orders in a matter-of-fact voice.

“Sir?” said Mark to the Ahmanyen leader. Izmaka removed his stare from the interior of the operations tank and looked into the big Starman’s eyes. Mark’s eyebrows lifted slightly, and his chin turned aside in an interrogative expression. He felt the intensity of the King’s gaze almost with a shock. Then the King turned and addressed the entire population of the bridge.

“The attack has not completely failed,” he began in a loud voice.

What an odd way to put it, thought Mark.

“The battle drones completed their assignments,” continued Izmaka. “Throughout the galaxy, in every location but one, the Xenobot bases have been destroyed.”

The announcement was obviously not celebratory. The thick tension in the room intensified as everyone waited for the rest of the news.

“But apparently we have not eliminated any Xenobots—except those outside the hyperlattice we imposed on the center of Omega Centauri. Only 87 bases and their ships were vaporized.

In every other case, before our battle drones sabotaged the solar power stations, the intelligence they sent back showed that the bases were uninhabited.

“Moreover, every one of these bases had been ‘booby-trapped’ against any invaders. As soon as our drones initiated the signal that disrupted the ability of the power stations to supply energy, a mighty offensive force, originating from the base itself, eliminated the drone. Of the drones we sent in, the only ones to survive are those that were outside the hypershield. Every other drone has been destroyed—not, however, without also eradicating the power station and Xenobot base to which it had been sent.”

Izmaka paused for a moment. No one said anything, since it was evident that the King had not finished speaking. He looked up and spoke again.

“Deep inside the zone enclosed by the hyperlattice there is a sphere approximately two light hours in diameter which is protected by a sophisticated hypershield. This zone contains the Xenobots’ home planet, Luxa, and its double star. Our probes were unable to penetrate this zone by hypertransfer. We have therefore dispatched an observation team, which will launch probes traveling across the barrier by conventional power to explore the interior of this hypershield.

“Whatever Xenobots are left in our galaxy must be inside that space. All indications are that that is most of them—probably all of them. In short, the enemy appears to be cornered, but protected.”

“Sir?” began Mark. “If I may ask, can you tell us more about the observation teams?”

“The observation teams, Starman Seaton,” answered the King, still addressing the entire assembly, “are heavily armed, but are nonetheless designed first of all to investigate a planet at close proximity. I have sent more than two hundred ships to selected sites of those we just attacked. They are to confirm what our drones reported, and learn any other information that may be found. Our drones were active for only a few seconds before

they were vaporized. The ships of the observation teams have already made the hyperjump to their pre-arranged locations. The first team will investigate sites outside Omega Centauri; the second will make its forays much closer to what is evidently Xenobot headquarters.”

~

Within two hours, all the ships on the observation teams had returned to their positions in the Inner Planetary system.

“Saadervo, captain of the *Sa Zomne*, reporting to *Ossëan*.” The message came into the bridge where all could hear. All action on the bridge stopped.

“Go ahead,” responded Izmaka.

“Twenty-three ships in the first observation team examined all 87 sites outside Omega Centauri known to have been occupied by Xenobots. We confirm that all solar power stations and bases have been completely obliterated. Our initial assessment is that every Xenobot presence in the galaxy outside Omega Centauri has been removed.

“One hundred and eighty-nine ships of the second team englobed the enemy’s hypershield in the star cluster and then sent probes into it virtually simultaneously. At that time, the hypershield was slightly less than two light hours in diameter. Each probe performed its assigned task of investigating the entire space inside the hyperspatial globe, using telescopic investigation, radiometry, and ...”

“Yes, yes, Saadervo,” interrupted Izmaka in a rare demonstration of impatience, “we are familiar with the procedure. Please state the results of your investigation.”

Joe looked at Mark sidelong and smiled with a wry upturn of one side of his mouth, but the big Starman didn’t notice.

“I’m sorry, sir,” said Saadervo. “All Xenobot bases inside our own hyperlattice but outside the Xenobots’ hypershield appear to have been abandoned for some time. Telescopic investigation of the interior revealed what is almost certainly a sizable Xenobot presence. Details will emerge as the data are

analyzed, but preliminary estimates suggest that roughly one million Xenobot warships of powerful make are inside this zone.”

There was an audible gasp inside the bridge, and Izmaka looked grim. The Xenobots had many more warships than even the best strategists had anticipated—far more than the humans and Ahmanyans had. Saadervo continued.

“The enemy’s craft are clustered around a core of activity of a puzzling nature that is in orbit around the binary stars and approximately 110 million miles from the planet known as Luxa. The planet itself is in the center of the enemy’s shield, and is obviously the source of the hypershield. The hypershield the Xenobots have established appears to be very similar if not identical to the barrier we ourselves used to protect our Solar System—that is, no ships, whether our own or the Xenobots, can cross the barrier by wormhole, nor can they travel by wormhole within the shield. This concludes my report.”

“Thank you, Saadervo,” said Izmaka, heavily. When the communication ceased, the Ahmanyen leader drew in a deep breath, stood up straight, and announced, “This war council is dismissed. When all the data have been analyzed, we will meet again and consider our options.”

There was a palpable release of tension throughout the bridge. Those who had no immediate responsibilities began to drift away, either one at a time or in small groups, talking quietly.

Allen Foster turned to the three Starmen and said, “I, uh... I think I’ll stay on the bridge a while longer, Zip. I’d like to stay in the control center and watch.”

“Sure, Dad,” said Zip with genuine gladness that nonetheless did not belie his preoccupation with Saadervo’s appalling report. “I’m glad you’re with us. It’s good to see you back in action, where you belong.”

“Thanks, son,” the elder Foster said with a smile. He gripped his son’s shoulder for a moment, and then made his way to the navigator’s bay.

Zip, Mark, and Joe left the bridge together. For some time

they said nothing, Mark and Joe picking up on Zip's dour mood. Then, as they passed down a corridor that led toward the living quarters, Zip muttered, "It is as I feared all along. Conquering the Xenobots will not be as easy as we thought. The wild beast that is cornered is at its most dangerous. It has nothing to lose and when it attacks, it will be more vicious than ever before."

~

The mood among the leaders of the Alliance changed the next day from grimness to alarm when the data had been analyzed. The "activity of a puzzling nature" at the core of the Xenobots' cluster of ships was proven to be another colossal wormhole transporter like the one that Tharsos had blown up more than two years earlier. Once again, an immense solar power station was in its center—a power station that appeared to be already complete and presumed to be functional. There could be no doubt that when the torus was completed, the Xenobots planned to send the solar power station into orbit around the Sun with an armada of Xenobots to follow.

Immediately upon confirming the nature of the threat, King Izmaka sent for Stephen Hoshino, and arranged for a private consultation with the renowned human physicist.

"Since the Xenobots' own hypershield prevents wormhole travel," began Izmaka, "most likely they will drop their hypershield when they are ready to transport their armada from Omega Centauri to our Solar System. Is that how you see the situation?"

Dr. Hoshino nodded.

"If they do so, can we destroy the transporter and the armada as soon as the shield goes down, before they can effect the hypertransfer of their solar station and fleet?"

The eminent scientist looked doubtful. "Theoretically, the opportunity will exist but it will be infinitesimally short. Almost certainly they will drop their shield and then make the necessary jumps in an instant. Even if we monitor their shield with

unfailing, untiring apparatus, the Xenobots will be able to move their solar power station and most, if not all, of their fleet before we can take effective action to prevent it.”

Izmaka nodded gravely. “It is as I expected. Now answer this: if their hypershield prevents the creation of wormholes inside its field, how can their own warships continue to function? They depend upon the energy provided by the power station, and that is transferred to them in realtime by wormhole.”

“The difference,” explained Dr. Hoshino, “is that the antimatter feeds use a different kind of wormhole—a very small one that isn’t active for very long. In essence, the antimatter feeds are too minute to be blocked by the shield. The wormholes we use to transport large objects are, frankly, fragile constructs, and the shield acts as a wave-generating device that collapses them before they can form completely. The incredibly small antimatter feeds (with wormholes only a few molecules in diameter) are just too tiny to be impacted by the disturbance. It is an ingenious method for producing and transporting power, combining three technologies. Antimatter designed for fuel is conveyed by infinitesimal wormholes through realtime along tachyon beams.”

Izmaka’s face had become even more drawn and gray as Dr. Hoshino was speaking. “And do the Xenobots believe that they can cross our own hyperlattice, the guard we have placed around their system—and the shield we have placed around our own?”

Dr. Hoshino manifested uncharacteristic uncertainty.

“Evidently they believe that they can,” he said hesitantly. “Our hyperlattice has been created from data enclosed in the Lucian crystals. The Xenobots are the direct descendants of the Lucians. Perhaps they have learned something about the lattice that the human-Ahmanyen Alliance does not know.”

4: The Secret of the First Races

“MONTEZUMA VLY.”

The words burst into the reclusive asteroid-dweller’s mind with a suddenness that shocked him. Vly, who was bent over the maw of a mechanical rock-polisher he was recalibrating, jerked upward and banged the back of his head against the open casing.

“Ooooh, ow!” he exclaimed, withdrawing from the opening and rubbing his cranium vigorously with one hand that still clutched a wrench. Three koalangs leaped across the top of the machine.

Having had experience with the Janitor of the First Races two and a half years earlier, he recognized the method of conversing that that amazing individual used. A feeling of awe coursed through the miner at the same time that he was minded of his ignominious response. He began to laugh to himself.

He put down the wrench. “I’m here,” he said.

“Montezuma Vly. Please come to Adamant. I am waiting for you.”

“Yes sir,” said Vly. “It... it will be good to see you again, Janitor.”

“I am not the Janitor.”

A chill suddenly overwhelmed all other reactions in the miner. His palms became clammy and his heart began to race. He looked around the workshop at the clutter of tools, rocks, wiring, conduits, precariously stacked boxes, and books. There was nothing new to see and he knew it—he was seeking a measure of reassurance that the sight of familiar surroundings imparts.

“Who... who are you?” Vly stammered.

“Come to Adamant. Do not be afraid, Montezuma Vly.”

The man’s hands were trembling. He was irritated that he was nervous and tried—unsuccessfully—to control the shaking. The koalangs sensed his unease and crept up slowly to keep him company. Unheeding of them, Vly pulled the communicator from his pocket. “Lily,” he said, addressing his partner, who was

occupied in the living quarters of the crescent-shaped asteroid that had been their home for more than two decades. "Lily—I have to go to Adamant."

"Why, Monty? What's over there that you need?"

"I've been called. I have to go."

"Called? Who's calling you from Adamant? The greegles?"

"I don't know. Not the greegles. Someone like the Janitor. I don't know."

"The Janitor?"

"Not the Janitor. I have to go." He shut off the communicator. He felt uncomfortable putting Lily off, but he had no idea what to say or how to explain what was happening. Aimlessly he picked up the wrench and tried to find a place to set it down out of the way, then put it back down right where he'd left it before. He pushed his attentive koalangs away with an uncharacteristic wordless gesture, and went to the chamber next to the airlock and put on his spacesuit. The koalangs followed but he commanded them to stay in the workshop when he opened the airlock. Within a minute or two he was crossing the short space between his home and the parent asteroid from which it had been broken off in the unremembered past.

As he drew near the asteroid, he directed a thought toward the chunk of rock below. "Where should I land?" he queried.

"Here." The word appeared in his mind at the same time a glow of warm light appeared on the surface, and then slowly faded.

Vly landed his ship with more inelegance than he was used to. He stepped out of the airlock and looked around.

"I am behind you, on the other side of the ship," came the words.

The miner circled the shuttlecraft and looked around. Many images had gone through his fertile imagination as he was flying the shuttlecraft across the gulf between the two asteroids, but what he beheld was beyond the realm of anything he had considered.

He saw a man—a man without a spacesuit, about twenty feet

away and facing him. He was about five feet tall. Vly couldn't quite tell if he were wearing clothes or not, but supposed that he must have been. The man was well proportioned, slender without being thin. Vly peered closely at him. He couldn't be sure whether the man had hair or not. A sudden start went through him like an electric shock when he perceived that the man had six fingers on each hand, including two opposable thumbs.

"Greetings, Montezuma Vly." The voice was clear in Vly's mind. "My name is Saleh. Thank you for coming to Adamant when I called you."

Montezuma Vly moved his mouth but no words came out. The questions in his mind tumbled over one another.

"Do not be afraid, Montezuma Vly. I will answer all your questions. My people built the greegles uncounted ages ago. The time is at hand when we will need what they have maintained and protected. I have come to bring them home."

"Ho... ho... home?" stuttered Vly, managing to get the word out with a squeak.

"Not all of them yet, Montezuma Vly, but many of them. Come with me." The man raised an arm and made an inviting gesture, and then turned his back. Without knowing that he had decided to do so, Vly found himself stumbling along after him.

"I am a Lucian," explained the man as he picked his way through a tumble of small boulders. "There are only a few of us left in this age. Only a few hundred."

"The Janitor... he was here..."

"A worthy individual. He is not a Lucian. His is another of the First Races. The Lucians were the first among the First Races. I suppose that those few of us who are left still are the first, though we do not think in those terms any more. Most of the people of the First Races are held captive—captive outside of space and time. Only a few of us remain in this age to see the eons past."

"How can you exist on this asteroid, in empty space, without a spacesuit?"

"I am wearing a spacesuit, Montezuma Vly. None of the First Races can live under these conditions without protection."

The man continued to make his way through a maze of stones, moving more and more deeply into canyons and narrow defiles that marked that portion of the surface of the asteroid. He was going to a part of Adamant where Vly had never been. The terrain was convoluted and bewildering, and nearly impossible to access.

"The Janitor wore a spacesuit such as I had never seen before," said Vly. He was becoming calmer.

"The suit I wear is also one you have not seen before."

Montezuma chuckled dryly. "I still can't see it," he muttered to himself.

"It is not something that can be seen," responded Saleh. "It is simply not what you expect. It is only a few molecules thick, and it lies close to the skin."

It's too much for me, thought Vly, shaking his head as he hurried to keep in the steps of the Lucian.

At length they came to the last and deepest portion of a split in the rocky fabric of the asteroid. Saleh slipped through a crack in the wall. Swallowing his fear, Vly followed him, and found himself inside a natural rock cavity that was virtually invisible unless one were inside it. The floor was curved but not difficult to walk on. The Lucian was already at the opposite side from the point where he had entered. He laid his hands on the wall of rock, dimly visible to Vly in the austere illumination afforded by the stars. With a slight effort on the part of the Lucian, a crack appeared in the wall, and then widened to create a doorway. The man passed through. Vly had no choice but to follow.

After traversing a short passage they came to a chamber roughly thirty yards across in every dimension. Inside were the greegles.

"We have arrived," said Saleh.

Montezuma's eyes opened widely in surprise. "I never knew this chamber was here!" he exclaimed.

"It is where the greegles stay unless they have a task to perform. When you call them, they come from here."

For some time, Vly did not know what to say. He remained in

place as the Lucian walked among the greegles where they were situated on the floor or clinging to walls like spiders. He laid hands on one after another, some for a long time and others for only a few seconds. The greegles remained utterly motionless.

At length, Vly spoke up. "Saleh, if I may ask— why did you bring me here?"

The Lucian turned toward the miner. "I asked you to come so that I may give you a gift." He returned to his examination of the greegles, but his voice continued inside Vly's mind. "You are the friend of the greegles. You are the only friend they have had in the ages of their vigil. Few people indeed have seen them, but in recent times many have heard of them. All but one considered how they may exploit them. Even the Ahmanyans, who found them millennia ago, were interested only in the information they could glean from them. They learned little. You alone accorded them dignity. They are only machines, but you did not know that until recently. Though they did not need it, you protected them. And for that, they protected you once from your enemies."

Vly, stunned with the extent of the Lucian's knowledge, remembered the time he had called on the greegles when Lurton Zimbardo's ships had attacked his crescent-shaped asteroid, and the greegles had sent the pirates scuttling away in short order. Four of their five ships had been cut into scrap. Vly had scavenged many valuable supplies from the debris of that encounter. The miner smiled with the memory. Suddenly Vly was overcome with a sense of overwhelming inequity. A keen discomfort washed through him.

The Lucian, having made his way back toward the entrance to the chamber, turned toward Vly again. For the first time, the two men looked eye to eye. Vly was riveted with the encounter. "Montezuma Vly," came the Lucian's words, "do not think that, because I am of the First Races, I am exempt from showing courtesy or gratitude. The obligation of virtue is laid upon all sentient beings, the greater and the lesser alike—perhaps the greater most of all. And your race is by no means the least of the creatures."

Suddenly a rush of overpowering sorrow flowed from the Lucian into the miner.

"Montezuma Vly," began the Lucian. "It is my race that spawned the Xenobots. Once the greatest of the races in all the galaxy, the first among the five First Races, we became masters of space and time. We could bend space and expand and contract time to our desire. Then the day came, long after our creation but uncountable eons in the past, when many Lucians sought to become masters of all life. One, whose name is now forgotten to all but a few, betrayed his own race and seduced them into a lust for power and endless life. And then even the first of the First Races fell into civil war.

"Alas. Those who chose the evil way prevailed. The other First Races came to the assistance of the faithful Lucians, but they were overcome. The renegades, masters of space and time, constrained them in the inescapable prisons of time stases. All were caught outside of time. No time passes for them, but they can never fall out of the stases. They will remain so until the Universe ends.

"Only a few members of the First Races escaped this fate. The renegades could not capture us all. We fled before their rapacious triumph and they could not find us. The Janitor is the Connector of the faithful First Races, who now live, and have lived for endless eons, in secret, unassailable refuges of the galaxy—putting off death and invincible to the renegades, yet also not able to conquer them.

"We are not warriors, Montezuma Vly. Most of our technicians are in stasis, unaware that the Universe is aging around them. Undying, yet not in life. Unchanging, yet set amidst the natural decay that is the vital component of the passing of time.

"We are not warriors. Unable to conquer the renegade Lucians, we have waited. Yet, they have conquered themselves. From the time of their rebellion, they have known only gnawing, insatiable hunger that ultimately turns on itself and goes snarling into oblivion when it is thwarted and contained and—at last—

conquered. They are always hungry, always consuming, and never satisfied.

“Now the time of their defeat is at hand. Though the First Races who yet live are unable to conquer them, it is your race that can, and will. We are neither omniscient nor all-powerful, Montezuma Vly. Only One has those attributes—the One who is the Light.

“But the First Races have a responsibility. In the battle that is to come, your race will prevail—but it is not your place to exact the final sentence. It is for the First Races to speak the last word.” Here Saleh finally released Vly’s eyes from the intensity of his glance. The miner sat down, sapped and exhausted. The Lucian looked about him at the greegles. “And here,” he said, “is what is needed for that final word to be spoken. The greegles have kept that information from the beginning.”

Montezuma raised his head. “But Saleh— couldn’t the Xenobots have destroyed the greegles? Surely they know that they are here.”

“They know. But they do not know what they are. Even if they did, they could not have destroyed them. It is they themselves who made them, but long ago they forgot the knowledge of how to unmake them. And they no longer know how to draw knowledge from them, nor would they understand it if they could.”

“Where are the stases in which your people are kept? Cannot the information in the greegles free them?”

The Lucian walked again among the greegles, continuing to touch them. Vly knew that now he was not sorting them or testing them, but merely touching them, almost with affection. After a moment the Lucian answered.

“It is possible that that is so, Montezuma Vly. But those Lucians who are able to apply the information, those not numbered among the renegades, are enclosed in the stases. Oh, the renegades were brilliant in their stratagem. It is only those who are lost in timelessness who have the ability to effect their rescue. We few who have remained faithful to the charter of our

creation do not have the ability to release our fellows—not even if we call upon what you refer to as the greegles. Often I have wondered whether it is the prisoners or we who are in the worst state.”

Saleh looked up and stared into unseeable distances. “The stases are located on a planet that the renegades twisted and corrupted. It is the sixth planet in a dense system, governed by a moderately sized yellow star about two-thirds of the way across the galaxy from here. This wretched planet, far from any civilization, is incalculably hostile to any sentient race. Its surface is neither liquid nor solid. The stases are concealed in a terrain where natural law appears to break down, characterized by inexplicable lights that defy measurement or mapping as they sparkle tantalizingly in the murk of a storm that has raged without end since the renegades ignited it. It is a place of enormous peril.

“Perhaps, perhaps when the Xenobots have been vanquished, the storm’s intensity will diminish. I do not know the extent of their powers. But even if it is so, it will be impossible to release the captives. They must remain caught until time itself ends.”

“Saleh,” said Vly after a long pause. His voice was more tender than perhaps it had been for many years. “You have said yourself that you are not omniscient. Maybe a way can be found to release the First Races.”

The Lucian looked up. “I will not deny it, Montezuma Vly.” He smiled. “Now I will give you your gift.” He looked around. “One of these greegles will become your own. I will prepare it so that it will serve you in many ways for all the time that remains to you. And then, most of the rest of these will accompany me back to the home of the First Races. A few will remain until their particular knowledge is also needed.

“Come, you will help me to select your gift.”

The Lucian lifted his hands upward as if he were preparing to conduct an orchestra. In perfect unison, the greegles came to life.



*The Lucian lifted his hands upward
as if he were preparing to conduct an orchestra*

Chapter 5: This Generation's Courage

THE JANITOR OF THE FIRST RACES made no attempt to conceal his uneasiness. He paced the main council chamber inside Tharsos. The message he had brought was intensely disturbing. Commander Lewis, Richard Starlight, and even King Izmaka were distressed by his obvious agitation.

"It is completely unanticipated!" The Janitor's words impressed themselves on the minds of the others with more force than usual. "The enemy has devised a defense against tachyon invasion! The First Races cannot destroy the Xenobots' great wormhole transmitter!"

"Can you explain further, eldest?" asked Izmaka.

The Janitor stopped his pacing. "Transmitting a solid object along a tachyon beam," he began, "is like passing it from one room to another through a single door. However, when I directed the tachyon beam to the Xenobots' heavily guarded apparatus, I could not find any 'foci' to the torus or power station—there is no 'other room' to which I can anchor the tachyon transporter. Therefore the enemy's devices cannot be destroyed remotely—there is nothing for a tachyon bomb to latch onto."

The Janitor paused for a moment to calm himself. "This is both the strength and the weakness of tachyon travel," he continued. "One can only make the jump if there is a destination. Wormholes are not limited in this fashion. Tachyons, moving faster than light, need a solid target or a terminal for transportation along their beam to be possible. The torus and power station do not permit the establishment of a tachyon terminal—the Xenobots must have a defense against the tachyon transfer that we have never seen before. It is most unsettling to the First Races.

"And if the Xenobots have this capability, then perhaps it will also be possible for them to cross your hyperlattice. All the appearances point in that direction."

"And their hypershield prevents us from sending in a bomb by wormhole transfer as well," concluded Richard. "We cannot stop them from constructing their weapon in front of our eyes, and we cannot attack them without being overwhelmed by their superior numbers."

The head of Starlight Enterprise turned to the others. "What are our options?"

~

"So the cyborgs are building another transfer machine with another thirty-mile doughnut," said Joe, "and even the First Races can't touch it. I would never have thought that the Janitor could've gotten any hotter than he usually is, but that news apparently did it."

"Joe!" Zip whirled on his friend with unrestrained

exasperation. "You're a very funny guy, but sometimes humor is not the best way to deal with something!" The redheaded Starman spun back around and kept walking.

Joe's eyes opened wide. "I was only making a joke," he protested softly. "Everybody's so upset, I just thought— Sorry." The lanky Starman looked over at Mark with a wondering expression. Mark made no response. He shifted the pack of equipment he was carrying a little higher on his shoulder.

While the strategists took counsel together back on Tharsos, the three Starmen were taking a few days to relax as best they could under the circumstances. At Joe's suggestion, they had decided to explore the Asteroid Belt in the proximity of Tharsos and look for "pocket worlds". Joe had coined the term a few years earlier when the Starmen had kept a rendezvous with Saadervo, Stenafi, and Stavri Thalassa in a large pocket world the Ahmanyans had turned into a way station. From there the six people had traveled together to Europa to show the Ahmanyans the abandoned city of Domoli.

The Starmen had learned that some asteroids made of volcanic glass contained "bubbles" that had been sealed against open space since the destruction of the unstable planet Azemir. In the interplanetary war more than 12,000 years earlier, the Xenobots' uncontrolled hatred had caused them to explode that planet under the mistaken impression that it was the home planet of their enemy, the Ahmanyans. Shards of black glass in the Belt were remnants of what had been ever-boiling volcanic basins on the planet that had existed between Ahmánya and Jupiter. These "pocket worlds" held samples of the primitive atmosphere of the planet of fire.

Now the Starmen were walking along a rolling ridge of obsidian, broken off into faces that sloped away into the near distance. The surface on which they walked was smooth but pitted with countless microcraters, evidence of thousands of years of impacts with meteorites the size of dust motes. A spread of stars, galaxies, and nebulae spangled the heavens in all directions, and the blackness of the asteroid on which they

walked blended with their surroundings so that the horizon was next to invisible. Only the absence of stars showed where it lay.

The *Star Ranger* was poised on its fins half a mile away from the Starmen, with landing spikes firmly grounded to keep the ship from drifting off in the low gravity. The Starmen wore “smart-grip” boots so that a thoughtless leap or even zealous step would not cause them to lose contact with the asteroid’s surface and perhaps drift out into space. The asteroid on which they had landed was no more than a mile long, so escape velocity was only a little over six miles per hour. The Starmen were taking no foolish chances.

“The reason the Xenobots are still a threat is because they still exist!” said Zip, almost biting his words off. “They are cornered but not conquered! They got through the hypershield just two and a half years ago because they could travel much faster than anyone guessed! We underestimated them! Even the Janitor underestimated them! And now we’ve all underestimated them again! Having virtually unlimited energy from the quantum froth does not make us invulnerable! No matter how strong we may be, all the Xenobots need to find is one weak spot and they can still win. And we have a lot more than one weak spot! They may be declining rapidly, but that is only going to make them more desperate. They are cunning!”

In the awkwardness that followed, the Starman continued to stride across the terrain, his friends following.

“You’re right, Zip,” said Mark. The big Starman looked aside at Joe and saw that he had pressed his lips together. “Look,” he added, coming to a stop, “we’re all tense. We just show it in different ways. We’re a team. We’re unusual because Starmen don’t usually team up. They don’t need to because most of them can handle the usual things on their own—but we know better. We’ve learned to retain the giftedness that makes individual Starmen so rare, while still working in concert. There’s never been a threesome in the history of the Starmen. But what makes each of us unique can also create tension among us.”

The others had stopped walking when Mark had, but Joe and Zip were looking into space. Mark looked from one to the other.

"We've never had an argument before. We've always used our differences to make something stronger than any of us could have done alone. Where one of us is weak, the others are strong. Now is not the time to let that teamwork fall apart. We need it now more than ever."

Both Zip and Joe glanced at Mark.

"You know as well as I do why I'm saying this," said Mark.

"We're going to Xenobot central," said Joe flatly. Zip made no response.

"Of course we're going," said Mark, and now it was his turn to look out into space. "There is no other option. It's clear that robotic probes and long distance tachyon beams can't do the job, and the fleet cannot invade—not yet, not without the ability to move inside Xenobot space by wormhole. The enemy is unpredictable and they outnumber our fleet by a huge factor. A small force has to go in first and do something to give us an advantage. There are a lot of people that could do it, lots of Starmen. But we're the only 'team' that they've got, and we're experienced. And Zip has already been there—the only Starman who has."

"No matter how long they talk back there on Tharsos," began Zip, "that's what's going to happen. They're going to ask us to go back into the heart of danger. And we'll have to go."

"Just like Mars, nine years ago," stated Joe. "Mark and Steve and I were the 'team' that went to the center of trouble when the fleet couldn't."

No one spoke for at least a minute. Then Zip looked up at Joe. "I'm sorry, Joe," he said.

Joe smiled and gave Zip a brief hug, then slapped his shoulder. "Let's find a pocket world," he said.

Mark set down the pack and withdrew a small plunger and recording equipment. He secured the plunger to the glassy surface while the others took the recording equipment to sites about fifty feet away. In only a matter of minutes the parts were

bound into a unified system.

“Ready?” Mark asked.

“Go ahead,” said Zip.

Mark pressed a button and the plunger struck the surface of the asteroid a sharp blow, creating a wave in the local region. Within seconds the recorders displayed an echo reading of the makeup of the interior of the asteroid below them.

“Ehh! —solid,” observed Joe. “Let’s try someplace else.”

~

Many millions of miles away, Kristina Bethany sat in her apartment at Elijah Base on Titan. She had come to a major decision. She looked at the likeness of David Foster that she kept in a silver and forest green frame on her desk. For long moments she gazed at it, taking in the confident smile that radiated outward from under the wind-blown dark red hair. The photograph had been taken in Armstrong Forest nearly two years earlier.

She gave her attention to her communicator and recorded a message.

“David,” she began. “Next fall my work among the Titanians will be completed. I will have been living here for nine years. During that time, I’ve only been back to the Inner Planetary system four times to see my family. I would, uh,” she paused awkwardly, “I would like to come back to Earth or, or maybe to the Moon, where I can write my book. I’m ready to move back among people and live in a city. Suddenly Titan seems somewhat confining to me. And maybe I can find a place to teach. Maybe there will be a place for someone who is fluent in Titanian.”

The young woman paused and pursed her lips. Then she continued on with small talk, personal reminiscences, and news of people at Elijah Base that both of them knew.

When she was finished, she played back the message. Then she sent it.

~

On the other side of the volcanic asteroid, the three Starmen stopped and set the plunger for another echo test of the composition of the rock below.

"It sure is easy to measure the sound waves in this glass," said Mark.

"Right," agreed Joe. "If there's a pocket world here, we'll find it."

Mark fired the plunger. Eagerly the three friends examined the data.

"Nothing," said Joe. "Solid ground under our feet."

Zip looked up at the starry sky, filled with a glorious host of flaming points of light. He could not see the star that the Xenobots held so tightly, but he knew where in the heavens it was located. Mark noticed Zip's stare as he repacked the equipment.

"Looking for Omega Centauri, Zip?" he asked.

Zip nodded. "Mm hmm," he acknowledged. "I was just thinking," he added. "Remember when we first figured out that the Ahmanya that we had been seeking so intently was Mars?"

"I remember when *you* figured it out and nearly frightened Joe and me out of our wits," said Mark. "Of course we remember."

"And remember when you asked about the third moon in the strange logo we'd been tracking down before it all became clear?"

The other two waited for Zip to continue. It was rare that he opened up, but when he did they paid attention.

"And you let me name it. Its ancient name in Ahmanyan is *Ossëan*, but before we knew that I named it Tharsos. Remember why I called it that? When we learned that Mars had had *three* moons, and that its people had defended the Solar System against the Xenobots at the cost of their own planet, I named the third moon *Tharsos*—Greek for 'courage'."

The leader of the Starman trio turned and faced his friends. He wore a big smile and his eyes glistened. "This is our generation's turn! Now *we* will show courage! And I'm glad! It's

as if we have received the mantle from our forebears, both Ahmanyen and human. Izmaka will lead us into battle as he led the forces the first time. We're going to win!" He laughed. "And when it's all over, life is going to be pretty dull compared with what we've had in our years as Starmen up until now."

The others laughed with him. Zip's excitement and confidence, when they came to the surface, were contagious.

"Do you remember the night before we became Starmen when Mark wondered if a faster-than-light drive would be invented in our own lifetime? Well, we have it now! Before too long it's going to take us to Omega Centauri. When we return, the Xenobot menace will be gone!"

At that moment, a message came through all their compads at once.

"Greetings, Starmen. This is Richard Starlight. Would you kindly return to Tharsos? Our plans have been set and we need you."

Chapter 6: The Starlight Maneuver

THOUGH RICHARD STARLIGHT had not specified that his message was urgent, the Starmen did not delay their return journey to Tharsos from their jaunt into the Asteroid Belt. As soon as they had docked the *Star Ranger*, they hurried through the outer living quarters of the inhabited portions into the outskirts of the immense military city of Olovanda deep inside the asteroid.

They came to the council chamber where Richard, who had been apprised of their arrival, was waiting for them. They entered the chamber and saw the head of Starlight Enterprise sitting in the middle of the long side of a table, facing them. Commander John Lewis sat at his right. To his left, standing, was King Izmaka. The Starmen noted with a start that the Janitor was present also, keeping to himself as usual in a corner of the room so that the immense radiant heat of his environmental suit would

not cause discomfort to the others.

In the room there was a palpable atmosphere of tension, almost as if a judgment were to be rendered in a difficult case. The Starmen approached the table but did not sit down. Zip stayed in the center and slightly ahead of his friends. In an odd contrast to the haste with which they had returned to Tharsos, once they had entered the room, no one seemed eager to speak.

"We are here, Mr. Starlight," said Zip, feeling foolish for stating so obvious a fact. After he'd spoken, he shut his mouth firmly, and waited. His eyes wandered around the room and noted the characteristic Ahmanyen love of beauty and attention to detail. The walls were ivory-colored with an understated pattern blended into the texture. A wide picture window opened beyond Richard, revealing a large tree to one side with leafy branches hanging down in a calm afternoon shadow. Golden fields spread beyond, rolling to blue hills in the far distance. The branches of the tree moved slowly in a nearly imperceptible breeze. With a sharp pang of appreciation, Zip was reminded of a beautiful southern Californian summertime, with dark green peppertrees verging on black, set at random in the gently sloping fields of dry blond grasslands that lay on the earth like fleece.

"Dear friends," began Richard Starlight, with pain wrung across his features. "I have called you here to ask you to take on the most difficult assignment of your careers."

"Sir," began Zip, "we know what you want of us. You don't have to ask us—"

"Yes, I do," interrupted Richard firmly, lifting his eyes to stare for a moment directly into the redheaded Starman's eyes before dropping them again. He looked at the Starlight symbol on Zip's uniform. "I *do* have to ask. This is not an assignment I can possibly order anyone to take on. This is as hazardous a mission as I've ever asked anyone to accept. Vital as it is in the war against the enemies of our civilization, I cannot 'order' anyone on this assignment. So we here," he indicated Commander Lewis and Izmaka, "realize that we can only... ask. Perhaps even beg." Lewis kept his eyes on the design of the

tabletop, and absently traced a line with his finger. Izmarka, though expressionless, looked from one Starman to the other. Mark glanced briefly at Joe, and then looked back at Richard.

"On most of your previous assignments, you fought human enemies, and you had the support of others. Joe and Mark, when I sent you to Mars," here Richard looked up with tender regard toward the two Starmen in turn, "to free it from pirates, you had the assistance of Steve Cliff and an active resistance in the populace. When I sent you all to find George St. George and to track down Lurton Zimbardo, you were almost always close to friends, and you did not have the assignment alone. Even when you went to Omega Centauri you went with the entire power of Tharsos and its personnel—and you were only sent to the edge of the Xenobot empire, to a section the enemy had neglected for hundreds of years.

"Now—" Here he paused, pursed his lips and looked aside for a moment, then drew his eyes back to look directly at each Starman as he began the sentence again. "Now we are asking you to go into the heart of Luxa itself, against unknown odds, with little information, and no likelihood of getting any help if you need it. Though we may be able to communicate, there's nothing we could do to provide you with assistance should you call for it. You will be on your own. The chances of your success are unknown but probably small. Your chances of survival are hardly better than that. Frankly, Starmen," here he raised his eyes and looked at them face to face, "I think that there is a strong likelihood that I may be asking you to take on your... your last command. You are Starmen and among the best we have. Only you, if anyone, can achieve this end. But I cannot order you. I—we—must ask, though I know what your answer will be." Richard leaned back with his fingers tented and his lips pressed together.

"Of course we will accept this assignment, Mr. Starlight," said Zip decisively. "We have already discussed it—not that there was any question that we might not accept. It was clear to us when we were out in the Belt that only one viable course of

action was possible. We knew also that we were the most suitable men to take it on. We'll go." Mark and Joe nodded.

Commander Lewis expelled a breath he had been holding for several seconds. Izmaka nodded sagely.

"What is our task, Mr. Starlight?" asked Mark.

The head of Starlight Enterprise adopted a didactic manner.

"The shield that the Xenobots have established is, as one would expect, a perfect sphere. The center of that sphere is their home planet—Luxa. Therefore the origin of the shield is on the planet itself. Whatever power it has, however it is generated, is not likely to be connected to the solar power station. The power station must provide the fuel for their warships, but it is a separate system."

"How can we know that, sir?" asked Mark. "Could the power station not be providing the power to a wave generator on Luxa?"

Richard shook his head. "Not likely. The Janitor has provided us with the information that the Lucians, the race from which the Xenobots are descended, were masters of space and time. At the height of their power, they had created portals through which an individual could walk across worlds. It was tachyon travel at its most highly developed state. One could step between solar systems as easily as one could step from one room to another. The center of their operations was an immense chamber several miles below ground. It had its own power source, with the capacity to create a hypershield such as exists beyond the barrier we now confront. That has to be the source of what lies in front of our ships now. We don't know whether the Xenobots knew about this before but had no occasion to use it, or whether they recently re-discovered it. Either way, it is not important. This is the first time we are attacking their home planet, and this is the first line of their defense.

"Your task will be to go to this chamber and disengage the source of the shield. Then we will be able to attack their torus by wormhole and we will invade. If you cannot achieve that," Richard spread his hands, "our fleet will be hopelessly

overmatched, but we will have to attack just the same, but without the advantage of wormhole travel. The Xenobots have obviously done a lot of robotic construction in the last few years. We cannot long survive a direct encounter, fleet against fleet. And in such an encounter, it is virtually unthinkable that we will be able to destroy their new giant wormhole apparatus. Our backup plan is born of desperation. We assume that our hyperspatial shield around the Solar System will be able to prevent their new solar power station from being transferred directly into orbit, but there is no certainty that that is so. Even if it is, the Xenobots can transfer the power station to the boundary of the shield and then fly it toward the Sun, followed by their armada of a million warships. Our only hope of destroying them, if they get that far, will be antimatter bombs, but we must assume that the Xenobots will be prepared for them.”

“How are we to get into the chamber?” asked Joe, a little doubtfully. He had already guessed the answer.

The Janitor continued the explanation, speaking clearly within their minds. “There is no direct way into the chamber of nexi from the spacecraft of this fleet, but I will take you to my own planet where there is a tachyon transporter. Only by tachyon travel can you pass undetected through the defensive hypershield without alerting any Xenobots that their territory has been breached.”

They want us to travel by tachyon beam? thought all three of the Starmen.

Almost as if answering their thoughts, Richard said, “You may have some doubts about the efficacy of a tachyon transporter, considering your disastrous experience a few years ago³. The Janitor, however, assures us that the tachyon transporter of the First Races is far superior to the primitive and precarious apparatus the Ahmanyans attempted to use. He guarantees that you will be able to travel safely.”

“That’s comforting,” said Joe. Even the Janitor could not tell

³ As recounted in the ninth Starman novel, *Paradox Lost*.

whether Joe were speaking sincerely or not.

Richard continued. "The Janitor has informed us, to our surprise, that there are a few Lucians still active in the galaxy. They do not have the knowledge today that their race had at its preeminence, but they are still beyond nearly anything we can imagine. Their intelligence and capability even exceed those of the race to which the Janitor himself belongs. The Xenobots have lost nearly all that knowledge and retain only the crudest mimicry of what had been their heritage."

"Can the First Races not simply send a bomb into the chamber by tachyon transfer?" asked Joe.

"Unfortunately not, Joe," answered Richard. His brow wrinkled and he pressed his lips together for a moment before continuing. "They have no way of knowing where, exactly, the power plant is located—they only know the location of the main chamber, which is the primary, if not sole, access point by tachyon transfer. The power plant itself will have to be found by exploration. If they make an attempt to destroy it and fail, we will alert the enemy to our strategy and assuredly put them on guard. We expect that we have only one chance to act decisively. If we lose that chance, most likely we will lose the war.

"It appears that the chamber was the central transfer point for all the nexi that led between the planets that had once formed the Lucian empire. There are thousands of nexi inside this chamber. The Janitor knows only what the few remaining Lucians have shared, and none of them was involved in the creation of the chamber of nexi. The Xenobots must be unable to use the nexi, or they would have done so by now—yet, somehow, they have developed, or discovered how to use, a shield against tachyon invasion. Therefore, it is essential that the power plant that supports their hypershield be destroyed, so that we can attack the torus by wormhole. That power plant must be located in or near the chamber of nexi. We wouldn't send you or anyone else to do this task if there were any other workable option."

Zip asked a question. "If the torus is shielded against tachyon invasion, wouldn't the Xenobots' own planet also be protected

from any tachyon beam we might use?”

“It does not appear to be the case, Starman Foster,” answered the Janitor. “The tachyon transporter on my planet is able to connect with the chamber of nexi. That will be your only possible means of entry, as well as your only exit. I will send you to Luxa, and while you locate and disable the power source for the hypershield, I will maintain the tachyon corridor. When you have completed your task, you will return to me with a single step.”

Richard leaned forward again and clasped his fingers together. “In the past two days we have learned a few things—not very much, but enough to convince us that your task is our best hope for victory against the enemy.

“The Xenobot armada outnumbers us by at least 25 to one. We know that their ships can reach enormous speeds—far greater speeds than we can achieve. Without wormhole capability, there is no real hope that our fleet can prevail in battle against them. We cannot tell if the Xenobots have laid any traps for us, such as antimatter bombs or fields, as we laid for them. We know they had antimatter bombs back at the time of the pirates’ assault on Mars, but we haven’t seen any since then. That is hopeful, but of course no guarantee.

“Before the Xenobots complete their second torus, we must attack them and prevail. We cannot find any flaw in the design of our hyperlattice, but we cannot depend on that. The Xenobots are apparently undeterred by it and we must take their confidence seriously.

“When the hypershield goes down, we will attack at once! The robotic drones will lead the way. We will use holographic decoys and, within the holograms, there will be drones that can fire offensive weapons. We must assume that the Xenobots will also be using robotic fighters. We estimate that they have upward of a million warships; that number requires that most of these ships will be robotic. There are simply not enough Xenobots to man every one of those ships. The battle to come, then, will be a battle of robots, but we know that before victory comes,

somewhere there will be an engagement of living enemies. One side will lose.”

Richard continued. “Since your ‘way station’ will be the Janitor’s own world, you will need upgraded spacesuits. As you know, a ‘temperate’ day on his planet is a little hotter than 600°.”

Here Richard smiled boyishly. “Even the newly designed suits you received for your expedition to the neon planet can be only marginally functional at that temperature. Upgrading your suits will not be difficult, but will take at least a week, including the time needed for testing. The exterior of your suits will have to be sprayed with an extra layer of heat-resisting and reflecting compound, but we must also ensure that the muscle wire technology and electrospinning that were added to the suits three years ago will not be compromised by the addition of the new outer layer. We’ll give you a few days to rest while we restructure your suits and test them. Then we’ll have to do a thorough stress-strain field calculation for each of you while you are wearing them. We’ll also take the opportunity to add the newest version of micro-actuators and ‘smart’ materials in the fabric itself. If we don’t have any setbacks, you should be ready to make your jump in about ten days. It’s the best we’ll be able to do to provide for your success—and your survival.”

“Sir,” said Zip, “the Janitor’s environmental suit ‘leaks’ heat. How is it that our new suits will be safe for use on his planet? Why would his suit ‘leak heat’, anyway? It can’t be hard to insulate against a mere 600°.”

“Not only is the Janitor’s body temperature about 600°,” began Richard, “but he is himself an energy source. That is, he constantly emits energy—like a miniature star, of sorts. His suit holds much of the heat in, but at some point it has to get rid of the excess heat that constantly builds up. It’s one thing to insulate an object that has a constant temperature, but something else entirely to insulate a fire that is constantly burning. He regulates the amount of heat that is radiated, but at some point he must take leave from us and go to a place where he can release the heat his suit has absorbed so that it doesn’t cause him acute

discomfort. The Janitor's situation is quite different from your own. It will not be any problem for us to design suits that will keep you safe on his planet."

When Richard's matter-of-fact explanation was done, his demeanor changed back to exhibit the heaviness with which he had begun the meeting. His expression showed signs that he was bearing an immense burden. "I, uh... I guess that's all for now. We'll talk again. Thank you, Starmen."

"Yes sir," they all said, not quite in unison. They nodded to Richard and to each of the others, then turned and left the room.

~

Wordlessly, the Starmen backtracked along the corridors and passages that led out of Olovanda and retired to their quarters. They had specifically requested that their living space be the same apartment where Lurton Zimbardo had imprisoned them years earlier. They stepped into the spacious central room and gratefully shut the door behind them. The apartment held pleasant memories for them. Zip strode over to the viewing window that looked out over the field where the spaceships were docked. His eyes wandered over the classically beautiful Ahmanyen and Earth craft, lingering over several of them before letting his gaze come to rest on the *Star Ranger*.

Just then there was a knock at the door.

"Huh!" grunted Joe, who had stretched out on the couch. "Somebody else answer it."

Mark, who was in the kitchen preparing a snack, turned to face the door and said, "Open." The door slid open to reveal their visitor. Joe remained supine on the couch with his eyes closed.

"No, please, don't overwhelm me with your welcome. I couldn't take it." It was the creamy voice of Starman Kathryn Mullaney. The sound of her Irish lilt galvanized Joe, hurling him to his feet as if he had been stung by a hornet.

"Kathryn!" he exclaimed. "Come in! Sit down!" He ran to her and pulled her inside, then pressed her down onto the couch next

to him. The door slid shut after she passed through it. Zip and Mark greeted her almost as warmly as Joe had.

"You must have arrived when we were in the Belt," effused Joe.

"Ah, I knew you were a smart one as soon as I laid my eyes upon you," said Kathryn. "You've got me dead to rights."

"I'm sorry we didn't look you up when we landed a while ago, but we were closeted with Richard."

"As if I didn't know. All the Starmen aboard know that you were meeting with him, and why!"

Zip suddenly felt a chill come over him as he realized for the first time that his father had to be aware of their assignment. He wondered what his reaction would be.

"May the cat eat him, and... and the devil eat the cat!" exclaimed Kathryn with fire in her voice and a flash in her own eyes.

"Why, whatever for, Kathryn?" asked Joe, taken aback.

"Because he won't let me go with you!" she snorted. "Actually *forbade* me to go, even when I threatened to stow away on the *Star Ranger*! 'They're not going on the *Star Ranger*,' he said, 'so feel free to stow away all you want! You're not going, and that's final, and don't ask me about it again!' Hah! —may he find lots of bees and never the honey!"

"Well," began Joe, shaking his head, "I'm sorry to say that I agree with him!"

"What!" erupted Kathryn, leaping to her feet. "Are you saying you don't want me to go with you?"

"Of course not!" said Joe, a little heatedly. "You'd get in our way! I mean...you'd get in my way." The last sentence came out almost as a whimper, and Joe's cheeks reddened noticeably.

"And how would I get in your way, pray tell me, Starman Joseph Taylor!" demanded Kathryn with a shout.

"If, uh... if you were along, I couldn't concentrate on my duty," Joe stammered. His sidelong look at Zip and Mark dripped with unspoken threat.

Kathryn sat down carefully on the sofa next to Joe, placed her

hands on his cheeks, and drew his gaze into hers. “Joe,” she said affectionately, “you’re as subtle as a meteorite impact. You just make sure you come back.” Her eyes glistened. Kathryn looked up at Mark and Zip. “You all come back.” She said it again, choking out the last words. “You all must come back!”

Chapter 7: Several Kinds of Journeys

ALLEN FOSTER and his son passed through a doorway, traversed a short corridor, and entered an enormous chamber. They paced along a catwalk, the echoes of their steps reaching a long distance. Far above them was a bright yellow-orange sky with a sun in late morning, looking noticeably smaller than the one they were used to. To their left was an extensive mirror-smooth lake that reflected the sky in beauty that was almost painful to see. In the lake, trees grew in profusion. It appeared to be an orchard in flood time, but it was apparent that those trees grew best in a watery environment. They were clad with heavy, thick, almost circular leaves, among which were globes of plum-colored fruit in abundance. On the shore were numerous small boats for skimming and a few large ones for working in the orchard. Here and there, among the trees, were teams of Ahmanyans harvesting the fruit.

“How’s this one?” asked Allen, indicating a small boat that was no different from any other of its size.

“Sure, Dad, it’s fine,” said Zip. They stepped into the boat. Once seated, Zip pressed a button on the control panel, and a silent, low powered motor started up. The younger Starman guided the boat with a control stick. Within a few minutes, they were gliding through the hydroponic orchard inside Olovanda, out of sight of anyone else. The sky and sun were artificial, the products of the Ahmanyans’ amazing mastery of light. Though the two men were enjoying one another’s company, there was also some discomfort between them. Long periods went by

without a word being spoken.

Breaking a long silence, Zip spoke up. "I'm really glad to be able to show you this orchard, Dad."

Allen nodded vigorously. "I remember when you told me about it, years ago, but of course it's much better to be here in person." Pause. "I'm, uh... I'm glad I was able to come back into space, Zip."

"Are you feeling alright? That is, was the treatment completely successful? No problems?"

"Naah," replied his father energetically. "I'm fine." After another long pause, Allen cleared his throat. He looked up into the trees. The shadows of the branches passed over his face as the little boat drifted along the lake. "I know I haven't been easy to live with, David. I don't know if I always knew it, but I know it now. I've been a pompous, armchair spaceman. Being back in space again has... well, it's not as exciting as I thought it would be. I'm useless."

Zip didn't know how to respond. What his father was saying was essentially true. He couldn't deny it, but he didn't know how to provide the comfort or reassurance he thought his father wanted, needed, was maybe even asking for.

"It's been great having you on this trip, Dad," he said after a slight pause for thought. "On the other trips I took, I often thought about your expedition, and wondered what you would do or think if you were with me."

"Well..." said Allen, averting his face and letting his right hand trail in the water. "I appreciate your saying that, but I don't fit in with your friends—and I don't want to, no, no, that wouldn't be right! I'm making friends of my own! The Ahmanyans are wonderful people, and this ship! Ho ho, it's something! I'm learning a lot! I just feel like an antique sometimes."

Zip smiled and looked at his father. "One thing I've learned in my nine years as a Starman is that what makes a person great, a dependable partner or part of a team, is not so much what they know. That can always be learned. It's what's in the heart and

what you do with it. What makes for greatness is inside you, Dad. It's always been there. It was there on the Deep Space Expedition thirty years ago. People knew you had it or you wouldn't have been made the captain of the *James Nathan*. And that quality doesn't disappear if you can't go into space. Where do you think *I* got it?"

Allen's face crinkled. "Thanks, son," he said huskily.

"Goodness, Dad—everybody seems to know that about you, except maybe you! You led your teammates all the way from Titan back to Luna without losing anyone! And now, the same kind of leadership just fell to me with this Starman team. Mark and Joe naturally look to me to keep the team together and on track. I only hope I do it as well as you did."

With those words, Zip had expended his reserves of emotional expressiveness. His speech had come out of him without effort or forethought, and now he didn't know what else to say. He felt uncomfortable. He turned his attention back to the boat and glided it into a patch of soft sunlight. When father and son spoke again, long minutes later, it was about mundane things. But both felt better.

~

A few days later, Zip, Mark, and Joe donned their newly-improved spacesuits. For several hours they moved around in the Asteroid Belt, maneuvering on the surface of asteroids and scooting across open spaces. They crawled over their ship. They performed acrobatics on large asteroids. Communications equipment, illuminators, atmosphere purifiers and recyclers, nutrition capsules and feeders, medical diagnostic and treatment capabilities were all tested several times in a variety of conditions.

Then, back aboard Tharsos, they performed many of the same exercises under eight artificially-duplicated environments, running the gamut of temperatures and atmospheres, liquid and gaseous conditions, and electrical fields. Finally the temperature in the testing area was raised to 700°. Careful watch was kept on

all the systems as the Starmen performed dozens of necessary tasks. After the suits successfully functioned at that temperature, all the other tests were run a second time.

At the end of the third day, the tests were over.

“Man!” said Joe as he removed his helmet and ran his hands through his hair. “I know we had to be the ones to wear these suits, but these past three days were hard work! I’m glad they’re over!”

“Me too!” agreed Mark emphatically, setting his helmet on one of the dressing tables in the storage area.

“Let’s go get a good meal,” said Zip. “I’m ready for something delicious and very filling! Let’s invite Stenafi, Saadervo, and Jogren to join us. Pleera too.”

“And your dad,” added Joe.

“Sure!” agreed Zip. “And Kathryn.”

Joe looked at Zip sideways to see if there were a hint of teasing in the suggestion. Zip didn’t notice, being too busy removing his suit.

“Sure; Kathryn,” said Joe as if he’d had to think about it for a few seconds. “Why not?”

~

It was just two days later. The Janitor looked no different from the few other times the Starmen had seen him, but this time they felt an air of dread about him. He had never let anyone approach him too closely before, but now they knew that they must get very close to him indeed. He would take them somewhere that no sentient being other than the First Races had ever been; from there he would transport them to the chamber of nexi and strange power beneath the surface of Luxa itself.

The Starmen were heavily armed with the best weapons that Starlight Enterprise could provide. Each carried a rifle that could produce both an impressive electromagnetic pulse and a concussive charge, and a high powered pistol that could be set to produce fan lasers as well as single beams. They also carried a few specialized grenades.

They had bade farewell to the crew and most of their friends the night before. An attempt had been made to make the occasion into a festive party, but it had quickly dampened into light conversations with food barely picked at by anyone, and then too much silence. Finally, someone had asked Allen Foster to tell the story of his Deep Space Expedition and the first encounter with the Titanians. It turned out to have been the very best thing to do. Attention was taken off of the three uncomfortable Starmen, and all eyes were turned toward Allen. He told the story well and humbly, and he used the occasion to provide encouragement and instill hope to the gathering.

“And finally,” he had said as he drew his words to a close, “I must say how very proud I am of my son and his friends. The time of my adventures is over, and such success, and even fame, as I have had has been most fulfilling to me. Now it is their turn. In everything to which they have turned their hands, they have succeeded. What they begin tomorrow will most likely be the crowning event in their lives as Starmen. They, as we all have, have always done their very best. The task they take on tomorrow will prove to be their shining moment.”

The older Starman had then raised his glass in a toast. The party ended on a note of triumph and appreciation for friendships and families. The eyes of both Foster Starmen had glistened as they looked at one another across the room.

~

Now only a small group had gathered for the actual departure. Mark and Joe had spoken to their parents by realtime contact, each in the privacy of his quarters, and Zip had likewise made contact with his mother and sister. Then Joe and Kathryn had sought each other out by unspoken agreement, and their leave-taking was also private.

Zip had received Kristina Bethany’s message, and been thrilled by its implications. She wanted to move back into the Inner Planetary system—even move near where his family lived.

What would that mean to him? Although her message elated him, it also disturbed him. It was too much for him to think about in the day before his departure. He set it aside, determined to think about the issue again when he returned.

Allen Foster had seen fit to say his final words to his son in private, and was not present for the actual departure. Only Izmaka, Richard Starlight, Commander Lewis, and Pleera were with the Starmen.

“Good luck, Starmen,” said King Izmaka. He approached the three and, one at a time, laid his hands on their shoulders. His deep eyes looked into those of each of them, conveying courage and confidence.

Commander Lewis shook hands firmly with each one. Richard Starlight similarly shook their hands. He was smiling, but that he could do so only with an effort was evident. He felt keenly that he might be looking at them for the last time.

Finally Pleera approached them. “Peace and wisdom to you,” she said in a strong but quiet voice. “And success.” Upon the lips of each she conferred a kiss.

“Well, nothing can top that,” said Joe, breaking the over-solemnity of the moment. “I’m ready to go now.” Genuine smiles spread across the faces of those few who were present for the departure.

“On your word, Janitor,” said Izmaka, “I will release the wormhole shields for a few seconds.”

“You may do so at my signal,” responded the ancient one. “Release for only a second, and I will slip through the opening.”

The three Starmen turned to face the Janitor. His environmental suit, made of finely-meshed wafers like fishes’ mail, emanated incandescent gold and brilliant orange. The three Starmen affixed their helmets to their own suits and drew close to the one who would transport them far from all the people and places that were dear to them. When they came close enough to touch him, they saw through the clear globe that contained his head a face that was smooth to the point of being almost featureless. The heat waves that radiated from him made the

image a little unclear, as if it were seen through shallow water. Yellow eyes, rich and deep like topazes, gazed placidly upon the Starmen. The Janitor's head tilted slightly to one side as his expression moved from one to the other. His words appeared in their minds.

"You are the ones who hold the key to the victory that is close at hand. Hold onto my arms and onto each other." He stretched out his arms, the fingers on his hands spread wide and welcoming. Joe on one side, Mark on the other, and Zip in the middle, clasped the Janitor and each other so that a foursome was formed in a tight circle. The heat waves intensified so that the Starmen could no longer see anything around them.

"We are ready." The Janitor's words impressed themselves on Izmaka's mind. He gave the order to suspend the hypershield for one second.

To the watchers, it appeared that the Janitor and the three Starmen simply vanished in a haze that grew around them and then dissipated. The space where they had been standing had become empty.

~

King Izmaka gave the order for the warships of the armada to cross hyperspace to Omega Centauri. In three waves, the human and Ahmanyman spacecraft made the jump and took up prearranged positions. They englobed the Xenobots' hypershield, nearly one and a third billion miles in diameter. Inside the shield was the great torus whose existence threatened all of human-Ahmanyman civilization; at its center was the Xenobots' home planet.

To the Xenobots, the armada ranged against them appeared to be five times the size that it was, for the Ahmanyans had created holographic ships to swell their numbers. These ships would be able to fire lasers, for in the center of each was a robotic battle drone. Even so, the Alliance was still outnumbered by about five to one.

Chapter 8: Spawn of the Stars

FOR LONG MINUTES the Starmen were aware of nothing other than the ultra-comfortable sensation of high-quality wormhole travel. They could feel each other's grip, but had no sensation of anything else—no feel of a floor beneath their feet, no awareness of a wall or tunnel, no sense of weightlessness yet no pull of gravity. All around them was a dark gray oblivion that conveyed no sense of distance whatever. They could have been inside a thick, enveloping fog or adrift inside starless infinity.

With a disciplined effort, Zip brought his mind into a place of peace so that he would not give way to panic. *So the Janitor travels via wormholes*, he thought.

"Indeed, yes," answered the Janitor. As always when the Janitor communicated, there was a measure of mental discomfort. "There are only two ways to cross interstellar distances quickly, Starman Foster: through wormholes or by tachyons. Tachyon travel is complicated and requires more apparatus, so we of the First Races reserve that method for special needs."

How do you travel by wormhole without any apparatus? queried Zip, directing his thought toward the Janitor.

"There is apparatus," came the answer. "I create the wormhole with a small device located inside my suit. Then I can ride its wave as if following a wake, so that the journey can begin even as the wormhole is being formed. We are traveling a long way to reach my home planet, so we shall be inside this wormhole for yet a little longer."

How far away is your home planet from our Solar System?

"My current home planet is more than 57,000 light years away from yours," replied the Janitor. Once again, Zip drew his mind away from the brink of the mental abyss that opened in front of him. He waited patiently.

Suddenly, the foursome arrived. The grayness of wormhole travel vanished and the Starmen found themselves on a world unlike any they had ever imagined. Almost reluctantly, the

Starmen released their grip and stepped apart. Their quartzscreen helmets darkened by several levels the instant they were exposed to the sunlight of the Janitor's world. A double white sun blazed down through a white sky onto topography of alien magnificence, and several dozen stars shone brightly in spite of the supreme brightness of the sunlight that irradiated the landscape.

"This is astounding!" observed Mark, his voice reflecting the awe he felt keenly. "A world from the dawn of creation!"

"This is..." began Joe, as he gazed around at their surroundings. "It's, it's... indescribable."

Off to one side were structures made of glass or some similar compound, connected with earth-colored metal lattices. The foursome stood in a courtyard with the natural terrain of the planet rolling away from them on three sides. The world was a soft place of smooth ruddy plains and orange hills of rounded corners. In a few places were clusters of sharp objects, with fine edges and even spikes. Many of the hard places shone and glittered like mirrors.

"Yes, it is mica." The Janitor answered the unspoken question that arose in the minds of the Starmen.

The mound upon which the buildings were situated flowed down to another level. Some of the hills in the distance glowed muted red with saffron highlights. Meandering through the plain was a dazzling river, yellow in the places that reflected sky and orange where the images of the hills appeared.

"It is sulphur," explained the Janitor. "There are sulphurfalls a mile or so upriver, beyond sight. If you wish, if time permits, I will take you there—though I suspect that you will want to continue your passage to Luxa as quickly as you can."

"You are correct," affirmed Zip. "I'm sure that the falls are beautiful, but we cannot delay."

Mark felt an intense desire to see the terrain of the planet, but realized that Zip was taking the wisest course. As the four men made their way across the courtyard to the structures that arose from the ground, the big Starman paused frequently and

turned to stare at the landscape. He noted the low, rounded banks of silvery compounds, with now and again a tree-like growth of sharp-edged mica or other crystalline growth thrusting out of the ground.

"Beautiful it is," said Joe, "but in spite of our suits still hazardous. I wouldn't want to take a walk out there and accidentally break through a crust and drop into a bowl of molten gold or something. These suits can protect us from the super hot atmosphere on this planet, but I doubt they'd last more than a minute if we tried to go swimming in that river."

"Gold doesn't melt at this temperature, Joe," said Mark.

"I know. But you know what I mean."

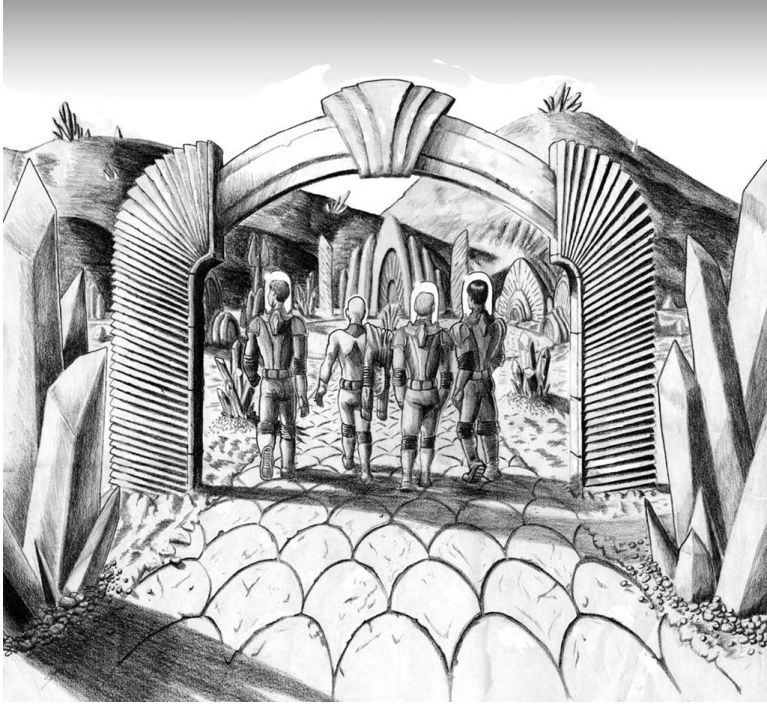
As they turned back in the direction they were walking, they saw with a shock that the Janitor had removed the top part of his suit and was carrying it over his arm. "Ah, that's better," he said to them all. "Please follow me." He led them along a pathway made of shaped white stones closely fitted together.

The Janitor was completely humanoid in body type, about five feet tall. His skin was yellowish and flawlessly smooth, and bore no hair. His hands had six fingers including thumbs on opposite sides. Two long central fingers of equal length were flanked by two fingers about an inch shorter.

What appeared to be a water garden lay on both sides of the path as the group approached the archway that led into the building. A moat of white liquid lay in geometrically pleasing swirls around fantastic formations of crystal of many colors. They were placed artfully among shallow streams and tranquil pools. "The white stream is tin," said the Janitor. "And here," he stooped down and ran his fingers through a silvery slush, "is cadmium." The pool held the imprint of his fingers for a few seconds before flowing like melting ice cream back to the level.

"And this," he said, reaching into a bluish pool and taking up a handful of gel, "is lead. When the temperature is right, it can do wonderful things." He splatted it down onto the stones, and it spread quickly, slowed, and then hardened into tendrils. He picked one up, peeling it from the stones as if it were wax. He

laughed, then curled the tendril into a spiral and cupped it in his hands. After a moment, he removed one hand to show a small pool of liquid in his palm. With another laugh he tossed it back into the pool, and then turned toward the archway again.



The Janitor led them along a pathway.

Joe looked at the other Starmen. “I wonder what they eat here?” he said.

They followed the Janitor into the building and found him hanging up his suit in a storage area. He was dressed in a simple smock that hung from his neck to his knees. The sleeves only went to the middle of his forearm. He turned and faced his guests. For the first time, the Starmen saw a member of the First

Races in his own environment, free of protective clothing. He looked weak, almost fragile, but the humans knew that the appearance was deceptive. This was one of the most ancient of the sentient beings in the galaxy, many eons old. His yellow appearance and bright yellow-orange eyes made them think that he could be the spawn of the stars himself.

"Come," he said, "I will show you the type of tachyon gateway you will most likely find in the chamber of nexi inside Luxa. We rarely use them for our own travel, as I explained a moment ago, but I will show you how to use them and how to program them. Then I will teach you what the power source inside Luxa is probably like. Once you can identify it, I will show you how to disable it.

"The First Races, when necessary, moved from planet to planet as their suns cooled. The renegade Lucians, however, kept to their original world. Luxa is a little more than two-thirds the size of Earth, with a small iron moon. They moved it from star to star, never being willing to relinquish anything that was their own no matter how wasted it had become. Once a place of Edenic beauty like all the worlds of the First Races, it has become as blighted as its denizens."

"Would it not be possible for you to accompany us to Luxa and guide us in the work, Janitor?" asked Zip. "Or perhaps disable the power source yourself?"

"It is not possible, Starman Foster," replied the Janitor. "If I were to appear on Luxa, even inside my environmental suit, my presence would immediately become known to the Xenobots. The disruption my presence would cause to their sensors would alert them that a member of the First Races had invaded their planet. They would have little trouble in ending my life with violence. Indeed, even if all the surviving members of the First Races invaded Luxa with the aim of defeating the enemy, we would have little effect, and would only bring about the annihilation of what remains of our races. It is you, men of Earth, who must go to Luxa and make possible the destruction of the enemy. I will instruct you so that you can achieve this, but it

is you who will bring it into being.”

The Janitor led the Starmen through another archway, and they found themselves in a spacious room more than forty feet square, with a high domed transparent ceiling. Near the center of the room was what appeared to be an oval picture frame about six feet high, with nothing inside it. It touched the floor, but had no visible supports. Its frame was made of beveled glass, or something very like it. Through it they could see the rest of the room as if the frame were completely empty. The Janitor put his hand through the open space, and it passed through without any change.

Then the Janitor touched the frame. The space it contained clouded over and became opaque with the appearance of pewter.

“Now try to put your hand through the portal,” said the Janitor. The Starmen stood close to it and peered at the space within the frame. There was no reflection. Tentatively, Mark put out his hand and pressed his fingertips against the substance. He could feel a slight vibration, almost imperceptible, and he could hear a very deep hum. He pressed on it and saw his fingers penetrate about half an inch.

“What is it?” he asked.

“It is the bridge substance between space and time,” replied the Janitor. “It has no independent existence, but only appears when the portal is activated. It is like the inside of a hole in eleven dimensions.”

Mark jerked his hand away. The deep hum he had heard disappeared as if a door had been shut.

“Oh, it is quite safe,” said the Janitor. “It is completely inert, but it cannot be wrought. If you were to try to scoop some out, it would disappear as soon as you brought it into our plane of existence. Try it.”

When Mark hesitated, Zip stepped up and pressed his fingers into the material. He pulled away, and then pressed again with his hand in the shape of a claw. He brought his fingers together, and then drew the substance out as if he were shaping clay. It stretched into the room, but the instant the glob he held broke

free from the portal, it vanished as if it had never existed.

“Step back now,” said the Janitor. He manipulated the side of the portal once again, and the image inside showed their apartment inside Tharsos. “Here is the most advanced tachyon transporter ever known. Now you could step through directly into your quarters inside *Ossëan*,” he said. “You would have no sense of movement beyond the step. These are the portals the Lucians used to travel between the worlds many ages ago. You will find many thousands of nexi like this inside the chamber on Luxa. All of them are dead now, and have been for eons, but I will show you how to control them.”

~

“Very well, Starmen,” said the Janitor, stepping back from the tachyon transporter. Four days had passed since the Starmen had arrived on the Janitor’s planet.

“Each of you has learned how to operate this nexus, and you have learned how it is powered. From this information, you must trace the power source for the nexi inside Luxa. When you find the power source, you will be able to locate that part of it that provides energy for the hypershield. You know now what it looks like, and you are trained in the use of the tools you will need.”

“The measure of power needed even for this single gate is staggering!” observed Mark. “What kind of power must the Xenobots have inside their planet to power thousands of them? And how can they be using that same power source to create the hypershield and yet not be able to use the nexi for tachyon travel?”

“The renegade Lucians turned their entire planet into an energy pool, Starman Foster,” said the Janitor. “Luxa was a hot planet similar to this one, for that is the environment of the First Races. But over long ages, the renegades utilized the energy of their planet’s inner core, and they drew off energy from its magnetic field. They sacrificed all the natural resources on the surface to construct means to exploit the interior fires. The very

life of the planet itself began to ebb and cool. Now it is no more than 120°, a bitterly cold place of steaming methane swamps, contaminated by the waste products of their spoilage. The great chamber of nexi was once a way station to the stars, located close to the power plant and removed from the endeavors that ravaged the surface. Now, as best we can guess, it is a place long unused by the denizens of that planet. As we suspect has been the case for millennia, the Xenobots are exploiting technology of which they know almost nothing.

“Your search will begin in the chamber of nexi,” continued the Janitor. “It is located deep under the crust of their planet. The power plant must be located far under the crust as well, and not far from the nexi. The controls, however, must be on the surface.”

For a minute or more, there was no conversation. Then Zip spoke up.

“Janitor,” he began, tentativeness marking his words. Inside his helmet, his brow was furrowed with concentration. Between his sentences, his lips clamped together briefly. “You have said that the Lucians were masters of space and time. Could they... is it ever possible to go back in time?”

“No one has ever been able to go back in time, Starman Foster,” stated the Janitor. “Indeed, the First Races consider it to be impossible. The nature of the universe makes such travel impossible. Our choices and our actions, and their consequences, can only be lived with—or endured. They cannot be changed or become as if they never had been. What becomes actual must remain.”

“I see,” said Zip. He exhaled as if after a deep sigh.

“It is, however, possible to go forward in time,” said the Janitor.

“What?” asked Mark and Joe together.

“The Lucians knew that a simple way to move into the future at a rate faster than normal would be to travel at very close to the speed of light, at which point time slows down. If one were aboard a ship that moved at a velocity just under the speed of

light, then centuries, even millennia, could pass even as one aged only a few years. But since one cannot go back in time, whoever travels forward in time cannot go back. He cannot even send a message. Time can be sped up or slowed, or nearly stopped, but its direction cannot be changed.”

“You’ve got something on your mind, Zip,” said Mark. “You’re not asking out of mere curiosity.”

“I was just wondering what would happen if the Xenobots win. Could we, or the First Races, go back in time and change the outcome. I... didn’t really think it could be possible.”

“I have prepared you for your task to the best of my capabilities,” said the Janitor. “You cannot be made more ready to travel to Luxa than you are now. Do you need to sleep before you step through the portal?”

“I’m tired, tired with the heaviness of anxiety,” confessed Zip, “but I don’t think I could sleep.”

“I’m exhausted,” said Mark. “I’d like to sleep before we go. Zip, you can ask your suit to provide you with a sleeping draft.”

“I know,” said Zip, with a small dismissive gesture. “I don’t want to sleep by any artificial means. I need my mind clear.”

Joe spoke up. “Zip, you know better than that. We all need the rest. We need to be as sharp as we can be for this assignment. Let’s sleep. Tomorrow, first thing, we make the jump.”

The redheaded Starman nodded wearily. The four men walked outside.

The two suns were close to the horizon, but there was no hint of dusk. The dozens of large stars that burned in the sky kept the land bright, and behind them were thousands of others.

“It’s only been four days since we arrived here, and already I miss night,” said Mark.

“Enjoy the light while you’ve got it,” advised Joe somberly. “I suspect we’re going to get all the darkness you can desire just a few hours from now.”

Chapter 9: The Xenobots Are Invaded

IT WAS A WORLD almost without shadows. In a sky full of suns, dawn was marked only by a slightly greater brilliance that arose when the flaming white double star appeared over the horizon.

"I feel almost claustrophobic in this suit," complained Joe. "Going on five days without being able to take it off. I don't remember when I've gone longer than that. I feel that I *must* rub my eyes and massage my face. I need to *chew* something!"

"Yes," agreed Zip, twitching his mouth from side to side. "The in-suit massagers only partially satisfy. Well, the quickest way back home is through Luxa. Mark, you'd better let Tharsos know we're going to Luxa in a few minutes."

Mark contacted Tharsos and delivered the message. The conversation was brief and businesslike. Then the three Starmen entered the workroom and found the Janitor waiting for them.

"When you give the word, Starmen," he said, "I will transport you to Luxa."

"We're ready now," said Zip. The Starmen gripped their rifles tightly. Mark carried the Janitor's primary toolkit in a backpack, and Joe had additional tools and specialized items in a second pack. Zip bore an instrument that would help the Starmen track down sites where power was being drawn. The three of them stood somewhat nervously in front of the tachyon transporter.

The Janitor adjusted the controls on the frame. The image changed from the pewter colored substance to utter blackness.

"The chamber of nexi inside Luxa," announced the Janitor almost like an intonation. "You may step through whenever you wish."

"I can't see anything," said Joe.

"There is no light inside the chamber," explained the Janitor. "It is more than five miles beneath the surface of the planet. Undoubtedly no one has been there for many thousands of years. Your suits will provide the light you need, but first you must step through. I will maintain the tachyon corridor until you have

finished your task. Then you can return.”

Without looking at the others, Zip activated his suit lights and stepped forward through the portal. The instant his foot touched something solid, the other side became illuminated.

“Ahh,” breathed Mark. Zip’s suit lights shone into primordial darkness, revealing a multitude of tachyon portals nearby. A splash of light illuminated a segmented stone floor beneath Zip’s feet. Mark stepped through, followed quickly by Joe.

Zip and Mark gazed into the vast emptiness around them, but Joe looked over his shoulder at the Janitor’s tachyon portal. As if looking through a bright window while standing outside in a storm-tossed night, Joe saw the Janitor peering at them from the far side of the silver oval.

With a suddenness that took his breath away, the image in the portal vanished, replaced by a dark wall. It was as if a door had been vehemently slammed in his face. Joe gasped.

The other Starmen whirled at the sound. Zip rushed forward and pressed against the opening in the portal. It was solid.

“The tachyon corridor!” cried Zip. “It’s been shut down!” He turned toward the others. “We’re trapped here!”

~

The Janitor’s repeated frantic attempts to restore the tachyon corridor were unsuccessful. He concluded that he had unwittingly tripped an automatic defense on Luxa against tachyon invasion. The corridor had been severed. No doubt the entire planet was now shielded against further tachyon incursion.

Completely dismayed, he returned to Tharsos to deliver the disastrous news.

“It is surely a remnant of the wars between the First Races eons ago,” he explained to Izmaka, Richard, Pleera, and Commander Lewis. “Any tachyon contact from the planets of the First Races would have been considered a hostile overture. The response would have been automatic.”

“You did not foresee this?” asked Richard, as close to anger as he dared come to the Janitor.

“Alas, no, Richard Starlight. The portals are old and rarely used, and never to go to Luxa. None of us is a warrior. The age of the First Races has long been waning.” The misery in his face was palpable. “I never foresaw this. Had I suspected, I would have gone myself in the hope that I could have achieved the task before the Xenobots ended my life.”

“Will the Xenobots know that their planet has been breached?” asked Izmaka.

“It is likely, it is likely,” responded the Janitor. “Though I cannot know for sure, it is probable that the automatic response to the tachyon beam will have alerted the Xenobots to their danger.”

“Then we must order our fleet into operation at once,” said King Izmaka. “We must cross the barrier and begin our attack, even without wormhole capability.”

“The Starmen went to Luxa to help the fleet, but now it is they who need our help,” said Richard. “We can’t delay!”

“The cornered enemy,” said Pleera with deliberation. “The Xenobots own forces are strongest here. They have nothing to lose and everything to gain. The odds are against us, but the Xenobots have a flaw. They cannot fight with anything other than the passion of hatred. The Xenobots are cold, and all but dead. They are more machine than flesh and have almost lost the ability of independent thought. All they have left is hatred. They will battle with the cold calculation of a machine, but not with the fiery passion of people battling for their loved ones.”

“Very true, Pleera,” responded Izmaka in a voice like iron, “but fight with passion they will. I have fought them in this space before.” The leader of the Ahmanyans took a deep breath. “It seems to me that it has been only a year or two since that time, and now I am here again. Hatred is a powerful, powerful force. We are battling for our survival—but so are they! There is no backing down now for either of us. Within days one side will be victorious, and the other will be annihilated.”

~

The *Sa Zomne* was just moments away from crossing the Xenobots' hypershield. Saadervo was at the helm, his long fingers gripping the control bar. Next to him sat Stenafi. Completing their crew were Chathna, a young Ahmanyen from the Guardian families of Olovanda, and Gahan Furman, an Earthman. Chathna was well trained in laser technology and weaponry. Furman was a member of Space Command noted for lightning fast reflexes and skill in communication.

"The drones have not met with any resistance," observed Stenafi. She was responsible for maintaining contact with the lead wave of the invasion of the Xenobot home space, and receiving the realtime transmissions that the flagship would send.

"Not a surprise," said Saadervo. "If the Xenobots are laying a trap for us, they certainly won't spring it when all they can catch are drones and when most of our fleet is outside their zone. We're not going to see any resistance until we get close to their construction site. What've they got? What've they got?" he mused, his hands opening and closing nervously on the control bar. "Maybe nothing but conventional weapons. That's the prevailing guess among the leadership. If the Xenobots had any superior weapons, we'd have seen them by now."

"It makes sense," agreed Stenafi. "We can't depend on that opinion, of course, but I just have a feeling that they're cornered, even desperate. They're concentrating everything they've got into delaying us while they race to finish up their transporter. That's where all their attention is being directed. When we get close, they'll fight hard, but I don't expect that they've got any extraordinary offensive capabilities that we haven't seen yet."

"All guesswork," said Saadervo, almost with a snort. "Just about everything we've seen in this space has been unexpected and downright frightening. We cross the barrier in one minute."

He was more on edge than Stenafi had ever seen him. When the *Sa Zomne* crossed the hypershield, she felt no difference, and

hadn't expected to. But she found her thoughts turning involuntarily to the three Starmen. She recalled the first time she had met Zip and Mark in the deep caverns that wandered in narrow passages down from the scoured earth above *Imlah Taltahni*. Her hope was unbounded then. Silently, now she searched her mind and heart to discern whether that hope was still strong. She found deep affection, deeper than she had ever anticipated she could feel for the men of Earth—but the hope was defenseless against the tide of grave disquiet that encroached upon her heart.

~

Starman Allen Foster looked down into the operations tank in the center of the spacious bridge aboard Tharsos. Richard Starlight stood next to him. The two men were close enough to touch elbows as they leaned over the rail. They conversed in low tones to keep from disturbing anyone else.

"There," said Richard, pointing with his left hand, "is Luxa. It's the red light about the size of a marble—in the center of the Xenobots' hypershield, of course. That's indicated by the holographic blue bubble. Over there," he swept his arm to one side, "is where the torus is. The yellow 'O' shows its location. Obviously, the pale yellow globe down there in the corner shows where the Xenobots' main star is located. Its white dwarf companion is on the opposite side of Luxa at present, off the tank. The bright yellow sphere right there is the inmost of the three planets in this system. The third planet, a gas giant, is not shown in the display. The other lights scattered throughout the area show where the Xenobot ships are situated. Our own ships are indicated by the green lights. Through realtime transmission we can track their positions accurately."

"The blue lights must be our drones."

"Yes. The reports so far are that they have met no resistance."

"And the lavender light? That light in the center of our fleet,

larger than the others?”

“That, of course, shows our own location. That is Tharsos.”

“It is inside the hypershield.”

“Yes. We entered it about half an hour ago.”

King Izmaka suddenly raised his voice from where he was standing next to Commander John Lewis on the opposite side of the operations tank. “Deploy the full fleet!”

With a shock, Allen saw that the green markers inside the tank had multiplied by at least ten-fold. As he watched, they continued to multiply. The new blips of light were a lighter green than those in the original configuration. He could feel the hairs on the back of his head stand up as a feeling of awe overwhelmed him.

“What’s happening?” he asked quietly but urgently.

“Those are the holographic ships,” explained Richard. “Inside many of them are actual fighting drones. These ships shaped of light, unlike the holograms the Ahmanyans have used before, will be able to fire weapons. The Xenobots will have a very difficult time distinguishing which of our warships are robotic and which are manned. These ships have been visible to the Xenobots since our fleet arrived in Omega Centauri, but they are appearing only now in our operations tank.”

“How long will it be until we reach Luxa?”

“At our present velocity we should arrive in the immediate proximity of their torus in about twenty hours, but I imagine that we will see a response from the enemy long before that. In fact, we’re hoping for it. Speed is not the priority at present. We want to draw the Xenobots’ attention from their own preparations; maybe that’ll give the three Starmen an advantage. We are also entering their space with a measure of wariness. It’s impossible to take them by surprise, so we’re hoping for a psychological advantage—if they have any psyches left at all. They will see, and their instruments will be able to verify, that a large fleet is coming in for the kill. They cannot ignore us. They cannot ignore us for long.”

Allen stared for a long time into the operations tank, tracking

the progress of the green lights. Repeatedly, however, his gaze was drawn to the red marble at the center of the hypershield. The three Starmen were there. His son was there.

Chapter 10: Out of the Darkness

FOR A FEW SECONDS, the Starmen stared uncomprehendingly at the tachyon portal, finding it hard to believe that it had been sealed against them.

"We must have triggered some sort of defense response," said Zip, biting his words off. "Let's hope it didn't send an alarm to our hosts." He struck the solid space inside the oval with the back of his fist. Then he turned and stared into the cavernous space around them. He tried to raise Tharsos on his realtime transmitter, but as he expected there was no response.

"The chamber has been sealed against tachyon transmission. Maybe the entire planet's been sealed. Well," he stated decisively, "unless the Janitor can open this portal back up, the only way out of here is going to be by wormhole. That means we'd better find the power source and succeed in our mission."

"Even if we knock out the hypershield," said Joe, "that won't give us a way back to Tharsos. They'll have to know where we are before they can scoop us out of this pleasure palace."

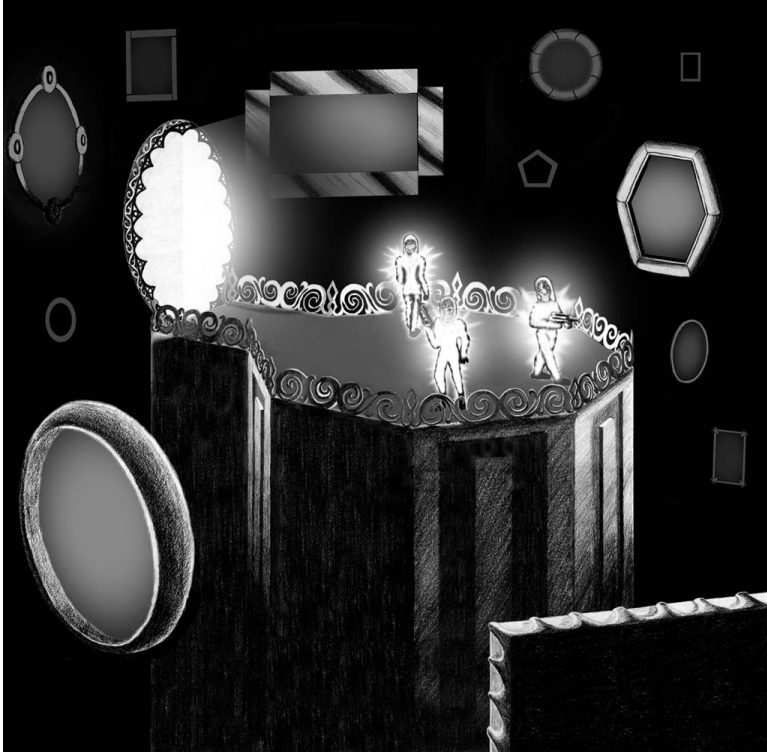
"We'll face that fact when we get there, Joe. In the meantime, we'd better get busy. There may be a squadron of Xenobots after us already."

"We'll have to find a way down first," said Mark.

For the first time, the Starmen took a serious look at their surroundings. They were atop an octagonal stone pedestal about thirty feet across and at least forty feet from the floor. The top was paved with closely fitting stones, upon which a pattern of stars had been carved. There was a railing around the edge, ornately decorated with metallic swirls and gracious piping. One side of the octagon extended outward to form a ledge. The portal

through which they had passed was at the end of the ledge.

Their suit lights lit up the space for a hundred yards or more in every direction, but the walls and ceiling were too far away to be seen. What captured the Starmen's attention were the gates—



They were atop an octagonal stone pedestal.

hundreds upon hundreds of them, appearing to hover in space. Thin circles, ovals, and rectangles of metal and glass or crystal, some even sparkling with jewels, were suspended in every direction, some near and most far. As far as their light shone, the Starmen could see the portals above, below, and around them. Struck with astonishment, the three men stepped gingerly

forward, turning slowly as they moved, gaping at the array.

“Doorways to other worlds, other planets,” said Joe, his voice expressing the awe he felt.

“Maybe even other galaxies,” added Mark. “Or other universes.”

“And all of them dead,” stated Zip tersely. “There is no living energy here, nothing coming up on the indicator.” He had withdrawn the detector from its case. “After I filter out our own energy bands, there is nothing to see. We—” He stopped suddenly, then peered more closely at the monitor.

Mark and Joe came up and looked over his shoulder. “What is it?” asked Mark.

“Faint,” said Zip, “very faint, coming from—” he looked up and jutted his chin outward “—over there.”

“Which brings us back to Mark’s question,” said Joe. “How do we get down from here?”

“Give us some analysis of this place, Mark,” said Zip.

The big Starman referred to his compad. After a brief pause he said, “This chamber is roughly circular; 723 feet across at its widest point. The ceiling is 810 above us, but there is an opening that continues to go upward. It’s probably an access well to the surface. We are just under five miles underground. The atmosphere is mostly methane, with some trace gases. There is enough oxygen that our NPACs should be able to keep us supplied. There are several passages that lead away from the chamber.” He looked up. “And except for us there is nothing living anywhere inside.”

“This platform must be the takeoff point the Lucians used to travel to the points of their empire,” opined Zip. “The portals must have been brought to the ledge here, and the people could step from the ledge to any planet they wanted.”

“What this place must have seen!” observed Mark. “I wonder who was the last to use it, the last to see this chamber before we arrived, and how long ago.”

“We still haven’t found the way down,” said Joe gently.

Zip began to make a careful survey of the floor. “Look for

signs of a gate on the stones,” he said. “There must be some sort of an opening to a stairwell or elevator.” But after a thorough scrutiny, the Starmen found no means of descent.

“It’s got to be there,” said Zip, “but we just can’t find it. What’s the gravity on Luxa, Mark?”

“Point seven three that of Earth.”

“Hmph,” grunted Zip, looking over the railing. “If it’s forty feet down it’ll feel like thirty if we drop. Too high. We’ll have to use the cable. Joe?”

Joe withdrew a length of cable from his pack. Zip hung both ends over the edge, looping the cable around one of the stanchions of the railing. Then he swung over the rail, grasped the doubled cable, and lowered himself hand over hand. He had to drop the last ten feet. “Next!” he called out.

Mark was the last one down. He pulled the cable after him, coiled it, and handed it to Joe.

“Let’s take a look at the well you mentioned, Mark,” said Zip.

“Over here, in this direction,” indicated Mark. A short walk brought the Starmen to the bottom of an immense vertical passage. Zip took a reading.

“This goes to the surface,” he announced. “Five miles up. Quite a climb.”

“Looks as though there is an elevator up there, just where the platform sticks out,” said Joe. “It’s about forty feet up, even with the top of the pedestal.”

“Maybe there was a bridge between them at some time,” suggested Mark. “You can get up there by that staircase,” he added, pointing to a wide set of stone steps that led upward, curling around one side of the well.

“Power source this way, if it’s anywhere,” said Zip matter-of-factly, pointing off in another direction.

As the Starmen crossed the stone floor of the chamber of nexi, the darkness receded in front of their cocoons of light, but as they passed, inexorably it closed behind them. What had once been the hub of galactic travel, bringing the Lucians from world to world in their domain, was now a pit of stygian darkness that

had not known any light or sound whatever for countless eons. In their decline into depravity, its own inventors had misused it, perverted it, spoiled it, abandoned it, and then forgotten it even existed. Its power source, drawing upon the planet's inner heat, continued to provide apparently endless energy to the Xenobots' projects aboveground, though its masters turned wheels and threw switches in utter ignorance of why their machines worked.

Through a gaping archway, Zip led his companions down a tunnel, following the indicators on his detector.

Suddenly Zip felt a compression in his ears, and he found himself lurching forward as if he'd been pushed from behind. He scrambled to keep his feet. Realizing he was going to fall, he grabbed his laser pistol and dove for the ground, spinning as he leaped so that he would land on his back. Skidding on the smooth floor, he looked back in the direction he had come, pointing his pistol with both hands.

Out of the corner of his eye, he saw Joe floundering at his right, also prone, but Mark was standing firmly upright with his back toward them and his rifle in his hands. He had evidently fired an EMP with a concussive charge. Zip saw a heap of crumpled metallic beams, slender and flailing, just beyond the big Starman. Even as Zip watched he saw Mark whirl.

"Joe!" shouted the big Starman. "Get 'em!" Lying flat on his stomach, Joe raised his rifle and fired. Zip felt the pressure in his ears again. He rolled over and looked down the corridor.

"Ugly robots!" exclaimed Mark. "Coming at us from both directions! Good thing I kept looking back! I don't think we've ever been as well armed as we are now, and I'm glad of it!"

Zip got shakily to his feet, and then helped Joe up. "Yeah, good thing, Mark! Man! We'd better put our motion detectors on. Should have done that before." He made an adjustment to his compad, and then stepped over to the wreckage of the robotic defenders. Slender, multi-jointed legs supported a body segmented like an insect's. Long thin arms ending with spidery fingers gave evidence of grappling capabilities too disturbing to dwell on. Small parts were twitching in a random and

meaningless way. If there were any weapons on the robots they hadn't had an opportunity to use them.

"Where did these eyesores come from?" queried Joe, his eyes wide with wonder.

"We must have set off another alarm," stated Mark. "The ancient Lucians probably rigged these up to protect the power source in this cave."

"Well, I hope there aren't any more surprises in this fun house. I'm glad you were alert, Mark."

Still looking down, Zip said, "The energy source is nearby. The indicators are strong now." He led the way along the corridor, more warily than before. The passage turned to the right and opened onto a large room.

"Here," said Zip simply. The room was beautifully organized, with dozens of sets of parallel plates, crystals that reflected the Starmen's suit lights like immense diamonds, aerials, and other paraphernalia, most of it unrecognizable. "If we're going to find it, it'll be here," stated the leader of the Starmen. He stepped out into the bewildering array of apparatus and began to look for something that resembled what the Janitor had shown them.

"I think maybe this is it," announced Joe half an hour later. Zip and Mark quickly came to him.

"That's got to be it," confirmed Mark. Alternating plates of crystal and metal were linked by a mesh of connectors, all of which led into a set of cases.

"I agree with you," said Zip. "This is it. It doesn't look too hard to disable." He looked up to his companions. "Here's our way out. I'm going up that well to the surface and I'll contact Tharsos by compad. It's the only way we've got that's not shielded. I'll give them our coordinates here, and tell them to get us out by wormhole at a time I'll set. I'll have to figure out how long it takes to get to the top of the well and back down. Mark, if you stay at the bottom of the well, we can probably communicate by line-of-sight. I'll get the confirmation from Tharsos and then get back down here. Joe, you can disable this contraption by

yourself, can't you?"

"Sure, Zip. The Janitor showed us all how to do it. I'll be real careful so that the Xenobots above won't suspect a thing. We sure don't want them coming down here to check whether a fuse has blown. Mark, just leave me your tools and I'll get started."

"Okay, then. That's our plan," nodded Zip. "The hypershield will be down within an hour, and our fleet will let the Xenobots have it. They'll be in for a big surprise. Their power stations and torus will turn to dust before they know it! And Tharsos can rescue us by wormhole and we'll be in the *Star Ranger* before lunch!"

Mark looked doubtful. "You sound awfully confident, Zip, for one who's been so guarded about the Xenobots up to this point."

"Well... I know it won't be that easy, but I'm hopeful. Besides, I don't see any other way. Do you?"

Mark and Joe both shook their heads. A sudden feeling of dread shot through Joe. *So far it all seems too easy*, he thought. *It can't last*. He shook the feeling off, determined to concentrate on his task.

"Well then, I'm off," said Zip. "Good luck, Joe." They clasped hands. Then Joe opened his toolkit. Mark set his backpack down next to Joe and accompanied Zip back to the central chamber. The two Starmen crossed it and came to the bottom of the well. More than a hundred feet across, it rose straight up, disappearing quickly into darkness.

"Good luck, Zip," said Mark as the redheaded Starman began to ascend the steps. In moments he had reached the ledge. Zip stepped gingerly onto the platform of metal set with railings that hovered over the drop. It remained solid as he put his weight onto it. He looked for controls, and found them on a panel set into the railing.

These can't be too difficult to figure out, he thought. He experimented carefully, and in moments felt the slab begin to rise.

"It's working," he said to Mark. "I'm going upward."

Mark continued to gaze after the platform until long after it had disappeared into the darkness, beyond the reach of his light. He turned off his own suit lights and saw a tiny halo of light spilling over the square of metal. As the minutes passed, it became smaller and smaller. Mark lay on his back so he could continue to look upward without straining his neck. When the light vanished, he checked his watch. Zip had been gone four minutes.

The big Starman got to his feet. "Can you hear me, Zip?"

"Just fine," came the response. "This place is fantastic! Joe would love it! There are passages and corridors galore up here, going off into who knows where."

When the conversation lagged, Mark turned on his suit lights again and looked over the room and was once again impressed by what he saw. *The Ahmanyans do beautiful work*, he thought, *but this is beyond even them*. The elegance was more inspiring than anything he had ever seen, and filled him with a longing for beauty that he knew could never be fully satisfied. It pulled him out of himself, and reminded him of the murals he and Joe had seen on the moon that orbited the devastated planet.

These people were masters of space, he thought, *and masters of beauty*. He saw, carved in the stone floor and in the elegant steel that made up the gates, beautiful images of landscapes and star systems and barren planets. *At one time this race loved exploration. I wonder what happened? What made them turn?* He wondered what it must have been like in those days and wished he could have seen them. *All darkness now*, he thought. *All darkness*.

Meanwhile Zip continued to rise higher. He saw increasing complexity in the design and architecture. Unknowingly, he was sharing Mark's thoughts. What a magnificent civilization this had once been! He could see what must have been lit areas for the various platforms. He imagined the Lucian people standing there looking out into the darkness. Memories of his childhood suddenly poured forth, when he had visited a train terminal in Cleveland, Ohio. He remembered the smell of ozone and diesel

fuel from the electric trains and non-electric engines, and the screech of steel wheels on steel tracks. He recalled the glare of a welder working on an engine with the headlight of a train off at a different angle. Though he hadn't thought of it in nearly twenty years, in his mind's eye he saw, as if it were the day before, the red, green, and yellow signal lights here and there, and other platforms scattered about.

For a moment Zip forgot that he was floating toward the surface of the Xenobots' home planet, not knowing what he would encounter. He pictured the bustle of a busy Lucian population center, and realized that in many ways they were, or had been, people like himself. The place had a real atmosphere! The well had a huge number of fascinating corridors and passageways that led off into long undisturbed darkness. He wondered whether Lucian children had enjoyed exploring this hub of activity and travel. It must have been a place of mystery and magic!

When the platform came to a stop, Zip was calm. "I'm at the top, Mark," he said. "Can you hear me?"

A weak signal came back. "I can hear you, but it's difficult. What do you see, Zip?" Mark's voice sounded far away and there was a hint of echo, probably caused by the signal having to travel through five miles of confined vertical space.

"I see a city. I think it's a city. I'm near the summit of a low hill on the outskirts of a plain. Everywhere is a plain—there's almost no variation whatever in elevation. It's flat in all directions. Just below me there are artificial structures spread out, and a spaceport to my right. It's very hard to see since everything is engulfed in a fume or haze of some kind. There are no Xenobots on the hill. The city is filled with ruins but it's crawling with life. There are things moving down there, maybe half a mile away. It's a dank, swampy planet, Mark, filled with pockets of gas. The sky is yellow and murky, and the sun is a blighted thing, like a spotlight shining through noxious vapors. It's foul, Mark, foul!"

"Don't waste time, Zip," urged Mark. "Call Tharsos!"

“Right. I’m shutting down our communication system now so I can try the compad. I’ll be back when I’ve sent the message.”

“Okay, Zip.”

Zip initiated the compad’s communication system, and then spoke into it. As he spoke, he continued to survey the surface of Luxa.

“This is Starman David Foster. Mark and Joe and I have successfully transported to Luxa. I expect that the hypershield will be disabled at any moment. Apparently a tachyon shield was created when we stepped through the portal, so I am communicating by compad. When the hypershield is down, you will be able to rescue the three of us by wormhole transfer.” Here he provided the coordinates. “Please execute the wormhole transfer at precisely 9:50 a.m. and not before. The three of us cannot be at the prearranged site until then. Please acknowledge on this channel.”

The Starman informed Mark that he had sent the message and would wait for confirmation from Tharsos before descending the well to rejoin his companions. He estimated it would take Tharsos no more than twenty minutes to respond to him. That would give him sufficient time to return to Mark and Joe before they were drawn back to Tharsos from the depths of the darkness inside Luxa.

One minute later, Zip’s suit communicator became active. Mark’s voice came through, sounding distant and hollow, but still energized: “Joe just reported that the hypershield is down!”

Chapter 11: Battle Without Mercy

A LOUD SHOUT went up from the bridge of Tharsos! Though hope had never faded completely, after the Janitor’s shocking news that the tachyon corridor to Luxa had been severed, few anywhere throughout the Solar Alliance believed that the Starmen had long survived their journey to the enemy’s planet,

much less would ever be able to bring down the hypershield. The instant the news came to the fleet that the hypershield had been breached, the bleak expressions that had adorned the faces of nearly everyone in the invading armada's 35,000 warships became instantly exultant.

King Izmaka's voice stirred all who heard it. "To your positions on my command! Prepare for hypertravel in fifteen seconds!"

The fleet that had been easing its way toward the Xenobots' home territory became electrified with eagerness to join in battle. Pilots leaned forward in their seats. Navigators prepared to engage the wormhole drive to the sites that had been pre-assigned to them. Weapons experts checked their circuits. Communications personnel leaped into high alertness.

"Fleet, on command—" charged Izmaka. "Now!"

As one, the entire fleet disappeared from normal space and reappeared in strategic positions, ranged against the Xenobot holdings. To the enemy, it appeared as if more than 350,000 warships had leaped to the attack. Most were holographic semblances of Ahmanyen warcraft, and many were combat drones outfitted for battle. Those ships that were manned were mostly ranged in the vicinity of the Xenobots' construction area where the great torus was taking shape.

Ahmanyen ships, sparkling gold and green in the unending light of Omega Centauri, fired powerful disintegration beams at the Xenobot ships. Laser cannons of incalculable power drilled the enemy warcraft or cut them in two. A few floating chunks of rock that were in orbit around the Xenobots' suns were blasted into dust. By wormhole transport, the Alliance placed high powered short range EMP bombs and scatter lasers in the locations where Xenobot ships were most highly concentrated. The EMP bombs detonated, releasing an electromagnetic magnapulse that disrupted all electronic activity within a three hundred mile radius. The scatter lasers, spheres three feet in diameter, rotated rapidly while releasing twelve laser beams whose sources were evenly spaced around the surface of the

sphere.

The Xenobots, taken by surprise, were not inactive for long. Though many ships were destroyed in the first few seconds of the engagement, the huge enemy fleet could well afford its initial losses. Their ships responded with weapons of equal intensity.

The bridge on Tharsos was intently silent except for the commands of King Izmaka. His eyes were riveted to the operations tank. Pleera gave her full attention to the controls of the Ahmanyen flagship, ready to respond instantly to any command that Izmaka might give her. Izmaka had designated Tharsos itself for the crush of Xenobot ships that surrounded the torus. So as not to place the premier Ahmanyen battlecraft into the midst of a hostile swarm, he had caused Tharsos to appear at one side of the cloud of Xenobot warcraft in the vicinity, speeding toward the massive wormhole transporter and blasting the enemy craft by the dozens as it went.

Richard Starlight and Allen Foster, tense with the excitement of battle and with anxiety for the Starmen, watched the operations tank opposite Izmaka. For a long time, Allen said nothing. At last, unable to control his reticence any longer, he asked Richard quietly, "Why do you think we haven't heard from the Starmen? They've obviously been successful in bringing down the hypershield. They must be alive!"

"The tachyon shield still shrouds Luxa," said Richard. "The shield went up an hour or so ago and prevents any realtime communication from the planet. The Starmen may not be able to communicate with us except by compad. We're staying away from Luxa for that reason. We know they're down there and we don't want to bring the battle to them until we have a chance to rescue them."

"Message from Starman Foster!" shouted one of the communicators. All heads turned in his direction.

"Richard!" said Izmaka. "Take the message please!"

"Yes sir!" Followed by Allen, Richard ran to the proper terminal. After he'd listened to the message, Richard said quietly, "9:50 a.m.—that's 29 minutes from now!"

Allen's face radiated relief. His heart speeded up with the excitement of anticipation.

Richard immediately sent a response: "Wonderful news, Zip! We're on the offensive and will create a wormhole at the time and place you signified! Congratulations!"

After waiting for an opportunity when no orders were being given, Richard announced tersely, "The Starmen are safe and ask to be brought by wormhole from Luxa in half an hour!"

Several people clasped their hands together briefly and shook them in unspoken triumph, then turned their attention back to their tasks.

"Prepare the first laserball!" commanded Izmaka, his attention rapt on the position indicators. "Place it where it will turn that torus to atoms! On my command—fire!"

~

An unnatural commotion in the city took Zip's attention. He had discerned a little movement among the slagheaps and filth for the few minutes he had been in position, but now there was an increase in activity. As he had watched the city below, he had pictured a hornets' nest alive with the activity of daily life, a few of the denizens flying in or out, but now he had the distinct, uneasy feeling that something had aroused the nest. Where distant, innocuous sounds had permeated his listening device, now the level of noise had increased. He wondered with patent disquiet whether his communication by compad had stirred up the Xenobots below him. For a moment he considered alerting Mark to the activity, but thought better of it.

Suddenly he saw a ship lift off from the spaceport, then another. Then two or three others launched from somewhere inside the city. The belching smokiness prevented him from seeing clearly. Then to his alarm, Zip perceived that the ships were flying in his direction.

With alacrity he leaped off the platform, scaled the broken-down fence that surrounded the station, and threw himself down

amidst the tormented ground that rose up to the nearby summit of the hill. The hillside was comprised of chunks of rock piled up, with a slimy, oily soil covering much of it. Zip secreted himself under a huge boulder and wriggled back into the deepest part of the fracture between it and a parent rock beneath. He shut down both compad and intersuit communicators. As he had done before when he had been in the immediate presence of Xenobots, he cleared his mind of any feeling. He subdued any anxiety, any expectations, anything at all that might draw the attention of sentient beings who communicated more like a hive of connected organisms than thinking individuals. From his vantage point, he could look down and see what the Xenobots were going to do.

Within seconds, several shuttlecraft landed on a relatively level place not far from the top of the well. About three dozen Xenobots disgorged from their ships and scuttled toward the station. As they approached the opening, Zip could hear “chunking” sounds, and realized that a number of platforms had been extruded from the walls at the top of the well.

It was all Zip could do to keep the supreme apprehension that blazed up in him from overflowing his emotional restraints. He disciplined himself to breathe deeply. He relaxed his facial muscles and his shoulders. He knew he’d have time to warn Mark. It took about ten minutes to make the ascent. That was the platforms’ top speed. He’d give the Xenobots two minutes to start down before he’d send Mark a warning.

He saw the Xenobots scurry onto the platforms, their multi-jointed arms carrying monstrous weapons. With a shock, Zip recognized the super-powered laser rifles that the Xenobots had carried in to the abandoned Ahmanyen base on Nyx. He recalled with a grimace the incredible firepower that they had.

One after another the platforms began their descent: three of them, each bearing at least a dozen Xenobots. Two minutes after the last one had begun its journey to the bottom, Zip crept out of his hiding place. He scoured the hillside in every direction, and scrutinized the city. He descried no further activity. He moved

stealthily back down to the station, scaled the fence again, and then crawled over to the edge of the well. Looking down, he saw the barest flicker of light far below. Even as he watched, it disappeared.

The Starman refreshed his intersuit communicator. "Mark," he said.

"Yes, Zip? Where've you been?"

"You've got company coming. About three dozen Xenobots will reach the bottom of the shaft in about seven minutes. They're coming in three waves. Be prepared. They've got the same kind of weapons we saw them use on Nyx."

"Thanks for the encouraging news! Any word from Tharsos yet?"

"Not yet. I'll put my compad back on now. They probably only received my message in the last minute or two, but it must have gone through to them. It wasn't blocked."

"Okay, Zip. How're you going to get down?"

With a jolt that even his well-disciplined mind couldn't control, Zip realized that he had no way back down. With a troop of Xenobots between him and his partners, there was no way he could get back to Mark and Joe in time for the wormhole beam that Tharsos would send in—he checked his watch—twenty-eight minutes. He was trapped on the surface of Luxa! There was only one way to escape—he'd have to contact Tharsos and request a second hypertransfer for himself. He explained to Mark, signed off, and opened his compad circuit.

~

Elsewhere, under the spectacular, star-filled sky of Omega Centauri the battle raged between the invading fleet and the Xenobot defenders. In many thousands of encounters, the winged Ahmanyen warships, battlespheres of Earth, firewasps, and other warcraft fought determinedly to destroy the massive, heavily-armed boxships the Xenobots maneuvered through their home space. The enemy's other fighter ships, in the shape of

ellipsoids and darts, appeared, attacked, and vanished through hyperspace. The ships of the Alliance drew upon the quantum froth and the Xenobots were fueled by the inexhaustible power of their sun, channeled through the solar power station that was the primary target of Tharsos' ferocity. Disable the power station, and the Xenobot ships would be nearly dead in space.

Inside the *Sa Zomne*, Saadervo and Stenafi had a clear view of the uncountable laser blasts and counterblasts, explosions and fireballs of destroyed ships.

"I cannot keep track of what is happening!" said Stenafi tensely.

"Chathna will fight for us," said Saadervo. "He doesn't need to see but one ship at a time. I will just fly where he tells me." The Ahmanyen ship was surrounded by the light of the stars and the incessant detonations of ships of both sides.

"Keep whirling the ship!" cried Chathna. "There are enough targets here to keep me busy for a long time! Just keep away from the enemy's sights! Keep moving!"

Saadervo kept the *Sa Zomne*, the *Bolt of Fire*, swirling and turning in space to make it a difficult target for any Xenobot attacker. The stabilizers kept the crew relatively comfortable, and Chathna's battlescreen did not depend upon the motion of the ship for its accuracy.

The Ahmanyen craft revolved once each second. The bright Xenobot star flashed by its window repeatedly with the delirium of a shield in combat. With difficulty, the crewmembers sought to avoid the conviction that their entire existence was spinning into a vortex. As if the ship had blundered into a compacted storm in the empty depths of space itself, the *Sa Zomne* spun into the whirlpool of all fury.

~

The weaponsmasters of Tharsos launched the first laserball. Sent by wormhole transport, it disappeared from the launch room of the Ahmanyen flagship and materialized within half a mile of the torus. It immediately spun on its axis, simultaneously

releasing a dozen high powered laser beams. Many Xenobot ships in the ranks of the torus' closest defenders were ripped into shreds, but the torus was unaffected! The laser beams slashed their way through the entire apparatus, but had no observable affect. The solar power station at its center likewise showed no damage whatever.

A gut feeling of unease hit Izmaka like a punch. "Firebombs! Launch six to surround the torus! Now!"

Six spheres appeared in the proximity of the torus, three on each side, spaced evenly in triangular formation. They detonated within microseconds of each other, releasing energy sufficient to have destroyed the torus several times over.

Once again, the immense wormhole transporter was undamaged.

"It's... impossible," Izmaka gasped. No one else on the bridge said a word.

"Oh... *maura!*... oh, no!" cried Pleera. With her face as white as snow, she turned from the controls to face the King and everyone else on the bridge. Her hands were trembling uncontrollably. "It's... it's not real! It's a hologram! The whole thing is a hologram! The Xenobots have fooled us with our own weapons!"

"How could they have created a hologram?" shouted one of the technicians almost hysterically.

"From a captured Ahmanyen ship," said Izmaka weakly. "That's the only way they could have done it. A captured ship from the first war. But for what purpose? And if that solar power station is unreal, where is the real one?"

At that moment, a shudder ran through Tharsos. "The hypershield has been restored!" exclaimed several technicians at once. "We can't hypertravel! None of our ships can hypertravel!"

Allen Foster, Richard Starlight, and everyone else on the bridge were frozen to their spots.

"How can this be?" asked Izmaka. "It's almost as if..."

"...as if the Xenobots had planned it this way all along," whispered Allen Foster to himself. He felt a chill, as if a trickle

of ice water had run down his backbone. He shuddered.

One of the tacticians spoke up. "Sir?" He swallowed. "All of our ships are being englobed by the Xenobot armada. Their ships are moving too fast for us to avoid. We're trapped! The entire fleet is trapped!"

~

Mark lay on his back, looking straight up the well and counting out the minutes. He had already turned off his suit lights and advised Joe to do the same. He could see no light above him, but a distant whispering sound appeared on the very edge of his hearing. It came down the well like the echo of a breeze. Slowly he lifted his rifle and pointed it straight upward. He fired a maximum charge EMP. Immediately the small, still sound he'd heard became a cantankerous clatter. The Starman rolled over quickly, leaped to his feet, and ran for the great pedestal where Joe was already waiting. For a moment, he put his suit light on its lowest power so he could see where he was going. The men were on opposite sides of the massive stone column, ready to use it for cover.

"Get ready for action, Joe!"

With overwhelming force, the first platform slammed to the ground at the bottom of the well, having fallen freely for nearly half a mile.

"I'm going to get a couple of those weapons!" cried Joe, running from cover to the scene of the disaster.

"Joe!" shouted Mark. "The other platforms can't be that far behind!"

"I'll make it!"

The lanky Starman crossed the distance in a matter of seconds. He didn't stop to stare at the remnants of the Xenobots, though the picture of smashed metallic limbs and spilled and splashed cadaverous flesh impressed itself indelibly on his brain. For just a second his gorge rose, but he controlled himself and grabbed two rifles.

Involuntarily he looked up. Two hundred yards above him

was a second platform, quickly descending. Even as he looked, several Xenobots leaned over the rail and fired their weapons. Their beams ripped into the debris on the pavement. Both metal and organic material sizzled and smoked. Joe had leaped the instant he saw the first motion, rolled on the stone floor, come to his feet, retrieved the two rifles, and skidded them toward Mark. Then he returned to the bottom of the well. He darted into the open, fired an EMP, and ran back to the pedestal. Behind him two laser beams struck the ground, swinging in a small arc as the platform upon which their wielders was standing lost control and plunged the last hundred yards to ground level. The concussion as it struck blew Joe off his feet. He skidded on his face toward the pedestal.

“The bigger they are...” began Joe.

“Shut up, Joe!” shouted Mark angrily. “Just shut up! The others will be here any second! There’ll be twelve of them at least!”

As Joe scooted behind the scant cover provided by the edge of the stone column, the third and last platform reached the bottom. Mark fired a concussive charge the instant it stopped moving. The Xenobots were bowled over. Two of them rolled quickly into an advantageous position and fired laser beams at the two Starmen. The massive power the Starmen remembered so well from their first encounter with this kind of weapon on Nyx ripped into the stone over their heads and showered dust and fragments down over them.

“That sobered me,” said Joe. He fired his EMP and knocked over the few Xenobots that were rising to an upright position.

Scuttling frantically like cockroaches when a light goes on in a dark room, the Xenobots sped out of the opening and tried to disperse. Joe hefted his laser pistol and set it on fan. He sent a wedge of laser light, made up of a hundred tiny beams set close together, toward the two that were closest to him and cut them in half.

Other Xenobots began firing their weapons at the column, and continued to spread out.

“Back to the tunnel, Joe!” commanded Mark. “We won’t last more than a few seconds if we stay here. Back to the tunnel before these buckets can surround us!”

“I’ll race you!” shouted Joe. “Let’s go!”

The two Starmen sped like broken field runners across the open pavement behind the stone column. They could hear the soft clanking of the Xenobots’ relentless steps pursuing them. One laser beam ripped between them for a split second, and another vaporized the left side of the tunnel entrance.

The Starmen realized, with sickening dread, that this time they had *really* underestimated the Xenobots, and now that miscalculation could prove fatal.

Just at the gaping opening to the tunnel, Joe whirled and fired two laser bursts with one of the Xenobots’ weapons. He skewered two of the enemy with direct hits, and saw them crumple, burned half into oblivion. Then he turned and ran down the tunnel, only a few yards behind Mark.

“The corner up there will have to be our last stand,” panted Mark. “Maybe we can use these robots we blew up before as shielding!”

“Either that or nothing, my friend! If these mollusks push us back into the power plant, we’ll have lots of cover for a while, but who knows what’ll happen when the EMPs, concussives, and laserbeams are let loose in there! I’m afraid we’re trapped!”

Chapter 12: The Stakes Get Higher

“WE ONLY HAVE TO LAST eleven more minutes!” said Mark. “Then we’ll be home free if Tharsos is accurate and on time with their rescue beam!”

Joe held the Xenobotic laser rifle ready for instant use. His eyes were fixed on the opening to the tunnel while Mark frenziedly piled up the debris from the ancient robots they had blown to pieces. When he was finished, the jumble of bulky

cases, thin metal bars, and small loose parts barely came to waist height.

"This isn't going to stop them for long," snorted Mark, "especially if they're armed with lasers."

Just as he completed the sentence, Joe fired a searing bolt straight out the front of the tunnel.

"Saw a Xenobot far out in the chamber—I think," said Joe quietly but firmly. "Hard to tell from here since it's so dark. Hey! I've got an idea!" He turned his weapon upward, aimed it at the roof of the tunnel close to the entrance, and fired. "Cover me, Mark! I'm going to bring the ceiling down if I can!"

Mark aimed his weapon straight down the corridor while Joe fired staccato bursts of laser beams alternating with concussive waves. Chunks of the roof began to fall to the floor.

A moment later, three Xenobots leaped around the edge of the tunnel entrance and slalomed determinedly down the passageway, firing. Mark fired a concussive wave and blew them back out the tunnel as if they were chips of wood being carried out by a rush of water.

"Keep covering me, Mark!" shouted Joe. The lanky Starman leaped over the pile of debris that Mark had made and sprinted the fifteen or twenty yards toward the tunnel entrance to the site where he had caused sections of the roof to collapse. He stood on top of the tallest mound, reached up high into the cavity, and then jumped down to the floor and raced back to his partner. When he saw Mark grip his rifle and take aim, Joe dove headfirst to the pavement and skidded forward a few feet as the big Starman's laser beam sizzled the air above him. The instant Mark ceased firing, Joe got his feet under him and propelled himself over the heap.

"Get down!" Joe ordered. After both Starmen had crouched behind their makeshift barrier, Joe detonated the grenade he had placed in the roof of the tunnel. The loud clap reverberated in the enclosed space, and they could hear the sound of an avalanche of rocks. Dust filled the air.

"Good work, Joe! That should get you a medal!" exclaimed

Mark with animation.

“Into the power station, Mark!” shouted Joe, and led the way from the tunnel entrance. Just before he turned the corner, he looked back and saw that the corridor was only about 80% blocked. The top was already glowing red from the Xenobots’ attack lasers.

“They’ll be after us in no time, Mark. We’ve just got to hold on for four more minutes!” Joe cried as the two Starmen raced into the power plant. The climate control in Joe’s suit was working hard. He could feel the sweat on his brow. “Just four more minutes and we’ll be back on Tharsos!”

“Joe,” said Mark. The word sounded as if it were encased in lead. “The hypershield is working again. Look at the mechanism.”

Joe’s eyes opened as wide as they could go when he looked at the power block for the Luxan hypershield. “It can’t be!” he shouted. “I undid that circuit myself! How could it have come back into action?”

“It’s probably got a ‘restore’ setting that kicks it back into service if it’s not disengaged on the surface,” said Mark angrily, his nostrils flaring. “We won’t have time to take it out again before Tharsos’ wormhole beam is due. Now we’re stuck here! This,” he looked up at Joe, “is where it ends for us, my friend. We’re not getting out of here now.”

They could hear the sound of the Xenobots’ scuttling as they sped down the corridor in their direction.

~

“Starman Zip Foster on Luxa, calling Tharsos,” said the redheaded Starman. Speaking rapidly but clearly, he reported on the Xenobots’ descent of the well and related that Mark and Joe would beyond doubt have a tough time defending themselves against the enemy. He concluded his message by providing his own coordinates and asking that he be rescued from the surface of Luxa at the same time that Mark and Joe were scheduled to be

brought out of danger. He signed off, and then glanced at his watch. He had a wait of about half an hour. Anxiously he pictured Mark and Joe fighting the Xenobots. Their battle would begin in just a few minutes. He waited restlessly.

Ten minutes later a message from Tharsos came in to Zip on his compad. He was comforted far more than he thought he would be when he heard Richard Starlight's voice: "Greetings, Zip! We're on the offensive and will create a wormhole at the time and place you signified! Congratulations!"

His heart dropped within him when a second message came through only four minutes later: "Zip?" Richard's voice sounded strangely heavy. "Bad news. We are now in close proximity to the Xenobots' torus and solar power station, and have learned that they are illusory. The enemy has used the Ahmanyans' technology against us, Zip. The apparatus is only holograms. We... we have no idea where the real solar power station is. Worst of all, the hypershield has gone back up. Something must have gone wrong on Luxa. I... hope you receive this message. We cannot send a hypertransfer beam to you, and the Alliance fleet is under strong attack. Unless you can bring down the hypershield again, we will not be able to hold out for more than a few hours."

Zip was filled with alarm. The hypershield was back up! That meant that the Xenobots down below must have overcome Mark and Joe and restored the shield that Joe had disabled. Overwhelmed with grief and bitter anger, he concluded that his friends were dead and that there was no way he could escape from Luxa. *It's only a matter of time*, he thought bitterly. *The Xenobots will be coming back up the well before too long, and they'll find me. And I can do nothing to help the Alliance! We've lost.* He refused to let himself imagine what would happen when the victorious Xenobots invaded the Inner Planetary System. Earth and Ahmanya were as good as defenseless.

On the bridge of Tharsos, Zip's second message came in to Richard Starlight. Izmaka had asked the head of Starlight Enterprise to stay by the communicator that was connected to the Starmen on Luxa. Sadly, Richard responded with a message that Tharsos was unable to rescue the Starmen if the hypershield were up.

"I'm sorry, Zip," he said. "You must have concluded that already from the message I sent you a few minutes ago. We will keep an eye on the indicators here, as you must know. The instant the hypershield goes down again, we will rescue you all. Just... just stay at the coordinates you provided. It's not over yet."

Starman Allen Foster looked anxiously into the operations tank. He could see that the Xenobot armada was acting quickly to surround the fleet of the Solar Alliance. Without the ability to move by wormhole, the warships of the Alliance were being pressed into a sphere and englobed. He noted that Izmaka had ordered the robotic fighters to be rushed to the outer parts of the sphere; the manned ships were gathering at its center. Tharsos itself was near the core of the sphere.

Allen suddenly realized that he had concluded, without even remembering when he had done so, that there was no hope for any of them to survive.

~

Zip eased himself over the protective barrier around the top of the well. He saw no need to move swiftly. He glanced at his watch. *The Xenobots can't possibly return to the surface for at least ten more minutes*, he thought. Suddenly his mind cleared. He stared up in shock as if he'd been doused with a bucketful of ice water.

What time had Richard sent the message from Tharsos that the hypershield had been restored? He searched his compad records. His fingers trembled. The message bore a time-stamp of 9:26 a.m. *But that was impossible!* his mind shouted. *The Xenobots couldn't have reached the bottom of the well by that*

time! He double-checked the time he had reported to Mark that the Xenobots were coming after him and Joe. He had sent that message at 9:21 a.m. He did the arithmetic. Richard's message was sent at least two or three minutes before the Xenobots could have reached the bottom of the well! The Xenobots that had gone down the well had not been responsible for restoring the hypershield! Something else must have happened! Whatever was going on below, Mark and Joe might very well still be alive and fighting for survival at that very moment! If they noticed that the hypershield was back in operation, maybe they could knock it out again.

Tharsos was supposed to rescue them all in—Zip checked his watch again—only six minutes! He'd better stay right where he said he'd be! His heart was racing and he could feel the adrenaline surging into his system.

The Starman began to survey the terrain. Off to one side he saw the shuttlecraft that the Xenobots had left when they had descended the well after his friends. He scanned the city and saw no unusual movement. He looked up into the sky. *Up there somewhere, he thought, are my friends. Up there the battle is taking place. And I'm on the very surface of the enemy's home planet, safest of them all! And the most useless!*

Through the haze he saw a dot, a black speck against the bright light of the star-jammed Luxan sky. Zip furrowed his forehead with puzzlement. *What could that be?*

With a jolt, it all became clear to him. Zip's pulse speeded up and his fingers tingled as he fastened his telescopic sight onto his faceplate. He fixed it on the black speck and took readings. As quickly as he could, he analyzed them.

It's at the first LaGrange point, he said to himself. I think it's at the point. I just don't have time to measure where the LaGrange point would be for a binary star system. But that's got to be the Luxan moon that the Janitor told us about—but it's not in an orbit! It's at the first LaGrange point! That means it's always facing the star. And that must mean...

With his hands trembling so much that he could barely hold on

to his equipment, he raised the energy detector he'd brought with him to locate the site of the power plant below. He directed it at the tiny black dot, now being obscured by a bank of yellow haze. When he saw the reading, he nodded excitedly.

He threw the detector down and raised his compad.

"Starman David Foster calling Richard Starlight!" he nearly shouted. "I have located the Xenobots' solar power station! It is on the Luxan moon! There is no doubt!" His words tumbled out. "I am taking a Xenobot shuttlecraft to the moon where I will disable the power station! The Xenobot fleet will soon be powerless—if I am successful! I will launch in less than two minutes! I will contact you later to tell you where and when to send a hypertransfer beam to bring me back to Tharsos! Foster out!"

The Starman ran to the Xenobot shuttlecraft, selected one, and leaped inside. Within a minute he had blasted off from the surface of Luxa.

~

"Under these conditions, I think there is no more need for subtlety!" cried Joe. He leveled the Xenobot laser blaster at the hypershield's power source and, with a burst of fierce energy, reduced it to molten slag. "*Now* let's see that thing kick back in!" he snarled.

Just seconds later, Mark fired a fan laser at the phalanx of Xenobots that was rushing into the power plant. Two of them fell into pieces, and two others scurried into the maze of pipes, cases, stanchions, and other paraphernalia. No others came into the room.

"Maybe there's only two left," said Joe with determination. "We're going to make it, Mark! We've got one minute to get over to that space by the door. Let's hope that Tharsos is paying attention and will get us out of here!"

Mark didn't answer. He was listening hard for any evidence of movement. His eyes roved but could see little in the dim illumination cast by his suitlight.

“Let’s go!” urged Joe.

“That’ll put us in the open,” said Mark. “Wait.” He checked his watch. “We’ve got 45 seconds. Stand back-to-back with me and then we’ll run when we’re down to five seconds!” Joe complied.

A powerful laser beam cut through a stanchion and girder structure directly over the Starmen’s heads. They jumped before the wreckage could fall to the ground and crush them. Drawn out into the open each of them saw the Xenobots at the same time, one at either end of the open space and partially concealed by tall power boxes.

“Oh no you don’t! Not this close!” shouted Joe. He rolled over and over as the Xenobot’s beam chased him across the floor. He whirled and fired a concussive charge that blew the Xenobot hard against the wall, its weapon flying.

At the same time, Mark rolled over once and then came to his feet and leaped high. In the lesser gravity of Luxa he cleared the ground by six feet as he fired at his attacker. His shot went wild, and his assailant slipped behind the power box nearest him.

“Five seconds, Mark! Go, go!” shouted Joe.

In a desperate broken field run Mark spun around and sprinted for the pre-arranged location. He kept low to the floor and sensed a laser beam passing over his head. He could hear the last Xenobot scrambling after him.

~

“The hypershield is down again!” shouted a technician on the bridge. Lightning fast, Izmaka looked at the clock and realized that two minutes remained before the appointed time to rescue the Starmen by hypertransfer.

“Grab the Starmen on the mark!” ordered Izmaka. The operators in the hypertransfer room did not need the order. They had seen that the hypershield had been taken down a second time and their eyes were fixed on the clock. They had calibrated the machinery to the two exact locations Zip had provided. At 9:50

a.m. precisely, they engaged the hypertransfer apparatus. Inside Tharsos' hypertransfer chamber, Starmen Mark and Joe appeared—as well as a Xenobot!

Joe was standing with his weapon in his hand, but Mark was lying flat on his face, unarmed. If the Xenobot was disoriented at the sudden change of location, it showed no sign of it. It instantly fired a laser blast at the pedestal that operated the hypertransfer mechanism and reduced it to a smoking stump. The operators of the apparatus turned and began to sprint toward the door. As Mark scrambled to his feet, Joe saw that the Xenobot was whipping its weapon in the direction of the fleeing technicians and fired his own weapon, sheering off the Xenobots' spider-like hands and destroying its weapon. The technicians escaped through the door.

Before Joe could fire again, the Xenobot let fly with its distinctive needle lasers. The beams stung the Starmen like a swarm of hornets. Both gasped in pain and involuntarily fell to the floor. The Xenobot scuttled toward them, then lifted one prehensile foot over Joe, preparing to clutch its human enemy and rip him open. For the moment, the Starmen were helpless, and both gaped in horror as the Xenobot's foot reached for Joe.

Suddenly the Janitor appeared in the chamber. With the abilities of his race, he had discerned that a Xenobot had breached the interior of Tharsos. He had wormholed directly from the bridge to the hypertransfer room. The Xenobot whirled and seemed to fall back in the vicinity of the Janitor. It showered the area with needle lasers once again, and Joe and Mark ground their teeth in agony as they were struck a second time.

The Janitor was unaffected by the attack and leaped forward to grapple with the Xenobot. Mark and Joe could see a surge of heat radiating from his environmental suit. Though their suits protected them from the intolerable temperature that the Janitor's suit exuded, they detected heat waves in the atmosphere. The paint on the walls near the battle began to blister, sizzle, and then turn black.

And then it was over. The Janitor was back to normal and the

Xenobot had slumped to the floor. Mark and Joe became aware that their suitvoices were speaking to them in the soothing tones appropriate for ministering to an injured Starman. "...feeling the effects of the pain relieving medication. Your wounds are being tended. You will sustain no permanent injury..."

Within minutes several people were carrying the Starmen by stretchers along the corridors of Tharsos. They were strapped in to prevent them from falling or rolling off accidentally. Their helmets had been removed and they were breathing the air inside Tharsos.

"What about Zip?" shouted Mark.

"We don't know," answered a technician. "We sent a hypertransfer beam to him at the same moment we sent one after you. He did not appear."

"Where are you taking us?" ranted Joe. "We're fine! Our suits protected us! Let us up!"

"We're taking you to your quarters to rest," soothed one of those in the party.

"Like fun!" shouted Joe. "Take us to the bridge! And let us off these stretchers!"

"There you are!" shouted a welcome voice. Starman Kathryn Mullaney, followed closely by Allen Foster, raced down the corridor. "You came back! I told you that you had to come back! Oh, you came back!"

"Kathryn!" shouted Joe. "Tell these people to let us up! Take us to the bridge!"

"You heard him!" the woman said, and began to pull at the straps that kept the Starmen on the stretchers.

"Very well, Starman," said the person in charge, and indicated that the stretchers were to be set down and the Starmen unstrapped.

"Where's David?" asked Allen.

When he was free, Mark slowly set the straps aside and stood up. He looked soberly at his friend's father. "I don't know, sir. I'm sorry. No one seems to know."

"He was supposed to be picked up from the surface of Luxa

at the same time these two were, sir,” explained one of the technicians. “But he didn’t appear. I’m sure I set the coordinates properly, but... but there’s nothing we can do now. The hypertransfer control pedestal was destroyed. It will take at least two days to rebuild it.”

Allen felt faint, and swayed on his feet. The effort of containing his emotions during the past few days had finally taken its toll. Kathryn and Mark took hold of him and helped him along the corridor. “We’ll take you to your room,” said Kathryn tenderly.

“No,” said Allen, weakly. “No—back to the bridge. To the bridge.”

“Yes sir,” she said.

Minutes later they were in Tharsos’ control center. Mark and Joe received a heartfelt but subdued welcome. The atmosphere on the bridge was solemn.

“Something has happened since we left,” said Allen.

“We know where your son is,” said Richard gently. “Or where he is going. We received a message.”

“A message?”

Richard played it for him. Mark and Joe and Kathryn also heard it for the first time. “Starman David Foster calling Richard Starlight! I have located the Xenobots’ solar power station! It is on the Luxan moon! There is no doubt! I am taking a Xenobot shuttlecraft to the moon where I will disable the power station! The Xenobot fleet will soon be powerless—if I am successful! I will launch in less than two minutes! I will contact you later to tell you where and when to send a hypertransfer beam to bring me back to Tharsos! Foster out!”

“I hope he knows what he’s doing,” said Mark softly. “A couple of years ago, when we tried to take control of the old solar power station near the neon planet, Dr. Hoshino wouldn’t even let us get close to it until he’d made sure that we could do so without blowing it up. And every one of the power stations our drones approached three weeks ago self-destructed.”

“But blowing the thing up is just what we’re trying to do

now!” said Joe. “Let’s hope Zip won’t be foolhardy!”

“I doubt the Xenobots will set up this power station to self-destruct,” said Richard. “It’s essential for their victory. It’ll have to be disabled from within. The moon must be heavily guarded. If Zip’s using a Xenobot ship, maybe he’ll be able to make the approach safely—maybe even without being detected.”

“Can’t we do anything to help?” demanded Joe.

Starman Allen Foster stumbled over to the operations tank. He felt more helpless than ever before. He stared unseeingly into the tank where Izmaka’s attention was fixed upon the movement of his ships. Allen barely registered that the Xenobot armada’s assault on the Solar Alliance was still intense. Now that the Alliance warships could travel by wormhole again and launch their bombs through hyperspace, they were escaping the englobement. The battle was being waged on a more equitable basis, but the Alliance was still greatly outnumbered. Victory was solely in the hands of Zip Foster now.

Chapter 13: Victory Forever

IZMAKA’S VOICE rang out clearly. “Send two hundred firewasps to the Luxan moon! Tell them *only to return fire!* They are *not* to initiate an attack on any Xenobot ship! —not until we know for certain which ship it is that Starman Foster has commandeered!”

Joe turned toward Mark and faced him with a penetrating gaze. He leaned his head slightly to the left, the direction in which the exit door was located, and said quietly, “Let’s go.”

Mark immediately discerned Joe’s intention. Both left the room in silence, followed closely by Kathryn Mullaney.

“And where are you two heroes going, as if I didn’t know?” she demanded once they were on the outside of the door, her Irish inflection thickening with the passion of the moment.

“We’re going to the Luxan moon on the *Star Ranger*,” said Joe, his chin jutting out with an air almost of defiance.

“Not without *me*, you’re not!”

The pause was so infinitesimal that no one could say for sure whether it had really existed.

“Of course we’re not, Kathryn! Come along!”

The three Starmen eased their way along the passageways and through Tharsos’ personnel transport system until they reached the humans’ living quarters on the edge of the hangar. The corridors were nearly empty, since each person aboard Tharsos was engaged upon the work of battle. Those few they met asked them no questions.

They passed the dormitories, crossed the courtyard, went through the airlock, and boarded the *Star Ranger*.

“Why are we being so secretive?” asked Mark. “Why do I feel guilty?”

“Because Izmaka might not like us going to the Luxan moon, of course!” chided Kathryn. “We just about pulled our hair out trying to rescue you three lunatics from the enemy’s inner sanctum and now we’re going right back there again.”

“Izmaka cannot give orders to a Starman,” asserted Joe defensively.

“Of course not, but we’d be honor-bound to obey them if he did,” retorted Kathryn. “And Richard *can* give us orders!”

“Well,” began Joe slowly as he slipped into the pilot’s seat, “Richard was rather occupied on the bridge. I wouldn’t want to break his concentration by engaging in any unnecessary conversation at this critical time. I’m sure he would have no objection to our joining Zip. After all, we are a team.” Joe cleared his throat.

“Without a doubt, you’re right, Starman Taylor,” agreed Kathryn as she strapped herself into the co-pilot’s seat.

Mark coughed quietly, then, in a calm voice, radioed space control and asked that the great airlock be opened for the *Star Ranger*.

“Yes, *Star Ranger*,” responded the controller. “You may launch when ready.”

“Thank you, controller,” answered Mark, and closed the

circuit. "On your command, Joe," said the big Starman.

"Well then... let's go," said Joe. Pilot and navigator set about their tasks and launched the *Star Ranger*.

"How are your laser burns, Joe?" asked Kathryn as the lustrous brick red ship moved toward the massive iron throat that led to the outside through the starlock.

"A trifle," said Joe dismissively. "Why, if you hadn't asked me I wouldn't even be aware of them."

"Uh huh," noted Kathryn.

Within moments, the *Star Ranger* had cleared Tharsos.

"Are you ready, Mark?"

"We are sheathed and ready for hypertravel."

"Do it."

Two seconds later the Starmen's ship vanished from the space around Tharsos.

~

The Xenobots' solar power station orbited outside the farthest reach of most prominences and flares of the large yellow sun that was the major presence in the Xenobot binary solar system. The ferocious white dwarf star was on the other side of its larger companion, and out of view.

Two hundred firewasps appeared with startling suddenness in the environs of the Luxan satellite. Immediately they were set upon by a horde of Xenobot battlecraft that were in close formation around the moon. The Xenobots fought with a desperation born of the knowledge that somehow their critical secret had been brought to light and that the hypershield around their solar system had collapsed a second time.

Within seconds of the firewasps' arrival, additional Xenobot warcraft appeared through hyperspace, called by the defenders of their power station. The firewasps were quickly outnumbered, yet they continued to attack the enemy effectively with their characteristic speed and maneuverability. Their assault on the defenders of the moon was hampered, however, by the strict order not to attack any Xenobot craft that had not fired upon

them first. In the rapid change of positions, the firewasps' onboard computer systems were hard put to keep track of which Xenobot ships had been identified as the enemy.

It became evident early in the encounter that around the Luxan moon a defensive shield had been placed. Any firewasp that crossed the shield was instantaneously turned into atoms. All missiles launched at the moon detonated the instant they crossed the shield, causing no damage to their target.

As the firewasps reduced the number of Xenobot warcraft, replacements appeared. Gradually the number of firewasps diminished. At length, Izmaka sent in another hundred ships, and the battle heated up again.

~

As Zip approached the solar power station, he was dismayed to see that a fierce battle was taking place. The moon was surrounded by Xenobot warcraft and firewasps of the Solar Alliance. He doubted he could survive the approach, for the firewasps were relentless in their attack. Then he thought again.

Tharsos must have received my message, he reasoned, or the firewasps wouldn't be attacking the Xenobot fleet around the moon, and they know I am flying a Xenobot ship. If I don't fire a weapon, I probably won't be attacked. This battle can even be a good cover for me.

Already moving as fast as he could, Zip darted into the battle, whirling around the fighting ships and drawing closer and closer to the moon. He expected that no Xenobot ship would fire against one of its own, and he was more than hopeful that no firewasps would attack a Xenobot ship that did not engage them in battle. He just hoped that no Xenobot warship would try to contact him and become suspicious when there was no answer. He shook off his feeling of doubt and concentrated on making an approach to the moon.

I've got to make it through! he thought urgently. The pilots of the firewasps are risking their lives so that I can succeed! Some of them are dying at this moment!

Unexpectedly he was through the battle zone. Safe in his Xenobot ship, he had crossed the barrier whose defensive capability destroyed any foreign object that touched it. The fighting was behind him. Ahead was the black iron moon, about thirty miles long and fifteen wide. He circled it, scouring its surface for some visual sign of a gateway or any other artificial construction.

Come on! Zip urged. Where's the entrance? Where's the entrance? How do I get in there?

Then he saw it. There were three Xenobot ships anchored in a hollow. There were no other ships on the surface. *It's got to be there*, he thought. *I don't see any gate, but it's got to be there.*

He brought his ship down to a smooth landing, kicked open the hatch, and leaped down with his two rifles and equipment pack. He floated the few feet to the surface, feeling light as a soap bubble.

Hnngh! he snorted. *Whoever would have thought that I'd need smart-grip boots on this mission!*

Fifty yards away he saw the entrance, set into the side of a low cliff. Its gate was a massive black metal door, without a window but embellished with hundreds of rivets. Zip leaned forward and pushed off the ground. As if he were flying, he crossed the open space in a single leap, well aimed so that he would not drift too far from the surface. As he approached the gate, he turned his body in space and landed feet first. He absorbed the light momentum of his leap and grabbed at a protuberant rock near the portal to steady himself. He drifted to the ground.

Above him the space battle was continuing with merciless intensity. Laser beams flashed through the clouds of debris, and now and then a ship blew into flame, but the redheaded Starman paid no heed. With his attention fixed on the outside of the airlock, he searched doggedly for a way to gain ingress. Set inside the large sealed gate he noted a small door. Eagerly he searched for a control mechanism. Almost at once he saw a box with a few levers in it and, in the center, a hook. He grabbed the

hook and pulled it. After a moment the door swung inward.

With a grunt of satisfaction, the Starman rushed through the portal and swung it back closed. In the resultant darkness he risked turning on his suitlights to their lowest setting. Thirty yards away, down a passage roughly hewn from the fabric of the moon itself, was a second set of doors. He recognized the space as an airlock, unusual in a Xenobot construction. Zip leaped toward the far side of the airlock and, halfway through his jump, he fell to the ground hard and rolled over. His weapons went flying.

“Oof!” he said aloud. *A gravity grid that starts halfway through the airlock*, he thought. *I wonder what other surprises I’ll find here.*

His heart racing, adrenaline powering his every move, he got to his feet, scooped up his rifles, and strode over to the second door. The Starman wrapped one rifle around his shoulder and held the other ready for action.

“Open up!” he commanded out loud to no one. “You’ve got a visitor!” He pulled on a second hook, and, the atmosphere having equalized inside the airlock, the door opened inward. He jumped through into a crouch and whirled to take in all directions, his rifle ready to fire at the first sign of movement. The door slammed shut behind him with ominous solidity.

Before the Starman there was a wide passage, and to right and left corridors ran away into darkness. Discerning no movement, Zip took a reading of the atmosphere.

A mixture of methane, nitrogen, oxygen, and carbon dioxide, he distinguished. *Just what we found inside the Xenobots’ base on Nyx. Gravity the same as on Luxa, too.*

Quickly he put away his equipment, selected the center corridor, and ran. He ran as he’d never run before. His pack and the rifle on his shoulder bounced against his speeding body. He smiled as he ran, feeling exultant. *The war is almost over! The thought came into his mind like a shout. We’re going to win! We’re going to win in just a few minutes!* He could feel his pulse racing. His senses were on high alert. A sobering feeling came

over him, warning him not to be overconfident. He tried to pay attention to it, but couldn't. He felt like jumping for joy!

He came to a crossing. Skidding to a stop he looked in four directions where passages led off. "I don't have time to explore!" he shouted. "Where's the power plant?" He remembered his power detector. Keeping his right hand on his rifle, the Starman dropped to his knees and pulled his pack off his back. Madly he yanked it open and drew out the detector with one hand and turned it on.

That way! he reveled. The power indicator had swung to maximum degree and pointed toward the second corridor from the left. As he sprinted toward the entrance, he heard a scuttling sound. Before he could even register what it meant, laser beams burned the air around him. The rifle on his back absorbed a blast and exploded with a massive burst of light. Even through his heat-resistant suit Zip could feel the extreme temperature blaze up for an instant. He jumped headlong the last distance, hit the ground inside the tunnel, and rolled. When he got to his feet he was angry. He slammed the ruins of his now-useless second rifle down on the floor.

"Nothing's going to stop me now!" he shouted. For a split second he considered turning back and returning fire, but instead he sped onward. He could move far faster than the Xenobots. The corridor slanted downward, then turned into stairs. He jumped from flight to flight, down and down into the heart of the iron moon. From various landings, corridors led off into darkness, but he did not pause. His power detector continued to point downward.

Eventually he reached the bottom. The instant he appeared he was met with a barrage of laser beams. His speed saved him as he flew across the last corridor, but his power detector was skewered with the weaponlight of a lucky Xenobot. The box erupted into a blaze of light and sparks.

Still spinning, Zip hurled the box in the direction of his attackers, and then followed it with a concussive blast from his rifle. In the enclosed space, surrounded in every direction by

hundreds of feet of solid iron, even Zip was affected. He felt as if he'd been struck on both sides of his head and he dropped to one knee with a groan. But when he opened his eyes, he was rewarded with a view of four Xenobots lying motionless in the corridor ahead of him.

That way! he said through gritted teeth, and began to run again. Leaping over their motionless bodies he forced himself forward. He could feel a stitch in his side, but continued to drive ahead.

"Your energy level is dropping dangerously," said the peaceful voice inside his suit. "You must rest to catch your breath."

"Then you fix it!" he shouted through painfully drawn breaths as he lurched down the hallway. "Increase my oxygen level and give me some adrenalin! Now!"

"As you wish," soothed his suit.

The Starman panted as he ran, but he persevered. The increased level of oxygen helped him to recover a measure of his energy. On he raced.

At the end of the corridor ahead he saw a yellow-orange glow coming through a partially open door, a massive portal of thick iron. A Xenobot was frantically trying to close it.

"Home!" shouted Zip triumphantly. As he staggered, he pulled his laser pistol and fired at the Xenobot. He shot again and again as his enemy tried to pull the door shut. When the door had only inches to go, one of his shots went through the narrow opening, and the Xenobot inside dropped.

"Hah!" exulted the Starman. He covered the last fifteen yards in several bounds and slipped his hand between the edge of the door and its frame. With an effort, he heaved the door open again and entered the room. Before he could close the door, a laser beam sizzled through the gap. Zip laughed. *Now it's my turn to be shot at through the door; he thought, but I'm going to win this one! No Xenobot is going to get me, not this close to victory!*

As he dragged the door shut he saw about ten Xenobots hastening down the corridor toward him. Somehow he knew they were firing laser weapons at him, but he gave no thought to

them. He shut the enemy out of his mind, and then closed the door on his attackers. With his laser rifle he melted the door hinges, latch, and edges, sealing it.

If their lasers are as powerful as mine, they'll be through that door in less than a minute, he thought. *I'd better get busy.*

He whirled and looked about him, and caught his breath at what he saw. He was on an enclosed platform that overlooked the huge power transfer chamber. Through a windowed barrier he could see a bank of calibrated crystals that drew the solar energy directly from the star and transferred it to the uncounted ships in the Xenobot fleet. Through one of the openings in the barrier he could see a great wall far out in the vast chamber. Fifty yards from top to bottom and more than a hundred yards deep, it was a latticework of leaded quartz windows oriented toward the churning surface of the great star. An enormous power transfer plant extended as far as he could see. The windows that faced the sun were darkened enough to dull the glare that otherwise would have made the station too bright and hot to host an unprotected visitor.

Nevertheless, the light that poured into the room was harsh. Zip's helmet was pressed to its limit to preserve his ability to see. Throughout the enclosed platform where he stood were intricate power bars and crystals, coils and connectors. The crystals were shining overpoweringly with radiance, too bright for him to look at, even through his protective helmet. He raised an arm to shade his eyes as he stared spellbound. Twenty feet below the platform, on the floor of the chamber, there were rows of machines. They were working with alarming clangor, but he didn't take note of the noise they were making. On one side, inside the small compartment where he was situated, was a large iron wheel like the helm of a ship.

The master control for the power station, he thought to himself. *That's all it could be. This is the place! Now to shut it down!* He stepped over to the wheel and looked it over. Beyond it was a big window through which he could see a portion of the blazing Xenobot star.

At that instant, he heard a sizzling sound. Looking over his shoulder, he saw wisps of smoke arising from portions of the door, and sections of it were beginning to soften and change shape.

The Starman gasped. Zip realized that he had only seconds to achieve his end. If he could be successful, the war that had persisted for many thousands of years would be over at last.

"You're not getting in!" he shouted. "Not this close!"

Anxiously, he examined the controls in the work center. *Disable this station, thought Zip with his jaws clamped shut, and the Xenobots' ships will be stuck in space, dead and helpless!*

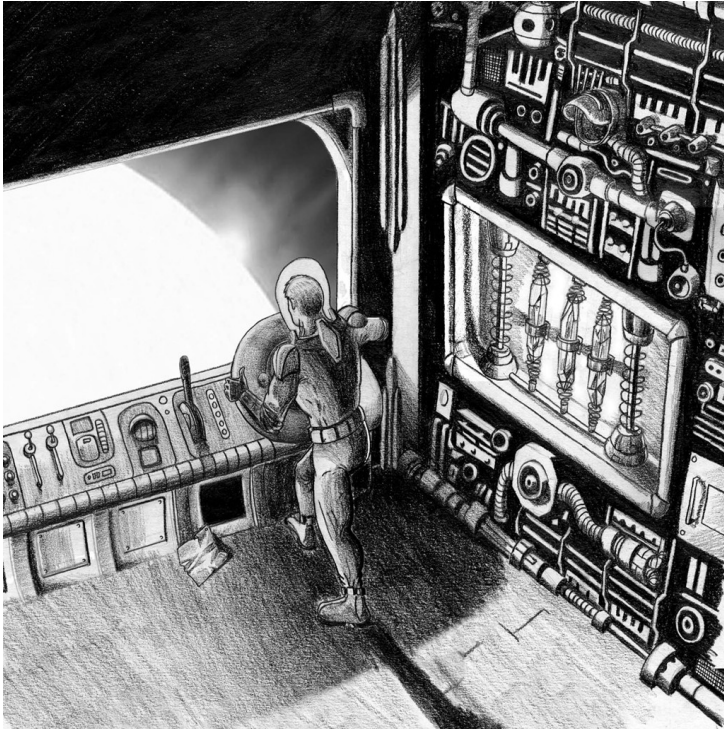
He thought for a microsecond that he could simply turn the power off, but instantly rejected that idea. His pursuers would merely break in and restore power. His action had to be permanent.

Suddenly Zip's eyes widened. He saw the solution. A chill ran over his entire body, and he could feel the hairs on the back of his neck prickle. There was only one sure way. Could he do it? Did he have the time it would take to carry out his plan? Could he even figure out how to accomplish it?

The moment of decision was behind him almost before he knew it had arrived. His course was clear now, and with a frenzy Zip darted to the control wheel. Underneath it was an access panel. He pulled on it but it wouldn't open. Impatiently, the Starman stepped back a pace and fired his laser pistol at the panel. A perfectly round hole appeared in the metal. He fired again and enlarged the hole, and then he inserted the barrel of his pistol and yanked the panel away. Inside was the protective device that prevented the great wheel from being turned too far. Heedless of residual damage, Zip fired into the small chamber until the guarding mechanism was demolished. Then he threw down his pistol. Victory was at hand! He glanced over his shoulder to assure himself that the door to the workstation would hold for a little longer. At the moment, he was the only one in the universe who knew that the Xenobot war would be over in a matter of seconds. Exultation filled him and almost lifted him off

his feet. Then, resolutely, he gripped the wheel with both hands.

Involuntarily, he paused for a split second. The enormity of what he was about to do blew into him like a sudden winter storm. His mouth became dry and his hands grew cold. He stepped back for a moment as if thrown by a sharp gust of wind; then he fought against it and again took his stance firmly at the wheel.



Resolutely, he gripped the wheel with both hands.

Help me! he prayed urgently. The images of his father's grotesque radiation burns flashed through him, and then the memory of his own radiation sickness that he had experienced on

the journey to Nyx. The horror that had taken him captive at that time lashed his senses mercilessly. Then in a succession of images too fast for him to fathom, the faces of those he loved flew across his mind. He saw them all.

Then he pressed his lips together, his nostrils flared, and he began to turn the wheel that regulated the flow of energy. He was not decreasing the flow—rather he increased it. The wheel ground forward with a loud grating noise. The great crystals that drew in the power and focused it glowed lambent gold and the work center brightened noticeably. Solar streams flooded into the station and then were transferred to every Xenobot ship in the system.

With his muscles bulging and sweat beading on his forehead, the Starman continued to roll the great wheel. Nearly at the end of his strength, with great indrawn gasps he persevered. Wrench by wrench, the wheel creaked and resisted as he turned it farther than it had ever been turned. The light increased in the work center, becoming too bright even for his darkened helmet, and Zip had to close his eyes. He kept turning. Far past the danger limit, measureless energy coursed through the solar station and surged outward to the Xenobot fleet, and caused all the enemy ships to flare simultaneously like sparks floating above a fire. Though the Starman couldn't see it, all at once the mass of every last Xenobot ship was transformed into dazzling energy and then disappeared. The end had come. Victory forever!

A second after the transformation of the Xenobot armada, the massive solar station itself began to disintegrate under the monstrous, focused energy drawn from the star and flowing into the station as unstoppably as an avalanche. Crystal upon crystal became incandescent, and spilled light and heat until all shadows disappeared. Every stanchion, every wall, every particle of the solar station emanated gold and then beyond gold into a vivid intensity that no eye could behold. Space bent measurably as the immense weight of the star's energy continued to flow into the crystals.

In an instant Starman David Foster's body vaporized.

Beginning from the power center in the heart of the black iron moon, a stellar gale spun the mammoth walls of the solar power station outward into hair-thin fibers of radiant energy. And then the station was gone. Space returned to normal.

Chapter 14: The Uncreated Light

LESS THAN A SECOND after the *Star Ranger* entered hyperspace from the vicinity of Tharsos, the Starlight craft winked into position about fifty miles from the Luxan moon. The three Starmen stared for a moment at the heated battle that was being waged in every quadrant of the iron satellite. More than three hundred spacecraft zoomed and whirled around one another, and ships blew into balls of fire with disconcerting frequency.

“What can we do?” asked Joe as he piloted the *Star Ranger* toward the action. He was eager to do whatever it would take to provide assistance to Zip, but couldn’t see a clear course.

Before anyone could answer, more than half the ships that were engaged in the combat flared into orange, then yellow light. Then, as one, they all turned blinding white and exploded into small stars. And then they disappeared, leaving only fading images on the retina. The desperate encounter was over. The Alliance firewasps found that they had no targets.

“Where did they go?” asked Mark, blinking and dumbfounded.

“They’re... gone,” stumbled Kathryn, her voice full of wonder. “Just... gone! All gone!”

“Look! Look at the moon!” cried Joe, his voice suddenly sharp with alarm.

The eyes of all three Starmen turned to the iron satellite, a black silhouette in the light of the yellow star behind. As they watched, unable to turn away, the moon grew an orange spot in its middle that swiftly expanded to the edges. Orange was followed by amber and white, and then the fabric of the moon

itself began to unravel. It became fibrous, and then slowly vanished until nothing was left.

~

When Mark Seaton was a child, he had thought of the medium through which he traveled from one planet to another as a vast box of secrets that unfolded their splendor before him. He considered it a reward for his daring to enter what most everyone else thought was a vacuum.

He could remember vividly his first childhood experience in space, when his father had taken him from the Earth to the Moon. The memory of a hauntingly beautiful call that seemed to come from the far shore of a boundless ocean had filled his heart. On his first assignment as a Starman, he had been gripped by a powerful sense of longing for something that was beyond him, something he couldn't understand or imagine.

In his mind's eye, he had seen swirling galaxies and brilliant star-froth, like illumined cosmic dust. *Somewhere out there, he had thought, there is a Light that is light's living spring, through the Pillars of Creation. It is the source of that whispered call. Someday I will find it.*

Now Mark was sitting transfixed at his station. He had left behind his determination to fight the Xenobots and had entered a dream. He knew that now he was seeing something that no instrument could measure.

Something huge was moving in slow motion. It was horribly fearsome, and Mark was terror-stricken and wondered if he were about to die. His attention was gripped in a powerful vision from which he couldn't turn his gaze. He seemed to see Zip inside the Xenobot solar station, as if he were standing close behind him.

Zip! he cried, but no sound came forth from his lips. He wasn't even sure that his lips had moved, though his mind desperately screamed forth for his friend. Zip didn't hear or respond. Of course he couldn't. He was miles away, inside the Luxan moon. The redheaded Starman reached out both hands

and began to turn a large metal wheel. The station began to glow.

Beyond Zip Something was moving. Through an immense quartz window Mark could see the massive disk of the Xenobot home star, almost filling the clear rectangle. With heart-dropping awe Mark saw a Face take shape in the star. He was sure that Zip must have been able to see It, but the undersized Starman showed no sign that he could. With obviously painful effort he just kept turning the wheel, and the glow increased.

The Face turned toward the solar station. It was gold upon gold, without expression yet infinitely filled with significance and bearing ancient kindness and wisdom. It was a Face as heavy as a mountain, as portentous as a planet, as inescapable as a galaxy. He knew It was the Face in which all other faces find their meaning. Mark was filled with primal terror, but underneath and through the terror, his heart was wrenched with sudden passionate desire and a primordial longing that pierced him with an ache like death. *The Light!* his mind said, *The Light has a Face!* But the words his mind used were too small for him to express what he was seeing.

And Zip just kept turning the wheel as if he saw nothing. Mark could see his friend's muscles bulging with the effort to move the wheel. Wrench after wrench the wheel turned.

The golden light of the harnessed sun streamed with ever-increasing force into the big Starman's vision, but somehow Mark could still see. The Face became stern with awful judgment, but beyond the sternness was an infinite sorrow that came from beyond the deepest wells of the universe. The energy of the Xenobots' home sun passed through the solar station and burned up the enemies of civilization.

David Leland Foster kept his back to Mark, feverishly turning and turning. Now the Face became heavy with compassion beyond measure, beyond telling. David came to the end of the wheel shaft. He couldn't turn it any more. His shoulders drooped; he stumbled backwards and nearly fell to the deck. Then, at last, as if putting down a load he had carried unrelenting for an unendurable time, with great effort he

straightened slowly and looked up into the sun.

Mark realized with a shock that he hadn't seen David stand up straight for as far back as he could remember. The slight Starman had always seemed to be so weighed down. He couldn't see his friend's face, but now Zip suddenly stood up tall and lifted his hands, and the gold beyond him became incandescent and flowed around him. The light seemed to be made of liquid, not consuming but illuminating. Mark saw that David had suddenly become naked, his body a silhouette of gold, his red hair spun ruddy gold, stirring as if in a freshening breeze. David's body seemed not to burn but rather to become like the light. He lifted his hands higher, and then strained forward. His silhouette brightened and turned into lines, then appeared to break apart. What little was left of it was drawn through the thick quartz into the great Light. The Starman's passage created ripples of brightness as if he had broken the surface of sparkling, living water reflecting dazzling noonday sunshine. The Light that welcomed him was rich and heavy but not burning—fiery but not destroying. Then Mark lost his view of David, as if his friend had slowly entered a pool or crossed from darkness into splendor, as if he had moved into a frequency of light that human eyes could not see.

Mark realized that the Face had disappeared, and that he was no longer seeing the solar station. It also had vanished. In his vision, Mark was in free space, and the Xenobots' home suns had become a binary star system like so many others. Then Mark realized that he was staring once again through the window of his own spacecraft onto the field of stars that was Omega Centauri.

"David," he whispered to himself. "He's gone." His voice carried an inflection of utter disbelief.

~

Joe sat in the pilot's seat, frozen. There was no humor now. He didn't know what to do. He felt a crushing weight on his

chest and breathing was difficult. He sat unmoving. Emotions began to stir in the deep repository that had always been inside him but which he had never consciously, deliberately plumbed before. He had not allowed them to be seen or known.

“Joe?” asked Kathryn Mullaney.

Joe’s eyes flickered but he could not speak. After a moment he turned slightly so he could see Kathryn standing nearby, and his eyes were silent shouts of pain and appeal.

“Joe,” said Kathryn tenderly. “I’m so sorry.” Her eyes welled up with tears like chalices filled with diamonds. She wept silently, with long breaths wrung through and through with pain.

Joe reached out his hand in desperation, seeking contact, fearful of what it might mean but unable to remain unmoving any more. Kathryn took his hand in hers. Its moist warmth provided deep comfort to Joe.

“Kathryn.” His whispered croak was a reckless plea. “Kathryn!” His own tears finally began to flow, and then he began to sob. Kathryn moved close and took him into her arms. They wept freely together, and somehow both were content.

~

Kristina Bethany was in the field, more than a mile from Elijah Base on Titan. The slate gray landscape under the star-filled sky had long been familiar to her. She maneuvered the yellow wheelchair deftly over the narrow strand of loose stones that sloped toward the shore of the methane lake.

All at once, something caught her attention. She paused and looked around her. Something was different.

What was that? she thought. It was as if a sudden breeze had come up—impossible on Titan, of course—but the feeling was unmistakable. It was as if a gust of wind had arisen and breathed cleanly through the universe, and there was a lightness, a freshness to everything she saw.

She looked around again. Everything looked just the same but a weight had lifted. A cleansing, wild breeze had passed by—but

there was—*what was it?* —a vacancy in it, something indefinable but as if the breeze were the backwash of something that had departed from her life.

Something has happened, she thought. *What could it be?* Her brow furrowed in puzzlement.

Strange, she thought. *Completely illogical, but I feel that I can't keep on with the work right now.* She turned her wheelchair and headed back toward Elijah Base.

~

For long moments, no one aboard the *Star Ranger* said anything. The famous red spacecraft drifted alone in empty space. The firewasps that had survived the battle around the now-vanished moon had been recalled. Luxa was a garish disk in the upper left of the window.

Mark sat dejectedly in his navigator's bay, overwhelmed and silent. Joe and Kathryn clung to one another in the pilot's seat. Kathryn stroked Joe's head as he buried his face in her shoulder.

After a long time, Joe said tonelessly, "Let's go back to Tharsos. There's nothing left here. Nothing at all."

Chapter 15: The Fate of Luxa

WITH THE FORCES OF THE SOLAR ALLIANCE fighting for their lives against overwhelming odds, suddenly every Xenobot ship in the armada erupted into white flame. In seconds their matter dissipated, leaving no sign other than residual radiation that a formidable fleet of enemy warships had ever existed.

A distinct lull occurred before any voice was heard.

"What happened?" was the common refrain that went from ship to ship when communication began again. Then the astonishing but inescapable conclusion was voiced.

"They're gone! The Xenobots are all gone! Every ship! The war is over!" Jubilation raced through the fleet of the Solar

Alliance, but it was quickly arrested when it was reported that the Xenobots' solar station had also disappeared. Horrified speculation ran wild.

"There is only one possibility," concluded Stephen Hoshino dully on the bridge of Tharsos. "The Starman opened the transfer to maximum and overloaded the energy intake of the Xenobot ships. He directed the energy of the sun to their warships and all of them were turned into pure radiation." He swallowed. "But the Starman couldn't do that without overwhelming the solar station itself. It lasted only a second longer than the enemy warships because of its heavier construction."

The sobering communication shot to every ship in the Solar Alliance. The initial rejoicing was immediately tempered by the somber realization that the valiant Starman had died as the price for ultimate and final victory over the Xenobots.

"The Starman is dead!" The shocking message traveled through the starlit heavens.

"David Foster gave his life for our victory!"

Allen Foster cried out inarticulately, and fell to the deck, senseless and helpless.

~

"Scan! Search!" cried out Izmaka. "Make certain that there are no Xenobot warcraft left! All ships! Scan!"

Commands were given to squadron leaders in all sectors of the battlefield, and in short order a search was organized. With quiet intensity a painstaking search was made, scouring the three dimensions of the space around Luxa wherever there had been any Xenobot presence of any kind.

The search was painstaking and thorough. After three hours had passed, reports began to come in to the bridge. When all squadrons had reported, it was evident that there were no signs of any Xenobot presence anywhere except on the planet itself.

As the last report came to an end, everyone on the bridge looked to Izmaka and to Richard Starlight. Neither spoke. Even the Janitor was silent.

After a long pause, Izmaka's lips tightened slightly. His eyes traveled around the room, alighting on nothing in particular. And then he smiled.

"It is a relief," he said. "An overpowering relief. And yet... I am still uneasy." He took a deep breath. "We shall have to make a thorough search of the entire galaxy. We shall be busy for years to come. If there is any Xenobot base anywhere, anywhere at all, we shall have to find it.

"But for now, let those who can, rest. We shall take counsel later, but for now..." He shook his head. He gave orders that the squadron leaders take inventories of the ships under their command, and determine which ships had been destroyed, which lives lost. He sent one ship back to the Solar System to announce the news of victory to the peoples of the Earth-Ahmanyman system, but not to give details of casualties. That ship was to return to Omega Centauri after making its announcement.

And he gave orders that a fleet of one hundred ships be deployed in orbit around Luxa to ensure that no Xenobot ships of any kind be allowed to lift off. Moreover, they were to scan the planet and number how many Xenobots were still alive, and they were to destroy any and all hypertravel apparatus and any spacecraft on the planet.

~

The next day King Izmaka called a council to discuss and decide the fate of Luxa. It was a large gathering and the tension was almost palpable. In addition to the Janitor, Richard Starlight, Pleera, and all the Starmen, there were a dozen squadron leaders, both human and Ahmanyman, and several hand-picked advisors.

"What is there to discuss?" barked Vinta once the meeting had been opened. He was a squadron leader who was among the awakened Ahmanyman warriors and who had been present at the conclusion of the First Xenobot War. "We have been in this very place in this very situation before! We showed 'mercy' to the pitiful Xenobots who survived before and we know what happened after that! If we had destroyed their foul planet then,

we..."

Izmaka raised his hand. Vinta's mouth snapped shut but his eyes blazed. It took all his discipline not to continue to speak.

"I know, Vinta," said the King in a firm but calm voice. "We all know. I was there also, as were many of those in our armada now. If we had destroyed Luxa then, we would not have had to fight this second war. Was our decision to show mercy then wrong?"

"The Xenobots are unredeemable," stated another squadron leader, in a tone that was respectful but which brooked no contradiction. "We now know that there are two hundred and eight-seven of them left on that vile planet. Luxa was once one of the most paradisaal planets in the galaxy, and look what it is now! They have destroyed it already. It is for us to finish what they have begun!"

A murmuring of agreement arose from many of those at the council.

"To destroy the weak and helpless," began Richard Starlight, "would be to become as the Xenobots themselves. This is—"

"*You have no say at this council!*" roared Vinta. "You weren't here twelve thousand years ago! Your home planet wasn't destroyed by—"

"Silence, Vinta!" The order from the King was just short of a shout.

The Ahmanyen lowered his head but his eyes still smoldered. And then his shoulders slumped. In a quiet voice, he said, "I am sorry, Richard Starlight."

For some time no one spoke, and no one looked at anyone else. And then Izmaka said, "None of us wants to give any Xenobot any opportunity whatever of being able to rise again to any position where he can do harm. We are here only to determine the best course to achieve that goal."

Richard Starlight spoke in measured tones, his brow wrinkled. "Clearly we have only two options: either we destroy the planet and every living thing on it, or we take away all chance that its denizens could ever rise again to any position of

power.”

“If this renegade planet is to be destroyed,” said the Janitor, “it is not for any but the First Races to pronounce and enact that judgment.”

For a moment no one responded to this proprietary claim, but blazing eyes and sharp intakes of breath made it obvious that the statement had inspired resentment in most of those present.

“Eldest,” said Richard Starlight at last, slowly but clearly. “Have the First Races not had the capability of enacting that judgment on Luxa for eons, and yet did not do so?”

A pulse of emotion filled the room, and several pairs of eyes were lifted in gratitude to the head of Starlight Enterprise. Richard had voiced the unspoken question that many had felt deep inside for the past several years, but had not raised out of respect for the First Races, or perhaps for fear of causing them offense with ramifications that none could have been guessed.

“No, Richard Starlight,” responded the Janitor. “We do not have that capability, not since the Lucians first chose violence against their fellow First Races. They were technologically superior to any race in the galaxy. And those among us who knew how to move entire planets and destroy planets were lost to us when we first resisted the Lucians’ aggressions. Moreover, the Lucians could have turned aside any attempt we might have tried to destroy their planet.”

“And now? Should they be destroyed now?”

“The First Races defended themselves when the Lucians rebelled, but we have never taken it upon ourselves to destroy any race for any reason.”

“If they are not destroyed now, they may rise again and set out to destroy others—for the third time!” The speaker was another recently-awakened Ahmanyen. “It’s already been said that they are irredeemable! There has been no evidence anywhere that any Xenobot has shown the slightest remorse or desire for anything other than utter selfishness. For eons before our Solar System came into being, they have only killed and destroyed and polluted, taking what they wanted without any

regard for the lives of any other race!”

“They have forfeited the right to live,” stated Vinta. “I say we should destroy them and their planet. This war should end with complete victory, and if any of them lives that victory cannot be complete!”

“If we exterminate them, then a little bit of what they are will have come to reside in us,” said Pleera softly, “and then our victory, and their defeat, will not be complete.”

“It has already been claimed by the Janitor,” began Starman Mark Seaton, “that that ultimate judgment cannot be passed on the Xenobots by any but peers—and I, for one, even doubt the rightness of that. Only a higher judge can execute. Wartime is something else, for one must defend one’s civilization when it is attacked, warriors to warriors.

“But that is not our situation now. When we execute others after they have been vanquished, when they are weak and powerless, even if they deserve it, then we are somehow lowering ourselves to their level even if we do so under the guise of legality. Ultimate judgment is in the hands of their Maker.”

A wave of perceived protest arose, but Mark raised his hand and continued. “Nevertheless, what we think is mercy cannot be instead naive injustice that leaves any power at all in the hands of those who are evil. The Xenobots must be rendered completely powerless for ever in such a state that civilized people have no fear whatever that some day they can come back and work evil once again.”

“How can that be done?” asked one of the squadron leaders, throwing his hands up. “I don’t understand all the philosophical sides to this discussion, but I think what we’re dealing with is a lot more complicated than anything that anyone’s said so far. I just want to make sure that our homes will be safe from the Xenobots forever. If they are allowed to live, what guarantee can there be that they will be powerless until the end of time?”

“I doubt we can ever be utterly certain,” said Izmaka. “But if we choose mercy with wisdom and strength, and make no place for vengeance, we will have done well.”

Pleera spoke up. "Can Stephen Hoshino come up with a way to quarantine Luxa? A way that would satisfy all of us?"

"I don't know that all of us can be satisfied, Pleera," said Starman Joe Taylor, speaking for the first time. "It is too personal for some of us. I could never kill any helpless creature no matter how vile, but I cannot be impartial, either." His nostrils flared and his voice became steely in anger. "The Xenobots killed my friend, Zip!"

"No, they didn't," spoke up Allen Foster. His eyes were fixed on the tabletop and he didn't look up, but his voice was firm. "No, they didn't," he repeated, shaking his head. "They didn't kill my son. He killed them, all of them, in warfare. He *gave* his life; it was not taken from him."

The old Starman looked up and his eyes scanned the faces of all others in the room. "And in his name, and the names of all of those whose lives have been lost in this war, I ask that we show mercy to the few Xenobots who are left." His faced convulsed with grief for a moment, and then he continued. "They are pathetic creatures, who have failed at everything they have attempted. Of course they are degenerate, tragic beings who care only for themselves!" He snorted. "They are barely able even to work together for their own common good! We all know that they are in decline, and cannot endure for much longer, even though they may survive well past our lifetimes. Let us not become like them. Let Stephen find a way to quarantine them, forever. And let us finish this war in peace, and not vengeance. Only so will our victory be complete."

There was a long silence. And then King Izmaka said, "Let us decide. If any Xenobot enclaves are found anywhere in the galaxy, they shall be destroyed. And those on Luxa shall be quarantined—at least until further insights and later wisdom can determine a better course, if there is one. Are there any other voices to be heard?"

Again there was silence for a brief time, but the tension in the room had subsided.

"I am not satisfied with this course," said Vinta at last, and

several of his fellow squadron leaders nodded, “and I have stated my reasons why. Nevertheless, I accept the decision of the council. But I request that I be chosen to search for Xenobot bases throughout our space.” Several others added their names to that request.

“It is good, Vinta. Let it be so,” said Izmaka. The King then raised his eyes to include all those present. “This council is adjourned. Find Stephen Hoshino and send him here to Richard Starlight and me.”

~

The following day Stephen Hoshino’s plan was put into practice. To each of the remaining Xenobots a locator beacon was attached, set to detonate if any attempt were made to remove it, or if it entered any space with gravity different from that of Luxa.

A dense sphere of nano-detectors was put in place around the planet at a distance of a few miles, and a fleet of armed satellites was set in orbit well above the sphere. If the sphere was pierced from the inside, an instant and powerful response from the satellites would vaporize whatever had passed through the sphere.

Finally, four manned ships in tetrahedral configuration around the planet would maintain constant vigil.

~

Later that same day, the human-Ahmanyen fleet returned through hyperspace to the Solar System. The peoples of two worlds and all their settlements watched the return of the armada. The names of the warships that would not return and the names of their crewmembers were read out aloud as the spacecraft of the armada made slow approaches to their various home ports. The reading took well over an hour, and none touched down until all the names had been read.

The last name read was Starman David Foster.

~

When the news of her brother's death had come to her on Ahmanya, Kathy Foster had dropped everything and fled to the only place on the fourth planet where solace could be found, if it could be found at all. Three days after the end of the Xenobot war, the seventeen-year-old stood solemnly at the bay window of her room in Bethesda and gazed out over the acres of autumn flowers. Oranges, yellows, purples, blues, reds, and whites waved in the breeze. Everything was quiet. The slight noises from the fields only emphasized the deep silence. She blinked away tears, and then reached up with a hand to wipe her eyes. The rustle of her movement was the only sound in the room.

This is where my brother was healed, she thought. Almost seven years ago, it must be. I wonder if I can find healing here. But my wound is a different kind of wound. Is there healing for this kind of pain?

"There is healing for all kinds of pain," said Sister Hroswitha. The old woman had come to Kathy's room and, finding the door open, had quietly entered and approached the young woman.

Kathy turned. "How could you know what I was thinking?" she asked.

The Sister smiled. "Kathy Foster," she said gently. "How could I not?"

Kathy turned back to the window. "I'm going to become a Starman," she announced. "I have to now. In May next year I will march through the line. I will see the hologram of Starman number 212, my brother, and he will be smiling at me." She nodded with fixed determination, and her long dark hair with the maroon flecks in it swung and shimmered in the light.

"There is another who has sought peace and healing here, Kathy," said the Sister. "Richard Starlight is sitting on a bench by the lake, watching the fishermen cast their nets." Kathy turned large eyes up to the old woman's wrinkled and wise face. "Why don't you go talk to him? I think he'd be glad to see you."

Less than a minute later, the young woman was racing through fields bordered with sycamores and wild cane and ablaze with morning glories. With her hair flying behind her, she ran through meadows, colorful with yarrow and red campion. As she crossed the footbridge and entered the last meadow before the lake, she slowed. There were green shoots poking through leaf mold on the edge of the path; their message found a home inside her without her being aware of it. She caught her breath, approached the sheltered hollow where Richard was sitting idly on the bench, and then drew near timidly. She was struck at how suddenly he seemed to have aged. He appeared much older than his sixty-six years.

"Mr. Starlight?" she said, hesitant to break into his reverie. Tentatively she reached out with her right hand, ready to draw it back quickly. Her eyes were wide open, her expression showing her fragility.

Richard looked up. When he saw her, though his eyes were moist, his grin about broke his face in half.

"Oh, Kathy! I'm so glad you looked for me!" he said happily. "I was so hoping that you would! Come, sit down beside me!"

~

A week later, Allen and Elizabeth Foster sat on the sofa in their home in Amundsen City. Elizabeth curled up against her husband's side. The rooms were painfully silent. Their son was dead, and their daughter was on Ahmanya. The evening had drawn on and shadows were filling the room, but neither moved. Once in a while one of them sighed.

"It's not bad," said Allen at last. Elizabeth waited. A full minute passed, and Allen sighed again.

"My anger is gone now. It's amazing. It's all gone. I've been angry all these years—angry because of the radiation that ended my career."

"I know," said his wife.

"I've never talked about it, but it has been a burden to me.

Now I see that it has been a burden to you, too—and David—and Kathy.”

Elizabeth said nothing for a long time. Then she spoke.

“We didn’t mind helping you carry the burden.” Allen nodded.

“Radiation sickness, radiation burns. Terrible things. And I made David so afraid of it. I didn’t mean to. But he was afraid of that, more than anything. But now, my anger is gone. I just feel sad now.” He sighed deeply. “My son,” he whispered. “My dear son.”

“I know,” said Elizabeth, and she sounded peaceful.

“And to think that he took to himself the massive radiation that he did, to save the rest of us. The thing he was most afraid of. I wonder if he was afraid when he did it.”

“Somehow I don’t think so.”

“I don’t think so either. Our son is a hero. Our son.” Allen Foster sighed again, and he and his wife held one another a little tighter.

Chapter 16: The Fulfillment of Dreams

MORE THAN TWELVE MONTHS LATER, Robert Nolan and King Izmaka were conferring in the transitional capital of Ahmanya, the newly rebuilt city of *Nsedna Zar*. They were in a spacious room high in a tower whose walls were mostly glass that afforded views in all directions. The crystal spires of the city that, in its earlier existence, had been called The Diamond of the South had risen again. As in the distant past, so now again meadows rolled away southward, woven together with abundant brooks. To the north, a promising forest of native Ahmanyan trees covered low rounded hills, and a lake lay between the city and the rise of the slopes.

In the center of the room was a holographic globe of the fourth planet.

“Quadrant seven,” said Robert. His voice was confident, and his expression showed that he was happier than he had ever been

in his life. At his command, a portion of the globe expanded into prominence and the rest receded and disappeared.

"Here, sir," said Robert, pointing, "you will see that the orchards are already on their second generation. The wheat, rye, and barley are producing abundantly in the plains. We now have First Treasure operations in five areas, with two more under construction."

"You have achieved astonishing results in these three years, Robert," said Izmaka. "By the end of next year the last of the sleepers of Ahmanyā will have been awakened. Nearly all of them will open their eyes onto the world they had hoped for—the Xenobots conquered and their planet fertile and producing once again. It is the fulfillment of a dream." The leader of all Ahmanyā spoke quietly but with sincerity and profound gratification.

Robert flushed under the praise. "It is a unique opportunity, sir, and I am grateful every day that you selected me to oversee the project. The resurrection of an entire planet. To renew the flora and fauna of Ahmanyā, beginning from scratch, is an immense privilege. We have no weeds and no predators, no insect-borne diseases. We work carefully and pay attention to the smallest of detail. Perhaps it is because we are working without undue haste that we are achieving these impressive results sooner than we anticipated."

Izmaka laughed. "Perhaps, Robert. Perhaps. But I think it is far more likely that your success is due to your leadership and skill. You have assembled a team of scientists such as has never been seen on either of our planets at any time."

"Well, perhaps that has something to do with it, sir," agreed Robert with a grin.

"Those responsible for the restoration of the other seven Treasures are proceeding admirably, Robert, but their tasks are small compared with yours."

"What of Mikel, sir, and Yenl?"

"Ah," said Izmaka, and a wistful look came upon his face. "They and the other sleepers aboard *Ossëan* are already well

along in the process of awakening. We selected the time of the opening of their eyes so that they would not ever again see Ahmanya as the scourged planet upon which they last walked. In five months they will all arise to the new world. And then, indeed, those great servants of Ahmanya will marry.”

~

“Thank you, Jenny,” said Kristina Bethany.

“It is my pleasure, Kristina,” said Jenny, Kristina’s humanoid robotic attendant, as it stepped back from placing the young woman into her yellow wheelchair after helping her dress after her bath. “Is there anything else I can do for you this morning?” The robot’s voice was that of a teenage girl, bright and cheery. Humanoid attendants were not androids, but presented many human-like features that were pleasing to those whom they served.

“No, thank you. I think I am ready to make my visits in the hospital now. There are two new patients there. They were aboard the outbound spaceship that docked yesterday evening.”

“Oh, I hope it’s nothing serious.”

“I don’t think so. I’m not sure why they’ve been admitted, but they plan to be with their crew when the ship launches later this week.”

“I am glad to hear it. They’ll be the better for your visit.”

Kristina moved her wheelchair toward the door of her apartment. Then she paused.

“Oh, Jenny? There is something you can do for me while I’m gone.”

“Yes?” asked Jenny eagerly.

“Would you read the draft of my book? I think it’s ready to send to the publisher, but I’d welcome your opinion.”

“Of course, Kristina. And I’ll have lunch ready when you come home.”

After the young woman left, Jenny sat down at Kristina’s workstation. The robot picked up the datatile from its storage

area next to the photograph in the silver and forest green frame, and inserted it into one of the data slots in its left forearm. It took Jenny less than four seconds to read the entire book of 121,000 words, including the infinitesimal pause when it read the dedication.

In that pause, not for the first time, Jenny wondered what it would be like to have emotions.

I do not comprehend what "love" is, the robot mused in its lightning-fast circuits. It stared again in puzzlement at the likeness of the red-haired man in the picture frame. Nor do I understand "grief". Yet, strangely, they appear to go together sometimes.

~

"I tell ye, the way things're goin' we'll have to shut this establishment doon if we're ever goin' to get any peace," said Donal McTaggart emphatically. "We're gettin' ta be just too poppyoolar! Too many people're comin' out ta the west end o' town nauw!"

Four Starmen—Mark Seaton, Joe and Kathryn Taylor, and Kathy Foster—were seated at a large round table toward the back of the *Lizard's Watering Hole*. Their hosts were proprietors Donal and his wife Doris. Their friends Stavri Thalassa and Uneven Stephen had joined them, filling up all the places at the board.

The Starmen laughed, but the sound of their laughter did not carry far in the din that surrounded them.

"It's nae so funny," chastised Donal. "Ye saw hauw people leaped up'n shouted when ye walked in here half an hour ago! I was certain the place had caught fire, the way people were actin', until I saw it was ye folks comin' to pay us a visit."

"And kind of ye it is, too," nodded Doris. "Pay no mind to Donal. He always loves ta grumble. He's really lovin' all the attention, bein' the proprietor o' the place ye've made famous. He doesn't mind the extra income verra much, either. An' I should say congratulations to you, Mrs. Starman Taylor, an' to

yer husband!” The old woman laid a hand on Kathryn’s and gave it a slight squeeze.

“Thank you, Mrs. McTaggart,” said Kathryn with a gracious smile.

“And congratulations to you, also, young Kathy,” added Doris, “fer bein’ made a Starman an’ all. It makes my heart happy indeed to see you in that uniform!”

Kathy smiled, pleased but a little uncomfortable, and looked down shyly.

“Actually, Doris,” said Kathryn, “we use the word ‘create’ when someone becomes a Starman. It implies, you see, that the new Starman has taken on a life that is entirely fresh and different and not just a little more of what he was before.”

“See nauw,” complained Donal, “I can’t hardly hear what ye’re sayin’. It’s only late mornin’ and the noise level inside these four walls is deafenin’, downright deafenin’. An’ we’re all of us workin’ too hard.” He shook his head sadly. “Not like the ould days. Not like the ould days a’tall.”

Stavri smiled wryly. “He speaks the truth,” he affirmed. “After the King visited us in the Tunnels and saw Stephen’s stone-carved masterpieces, he declared them to be one of the wonders of the world. They took his breath away! Now we’re all pleased with the honor, o’ course! Long overdue, it is, and Stephen’s as happy as a stray dog in Donal’s garbage pit out back,”—here Stephen beamed—“but it’s ruined our tunnel culture, it has! People are wanting to see the tunnels and learn first hand about our way of life.” He snorted with mock irritation.

“We’re sorry to hear about all your misfortunes,” commiserated Joe. “It’s terrible.”

“It’s deeply moved, we are,” agreed Kathryn. “It’s breaking our hearts, this news of your adversities.”

“Ah, weel,” sighed Donal. “It’s a hard life, an’ it’s always been a hard life fer us on the west side. But we’re survivors, we are,” he said nobly. “We endure.”

“What are your plans, now, friends?” asked Stavri.

“Tomorrow the Taylors and I are going to the Kilindra⁴ Forest to meet our Ahmanyen friends,” answered Mark. “We’re going to camp for a few days. Starman Foster, here, won’t be able to come with us as she is on her first assignment.”

Kathy smiled shyly and lowered her gaze for a moment. She’d worn Starman’s red for less than three weeks⁵, and felt self-conscious.

“We suspect that Richard Starlight sent her to Mars for her first mission because it’s where he sent Zip for his, almost precisely ten years ago. He thinks it’ll be good for her.”

“Maybe it will be,” said Kathy, speaking for the first time since they’d all sat down. “I’m working with Space Command and Mayor Johnson to help the humans on Mars fit into the emerging Ahmanyen culture. The changes will be enormous. Richard seems to think I might be of value.”

Joe laughed out loud. “‘Might be of value’, she says! I’ll say she might be of value! She was one of the first humans to study the Ahmanyen language and culture, even when she was a child, and she spent her last year of training right here on Ahmanyen! Why, she was here when... when...” Joe’s face suddenly became taut and he clamped his mouth shut. Tears sprang to the corners of his eyes. He looked acutely uncomfortable and looked away from the others.

Donal filled the awkwardness of the moment. He lifted up a glass of fizzy Martian plum juice, and said, “Ta Zip.” They all joined him.

“Ahh!” said Uneven Stephen when he put his glass down. “Zip would’ve loved a sip o’ that! I know he would!”

~

⁴ Ahmanyen for “resurrection”

⁵ Kathy was created a Starman on May 20, 2161—ten years to the day after her brother.

By late afternoon, Kathy had bidden farewell to her friends and flown to Mars Base. Long after dark, the other three Starmen enjoyed a quiet but sumptuous dinner at *The Hidden Garden*, the best restaurant that Eagle Crater could boast. It had been highly recommended by Desmond Ubuntu, the manager of Starlight Eagle City. They were served in a small private room on the second level. It had a clear ceiling that gave a spectacular view of the night sky.

"A bottle of Marin Asta wine," said Joe to the waitress.

"Very good, sir," she replied.

"No Darjeeling tea for you, Joe?" asked Mark.

"Yes, Darjeeling tea, too," said the lanky Starman to their waitress. "A whole pot, if you please, but I'll wait until dessert."

"I'll have the curried lamb," said Kathryn, "with the brown rice on the side, if you please."

"The same for me," said Joe, "with extra curry. And you can put the lamb directly on the rice. And, uh, do you have any artichokes?"

"We can prepare one for you, sir."

"Excellent," said Joe and sat back looking satisfied.

The waitress nodded and looked at Mark.

"The, uh," he began with a frown, "the baked salmon with cucumber-dill sauce, please. Baked potato with butter and sautéed onions."

The waitress completed the order and departed through an arched corridor. A moment later a young man delivered the bottle of wine, followed closely by the waitress who brought their salads and soups, and *The Hidden Garden's* noted specialty—freshly-baked sourdough bread. In the center of the table she placed a bowl, generously filled with small, segmented loaves fresh from the oven, steaming and aromatic, and wrapped in white linen. She set down a crystal butter tray next to the bowl. It glinted in the light of the red candles that illuminated their table.

"Ahh," sighed Kathryn. "Remarkable that someone's managed the secret of baking bread on Mars." Joe offered her the bowl before he took his own loaf and passed the bowl on to

Mark.

Nearly an hour later, after the dinner dishes had been cleared, their waitress brought their dessert.

"The pistachio ice cream for you, ma'am," she said, placing it carefully in front of Kathryn, "and French vanilla for you two gentlemen. And here is your Darjeeling tea, sir." She placed a pot on the table at Joe's right hand. "And finally, a plate of chocolate chip cookies, hot from the oven, with cinnamon imperials baked in—just as you requested, sir," she concluded, looking at Joe. Joe beamed his appreciation.

"You two look very happy," said Mark just after the waitress had left them. "And I am happy for you."

"Indeed we are happy, Starman Seaton," said Kathryn, her eyes sparkling like new stars. "Joe has turned from foolish to giddy."

"Is there a difference?" laughed Mark.

"'Giddy' means 'foolish with a generous dose of happiness thrown in'," explained Joe. He adopted a mock serious expression and pointed a finger at his friend. "And your time is coming soon, Mark!"

"Ah, he'll never be giddy, Joseph," said Kathryn.

Joe was about to inject a joke until he saw that Mark was poised to share something close to his heart. "It's strange," said Mark. "Everything seems strange to me now. Now and then, when I look at something ordinary like my navigational equipment while we're in flight, or work in the laboratory or the library, everything I see seems to waver, as if a wind was rippling the solid mass of what's around me, and another world were about to break through." To an observer, it may have appeared as if Mark were preoccupied, for he was looking into the distance with unfocused eyes, but his friends knew that in fact he was deeply present with them.

"And sometimes when I take a walk through the streets or sit in a garden, something similar happens. The trees and the grass appear just for a moment to shake as if they were about to pass away—and then I see that they have settled again into their old

familiar solidness.” The big Starman focused his eyes and looked briefly into the faces of his friends. “Even in broad daylight, strange dim memories look out upon me through the misty windows of the past. I remember all the adventures we’ve had these past ten years, and they seem so close that I can almost hear the voices, touch the people, smell the scents.”

“Is it distressing, Mark?” asked Kathryn gently.

“No,” said Mark with a pensive smile. “No, it isn’t. It just makes me feel that I can never really be at home anywhere—because ‘home’ seems a much bigger place than wherever I happen to be at any given moment.”

The others didn’t know what to say after that.

“I’m very sorry,” apologized Mark a moment later. “I didn’t mean to put a damper on our dinner. I really am very happy. Truly, I am.”

“You’d better be,” said Kathryn, spooning up the last of her ice cream. “A wonderful person loves you with all her heart and wants to share your life for ever.”

Mark smiled, leaned back a little, and sighed with deep contentment. “It’s amazing, isn’t it? Who ever would have thought...?”

“Not so amazing, Mark,” said Joe softly. “Her love for you is unexpected, maybe, considering the circumstances—but not amazing at all. Not to me. You’re a fine man, worthy of the best.”

After dinner they enjoyed a stroll through the streets and walked to the very edge of Eagle City where the fields opened up to the floor of the crater. Then they returned to the quarters that had been set aside for them at Starlight Eagle City.

In the darkest hours of the night, Mark had a dream. He saw the silhouette of a man made of ruddy gold. The man opened a door in a dark room that let onto morning and spring, with furling wind and gentle clear rain. The man’s back was to him, but he spoke to Mark. He said, “Here is the soft rain that heals all that is many-wounded, soothing it with the sweetness of all truth. It is found in the deep hush that lives between music and silence,

where all real things are found.” There was a pause, and then, in words a little softer, “You will find what you are looking for.”

~

In the next day’s morning sun, Mark, Joe, and Kathryn lifted off from the David Foster Spaceport in Eagle City. They cruised southward in their new silver spacecraft trimmed with gold, and crossed the equator in the height of the morning. An hour before noon they came to ground near the Hall of Crystals on the border of the budding Kilindra Forest. At the edge, the tallest trees were only a dozen feet high, but in time the woodland would become a fitting successor to the extensive forests of prefire Ahmanya. The complete fulfillment of that dream, sure and certain in the new age, would come after the Starmen’s lifetime.

The three friends debarked from their ship and set out along a path that led downward into a hollow. The springtime light was bright but diluted. Wispy white clouds showed in a light violet sky. The Starmen traced the path for more than a mile as it wound through the stands of small trees, across meadows rolling with tall grass speckled with orange flowers, and occasionally was crossed by freshets that scintillated lively white in the midday sun.

They came at length to a wildly picturesque mountain range. Ahead of them the forest was a little older. Here the trees were taller, thicker, and more fully leafed. Their path led through it.

“Isn’t this great?” Joe shouted with outflung arms—the first words anyone had spoken since they had landed. There was a green dusk under the wide-spreading branches. The only sound they could hear was made by rushing, tumbling water, and that was not very near.

“Sounds like a cascade over on the mountain,” Mark exclaimed.

Then as they came through an opening they beheld a view so beautiful that they paused to gaze at it. The forest ended abruptly at the edge of a narrow, though deep, ravine. Beyond rose the

jagged gray wall of a mountain. Over its side from a great height a waterfall tumbled. For many moments they stood, admiring the falling water with its rainbow of colors.

“Stunning, isn’t it?” said a familiar voice behind them. The Starmen turned.

“Greetings, Saadervo,” said Mark with a broad grin.

“To think that I, in my generation, am able to see the beginning of the renewal of my planet! I am grateful. I am grateful for so many things.” He sighed, and then smiled widely. “Let me take you to the others. You have arrived on time. We saw your ship land. It is good to see you again.” He led the way along a narrow path that hugged the top of the ravine. A walk of a few minutes brought them to a clearing where a picnic had been set out. A clear and cold stream flowed by the clearing where the Ahmanyans had arranged to meet their friends, and dropped over the edge of the ravine in a spray of water. Stenafi and Jogren were waiting for the Starmen.

“Greetings, people of Earth,” said Stenafi affectionately when the three Starmen had drawn close. “Welcome, welcome to Ahmanya!” She laughed, and her laughter filled the air as if with silver.

“*Emmaino!*” exulted Mark. “*Emmaino, melissan imna basor puol*⁶.” Then the big Starman embraced Stenafi eagerly and kissed her. The Ahmanyman snuggled into the Earthman’s arms with a feeling of absolute contentment.

“Mark,” she whispered tenderly, “*si feanni*⁷.”

After all the greetings had been exchanged, the Starmen looked up into the heights of the trees. The large, splayed leaves showed the characteristic shape that Zip, Mark, and Joe had first seen impressed on the vehicle they had used to escape from Lurton Zimbardo on the asteroid that had become Tharsos. When the leaves fell, for a time before they dried out they could be used as cups to hold rainwater or to dip into a stream and refresh

⁶ “Affectionate greetings, friends of the deep bond.”

⁷ “my (dearly) beloved.”

a thirsty traveler.

“The *hostisn*⁸ are growing well, are they not, Saadervo?” commented Kathryn.

“Indeed yes, Kathryn,” agreed the one-time governor of *Imlah Taltahni*. “In all truth, our long winter is past and spring has returned. After more than twelve thousand years, our sorrows are over and gone. After more than a hundred lifetimes spent in desolation, Ahmanyen flowers appear again on the face of the planet. At last, the season of singing has come.”



“Greetings, people of Earth,” said Stenafi.

Saadervo lifted his head upward and gazed into the sky for a few moments, as if searching for something. Then, “Look!” he said, pointing. A flock of birds was winging far off in the west in

⁸ The characteristic trees of the deep forests of old Ahmanyen

a characteristic V shape. Wind-scudded clouds hung like feathers in the lavender sky. “For the past several years, wild birds have returned, bred from those presented to us by the people of Earth. Now we have insects, and the soil becomes increasingly fertile. Beyond all hope, thanks to the gifts of our allies and the preservation of the Eight Treasures, animals range freely on Ahmanya again. In this very wood there are rabbits, gophers, badgers, and lizards. There are fish in our streams, and rivers flow. More species will come!”

Stenafi took Mark’s hand in hers, and said to all of them, “We have only to look, and we can see that all things are being made new!” Mark raised Stenafi’s hand to his lips and kissed it, and she fell into his arms again and wept for joy, for love, and for the fulfillment of all her dreams.

The last word was Jogren’s: “Now the time of my guardianship is ended, and the time of all guardianship. I shall not see it, but our children’s children will see all of Ahmanya green again.”

In the final installment in the Starman series, **MASTER OF SHADOWS**, years after the quarantine of Luxa and the supposed end of the second Xenobot war, the Starmen are shocked to learn that the galaxy is not yet safe from the predatory actions of their enemies. One last challenge confronts them, and the stakes are perhaps higher than they have ever been.

But before that final episode, Starman Joe Taylor relates the strange tale we call **PARADOX LOST**, in which a once classified adventure shared by the three Starmen is shared with a friend.

And before these tales are told, two short stories provide an interlude.

A NEW WORLD

formerly titled "Light From Light"

This story takes place March 12-13, 2161, and is set between chapters 15 and 16 of The Last Command.

Chapter 1

To Starman Mark Seaton, it felt as if the spaceport had gone back to normal too quickly. His gaze returned to the new sign on the tower that blazoned "David Foster Spaceport". The dedication ceremonies that afternoon had been well organized and decidedly moving. They'd clearly been put together by people who loved and honored the fallen Starman whose self-sacrifice had brought complete victory in the second Xenobot War. With the eradication of their merciless enemy, the dark anxiety that had been the persistent companion of the peoples of two planets had disappeared. Light itself seemed brighter.

Of course a price had been paid. Many grieved those who had died in defense of their planets. Among those whose loss was widely felt was the heroic Starman, David "Zip" Foster, in whose memory the Eagle City Spaceport had been renamed. The dedication ceremony had taken place this afternoon, March 12, 2161. The date had been chosen because it would have been the Starman's 27th birthday. Less than a year earlier, Zip Foster had wiped out almost the entire Xenobot fleet by overwhelming their warships with the unbridled power of their home planet's sun. He had opened the circuits of their master solar power station to maximum and inundated the entire Xenobot warfleet with enough energy in an instant to turn each warship into a mini star whose radiance quickly dissipated and vanished. But that decision had also destroyed the solar power station itself where Zip had gone in the heat of the battle.

Richard Starlight's speech, Desmond Ubuntu's remarks, and Joe Taylor's reflections had all been appropriate⁹. The unveiling of the new sign, jointly performed by Saadervo on behalf of all Ahmanyans, and Zip's parents representing Earth and its colonies, had brought about sustained applause from the crowd of over 3,000—applause and cheers that had started strong and then had swelled to deafening.

And when the ceremony was over, the crowd had drifted away. The musicians had packed up their instruments, loaded them back aboard two moonbuses, and hastened off the tarmac. The roustabouts had gone back to work, and the pioneers had plodded thoughtfully back to the workshops or the ships where they had assignments. Officials had returned to the tower, and everyone else had walked back into Eagle City to whatever drew them back to their ordinary lives. Even Zip's sister Kathy and her parents had strolled out of the main gate into the city, just nodding solemnly to Mark and Stenafi and Joe and Kathryn Taylor as they passed.

"You don't want to leave yet, do you?" asked Stenafi.

Mark shook his head. His glance swept the wide expanse of tarmac aimlessly, every now and then returning to the new sign on the tower. He shook his head again.

"Kathryn and I will meet you for dinner later, with the Fosters and the others," said Joe.

"That's good," answered Stenafi.

"Yes, we'll be there," confirmed Mark. "Go ahead. We'll see you later."

"Alright, then," said Joe a little awkwardly, and then he and Kathryn headed for the main gate.

Mark turned to Stenafi. "I think I'll walk around for a while. You can go on with Joe and Kathryn if you like."

⁹ See the remarks made by others for David Foster's funeral in *Doomsday Horizon*, when it was thought that he had died in Old New York. See volume II of The Starman Saga, *The Search for the Benefactors*, pages 676-678.

"I'd rather keep you company," the Ahmanyen woman responded, and then added, "unless you'd rather be alone."

Mark smiled at her affectionately. Though his face showed an expression of heartache, his eyes twinkled. "No," he said. "I'd like it if you stayed with me."

As they walked among the ships that crowded the landing field, Mark's memories flowed easily. There was the pod where Lurton Zimbardo's ship, the *Silver Spear*, had stood. A midsize lunar transporter was there now, no doubt having carried a contingent from Amundsen City for the ceremony renaming the spaceport in honor of their famous son, David Leland Foster. The *late* David Leland Foster, hero. Mark's friend.

Mark pressed his lips together and sniffed. There was the spot where Andrew Forge had been arrested. And there... well, there were other places.

As they walked, Stenafi took Mark's arm. He glanced at her and smiled, and placed his right hand over hers where it rested inside his elbow. He patted that hand tenderly, then turned his gaze beyond the landing field to the ridged crestline of the crater wall. The afternoon sun shone an hour or two before dusk. The peach sky was turning toward bronze.

"Right about there is where you and Joe and Steve came over the wall when Eagle City had been taken over by the pirates, isn't it?" asked Stenafi.

Mark laughed out loud. "Yes, it is," he agreed. "Ten years ago, almost. But how did you know?"

Stenafi laughed in her turn. "I asked Joe this afternoon." She looked directly into Mark's face and smiled. "It's good to hear you laugh."

Only after the sun had gone down behind the crater wall and the cloudless sky had turned to lavender did Mark and Stenafi leave the David Foster Spaceport. When they were gone, the landing field behind them was empty except for one or two roustabouts going about their business.

Chapter 2

The next morning Mark was jovial. More than likely he had taken his feelings from the previous evening deep into himself where they would reside. They would emerge from time to time when the big Starman was in a place of quiet where he could enjoy a moment of reverie.

Zip's family and closest friends had gathered in the upper dining room of Starlight Eagle City where apartments were always kept for visitors. They were enjoying a tasty breakfast of hot cereal from the newly-harvested first crop of Ahmanyans grains, along with *moolafentori* juice.

"Let's go on a picnic! —somewhere far away, for lunch!" Mark suggested with exuberance as the company was finishing its meal. Joe and Kathryn Taylor, who had been married barely two months earlier, looked at one another. Joe raised his eyebrows in a query and Kathryn smiled broadly. They said, "Good idea," together. Kathy Foster brought her hands together gladly and said, "Yes!" She was eager for a distraction and welcomed Mark's suggestion.

"Will you come with us?" asked Mark, turning to Allen and Elizabeth Foster. With a wave of his hand, palm upward, he also included the Ahmanyans Saadervo, Stenafi, and Jogren, who had joined the humans for breakfast.

"Eleh!" exclaimed Saadervo. "We cannot. We must return to *Imlah Taltahni*. There is much labor in progress as we plan the awakening of our population and prepare to renew the face of the planet. And I am taking Allen and Elizabeth as our guests, unless," he turned to Zip's parents, "you wish to accompany the others, and visit our refuge another time?"

"Thank you, Saadervo," said Allen, "but we're eager to see your home, as we had originally planned. Let the young people have their picnic."

"Good!" said Saadervo. "Then we had better get to our ship."

“Uuuhh,” said Stenafi with uncharacteristic hesitation, “I would like to go on the picnic. If I’m not needed at home...” Her voice trailed off as she looked at Saadervo.

“As you wish,” said Saadervo, half risen from the table. He wore a look of surprise on his face. “But how will you get back to the refuge? You have no ship here, and there are no journeys planned between Eagle City and *Imlah Taltahni* for some time.”

“Mark will take me,” she said. “Won’t you, Mark?”

“Oh, of course,” said Mark with a quick business-like nod. “Five of us, then, for the picnic. I thought we could go south for an hour or two, to where the forests are being renewed.”

Chapter 3

“The southern hemisphere of Ahmanya had more forests than the northern,” said Stenafi as the Starlight shuttlecraft sped across the equator. Joe was piloting the craft with Kathryn next to him. Kathy, Mark, and Stenafi, behind them, were peering out of the windows as the Ahmanyan pointed out the features of the landscape more than three miles below.

“You can see the outlines and contours of the ancient seas if you look carefully,” Stenafi continued, “especially now that water is returning. It’s... it’s beautiful!”

“Pleera is astonishing,” said Joe passionately. “Just astonishing! She’s renewing the great seas of the planet faster than I ever would have guessed! What a woman! Why, if I weren’t already married, I’d...”

“You’d *what*, Joseph Taylor?” Kathryn’s piercing Irish lilt gave her husband due warning not to finish his sentence.

“There’s an ice asteroid right now,” pointed out Kathy, “coming up on the left.”

“*Ossëan* brought that one in just last week,” said Joe quickly. “The melters have barely gotten a start on it. It looks like a blob of butter just laid down on a hot griddle. Why, twenty more like

that and we'll have an ocean down there! Don't you think, Mrs. Taylor?"

"Aye, Joseph. Pleera is far too busy to be moonin' over the likes o' you—even if you *weren't* already married!"

"Do you think that Ahmanyans and humans can really marry," asked Kathy, "or are you just teasing?"

"I have never given the possibility a thought," said Joe, piously.

Stenafi kept her face turned toward the window as the melting ice asteroid passed far behind the speeding shuttlecraft.

"That's a good question, Kathy," said Mark. "I don't know if anyone has ever asked it before. Maybe there will be a study of the DNA of our two races before too long, now that the need to conquer the Xenobots has been done away with and there is more time for such things."

"There's the first site where the forests are being restored," pointed out Stenafi, "straight ahead. See where it looks as if dark dust has been laid down over the sand?"

All five heads craned forward.

"Bring 'er down a bit, darlin'," said Kathryn in a voice like honey; "let's see what they're doin'."

Joe complied, and in less than a minute the shuttlecraft was barely half a mile above the surface of the planet. It was easy to see the saplings that had been planted by the hundreds of thousands. Canals were being constructed over long distances, and windmills powered a sophisticated and expanding irrigation system. With the seas and oceans of the planet being filled with meltings from ice asteroids, the available water would be abundant and fresh for thousands of years to come.

"It'll be generations before the work is finished," said Stenafi, "but we're in the era that will see the changes that are the greatest. We can imagine what our children to the third and fourth generation will enjoy, but we have also known the scorched surface where nothing at all lived or grew. We are the last generation to see and know that." Her voice was sad.

“True,” added Mark, “that’s true. And a blessing it is! The Guardians kept their trust for twelve thousand years, and you are alive to see that trust rewarded, their hope fulfilled!” Mark breathed deeply. “In fact, the scorching is already giving way. Look below. Water and forest already!”

Stenafi laughed. “Yes, Mark! You are right! And I am still young. We are still young! We will see the planet well along the course of renewal before we grow old. It is a good time to be alive!” The Ahmanyen’s eyes sparkled, and her lips pressed together in a smile. For a moment, Mark gently laid his hands on both her cheeks and smiled back.

“There’s a good spot down there,” said Joe, looking over the left side of the shuttlecraft. “The trees are pretty thick, and there are some rocks, and even a little water, too! I can see sunlight glinting off a stream.”

“Looks like a pretty spot for a picnic,” agreed Kathryn, craning her neck to look past her husband.

With the unspoken agreement of the others, Joe circled the shuttlecraft until he landed it gently on the top of a small sand dune that rose above the surrounding plain that was covered with saplings in all directions as far as the eye could see. To one side of the dune was a formation of rocks, half buried in sand. They were tumbled together as if a child had built a tower or high wall of blocks, and then knocked it down.

Joe let the clouds of sand and dust that had been stirred up by his landing settle before he unlocked the canopy of the shuttlecraft and slid it back. The right doors opened, falling downward and unfolding to become steps.

“Air’s thin as usual, but there’s not much wind,” announced Kathryn; “just a light breeze, and I think the trees must already be churning out the oxygen. I think we can breathe more easily here than in most uninhabited places on this planet.”

Mark took a deep breath. “We’ll be alright here,” he said. “We can get by without helmets for a while before getting a headache. I wouldn’t want to have to set up a tent to have a picnic.”

“Speaking of picnics...” said Joe, pulling a large basket from the storage bin in the shuttlecraft.

“It’s a bit early for lunch, isn’t it?” opined Mark. “We just finished breakfast two hours or so ago!”

“Two hours and forty-seven minutes, by my compad,” said Joe.

“Two hours and forty-seven minutes by your stomach, you mean,” said Kathryn, but she took the basket and set out to find a good place to spread the eatables. The others strolled after her, gazing around them.

“Stenafi, was this a settlement at one time?” asked Kathy. “Those stones look as if they’d been worked in some way, or as if they had been part of an artifice of one kind or another.”

“I don’t know, Kathy,” Stenafi answered, following her gaze backward toward the place where they had landed. “But you’ve made me curious. I’ll have to find out when we get back to *Imlah Taltahni*.”

“This looks like the best we can do,” announced Kathryn as she stopped at a place where several saplings grew a little taller than most and whose branches came together to create dappled shade. The sound of a brook came from nearby. On the nascent forest floor was a fuzz of green grass, newly emerged from the soil.

“Pleasant,” said Joe. “I remember the first time we went to Bethesda, and Zip picked up a handful of the dirt and said that it’d make excellent soil for growing things.”

“Well, he was right,” said Stenafi.

“This’ll make a superb picnic,” said Joe. “And one good thing about Ahmanya’s having no animals—we won’t be squabbling with ants over our ... oh, look at what’s coming out of the basket!”

“Ants? What are ants?” asked Stenafi, watching Kathryn setting out the food.

“Mark will tell you,” said Joe, watching Kathryn with relish.

One after the other, she pulled out containers of fruit, thick bread, herbed fish, sauces and seasonings, salad with nuts,

dressing, fizzy water, carrots and green onions fresh from the garden, and spiced and plain boiled eggs. Utensils, plates, cups, and napkins followed. Last she set up a tiny portable stove.

"It's for boiling water, my husband, and then we'll make tea for whomever wants it." A large ceramic teapot came out of the basket last, wrapped in a cloth. "Ah," said Kathryn almost to herself. "A hot cup of Irish Breakfast blend. That'll go best with all o' this bounty."

Mark looked at Joe and raised his eyebrows—a gesture that asked plainly, What about Darjeeling?

"I like Irish Breakfast, too," said Joe quietly with a complacent nod. Then he lifted his nose, closed his eyes, inhaled, smiled, and said, "Ahh."

Chapter 4

The sun was nearly straight overhead when the meal was finished and Joe had repacked the leftovers—of which there were very little—and the utensils into the basket.

"I'm going to explore the rock formation," said Kathy, and wandered back in the direction of their ship.

"If you all will excuse me, I'm going to take a brief nap," said Joe as he stretched out on his back and closed his eyes. Kathryn lay down next to him and curled up with her head inside his right elbow. She turned toward Mark and Stenafi, winked, and then snuggled up a little closer to Joe. A strand or two of her blond hair blew idly in the breeze. She closed her eyes.

"Let's go find that brook," suggested Mark to Stenafi as he stood up and offered her his hand. She nodded happily, took his hand, and got to her feet. They walked toward the sound of the flowing water. Within a few moments they came to a stream just three or four feet wide. At the point where they met it, the brook made a curve, coming toward them and then rolling away down an easy slope into the sweeping plain covered with saplings.

One of the smaller stones from the nearby pile was situated by the bend in the water. Some thoughtful arborist had planted several saplings near the stone to create a shaded bench. Sunlight and shadow made a delightful place to sit. Mark and Stenafi sat down on the stone and looked peacefully at the sparkling stream.

“Perfect,” said Mark. “This is just perfect.”

“I think so too,” said his companion. She took a deep breath, and then sighed.

After a few moments, Mark turned his head toward Stenafi and said, “You seem a little preoccupied today, Stenafi. As if there is something on your mind.”

For nearly a minute Stenafi did not respond, except to lower her head a little. Her eyes left the sun-bright water and went to where her hands lay clasped in her lap. Mark looked away.

“There is,” Stenafi said at last. “There is something on my mind.”

“Is something bothering you?” Mark spoke gently.

“I don’t think that ‘bothering’ is the right word. Not ‘bothering’. But it *is* something that won’t leave me alone. And,” she lowered her voice almost to a whisper, “I don’t think I want it to leave me alone.”

Inexplicably, Mark’s heart began to beat a little faster. He suddenly felt nervous and uncertain. He tried to speak gently again, but there was a little tautness in his voice this time and it showed. “What is it?” He didn’t want to intrude but something inside him made him ask the question. “That is—if you don’t mind talking about it. If you don’t want to, I—”

“I want to talk about it.” Stenafi’s head turned away from Mark a little, and her gaze moved from her folded hands to the ground on her left, away from Mark. The Starman noticed that the woman’s knuckles had turned pale. With a shock, he perceived that she was trembling.

Stenafi took another deep breath and exhaled. Mark looked into the distance, not wanting to appear to be impatient.

“We waited,” began Stenafi after a long pause. “We waited, waited for generations for people from Earth to come to us and

help us fight the Xenobots. Waited and waited. You know how we waited. It was our greatest longing, for the coming of people from Earth would mean our planet's salvation, our survival. You were our only hope.

"You know how eagerly I myself waited, knowing that it would be my generation that would see the first contact between our races." Stenafi flicked a glance at Mark's face, and then lowered her eyes again to her clenched hands. She saw that they were pale with tension and made an effort to relax. She released her hands from each other, flexed her long fingers, dried them on her stomach, and then brought them together again.

"It was you and I who made that first contact. And Zip. Zip was there, when the two of you were fleeing from the Xenobots and came through the caves to the hidden mountain portal that led directly down into *Imlah Taltahni*." Stenafi paused.

"I remember very, very well," murmured Mark. "A grand moment!" He laughed with the memory. "It was the first time I saw you. Zip and I were absolutely flummoxed!"

"What does 'flummoxed' mean?" asked Stenafi, looking up into Mark's face.

"It means that we were so surprised that we couldn't even think. When you and Saadervo stepped out of that concealed door in the middle of the mountain when Zip and I thought we had no place to turn, we just, we had no idea, we ..." Stenafi put a finger on Mark's lips.

"I understand," she said with a coy smile. Then Mark saw bright tears come into her eyes and she looked away again.

"So much has happened since then, and we have done so much together, but now it's all over. And I found that I had been waiting for more than I had ever dreamed. And..." She stopped talking and the tears flowed quietly.

"It's not all over," said Mark tenderly. He gazed at her profile, feeling awkward and helpless, not fully understanding what she was trying to say. "Wh—, *what's* all over?"

Stenafi couldn't talk. She seemed suddenly overwhelmed with misery. She slumped down into herself, leaning away from Mark. She began to sob quietly.

"Stenafi?" said Mark quietly. He inclined toward her slightly. As he moved, she quickly leaned away from him a little more.

"Stenafi?" he said again, this time with anguish in his voice. He lifted his hands a little toward her, timidly parting them a few inches. "Stenafi," he said a third time, this time with a little pleading in his voice.

Slowly she turned her head toward him, still leaning away. Mark's expression was guarded and uncertain, yet also direct. Slowly but deliberately he raised his arms and spread them in an inviting gesture.

In an instant Stenafi threw herself toward him and was in his arms, her head snuggled against his chest, her arms wrapped around herself so that he had to envelop her. His cheek lay on the top of her head. Her tears were flowing and she sobbed freely. Mark held her tightly, squeezing her and caressing her from time to time. Even though she was crying for whatever reason, he suddenly felt wonderful! He felt lively, more alive than he had felt for many years—more alive, maybe, than he ever had! He felt suddenly plunged into wonder and steeped in joy! A laugh burst from his throat.

Stenafi pulled away from him and stared into his face. "Why did you laugh?" she demanded. "Why did you hold me?" Her face showed that she was poised between vibrant hope and searing anger.

"Oh, my, Stenafi!" cried Mark exuberantly, staring wide-eyed back at her. "I held you because I knew that you needed it, and... and because I wanted to! And I laughed because I *had* to!" Mark's face was radiant.

"Mark," murmured Stenafi, her eyes fixed on his, an eager but unspoken question on her lips. Even now she was afraid to speak. Her fingers slowly moved toward him until they were touching his lips. "Mark?" she repeated, as a question this time.

“*Si feanni!*¹⁰” whispered Mark, taking her hand in both of his and looking directly into her wide-open eyes. Whisper though it was, the words overflowed with intensity.

Stenafi’s face lit up with joy, and she threw herself into his arms again.

¹⁰ “My (dearly) beloved!”

STARS OF THE DEEP

A new Starman short story, appearing here for the first time.

The Starman Team dedicates this story to

Steve Servello of Waltham, Massachusetts,
from the beginning,

one of our most dedicated and encouraging fans.

*Steve was our first customer, being the first person who placed
an order when the first Starman book, Assault on Mars,
was offered for sale in July 2000;*

and to

Mark McSherry of Barneveld, Wisconsin,
who with his comments and insights

*helped us shape the saga over a period of several years
and who supported us from the beginning in many ways.*

*There were times when Mark showed that he knew the details of
the Starman stories better than we did!*

*This story begins on October 7, 2165,
more than five years after the events of The Last Command
and nearly four years before Master of Shadows begins.*

Prologue

It was evening on Ahmanyia. Starman Mark Seaton was sitting on his porch beside his wife Stenafi, enjoying a cool and peaceful evening with their friends, Starmen Joe and Kathryn Taylor. A delicious dinner, which had included autumn vegetables and fruits from the Seatons' garden, had been cleared

away some time before. They were spending a few weeks together in an extended vacation.

The Seatons' home was located on a small hill on the outskirts of the great Kilindra Forest. In front of them was a vast, green landscape, stretching as far as the eye could see—one of many new wonders on an Ahmanyia that was rapidly coming to life. Stenafi was holding their infant daughter Dianda, who was fast asleep. They had lived in their home for three years now, and Mark fell deeper in love with Ahmanyia and its people with every passing day.

A plate holding a generous number of oatmeal cookies, still warm from the oven, lay on a small table. A glass coffee pot was set adjacent to the plate. Joe, however, was drinking tea.

The conversation over dinner had been lively, but now that the friends were outside there was a comfortable silence as they all gazed at the forest below them and the slowly-changing colors of the sunset that covered most of the sky. Clouds were dispersing after an afternoon rain. The air was fresh and the colors in the sky were beguilingly beautiful. Deep reds and magentas nearly overhead flowed into dazzling oranges and brilliant ochers and yellows that surrounded the flattening ball of the sun, nearly 142 million miles away. Behind them the eastern sky held its own mysterious beauty, the red of Aldebaran standing out above the black silhouettes of the nearer trees of the forest. The smell of dried leaves rose and wafted to them across the late-year gardens.

Without shifting his eyes from the sunset, Joe said, "This tea," the hand holding his teacup twitched a little, "isn't any tea I've ever tasted before. I can't quite place its flavor. What is it?"

"I got it as a surprise for you," answered Stenafi brightly. "It's a new tea, produced here on Ahmanyia. Do you like it?"

"Gosh, I sure do! It's... it's got the depth and heartiness of a black Indian tea but without that intriguing but intrusive trace of bitterness. There's a hint of fruitiness in it that I can't identify, and it's got strength that shows confidence without being overbearing."

“Did you read that description from the box, Joseph?” inquired Kathryn. “Let me have a taste.”

“You won’t get all the complexity of its flavor after that strong coffee you’ve been drinking, my dear.”

Kathryn snorted softly, put her coffee cup down, and took a sip from Joe’s cup. Her eyebrows lifted in appreciative surprise. “My goodness! Even through the taste of the coffee I can tell that this tea is delicious! What is it, Stenafi?”

Stenafi smiled. “I’m glad my surprise is so successful! It’s called Ketephtha. It’s a new blend that Tulip Tea is offering. It comes from Kenya on Earth and then is blended with some new tea that Miz Tulip has grown here on Ahmanya!”

“Well!” declared Joe, taking his teacup back from his wife and topping it off from the teapot. “Tomorrow, then, I’m going to Tulip’s and get a *case* of this stuff! Thank you, Stenafi!”

Chapter One

The following day, Joe, Kathryn, and Mark flew the short distance to Seven Leaves, the erstwhile home of Andrew Forge and for long the home office of the Tulip Tea Company.

Tulip Tea was owned and managed by a shrewd elderly lady named Felicity Tulip, whose late husband had come to Ahmanya in 2115 and founded the tea business on what was then known as Mars. He was one of Earth’s premier experts on tea, and saw a virtually unlimited market for his wares in the new settlements on the fourth planet where he had no competition. He died suddenly four years after founding the business, and his young widow took over the affairs. She was now approaching eighty, and had grown the tea business into a planetwide empire. She grew many kinds of tea on her own plantation, and was thereby able to create new flavors unique to the Ahmanyan climate as controlled by several moderate-sized domes. The Tulip Tea Company was the sole supplier of teas to both humans and Ahmanians, and Miz Felicity Tulip had become a legend among

Ahmanyen tea-lovers wholesale and retail.

She had two partners: her maiden sister, Miss Frouida Baker and their cousin, Miss Xanthea Chesterton. Both were expert botanists with a specialty in tea, and had skills developed through long trial and error. Felicity, however, was the business manager, and maintained tight, near-autocratic control over the tea empire on Ahmanyen. Though legally her sister and their cousin were equal partners, everyone knew that it was in name only. Felicity's strong personality and firm leadership style made her the force behind Tulip Tea's success. Indeed, Tulip Tea could not have survived at all, much less become an empire, had it not been for Miz Felicity Tulip.

The three Starmen came through the terminal of the small spaceport at Seven Leaves. Joe nodded to the attendant as they approached the door leading to the town proper, and said matter-of-factly, "I see you've repaired the terminal since we shot it up the last time we were here."

"Sir?" queried the attendant.

"Nothing," said Mark, and Kathryn rolled her eyes. The door closed behind them and the Starmen looked with admiration at the picturesque town.

"Beautiful little village," observed Joe. "I thought so last time we were here. Looks just about the same. Peaceful. Nice place for tea."

"Especially since the Banjoman's sleepless androids are gone," agreed Mark.

"Most especially that," nodded Joe as he stepped out onto the brick avenue.

Five minutes later they walked through the door of the Tulip Tea Company's small shop for the locals. Nearly all of the facility was given over to tea growing and blending, packaging, and shipping. The building comprised nearly two acres, not to mention the half dozen domes beyond, dedicated to the growing of the teas. The shop itself was only about seven hundred square feet.

"Ah, the scent of tea fills the air, as aromatic as springtime

flowers except better,” said Joe, inhaling and breathing deeply once the shop door had shut behind him. The shop was lit by facsimile street lamps from Victorian England, and the rows of shelves that displayed over 175 kinds of tea were impeccably organized.

“I wonder,” mused Kathryn. “Is the tea organized alphabetically, by region, by type, or by price?”

“It’s all good,” said Joe. “I’m sure that when we leave this place I’ll be disappointed, because right now I think I’ve died and gone to heaven, and I’ll be plunged into despair when we step outside again and I’ll find that I’m still here.”

“Where will we find the Ketephtha?” asked Mark.

“Ask the young fellow at the counter, Mark,” said Joe with a wave of his hand, “if you’re so eager to complete our purchase. I, for one, will browse for a while.”

Mark set out for the counter at the back of the establishment, but was waylaid when he found the tea sample bar in the center of the shop. It featured a selection of natural and organic sweeteners including several kinds of honey, an array of milks and creams, and twenty kinds of tea offered to customers for free tasting. But it was the samplers of cookies and crackers that appealed to him as much as the teas.

Several koalangs, each uniquely colored, dozed on cushions placed randomly throughout the shop. Kathryn, in her wanderings, counted four of them. One was completely black, another pure white, another was caramel with white blotches, and the fourth soft white with blue overtones.

Forty minutes later the three Starmen met at the counter where a young man was in attendance. He wore a well-tailored gray pin-striped suit, a jaunty but conservatively-designed tie of several shades of blue, and kept his hair in place with pomade. His name tag read “Jeremiah”. Joe laid down three boxes of Darjeeling, and then said, “And I’d like to order two cases of the Ketephtha, if you please.”

Jeremiah raised his eyebrows, and said, “Of course, Starman.”

On an impulse, Joe added, "And might we, if it is possible, talk with Miz Tulip, if she is around?"

"Oooh," said Jeremiah with a slight grimace. "She's usually pretty busy in the back office or in the tea fields, but, well, since you're the Starmen, um, I'll ask her. Just wait a moment, please."

Some time later an imposing old woman came into the shop from the area behind the counter. Her hair was completely white and pulled back into a bun, but a few strands flew around her forehead. She was slender, and wore a full-length lavender dress. Her look was sharp and her face nearly wrinkle free, and her mouth bore a look that said that she was all business. She was carrying a fifth koalang, a gray tabby, which she was stroking absently as she looked around the shop with piercing dark blue eyes. A white lace choker was wrapped around her neck, and showed a bright orange jewel, smooth like an opal.

"Starman Taylor?" she said, but it sounded like a summons rather than an inquiry.

"Yes, ma'am," said Joe, stepping quickly from behind a row of boxed teas with the distinctive white, blue, and lavender Tulip label. "Thank you for taking the time to see us."

"Not at all, Starman. I am delighted to meet with any true aficionado of tea, and I am persuaded that you are among the most knowledgeable on the planet. I am surprised that we have not met before."

Joe flushed. "Indeed, I am honored by your compliment, Miz Tulip."

Kathryn rolled her eyes again and said quietly to no one in particular, "That Joe gets out of his depth as soon as he talks to any woman. Really, I mean *really*!"

Joe and Miz Tulip began a discussion that quickly entered into arcane and obscure qualities of various teas. They contrasted the African teas with Indian, discussed the boasts of green, black, and white teas, and the best material that tea kettles and especially teapots should be made out of. The purity of the Chinese teas became a topic, and then the skill levels of various British tea blenders and merchants. There was a lot of nodding of

heads and movement of hands. The koalang in Miz Tulip's arms remained placid.

After twenty minutes, Joe finally said, "And now, Miz Tulip, would you tell us a bit about your newest creation, the Ketephtha tea?"

Miz Tulip beamed and opened her mouth, when Kathryn butted in. "Before you answer Joe's question, Miz Tulip, would you mind telling me about that glorious jewel you are wearing at your throat? I've never seen anything quite like it. It resembles an opal or a tiger's eye, but that color is, well, I've hardly been able to take my eyes off of it."

"So I've noticed, my dear," said Miz Tulip. "It was brought to me by the renowned miner, Steve Servello. It is, actually, glass—but a most special kind of glass. It was formed of sand on the surface of the planet by great heat. Volcanic, I believe. It is not awfully difficult to find poor and worthless samples, but I'm told that an example of this size and quality is quite rare. Would you like a closer look?"

Seeing Kathryn's eager look, Miz Tulip set the tabby down and unfastened the choker. She caressed it lovingly for a second before passing it on to Kathryn.

At that moment a cacophony of hisses erupted. The black koalang had leaped down from his cushion on the top of one of the display cases and confronted the tabby, whose back arched like a croquet wicket, the fur standing up as if electrified. Their altercation of hisses, snarls, and raucous feline shrieks got the three others excited, and in a few seconds all five of them were racing around the shop.

"Percival!" Miz Tulip's piercing yell was enough to arrest the movement of every human in the emporium, but it didn't stop the koalangs. "Mr. Plum! Help me gather these beasts before they knock over everything in the shop!"

"Yes, Miz Tulip!" cried the young man behind the counter as he leaped into action. All five koalangs were snarling and screeching loudly as they went streaking along the aisles, up and over the display cases, and speeding around and through the legs

of the people. The three Starmen could hardly keep their eyes on any one of the rocketing animals before it disappeared down an aisle and another caught their attention. The Starmen remained riveted in place while Jeremiah and Miz Tulip tried to outmaneuver the flying balls of fur.

“Percival, blast you!” shouted Miz Tulip, moving with unsuspected agility after the black koalang, but without any success in curtailing his racing peregrination. “Potiphar! Pelagia, come here! Persephone, stop that! Perpetua, you know better than that!” Loud as her commands were, the dissonance of distressed and overstimulated koalang voices nearly drowned her out.

Jeremiah had made it to the front of the shop where he had picked up two oblong boxes of tea. He slammed them together, producing a loud report. Instantly the koalangs dashed in the opposite direction, still wailing. He pursued them, banging the boxes together and herding them toward the back of the shop where, one by one, they shot out of the open back door until the emporium was quiet again. The silence after the explosion of noise seemed almost surprising.

“Well!” exclaimed Miz Tulip after a moment, brushing back a wayward strand of hair. “Let Frouida and Xanthea take care of those little annoyances! They’ll calm down once they’re out in the open, I’m sure. Thank you, Mr. Plum.”

Once the group had settled down, Kathryn, who had held onto the choker, continued where they had left off. “It’s elegant, Miz Tulip, just gorgeous! Do you know where or how we could find this Steve Servello? I’d like my husband to buy me one of these jewels.”

“Heavens, child, I have no idea how to reach him. He’s one of those Wind People—comes and goes as he likes. He’s bound to be out looking for more of these right now, but heaven knows where. But you don’t have to find him to purchase one of these. He left me a couple of dozen of them to sell here in the shop. Look over here.”

While Jeremiah straightened up the boxes that the koalangs

had overturned, Miz Tulip led Kathryn behind the counter and showed her a small display case. The two women oohed and aahed over the jewels just as absorbingly as Miz Tulip and Joe had been discussing tea moments earlier.

“Joseph, dear,” said Kathryn’s lilting, honeyed voice after a while, “I want this one.”

After affectionate farewells and exchanges of mutual regard and gratitude, the Starmen took their leave of the Tulip Tea Company, Kathryn carrying a small box with a highly pleased look on her face. Each of the Starmen had been given a complimentary teacup, and Joe carried his three boxes of Darjeeling. The two cases of Ketephtha tea would be delivered to their ship within fifteen minutes.

As they approached their ship, Joe said, “Hey! Miz Tulip never did tell us about the Ketephtha! We’ll have to go back.”

“Another day, Joseph” said Kathryn. “And we can bring her another koalang as a thank you for her kindness.”

Chapter Two

Two days later, Joe was examining the jewel that he had purchased for his wife. He didn’t know very much about gemstones, but he’d never seen anything like the one he held in his hand. He took it over to the window and let the sunlight of midday shine on it, and was impressed with the intensity of the response in the stone.

“Glass, eh?” he muttered to himself. “Not like any glass I’ve ever seen. Volcanic? Maybe, but...”

He brought it into the dining room where lunch was being set out. Once the friends were all in place, Kathryn said, “I see you’ve brought my jewel to the table, Joe. Something on your mind?”

“I’d like to take it to Mark McSherry in Starlight Eagle City. He’s the chemist-geologist. I’m real curious about this piece of so-called glass.”

“Okay with me. After you finish your curried pulled pork and cilantro potatoes, we can go.”

Later that afternoon, the two Starmen were in the workroom of Dr. Mark McSherry in Eagle City. He looked up from his examination of the jewel.

“A fine specimen, very fine indeed,” he declared. “It is a droplet fulgurite of uncommonly large size and of remarkable purity. I’ve seen many of them, but none of this quality.” He was a middle-aged man with a well-shaped head, thick slightly wavy brown hair, and large but gentle fingers capable of fine work. He set aside his sizing gauge and took the magnifier from his eye.

“What is a fulgurite?” asked Joe.

“Fulgurites are made of sand or soil, and are found after a sudden high-temperature, high-pressure event. They are somewhat common on Ahmanya, and were caused by the Xenobots’ destruction of the planet twelve millennia ago. The great sandstorms that scour the planet pretty regularly have destroyed most of them, but every now and then a few will turn up. The high amount of iron oxide in the soil colors most Martian fulgurites to a higher degree than we’d ever see on Earth.”

“What makes it so colorful when light strikes it?” asked Kathryn.

“Fulgurites are usually created when lightning strikes suitable target material. And often they’re created by meteorite impacts. The Ahmanyan samples like this one, however, created by the Xenobots’ attack, were heated much higher than anything that lightning can produce. That compacted and somewhat altered the substance, driving it into near-crystalline quality. It isn’t a crystal, of course, but the creative process of an instant during the burning of the planet roughly approximates the creative process that makes true precious jewels over eons in the depths of the earth. The near-crystalline properties, then, give it the appearance of, say, an opal, but reflective qualities almost that like of a precious jewel like a ruby.”

He handed the jewel back to Kathryn.

"Not volcanic, then?" asked Joe. "Miz Tulip suggested that it may have been formed by a volcano."

"Hmm, no, not at all, not possible—at least not a volcano as we know them occurring naturally, like those in the Tharsis and Elysium regions here. I suppose that during the attack the entire surface of Mars responded like a volcanic eruption, but I don't think that's what you're talking about."

"No. Well, thank you Dr. McSherry," said Joe. "We won't take up any more of your time."

"Before you go, you might want to see this," said the geologist with a smile. He went over to a lock box bolted to a workbench. A moment later he brought a small bundle of thick cloth over to the Taylors. While they watched, he unwrapped the cloth and revealed three small stones. One was a cut gem about the size of a peanut and the other two, about the size of peas, were uncut, but all three were of the same kind.

He held up the cut jewel between his thumb and forefinger. It sparkled with an intriguing lambency, something that gave it an air almost of urgency.

"Gosh, that's lovely!" cried Kathryn.

"It is, yes," said Dr. McSherry, "but now watch this." He took it over to the window and held it in the sunbeam that shone down onto the worktable. Instantly the stone blazed as if it were alight itself.

Both of the Starmen gasped. The jewel was a blinding orange, the color of hot embers in a fire.

"Wh— what is it?" stammered Joe. Dr. McSherry's eyebrows lifted with satisfaction.

"I haven't named it yet," he said. "I found these in a ravine near the foot of Olympus Mons where they'd been coughed up in a real volcanic eruption many ages ago. I doubt if anyone else on Ahmanya has anything like them. At least, I've never heard of it. I cut this specimen myself. It's a crude job, but I shaped it to make the best use of light. It's got optimal symmetry to give it the maximum brilliance my skill would allow, but it's not

complex. Someone more skilled than I could have done a better job. That's why I didn't cut these others. Someday I'll take 'em to Becca Hall; she's the jeweler here in Eagle City, and she can cut them the way they deserve."

"What gives it such a rich orange color?" Kathryn could hardly take her eyes off the stone. As Dr. McSherry held it, the slight movement of his hand caused the stone to flash and flicker as if it were throwing off sparks. "It looks as if it has a light source inside itself."

"That's because of the high quality of its brilliancy. Try to measure it by any earthly standard of brilliance and it's off the chart. The orange is, I think, caused by a generous proportion of barium feldspar, along with iron, of course, aluminum, and silicon. Gemstones like this are formed deep underground due to tectonic activity under the right conditions. Now that Ahmanya has no more tectonic plate movement and no more active volcanoes, no more gems are likely ever to be formed. But," and here the geologist chuckled, "I'm sure that there are still plenty to be found. Most would be found, I suspect, in the lava fields around the old volcanoes. And, of course, deep underground, but getting to those would take some real effort. I expect I was mostly lucky to find these."

"There is no name for these gems?" asked Kathryn.

"Not yet," said Dr. McSherry.

"Well then, I'd like to suggest that you call them *kathizo*. That's the Ahmanyan word for 'star' as I'm sure you know."

"Starman Taylor, you have just named this gem, the first known gem that is unique to Ahmanya. *Kathizo* it shall be."

When Joe and Kathryn returned to the Seatons' home that evening, over dinner they shared with their hosts what they had learned in their visit to Dr. McSherry.

When they'd finished their tale, Mark looked up from his plate and said, "How would you like to go on a little adventure?"

"Sure! What are you thinking of?" asked Joe.

“I’ve half a mind to look for some of these gems ourselves. We’ve still got several weeks of vacation left and I’m ready to do some exploring. We could try to locate this Steve Servello and ask him to join us. We’d share whatever we discover.”

“If anything,” observed Kathryn.

“How do we find this Servello fellow?” said Joe. “If he’s a Wind Person he could be anywhere.”

“We’ll ask Dr. McSherry. Miz Tulip had no idea where he might be, but Dr. McSherry might. If he doesn’t know where he is, we’ll tell the Wind People we know that we’re looking for him. Maybe he’ll contact us and maybe he won’t. Either way, we can do some exploring.”

The following day, Dr. McSherry had a suggestion for them.

“Steve is mostly likely down in the Argyre Planitia, the Charitum mountain range to be more specific. That’s where he was living and working three months ago when he was last in Eagle City and came to see me. There’s a small place down there with a few islands and mountain peaks emerging from the deep waters of the impact crater. If the islands have a name I don’t know what it is, but he pointed it out to me on the map. That’s where he got those droplet fulgurites. The Argyre area is surrounded by rugged massifs, as you may know. They’re plentiful in that part of Mars. Lotta crevices among the faults and twistedness of the terrain. It’s a good place to hunt for gemstones and the like, but it’s real rugged. Just what Steve would like best, and he’s not likely to exhaust the mining possibilities there any time soon.”

By early afternoon of that day, Mark and Joe were ready to head south in the search for Steve Servello. Kathryn had decided to stay with Stenafi. “I’m on vacation, let me remind you. I’ve done enough exploring and traveling recently and for my vacation I’m staying in one place. Waking up when I want to, helping Stenafi take care of Dianda, and watching the sunset is my idea of a rest.”

Joe and Mark did not protest. Just past mid-afternoon they lifted off in Mark's small cruiser and headed south, intending to reach the Argyre area and find a place to camp before the sun set.

Chapter Three

"Good-sized sandstorm south of here, right on our heading," said Mark when they'd been in the air less than half an hour.

"Yep. I checked it out before we launched, of course," said Joe. "I'll just go over it. Its farthest edge is just around the Argye area, so it shouldn't trouble us. We should be there in two hours or less. How about some nice classical piano?" He turned on a music feed.

Before long Joe had lifted the shuttle to a higher than usual altitude, and the two Starmen were skimming the tops of the clouds. Above them were the clear, dark violet skies of late afternoon; a few stars shone brightly. Below them was the roiling storm with an undulating thick haze, brick red from the sand and tinted with an ugly, bruise-like purple of rain-sodden cloud wrack.

"Lotta energy down there," mused Mark after watching it for several minutes.

"Hmph," agreed Joe. "The southern hemisphere hasn't progressed as far along terraformation as the northern. Probably the great sandstorms will diminish as the south regains its forests and seas. Already the storms aren't as bad as they used to be."

"There's a beauty to them."

"You've always found beauty in everything, Mark. I've admired that about you for a long time, even when I couldn't see the beauty in something dark or lonely or destructive."

The cruiser continued its journey, the Starmen silent and relaxed. Features of the cloudscape fell behind them, and before long, the intensity of the storm was noticeably weaker. Joe brought the cruiser to a lower altitude.

“Argyre dead ahead,” stated Mark. “We should be right over it in about five minutes. Almost no sign of the sandstorm here.”

“It needs two or three more ice asteroids to bring the sea level up to what it was, but I kind of think they should leave it as it is now. That island formation is really stunning. I wouldn’t want to see it lost under rising water.”

“You’re right. Coming in high like this gives you a real appreciation for the landscape. If we hadn’t had a storm to go over, we wouldn’t see it this way.”

“Let’s cruise over the islands and see if there are any signs of habitation,” said Joe. “Servello must have some sort of camp somewhere.” He slowed their ship down and brought it to an altitude of about half a mile. For several minutes they toured the islands, concentrating on the level places, such as there were. They found no evidence of habitation.

“Well,” remarked Mark after a while. “I didn’t expect this. I thought surely we’d find something if Servello were working in the area.”

“I rather expected *not* to find him camping in any of the most observable places. If he’s mining in the crevices or lower reaches or among the massifs or such like, he’s likely got some sort of settlement in a place we won’t find easily. Can you locate him with some electronics?”

“I can try.” Mark turned to his control board.

An hour passed as the cruiser made a slow and random way through the heights of the islands. Although the sea was peaceful, the shoreline was an impossible line of complicated curves and miniature bays, rugged outcroppings and stretches of sand overhung with rough stone precipices. The inland terrain was brutal, with convoluted narrow canyons, jumbled boulders, and beetling cliffs. There were numerous smooth places, but there was no sign of habitation on any of them. The shadows were growing long as the sun lowered down to the horizon.

“We’d better find a place to camp ourselves and start over in the morning,” said Joe.

“Hah!” responded Mark. “I think we should camp right down there, because that’s where Servello is. An electronic signal is coming up to the surface right about—there.” He indicated a point on the topographical map.

Joe nodded and dropped the cruiser toward the place Mark had indicated. There was a clearing and Joe landed the small ship and shut it down. At the edge of the clearing was a simple campsite, rendered nearly invisible as it was tucked under an overhang of rock. A tiny vessel was tucked in close inside the shadows. A man in about his mid-forties was bent over a gas stove. His thinning hair was brown, tinged with a little gray. He wore a headband, a strip of cloth tied in the back with a knot. His body was thick but it was nearly all muscle.

As the Starmen approached him, he said, “I hope you brought some food. I’ve got plenty and it’s good, but it’s getting boring.”

“We did,” said Mark. “You must be Steve Servello.”

“An easy guess. There’s only one person on Ahmanya foolish enough to live down here, and that’s me. And o’ course you’re the Starmen, Joe Taylor and Mark Seaton. We’re all famous in our own way, I guess. I’m just starting dinner; what’d you bring? You’re known for your strange appetite, Starman Taylor, unless I misremember. I don’t eat anything weird, so if you’ve got scorpions covered with peanut butter or something, keep ’em to yourself.”

“How about some corned beef hash?” Joe asked.

“Corned beef hash? Say, I haven’t had that in at least a day. Bring it on over and we’ll eat it for dinner.”

An hour later, dinner was over. The camp was a refuge of gentle light in an infinity of blackness, except that the Milky Way was stretched across the sky like a net of cold, soft fire.

Steve settled back into a camp chair, and the Starmen relaxed in the folding chairs they had unloaded. Steve had lit a small campfire. “Not much wood around here, nor nowhere near anywhere at all. I can spend a day just gathering twigs and small

bits of wood from the young forest a coupla hours' flight from here in my little pokey there. I don't build a fire very often, but then I don't have guests very often, neither. Fact, you're the first I've ever had.

"So did you bring me my mail, or is there another reason you were looking for me?"

Mark told Steve about the fulgurites at Tulip Tea, and recounted what Dr. McSherry had said about them. Steve listened politely, but perked up when the big Starman described the gemstones. His hands began to tremble.

"I was right!" he said in a loud whisper, tense with excitement. "I was *sure* there had to be such stones on Ahmanya!"

The Starmen were almost startled by Steve's response.

"Well, doesn't it stand to reason?" said the miner. "Any planet with a hard rocky surface and certain geological properties has to have gemstones. Asteroid impacts, sure, but more than that, tectonic activity and volcanism—that's what's needed. That's the stuff that creates gemstones and gets 'em to the surface. Ahmanya had those properties once, so the gemstones have to be here somewhere! I've been making my living by finding the semi-precious stuff, and doing pretty well finding 'em down here in Argyre—the terrain, the low elevation and all—but over the years I've pretty regularly looked in the volcanic debris fields and even deep crevasses hoping I'd find gemstones." He sat back. "Never did, though." He leaned forward again. "But this McSherry found some? Where?"

Joe told him.

"The foot of Olympus Mons. Well. Terrain as rough as this but nowhere near as deep. Had to've been spewed up in the volcano. A lucky find. There's probably more where he got those. Usually when you find some, you can find thousands if you stick to it.

"But I'll ask again: what'd you come down looking for me for?" He looked from one Starman to the other.

"We'd like to invite you to come mining with us," said Joe.

“Mining with you?” Steve scrunched up his face and looked quizzically from Joe to Mark and back again. “What are you asking?”

Mark spoke up. “We want to look for some gemstones, like those that Dr. McSherry found.”

“At Olympus Mons?”

“No. We know a place where we can go eleven miles underground. We can get there easily enough but we don’t know what we’re looking for. We need an expert.”

“Of course,” added Joe, “whatever we find, if anything, we’ll share, all of us, equally. We’ll fly you from here and back again when we’re done.”

Steve looked doubtful. “If you’re looking for gemstones you gotta look where the volcanoes were. Is this place volcanic?”

Mark shook his head. “We’ve been there and it doesn’t look volcanic to me. Really, we’re more interested in exploring the abyss. Finding any jewels would just be an extra. If there are any there, you’d be able to find them better than we could.”

Again Steve looked doubtful. “I know the whole planet pretty well. Where is there an eleven-mile crevasse or cave or whatever it is? I don’t know of any such place.”

“Most of the Ahmanyen refuges were built five miles below the surface,” explained Mark. “We know one that has a six-mile abyss adjacent to it. It’s been measured but it’s never been explored.”

The miner sat back with a stunned look on his face. “Eleven miles underground,” he whispered. “Eleven miles. That’s about the darnedest most frightening thing I’ve ever heard of. I’ve been in caves and down crevasses lots of times, but farthest down I’ve always been a few hours’ walk to daylight.” He shook his head slowly from side to side.

The Starmen waited. The campfire, small to begin with, had died down to mere embers. The few sparks that flew upward were bright in the heavy darkness. As they ascended they looked like floating orange stars amid the resplendent field of the night sky.

Steve leaned forward. “Course I’ll do it,” he said. “Never any doubt about it.” He chuckled. “We might even find some of those *kathizo*. But I doubt it; gemstones aren’t usually found in crevasses and the like. But I’ll go and explore with you for a few days! Sure!”

Chapter Four

Early the next morning, after a breakfast of potatoes boiled and then fried, more corned beef hash, dried fruit, and Tulip Tea, the Starmen and the miner packed up and boarded Mark’s small cruiser. They stopped at Eagle City briefly to requisition some food supplies and equipment from the Starlight office there, and then headed on to the above-ground entrance to *Imlah Taltahni*. They arrived in early afternoon.

The gateway that was the entrance for small spacecraft, once ingeniously camouflaged, now lay open. Joe docked their cruiser inside the small hangar cut from the stone of the mountain, and shut off the engine. There was room for six ships but now only the Starmen’s cruiser was docked. The chamber was lit only by the afternoon sun.

“We descend via an elevator over here,” said Mark as the three of them stepped out of the cruiser. They retrieved their supplies from the back of the small craft. They were heavily-laden; each had a jet pack, a small bag with personal items, and a large pack with supplies for the expedition. Each man carried at least sixty pounds, but on Ahmanya it felt a lot lighter than that.

“Got the access codes and general permission from Saadervo,” said Joe to no one in particular. “Matter of fact, the Ahmanyans who used to live here are excited to find out what’s down in the abyss.”

“I know Stenafi is,” Mark shared. “I’m sure that someday she’ll want to come back, but not now. We’ll bring Dianda when she’s a little older.”

They entered the elevator and Joe pressed the proper sequence. A few minutes later the door opened, and the three of them stepped out into the absolute darkness of a subterranean world five miles below the surface. Joe turned on the illuminator of his suit and Mark did the same, and they all stepped onto the short pathway that led to *Imlah Taltahni*.

No one spoke. Steve Servello was awed by the signs of habitation that emerged and then receded from the shadows as they walked. Joe and Mark were overwhelmed by their memories of the exquisite setting that had been a home for a hundred and fifty generations of Ahmanyans and where they had made several deeply satisfying visits to people they had come to love. All of them had gone to the surface now and *Imlah Taltahni* and the other fifteen once-hidden refuges were empty—void even of light, yet filled with history and memory. The sharp smell of dusty stone imbued the long-uncirculated air, and imparted a dreadfully lonely feeling.

The Starmen's suitlights illuminated clearly about twenty feet in all directions; beyond that was gloom that deepened into impenetrable darkness. As they passed along the stone path, tantalizing partial images of stone walls, once lush but now dried gardens, and archways came into view and then, as they passed, dropped back into the deep silence. The shuffling and scraping of their footsteps was the only sound.

"Funny, isn't it, how coming into a place like this makes you feel that there's someone watching you from just beyond where the light shows," said Joe.

Steve spoke for the first time since they'd left the cruiser. "Doesn't seem like it to me. I've been in caves so many times that all I sense is the emptiness."

Mark said nothing.

Moments later they came to what had been a courtyard of the Ahmanyman refuge. A stone balustrade marked the far boundary of a multi-colored mosaic of fitted stonework. Beyond it the land seemed to drop into far, dark distance.

"There used to be a little stream right along here," said

Mark. "Its bed is dry now, of course, but you can see where it was. It leads directly to the edge of the abyss."

Joe said, "We are at the far edge of *Imlah Taltahni* now. Here there is an enormous crack in the planet's crust. You'll see." The lanky Starman led them to the edge of the balcony.

A short distance away, there was an indentation in the wall of the chasm, showing where the stream had worn away the side by centuries of flow. Joe explained further, "The Ahmanyans constructed an artificial bed for the last portion of the stream, to prevent further erosion of the wall of the abyss. The water came through heavy undergrowth, flowed along an attractive channel of shaped stones, and fell over a curving stone lip. I remember how the cascade turned to spray before it collided with the sides of the crevasse far below."

"When we were here the first time," said Mark, "the Ahmanyans told us that the abyss drops unbroken for almost six miles, and then turns southward under the desert. Where it goes from there, no one knows."

"Let's go find out!" urged Steve.

The three of them prepared their jet packs and, after all were ready, powered them on. With easy control born of experience, Joe and Mark lifted up from the courtyard and, a little awkwardly, Steve followed. They leaned toward the abyss, drifted over the balustrade, and hovered over the depths. The opening was about seventy-five yards across. Steve looked upward and saw that about fifty yards above them was a slanted stone ceiling that quickly narrowed into a series of cracks that were too small for any human to enter. The only way to go was down. Steve looked below and saw, between his feet, a pit of awful blackness. As he stared, fascinated, he saw the top of Joe's head followed quickly by Mark, drifting downward like feathers falling in still air.

Steve didn't have suit lights like the Starmen, but he wore a lantern that showed up his surroundings almost as well. He turned it on now, and then touched the control on the jet pack that let him fall at the rate of a few feet per second. He quickly

caught up to the Starmen and then matched his rate of descent to theirs.

By the cold light they carried, the three men could see long stone columns, occasionally striated and showing gleams of crystal. Where the water had fallen for thousands of years, the side of the abyss had been worn smooth.

Steve said, "I forgot to ask; how long do these jet packs last?"

"At least ten minutes, maybe fifteen," answered Joe.

"No, really?" persisted Steve.

"Don't worry about it," said Mark. "They'll last for several days and they can be recharged from the atmosphere."

Minutes and then an hour went by, and still the three men descended into darkness at the centers of their fragile spheres of light. The darkness below seemed fathomless, and above them the darkness closed over them like water.

Chapter Five

After an hour and a half, it was noticeable that the sides of the abyss were closing in. Where striations and smooth columns had marked the passage, now there were rough outcroppings. At the top, the diameter of the abyss was about seventy-five yards, but now it was more like fifteen yards.

Breaking a long silence, Steve spoke up. "You Starmen don't take a lot a geological courses, do you?"

"Why do you say that?" asked Mark.

"This shaft is looking more and more volcanic to me. It's basically a tube going straight up. We've been dropping down at a rate of about five feet a second. That means that after an hour and a half, which is right about now, we'd be a little more than five miles down. If my memory serves me correctly, which I think it does, you said this abyss is about six miles deep. We must be pretty darn close to the bottom. If this shaft isn't volcanic, I'll give up mining and get a job sweeping the streets in

Eagle City. Biggest mystery to me is why you men had the idea it *wasn't* volcanic."

"Because there's no opening, mostly," explained Joe.

"Lotta reasons why that might be," shrugged Steve.

"And because the mountains above us aren't volcanic," pressed Mark.

"Not all volcanoes have to be as big as Olympus Mons. The Martian volcanoes haven't been active for ages and ages, and a lot of weathering can change the way they look. Them sandstorms can scour a mountain range and smooth it out real nice, especially over many millennkia. And climatic change, not to mention a Xenobot attack, can do a lot to plug up a volcano's shaft. I'll bet you went down some narrow side passage when you were escaping from the Xenobots a few years ago and came to the place where the Ahmanyans first met you. Those passages weren't made by any seepage through limestone; they were volcanic."

"That was me," said Mark. "Joe was occupied elsewhere at the time. But you're right about that passage. I just never thought about it before."

"Yep. As I said, you folks didn't take enough geology courses. Me, I'm getting pretty excited about what might be down this pit when I didn't expect to find anything except rocks and darkness. If I find one or two more phenomena, we just might find ourselves some of those *kathizo*."

"Well, then, alright," commented Joe.

"This passage is getting pretty narrow down below," said Mark.

Directly below the men, descending slowly in the feral darkness as if deep under the surface of an ocean, they could see large rocks closing around the throat of their passage, jutting out from the sides of the pit like immense smooth teeth. In moments they had to reduce their speed of descent to a bare drift, and go down one by one. Snakelike, the passage wavered slightly from a straight descent.

After half an hour, they reached the bottom. They were in a chamber, roughly round, about forty feet in diameter; the ground was smooth and slanted a little toward the south where there was a large opening into a sizable cavern. Against one wall there were more than a dozen light spheres, now dark, that the Ahmanyans of *Imlah Taltahni* had thrown into the abyss over the ages.

When the three explorers had turned their jet packs off, the silence was almost unnatural. It seemed like a living thing, a great beast into whose lair the humans, small like insects, had intruded.

For a long time, no one moved and no one spoke. Finally Steve cleared his throat and said, "As I think I said not too long ago, this is about the darnedest most frightening thing I've ever heard of."

Joe nodded. "It's as if we don't belong here."

Mark smiled and shrugged. "I have the feeling that we're being invited in, to be shown things that no one has ever seen before, as a reward for our being here."

"Maybe all three of us are right, each in his own way," said Joe. "Are you ready to keep going? Anybody tired yet?"

"Hanging inside the straps on the jet pack for almost two hours has made my shoulders and armpits a little sore," answered Steve, "and we've come a long way today. But I'd like to see what's down that trail a ways before we stop. I've been in a lot of caves but I've rarely seen one so easy to traverse. And the floor here is so smooth. Doesn't seem natural."

"Must have been the water," said Mark. "Remember that for twelve thousand years there was a little stream pouring down into the abyss. The flow must have worn down any roughness."

"Where did the water go, I wonder?" mused Joe.

"I have an idea," said Mark.

"Why did the flow stop?" asked Steve.

"The stream provided the water supply for the Ahmanyans refuge," explained Mark. "They tapped into an underground watercourse when they established the refuge and channeled it

into their home. When they all left, they removed their taps and let the flow follow its own course again; the artificial stream, of course, dried up. I don't think anyone knows where the watercourse's natural outlet is. At least I never talked to anyone who knew."

"Well, let's go," urged Joe, and set the pace for following the cavern that led away southward. There were a few narrow side passages but the main course of the cavern was unmistakable.

"Don't forget to set your locator," said Mark. "We don't want to get lost down here, eleven miles below sunlight, I think."

"Naturally," said Joe. Both he and Mark marked their location in their suits' systems so that, if necessary, they could be shown the way back to the chamber from anywhere they might go.

They'd walked only an hour or so when Joe, who was in the lead, said, "That's funny. Does anyone see anything strange up ahead?"

"Stop," said Mark. His voice sounded strange. "Stop," he repeated. "Dim your lights. Turn them off, all the way off."

They did so. And then Joe felt a prickle on the back of his neck as his hairs stood up on end. "Oh my gosh," he whispered.

"What is it?" breathed Steve.

From far ahead there was a glow, a cold light, almost pale green even in the inkiness of their surroundings, strong enough to have caught Joe's attention even over his suitlights.

"What is it?" repeated Steve.

"Something phosphorescent, certainly," said Mark, "but what it is we'll have to find out."

Eagerly they stepped up the pace. They turned a gradual curve in the pathway, and the illumination spread out before them. All three of them gasped.

A huge lake filled a chamber so large that the far side was beyond their sight. All around the edges of the water and reaching up onto the sides of the chamber was a rich and deep field of *illunas*. It pulsed with light, the glow rising and falling in intensity but never diminishing entirely into darkness. The

ceiling of the chamber was only a few feet above the lake—too shallow for travel with a jet pack. They'd be able to hover but not travel horizontally any distance without a lot of care, effort, and time.

"There's where the water has gone," explained Mark. "That was my guess. The original stream that the Ahmanyans tapped probably empties here too."

"And us without a boat," grimaced Joe. "I knew we'd forgotten something."

The unexpected sight was overwhelming. For long minutes they stared at the phenomenon. The water extended far away from them, so dark as to be indescribable. It could have been one foot or a mile deep. And the waxing and waning illumination provided an enchanting patchwork of gauzy splendor that extended around the sides of the lake and into the distance as far as they could see.

"Some of the *illunas* had to have found its way down here from the surface somehow," said Joe, "probably through the agency of the Ahmanyans many generations ago. Some of it must have gotten into their little stream and then fallen down here. It would only take a little to produce all of this here after so long a time."

"Kathryn and Stenafi would love this," said Mark quietly. "We'll have to bring them down here."

"With a boat," added Joe.

Steve said, "Guess we've gone just about as far as we can for now. I'm ready to set up camp and get dinner ready."

"Corned beef hash?" asked Joe.

Over the next two days as measured on their clocks they explored as much as they could. Mark took samples of the water and the *illunas*. Joe went as far down each shore as he could, which wasn't far. He tried to travel by jet pack over the lake a short distance, but gave it up after he found that there was nothing new to be found, and after Mark complained that he was stirring up the water. Taking a sample of the water after it had

been stirred up, however, showed him that there were elements in it that would be worth testing, elements that hadn't showed up in the clear samples the big Starman had taken at first.

Steve spent most of the time on his own, exploring the sides of the cavern and pushing into the narrow side passages wherever he could force his way in. He carried a small hand pick and a couple of fine brushes.

On the afternoon of the third day, Mark suggested that they return to the surface, and the others agreed. The ascent was uneventful, and a little more than an hour after they'd lifted off they'd reached the balcony of *Imlah Taltahni*.

"Shall we have dinner here?" queried Joe, "for old times' sake?"

Mark frowned slightly. "I'd rather go all the way back to the top," he said. "Maybe when we return we can explore the old refuge, but, well, it still reminds me of loss, too much for comfort."

Joe nodded, and led the way back to the bottom of the shaft that led up to the hangar. Once again, their suitlights illuminated the surrounding buildings and the dried vegetation. In the pale muted light, there was no color—only black and white shapes and shadows. As they walked, Mark remembered the colors of the refuge and how it had been full of people, the friendly and eager, excited people who had welcomed him and Zip when they had first come to *Imlah Taltahni* more than twelve years earlier. So much had happened in that time, so many things had changed; so many things were new, and so many things had been lost for ever. He shook off the memories and the feelings they engendered, and looked ahead to where Joe was walking.

And then, at last, they were back in the hangar. The wide doorways stood open to the sunlight that slanted in. It took them several minutes for their eyes to adjust even to the indirect light.

"Well," began Mark as they set about unpacking and storing their equipment onto the cruiser. He set the canisters full of lake water and *illunas* into a well padded storage capsule. "The exploration wasn't entirely fruitless. We got these samples, at

least, and I'm sure that the Ahmanyans will be very excited about the *illunas*. Somehow it looks more pure and stronger to me than what grows on the surface. They'll probably be able to do a lot with it."

"Too bad we didn't find any *kathizo*," added Joe, "but I really didn't think we would. I hope you're not too disappointed, Steve."

"Disappointed?" said Steve. "No, not at all! This was quite an adventure! I'm glad I came, and I'm grateful to you two for inviting me along. And I wouldn't say that we didn't find any *kathizo*, either."

He took a small bundle of thick waxy paper out of his pocket, set it down on a counter and, while pretending to be unaffected, carefully unrolled it. Inside were six stones, three of them the size of peas and three the size of cranberries. "I only found six, but fortunately that'll divide evenly. I think you said we'd share equally, didn't you?"

Epilogue

"Steve says that there are probably tens of thousands of *kathizo* in the vein he found." Joe was explaining to Kathryn the evening of the day following their return.

"Yes, that's what you told me last night, Joseph, and Steve said the same thing over dinner, so I think I've got the message. It's very amazing! I admit that you came back with more than I thought you would."

"I like amazing you, Kathryn. It doesn't happen very often."

The Seatons and the Taylors sat down to the dinner that Joe had prepared.

"Delicious, Joe," said Stenafi after she had tasted it. "What do you call it?"

"Crispy moolefentari beef," answered the lanky Starman, beaming. "The secret is in the sauces. It takes two kinds of sauce that are only blended at the last minute. One has sugar, frozen

moolefentari, rice wine vinegar, soy sauce, and a little salt. The other has orange zest, grated ginger, and minced fresh garlic. You cut the beef into strips and then fry it in oil before blending the sauces and coating the beef in it.”

Stenafi asked, “Do you have to eat it with these two little sticks? Wouldn’t it make more sense to use forks?”

“Chopsticks,” said Joe. “Very traditional for this kind of food. You’ll pick it up pretty quickly.”

“Picking it up is very much what I’m *not* doing.”

“Really,” said Mark, “it’s delicious! It’s, uh... not quite your style to make something so straightforward, is it?”

“Well,” said Joe, blushing, “it’s not really beef. It’s—“

Mark raised a hand. “Don’t. Don’t tell me. I don’t want to know.”

An hour later they were all sitting once again on the front porch. The sun was easing its way to the horizon in a cloudless sky. A large pot of Ketephtha tea was at hand, ready to refill their cups.

“He said that he was on the lookout for kimberlite, that’s the stuff in a volcanic deposit where gemstones are likely to be found,” persisted Joe as if he were imparting new information. “It’s hard to get to the bottom of a volcanic shaft under the best of circumstances, but the abyss there is *ideal*. He found kimberlite on the second day and dug those stones out of a small area the next morning. But he’s sure that there are tens of thousands to be mined. That’s how it works, he said.”

“How long will it take the jeweler to cut the stones?” asked Stenafi, breaking a long silence.

“She’s not sure, never having seen any *kathizo* before,” said Mark. Earlier the two Starmen had dropped Steve at Starlight Eagle City to talk with Dr. McSherry about their find, and while they were there, had deposited their *kathizo* at the local jeweler’s to be cut into presentation pieces and set in silver for their wives. “She was stunned to see what we brought her. Naturally she’ll let us know when they’re ready.”

“Those jewels will be priceless,” enthused Joe, “priceless! There will be nothing like them anywhere on Ahmanyas or anywhere else in the Solar System!”

“Eventually there will be more, though, if I understood you correctly,” said Kathryn.

“Yes, Steve will be working with some Ahmanyans to return to the bottom of the abyss and begin to mine the stones. When you’re ready, we’ll take you both down there and we can explore the lake.”

Stenafi spoke up. There was a note in her voice that caused the others to pause and listen intently. “For more than 150 lifetimes of my people, *Imlah Taltahni* was our home. I was born there, the 472nd in direct descent from my ancestors, Mitur and Tandra, who were among the first generation of dwellers there. They carried the memories of the beauties of what had been Ahmanyas down with them, and showed them to generation after generation with the skills that our mastery of light made possible.” She smiled, and Mark remembered vividly when Stenafi had told him and Zip for the first time the story of the Ahmanyas refugees.

“It is inspiring,” she continued, staring off as if into great distance, “to know that there are such treasures at the bottom of the abyss. For us it was always a place of unfathomable darkness, even deeper and farther down than *Imlah Taltahni* itself. Whenever we threw a light sphere into the depths, the light was always swallowed. Now it seems that, in a way, the promise of light was always down there, ready in its time to be brought to the surface where the sun had always shone, to sparkle brilliantly in the stones that are unique to Ahmanyas.”

She turned her brown eyes to those of her husband. “Thank you, Mark, for bringing the *kathizo* to the surface for the people of Ahmanyas.” She smiled widely. “And thank you for giving me one of the first ever to be found.” And she laughed.

Stenafi’s laughter awoke their infant daughter, who began to stir. Stenafi held her close and walked off the porch and onto their front lawn. Mark followed close behind her, leaving Joe and

Kathryn to themselves. A soft wind was blowing, carrying with it the fresh scent of the newly-planted forest that spread out in front of them.

The three of them looked out over the forest, as the last light of the sun began to fade. They watched as the stars came out—thousands of bright pinpoints of light, shining in the darkness, rejoicing.

BOOK 9: PARADOX LOST

The tale of The Lost Tomorrow rewritten and retold

The Lost Tomorrow was first presented in 2003 in a seven-part serial issued solely to about thirty subscribers with the promise that it would never be republished. The story was at first intended to be a side story, not integral to the Starman saga, and was written to raise funds needed for producing the series of Starman stories. As the story progressed, however, it grew to become a necessary part of the ongoing saga. We asked the original subscribers for permission to break our promise and add the story to the overall sequence of tales. Most, but not all, gave us permission. Without unanimous support, of course we were bound by our promise, but a Starman fan named Dafydd Neal Dyar showed us a way forward, as written in the email that is reproduced below. This story is therefore dedicated to him.¹¹

¹¹ From: Dafydd Neal Dyar

Sent: Thursday, February 12, 2004

Subject: RE: The Lost Tomorrow

I think that you can honor the spirit of your original vow not to release *The Lost Tomorrow* by rewriting it entirely as a single unbroken narrative rather than compiling the serialization. Essentially, you'd be doing the same thing you did with *Mutiny of Mars* vis à vis *Assault on Mars*. You might even retitle it, as you did with AOM and MOM. Some suggestions: ...- *Paradox Lost*... In any case, you can retell the story for posterity without contradicting your original vow that *The Lost Tomorrow* would never be reprinted or released in another form. The plot isn't the story and the same events can be related in innumerable ways...

-DND-

*This story is set in the summer of 2168,
 between The Last Command and Master of Shadows,
 but relates incidents that occurred March 21-April 23, 2155,
 two years after the first meeting of humans and Ahmanyans.
 as recounted in the fifth Starman book,
 The Treasures of Darkness,
 and fifteen months before the sixth Starman book,
 Doomsday Horizon.*

*Greater love has no one that this,
 that someone lay down his life for his friends. (John 15:13)*

Chapter 1

Bilious light glared from the nearby volcanic hills as orange flows of protesting, molten rock emerged from half a dozen crevasses in the slopes. Spots of black encrustation rode the slow but incessant tide of flaming stone as it pulsed downward toward the swamp. Heavy sheets of pounding gray rain did little to dim the color of the flow. Wherever the lava entered the swamp, clouds of steam the color of charcoal burst upward, only to be whipped away and dispersed in a whipping wind. As the molten rock entered the water, it quickly solidified, often breaking into fragments with loud cracking sounds as it suddenly changed its state. Now and then small pieces sharp as shrapnel burst upward only to spin away in the gusts.

Starman Joe Taylor clicked shut the surveying instrument he had been using and secured it in the pouch on the left leg of his characteristic red space suit. Still hunched over against the hard rain and the relentless wind of Larson's Folly that could rise without warning into gales of up to one-hundred-and-ten miles an hour, he lifted his eyes to gaze into the quagmire.

Larson's Folly was the sixth planet in the dense system that revolved around Marcanto, a small to moderately-sized yellow star about two-thirds of the way across the Milky Way galaxy

from Earth. Like all the planets in the Marcanto system, it was small, a little smaller than Mercury, just under 3,000 miles in diameter. Its orbit placed it about 250 million miles from Marcanto, the same distance as the Asteroid Belt was from Earth's sun. Surprisingly, it had three moons that were clearly not native to the planet. They exerted strong tidal forces on the world around which they revolved.

Hard to imagine what's really out there, he thought. *To think that in spite of all of our technical expertise we haven't been able to explore that rank terrain—not even with robotic probes.* The gulping soup began about a hundred yards from where Joe stood and extended for more than fifty miles before another suitable landing site was located. Under the sheets of pouring rain, the marsh stank and bubbled amid the slimy boles and dripping black creepers that shrouded the terrain in perpetual gloom, and was a home to the inexplicable lights that defied measurement or mapping as they sparkled tantalizingly in the murk.

The winds ripped at him as if directed against him personally, swirling around him like a vortex or changing direction without warning. One would think that the wind had intelligence behind it, earnestly determined to blow the Starman off his feet and hurl him into the swamp whose oil-like surface undulated and leaped in points and hollows under the force of the rain and wind. He made sure that the tether that kept him connected to his ship was secure.

Better get back, he thought. *I've got everything I can get for the moment and it's not safe to stay any longer. They won't like this report.* Once again he stared, almost as if hypnotized, into the depths of the swamp, and watched entranced as the points of light whirled freely as if caught by the wind, then shot like fireworks against the direction of the blow.

By a sheer act of will, the Starman turned aside from the ensorcelling influence of the swamp lights and swayed his way through the downpour back to the spacecraft in which he had landed eighty-three minutes earlier. The little two-seater was firmly anchored to one of the few parcels of solid land on

Larson's Folly. It was estimated that solid ground comprised less than five percent of the surface. What little solid ground there was, was unreliable and could only be found by personal exploration. Landing on the planet of wind, rain, and gloom was always perilous; no pilot other than the celebrated Starman had ever achieved it.



Under the sheets of pouring rain, the marsh stank and bubbled.

Straining against the gale, the Starman reached the ship. With a word of command, the access panel slid open. Fierce water-filled gusts blew into ship, but worked no havoc since Joe had secured every loose item in the cabin. He slipped into the pilot's seat and resealed the access panel, shutting out the drenched and toxic airs that raged outside. He fastened himself in the tough security straps, fired the ignition, and felt the ship straining against the barbed anchors that he had deeply imbedded into the ground when he'd landed.

When he had reached enough thrust, Joe released the connection with the anchors and the ship shot upward at tremendous speed, buffeted in the howling wind but quickly achieving altitude and rising above the dangerous currents. The

anchors, which had to be reloaded for every descent to the planet's surface, were left as permanent evidence that once again a spacecraft had landed on the most inhospitable planet known to the people of Earth. By the time of the next landing, the anchors would have been absorbed into the soil. The Starman knew from his measurements that there was a strong likelihood that the soil itself would have disappeared into the muck.

"Sector 27.3-85.6 has lost 22.6% of its area since the last visit," said Joe as he made his report to Commander Ingrid Thronson of Space Station Zane. He pointed out various details on the wall projection that showed the results of his descent to the gaseous planet. The purple morass itself boiled below the massive crystal window in one of the research centers on the space station that revolved around the storm-wracked world.

Commander Thronson's brows constricted slightly at the unwelcome news. She was an attractive Norwegian woman about thirty years old, reserved and capable. "At that rate of disappearance," she mused, bending her tall and slender form slightly to peer at the details of the map, "the entire sector will be completely engulfed in just under a year."

"Yes, Commander," agreed Joe, "but the rate of disappearance seems to be slowing. It'll bear watching."

"That means another descent in two months or so, Starman Taylor."

"I'll be back by then, Commander. I am as eager as you are to retain every square foot of solid ground on the planet."

"Very good, Joe," she said, standing erect. "Thank you for the report. We'll spend some time going over it in detail. You go on and get your dinner now. It's been a long, tough day for us all, and now it's late. Tomorrow is soon enough for us to begin the analysis of the data. I know you're eager to return home to your family, but I'd like to wish you farewell, if you'd favor me with a visit before you launch."

"Thank you, Commander; I will. You may call me whenever you're free, and I'll come at once." Joe saluted.

Moments later Joe stepped into the canteen and sagged into a corner booth with a deep sigh. It was past nine o'clock and he was exhausted. Trying to remain on one's feet for over an hour against the blow of the brutal winds planetside strained every muscle in his body. He would sleep well, but first he craved a repast produced in the renowned galley of Master Chef Stephanie Schnorbus.

Starlight Enterprise saw to it that the farthest-flung outposts of their domain were havens of comfort. Space Station Zane boasted one of the highest rated chefs in space, and what was lightheartedly called a "canteen" was in reality a luxurious establishment furnished with dark red simulated leather booths with artificial oak paneling, genuine thick linen tablecloths, and implements made of truesilver and Ganymedian crystal. The appearance of the time of day and the weather could be replicated at will. As Joe relaxed, soft lighting made it appear as if he were dining under a warm summer starlit sky in the northern hemisphere of Earth. Except for a few other diners in couples or small groups who kept to themselves, the canteen was empty. The murmur of the others' conversation was satisfyingly unintelligible.

"May I take your order, sir?" A waiter in formal dress had appeared almost as if he had materialized from the air.

"Yes, Jerome, I'm ready," answered Joe. "I'll have the chicken saltimbocca—breaded well, please, and light on the Parmesan cheese; rice pilaf; and the salad with rare greens. Hold the candied mandarin oranges, and substitute dried cranberries. Fully tossed with a generous amount of fig vinaigrette. And naturally, several of those light, flaky dinner rolls that are scrumptious enough to get Stephanie kidnapped someday and held for a suitably huge ransom."

"Very good, sir. And what may I bring you to drink?"

"Sparkling water—the fizzy stuff from home!"

"Very good, sir." Jerome glided away as quietly as he'd come. Joe sank against the red plush of the booth, leaned his head back, closed his eyes, and sighed with anticipation.

"This job's not all bad," he said quietly to himself.

"Joe Taylor!" said a voice with eager, pleasant surprise.

Joe slowly opened his eyes. In front of him stood a smiling, open-faced man of early middle age. Thinning brown hair was combed straight back from his forehead. He was nattily attired in simple brown togs that hung well on his still-muscular frame.

"Owsley Robbins!" exclaimed Joe, sitting up straight. "What are you doing here? Sit down! Join me for dinner!" The two men shook hands, and the newcomer slid into the booth opposite the Starman. The two men smiled at one another, obviously old friends who were surprised to meet one another in the outpost so far from the people they knew.

"More than a year since we went camping together on Titan," said Robbins. "And now an unexpected pleasure to see you here at the other end of the galaxy!"

"Will you be joining Starman Taylor for dinner, sir?" Jerome had materialized again. Robbins placed his order and the imperturbable Jerome vanished. The two friends continued their conversation.

"I've been serving on the Border Patrol for the past ten months," revealed Owsley at one point, "and I tell you, I've had enough of it!" He pressed his lips together firmly. "I was posted right on the edge of the event horizon of Sagittarius A—the Big Black Hole in the galaxy's center, o' course you know—on an uninhabited, idyllic planet less than a Solar Unit away from the Point of No Return—a place you'd think was relatively peaceful and where life could be enjoyed without incident. And it was as tranquil as you'd like until about six months ago, when I was making the regular radar scan of my zone!" He sat back quickly, then leaned forward again and pointed a finger at Joe.

"And then I detected a cruiser at least the size of a small city, brushing by the event horizon, just keeping out of the danger zone! 'The fool!' I shouted aloud, but directing my remarks, you see, at the captain of this calamity-flirting ship, two billion miles away! I fired off a communiqué immediately, and set the ether on fire with it, lemme assure you. No answer! And when I

checked the radar again, the cruiser was gone!” Owsley sat back again with a half-defiant look. “Whaddaya think of that?”

“Uuhhh, well, ...” began Joe. Robbins waved him off.

“There’s more,” he continued and leaned over the table again. “Next scan shows me *the same thing!*” Robbins nearly bit the words off. “So I send another message, and then I take a full scan of the cruiser, and it doesn’t match the template of any ship in space today—Ahmanyen, human, or even Maldan! Not one! Not even Xenobotic!”

Joe opened his mouth, but Robbins leaned forward before Joe could speak.

“So I enter the template into an ID scan, and it comes up—get this,” he punctuated his words with three finger taps in the air, “—as a match for an Ahmanyen ship from the turn of the first millennium! Yep—a *very, VERY* long time ago!”

Robbins sat back again, and this time he stayed back, with penetrative eyes fixed on the Starman’s face.

“Amazing,” contributed Joe at last. “You must have been catching an image on the border of the event horizon itself—some lasting icon of a ship that got too close generations ago.” He shuddered. “Poor folks,” he added quietly.

“My first guess, of course,” responded Robbins, laconically. “And maybe that’s what it was,” he shrugged. “But it wasn’t in the same place in the times I saw it, and the times of its appearance were not predictable. It’s the kind of thing that would inspire superstition in some people. Gave me the *willies*, Joe, and I’m glad I’m off that assignment now. I’m just here on Zane for a week or so as a consultant to the quantum people, ’cause of my experience on the Border. They’re kinda desperate, I guess, trying another hypothesis about some of the phenomena down below, and they think that maybe I’ll have something to share that they never thought of. I doubt it, though.”

“Your salads, sirs,” said the consummate waiter as he laid down crystal bowls in front of the diners. “And your biscuits will be here momentarily. If I may venture to speak, sirs, the chef sends her greetings and expresses her personal desire that you

enjoy your meal.”

“Thank you, Jerome,” said Joe with a smile. “Please tell Stephanie that we have no doubt whatever that we are about to experience the finest meal on this side of the galaxy.”

“Very good, sir.”

When the waiter had gone, Joe leaned forward with a slight smile.

“That’s an amazing story, Ows. Someday maybe I can get to that planet and see this sight for myself.”

The two men began to eat their salads, and Jerome brought aromatic biscuits rolled up in red linen and set in a basket. A small tray of fresh butter, slightly soft, was set beside each of the men.

After a few moments of silence, Joe spoke up. “Let me tell you a story that happened a few years ago. Your tale of the event horizon makes me think how close Zip and Mark and I came to being lost for ever.” He shuddered.

Owsley took a sip of sparkling water and looked up expectantly.

“Only a few years ago,” repeated Joe, staring off into the distance. Then he began his story.

Zip, Mark, and I were in the heart of Tharsos. It was in the mid-2150s. At that time we knew Tharsos better than any human alive, and all of us were at least functionally conversational in Ahmanyen. Mark, of course, was most adept; he always was with languages.

Ever since our second trip to Europa with Saadervo and Stenafi, we’d been given pretty much free access to Olovanda—the Ahmanyen city inside Tharsos, you recall. We and a few of the physicists of Starlight Enterprise were helping the citizens to develop the hyper-traveler Saadervo had discovered on Europa. One terminus was located in Olovanda, but the Ahmanyens had not been able to discover how it worked. With the threat of the Xenobot invasion, however, research was blazing along.

Well, it didn’t take our Earth scientists too long to figure out

that the terminus was connected to another device determined to be a tachyon transporter. This mechanism worked, apparently, by converting normal matter into tachyon particles and then transporting it to the intended destination. The Ahmanyans said that a transfer actually worked without the need for any receiving apparatus at the destination site. Obviously it was only good for one-way journeys!

The Ahmanyans hadn't invented the tachyon transporter themselves, although they did learn a few principles from it that enabled them to refine the hyperdrive on their own spacecraft, even though faster-than-light drive via wormhole is a different thing entirely from tachyon transfer. They had discovered the tachyon transporter on one of their earliest journeys through hyperspace across galactic distances. At the time, they suspected that the machine had nearly unlimited range—maybe transport an object or a person anywhere in the galaxy. Later events, of course, showed that they were right.

The Ahmanyans thought that it could even transport a person to other galaxies as well, but they never tried it because they had no way of getting anyone back from such a distance. They also said that it was a considerable improvement over their own wormhole transport device, since it didn't require nearly as much energy and there were no worries about a wormhole collapse like the one that got the starship *Orion* into trouble!

In the early days, the Ahmanyans learned how to use the device and had made successful transfers of inanimate objects across the short distance between Tharsos and the Earth or Luna. There were a few unsuccessful transfers, but eventually they learned how to transmit plants and then invertebrates. They graduated to transferring higher animals. Finally, after a long unbroken record of successful transfers, one of the scientists volunteered to be the first human to cross hyperspace by direct transfer. The Ahmanyans transported him from Olovanda to Starlight Enterprise on Luna in an instant.

Before long, transfers of objects and people were considered safe and were performed fairly often. An individual who was

transferred, of course, had to return to Tharsos by conventional means. Just the same, the Ahmanyans made good use of the transporter by sending researchers to Domoli on Europa, and occasionally to one of the refuges on Mars.

At the time, the existence of the tachyon transporter had to be kept at the ultimate level of secrecy, of course, since the Ahmanyans had not yet revealed themselves to the rest of civilization.

The time came when the Ahmanyans and human tacticians decided to organize an exploratory mission to the sector of the galaxy where the Xenobots' planet was—the Omega Centauri cluster. An Ahmanyans starship had already been dispatched to the proximity, with a layover in Domoli. After the ship had launched, Richard Starlight and the Ahmanyans conferred and decided to send Zip, Mark, and me by tachyon transfer. We were to be transferred to a nameless planet within the cluster, from which we could take an enormous number of measurements and effect some valuable reconnaissance without the presence of any starship to tip off any possible observers.

Naturally, we were a little nervous about the prospect but also excited. The Ahmanyans had to configure the machine to the three of us, and set up a test run. They wanted to transport us from Tharsos to Starlight Enterprise's primary American base on Earth—the one in Seneca, New York, in the Finger Lakes district. Once we made the transfer successfully, then they could send us to Omega Centauri.

Jerome and an assistant appeared by the table, each carrying a tray laden with steaming delicacies.

"Pardon me for interrupting, sir," said Jerome in his mellifluous tones. "Shall I deliver your order now?"

"Please do!" said Joe. "I'm famished!"

"By all means!" added Owsley, earnestly.

The waiters expertly removed the empty salad bowls and scraped the linen free of crumbs that had fallen from the biscuits, and then situated full plates before the diners. They refilled the

diners' glasses with sparkling water, offered special seasonings and extra servings of the savory sauces, and then withdrew discreetly.

It was some time before Joe took up his narrative again.

The time came for our transfer to Seneca. We stepped onto the platform in the center of the transporter. The Ahmanyans performed a three-dimensional scan on us and set several variables in the controls, locked us in, and pressed the activator. There was a series of snaps and sparks; the light inside the chamber became radiantly, blindingly bright and the area beyond became dark. It seemed as if the Ahmanyans began to move in slow motion. We caught glimpses of very surprised expressions on their faces and then they faded from sight.

Suddenly we appeared in a very different room from the one we had left.

Now we expected to appear in the Director's private laboratory in SE Seneca. We'd been there before and knew precisely what it looked like. Where we found ourselves wasn't it.

We were alive, and that relieved us no end, but we didn't know where we'd been sent. The surroundings looked like some sort of memorial or museum—or what might have passed for one a century earlier. The room was old and broken down. Of all things, it was made of wood, dried out and warped, with paint flaking off of the planks. The windows were of real glass—not the nearly impervious stuff we call “glass” today, but real processed silica—actual, primitive *glass*!

Most of the glass in the windows was broken. The furnishings and even the floor were covered with a thick layer of dust. The dust on the floor had been disturbed by many feet—prints were all over the floorboards. A weak ray of sunlight poured through the broken and grimy windows and faintly revealed the room we were in.

“Something must have gone wrong,” I said, but neither Zip nor Mark said anything. I was pretty tense myself.

Then a voice spoke behind us. “Put your hands in the air,” it said in an outlandish, nasal accent unlike anything I’d ever heard before. “Keep ’em up and turn around slowly.”

We did. What we saw was absolutely unbelievable! Half a dozen men, dressed in suits made of some sort of finely woven material—cloth, as it turned out—and hats that looked an awful lot like those I’ve seen from the early twentieth century! Mark called them “fedoras”. At the time, though, I didn’t pay much attention to their fashion statement since each of them was pointing a metal weapon in our direction. We learned later that the weapons were old-fashioned pistols; they could eject small pellets of lead at tremendous speeds in a very short span of time. A powdered chemical explosive contained in brass shells expelled the pellets. We’d heard about them, of course, but—

At this point, Robbins interrupted. “I hope you haven’t been involved in any critical work recently, Joe,” he interjected with a grin, “because your mind has obviously kicked in its retro-rockets! You had me going there, but you’re really just telling me a fable, aren’t you? You might be able to keep a straight face better than you used to, but you’re still chock full of cosmic coal dust!”

Joe sat up slightly straighter than he had been. “Ows, what I’m telling you really happened.”

Robbins’ brow furrowed and his eyes narrowed. “Really? This is true?”

“Yes, it is. You’ve heard about the tachyon transporters, of course, since the First Races used them against Luxa, but what I’m telling you happened when the Ahmanyans had first discovered a transporter.”

“But the transporters take their subjects across space. That’s not what you’re describing here!”

“I’ll explain that.” Joe leaned back a little and shook his head with a wry smile. Then he looked at Robbins again and continued.

Robbins' face expressed skepticism, but he nodded for Joe to carry on. Both took sips of their water, and then Joe continued his story.

Chapter 2

One of the six men—a short, stocky fellow built like a barrel—stepped forward and in turn looked each one of us in the eye.

“Who are you?” he said. “And what are you doing here?” He wasn’t especially threatening, but his tone made it clear that he was in charge and we were interlopers—which I guess was true.

“We’re Starmen,” Zip said—a little disdainfully I must admit, since we were wearing our dress red suits. Zip gave him our names. The fellow didn’t change his expression in the slightest. After a pause, Zip went on.

“We’re looking for Starlight Enterprise, Seneca. We have urgent business there, but seem to have lost our way. Can you tell us how to get there?”

The man’s eyes narrowed a little and his lips tightened. “I don’t know ’bout any place called ‘Starlight Enterprise’,” he said at last, “but you three are in a lot of trouble. You’re lucky you materialized a week early, but a lot of people remember that you were coming and they are determined to be here at the appointed time.”

Zip began to flare up. I could see his face flush. “Who do you think you are?” he demanded. “You’re holding up the work of Starmen! Richard Starlight himself knows where we are and is expecting us to finish our mission! If you won’t tell us where Starlight Seneca is, then get out of our way and we’ll find it ourselves!”

He started to push forward, but the little fellow put his arm out to stop him. The other five, who had stayed in the background, quickly brought their weapons up.

“Zip,” Mark said. “Something’s obviously gone wrong with the tachyon transporter. I don’t think these men even know what a Starman is. Let’s tread softly.”

“Your friend gives good advice,” said the leader. “We have enough firepower in this room to cut you to ribbons, but we don’t want to do that. We don’t know anything about any ‘Richard Starlight’ or ‘Starmen’. You might be on the level or you might not, but we can’t determine that here. This site is not safe. We’ll take you to a place where you can be questioned. You just come along with us. We’ll take no chances with you, but you won’t be hurt if you’re not deceiving us.”

Then he turned to one of the others. “Nim,” he said, “You lead the way. Scour the area and make sure we haven’t been followed.” This fellow nodded and went into the next room. He was a thin, somewhat stooped man of early middle age. A cowlick hung over his forehead. A second later we heard a door creak open.

He came back after a moment. “Don’t see nobody, Roos,” he said.

Well, we were pretty confused by that time, but didn’t want to show it. The men weren’t threatening, but, as they said, they were taking no chances with us. They watched us carefully. They didn’t point their guns at us, but they didn’t relax with ’em, either.

Now the three of us were quite able to disarm these fellows in pretty short order, but there was no need. Zip obviously had decided that we would go along with them, at least for the time being. So our little party trooped into the next room on its way to the front door of the place.

It appeared that our first assessment about the building was correct. It was probably a museum or maybe a disused facility for storage or research. Shelves and clear-faced cabinets ran down both sides of a long room, and in the middle was a line of wide tables with cabinets underneath them. Everything was neglected. Dust lay thickly on most of the shelves and the tables, but there was evidence of many footsteps on the floor. Whoever

was coming into the building was not interested in what it contained.

We weren't allowed to stop and examine the artifacts. We were hustled through the main door into the out-of-doors. It was about the middle of the afternoon in late winter or early spring. There were three buildings connected in a U shape; they formed a complex with a central square. Each building was constructed of wood, but the paint was peeling off in places. It hadn't had any maintenance for at least ten years, I'd say. Same went for the grounds. There were a few trees in what had once been a lawn in the quad, but the grass was at least a foot high, and dry as straw. Fresh growth of new grass, bright green, was just beginning to sprout. The trees were unkempt, and one was dry and dead.

"This is supposed to be the heart of a big city," muttered Zip to no one. "Something's surely gone wrong with the transporter."

Mark started a conversation with the leader. "Mr. Roos," he said, "what did you mean back there when you said that we were 'a week early'?"

"Jones," said the short man. "Roos Jones. I might answer your question later—after we've interrogated you." He turned and led us across the quad to the one side that wasn't closed in by a building. It fronted on a drive of some kind, covered with loose stones. Our feet crunched as we walked on it—made an awful noise.

The men with the guns seemed wary, but not about us. Their eyes kept shifting from side to side as they led us down a road that rounded away from the buildings. A thick forest surrounded us on all sides. The road lay through trees whose branches overhung it in many places. The woods were thick and overgrown, and shrubbery was dense under the trees. It hadn't been cleared for many years.

Zip looked over his shoulder to me and gestured to his compad and then his pockets. Mark and I got the message. It was strange, but these men hadn't searched us. Whatever was happening, whoever these men were and whatever they were doing, wasn't obvious.

About fifty yards down the road a large old-fashioned panel truck, gasoline powered, was parked. The back end was covered with a dark green tarpaulin. Two of the men got into the cabin in the front and the rest of us climbed into the back and sat down on benches attached to the walls. The engine roared into life and, with the grinding of gears, the truck lurched forward and then started rolling. The vehicle had to be at least a hundred years out-of-date. By now it was undeniable that something had gone catastrophically wrong with our hypertransfer.

After we'd gone about a quarter of a mile down the road, winding gently through the trees, Zip asked again where we were going. Jones just said we'd have to wait until we arrived, and then he would ask questions before he answered any.

Well, we never made it to the compound or wherever they planned on taking us. I heard the sound of an airplane. That seemed to alarm the men. One leaned out the back and stared upward, then turned to Jones and nodded. Jones hammered a fist on the front of the compartment to alert the driver. The truck stopped.

At that moment, we were startled by a loud sound from above, like a rapid series of small explosions. Simultaneously a few branches of the trees next to the truck shook violently for a moment, and divots kicked up on the ground nearby. Then the airplane passed overhead and the sound of its engine diminished.

"Out!" screamed Jones, and we all leaped from the back of the truck. "Stay close to us!" he ordered, and then deployed his men in the woods on both sides of the truck. The sound of the airplane was getting louder again. I peered up through the canopy of leaves. What I saw next took my breath away—just took my breath away! The men's cloth suits and machine guns were curious enough, and the gasoline powered truck was odd, but the airplane—it was an old biplane! It had two seats, one behind the other. It was the color of antique parchment. Flying maybe a hundred feet above us, the man in front was apparently piloting the contraption, while someone in the back held

something over the side. He let it drop. When it hit the ground, it exploded! Some kind of contact bomb!

“You’ve interested me,” said Owsley Robbins approvingly. “This is a terrific story, Joe. I wouldn’t have missed it for all the suspected riches on Larson’s Folly!”

Joe smiled a little and took a sip of his sparkling water.

“There’s a lot more to come, Owsley,” he said. “I’ve hardly begun.”

“Excellent!” said his friend with genuine gratification. He rubbed his hands together eagerly, then sat back and fixed his eyes on the Starman’s face. “Please continue. Do.”

As you would expect, our captors were not able to keep good watch on us under the circumstances. Moving at the same time the three of us took cover in the woods on the right side of the road and then kept going. If they missed us, they didn’t call out or give chase.

Soon we were a good distance from the place where the biplane had attacked the truck. The ground sloped downward a little. Naturally we didn’t know where we were going, but we wanted to find a place where we could breathe freely and talk.

We felt it would be best if we put more distance between us and the men with the truck, so we kept walking down slope. In spite of its being mid-afternoon, the deep banks of the trees cast heavy shadows. The air was calm and clear. We didn’t talk, for we assumed that sound could carry for a considerable distance under those conditions. Under our feet the grass was thick and bent under our steps. It wouldn’t have been difficult to track us, but Zip preferred haste to care. He thought it unlikely that anyone would chase us.

Birds chirped and squawked merrily and industriously all around us. We saw tree squirrels and lizards and a snake or two. The forest was a haven of life and quite agreeable! Insects buzzed in swarms here and there under the shadows, and there were even a few dragonflies.

“We don’t have any food or water,” Mark said, “but if there’s water around, it’ll be downhill, not up.”

“Yeah,” Zip agreed. “Wherever we’re going, it’s the right direction.”

After we’d been walking for about ten minutes, Zip stopped. He gazed around. In the soft grass we hadn’t made a sound as we’d sped along in the shade of the trees, and now we were in the depths of the woods. “Let’s find out where we are,” he said, and tried to raise Starlight Seneca on his compad. There was no response.

Now with this turn of events Zip began to get alarmed. It had been obvious for some time that the tachyon transporter had malfunctioned in some way, but we’d all assumed—or hoped—that we were at least somewhere on Earth. The men spoke English and apparently they knew something about the transporter. They’d said that we were ‘a week early’. Their outlandish anachronistic clothing and backward technology was a real puzzle, but up till now we hadn’t really considered that we might be in serious trouble.

But when the compad couldn’t raise SE, we started to get anxious. Knowing that tachyon transport was unquestionably a one-way journey, I was more than anxious.

Zip checked the apparatus and figured out that the signal wasn’t being blocked. It was just as if there was no one out there to receive it! We tried Moon Base and even the L5 space station. There was nothing but dead air—no response of any kind.

“That Roos Jones fellow certainly showed a blank when we mentioned ‘Starlight’ and ‘Starmen’,” I said, “but I thought that that could have been an act. Now I’m sure that we’re in a world that doesn’t know anything about Starmen.”

“Biplanes, gasoline-powered vehicles, cloth suits, guns,” said Zip with his brow furrowed as it always did when he was thinking deeply. “We’re somewhere in the middle of the first half of the twentieth century.”

It was just too staggering to consider the implications of that conclusion. If it were true, we'd probably never be found by the Ahmanyans and brought back to our own place and time.

"And were definitely not in Seneca," said Mark. "Even in that era there would be a sizable population here."

"Those men came from somewhere," said Zip. "There's got to be a town or settlement of some kind—hopefully not too far away. They seemed more careful than inimical, and it's clear they've got enemies."

"Can't blame 'em for being suspicious of us," Mark tossed in—of the three of us, he always was the one who was most conciliatory. "Maybe we should go back to the road and tie in with them again."

Zip thought about that for a moment, and then shook his head. "I'd rather be independent a bit longer and find out what we can about where and when we are and what's going on. The trees are lush; we ought to be able to find water before too long. Let's keep moving down the slope, locate a stream, and then look for a town. There's bound to be people on a waterway." He pressed forward and Mark and I followed him.

"Excuse me, gentlemen." The unobtrusive Jerome took advantage of the natural break in Joe's narrative. "Would you like some coffee and dessert?"

Owsley Robbins' head shot up. He had been so absorbed in the Starman's tale that he had not noticed the waiter's approach.

"Yes, Jerome," said Joe. "Just a small dish of pistachio ice cream for me and some coffee, thanks."

"I'll have a piece—a big one, mind—of Stephanie's ten-layer chocolate cake," said Owsley, and one of those layered peanut parfaits."

"Very good, sir. And coffee?"

"Sure."

"I think the chef may put an extra layer on that cake, just for you, sir,"

“Eh?” Robbins raised quizzical eyes to the waiter. Jerome’s mouth was upturned at the corners so slightly as to be almost imperceptible. “Oh—I see. A joke. Very good.”

“Yes sir,” said the waiter with a slight bow. “I will bring your dessert immediately.”

The woods were silent. The birds, of course, and the usual scuttling noises and the sound of the breeze in the branches—everything you’d expect or hope for in a deep woods. It was quite pleasant, really. No sounds of pursuit.

After an hour or so the trees thinned out and we could hear water flowing. The slope increased a little bit. We crossed a meadow carpeted with bright green grass and stippled with tiny wildflowers. Just ahead were some jumbled rocks. When we came to the rocks, we found, as we had suspected, that they formed the top of a riverbank. About ten feet below us was a river.

We scrambled down the rocks easily enough and came to a path beside the watercourse. The river was maybe thirty yards wide at that point, and flowing slowly and peacefully toward our left.

“Good,” Zip said. “We’ll follow the path.”

We all took a drink and then headed downstream. As we walked, the trees closed in again and in places overhung the riverbank. From time to time we had to climb over old gnarled tree roots or around huge trees that stuck out right into the current, but mostly the path was easy.

After about forty-five minutes, Mark said, “Look.” He was pointing to some pieces of torn metal that peeked out from tangled vines. White trumpet flowers covered the vines, so the metal was hard to see. Mark always was pretty observant.

So we got off the path and pushed the tangle aside. It was part of an aircraft hull, or something very similar to it. It was a couple of inches thick and about half the size of this table top; the fragment was formed of shaped wood and covered on both

sides with sheet metal fastened on with small rivets about an inch apart. It was jagged all around and twisted.

“Must be a wreck around here,” said Zip. “Let’s look for it.”

We separated and began to scour the woods. Within just a few minutes we found several other pieces of wreckage. Finally Mark called out, “found the fuselage!”

Zip and I followed his voice, brushing our way through a horde of annoying gnats, and came upon Mark climbing up onto the hull of an old fighter jet. It didn’t look like anything we were familiar with, and in fact was pretty primitive—but it was a jet, not a propeller plane. It was heavily weathered. Must have been in the woods for at least a decade, maybe two. All of its inside equipment had been removed—whether by scavengers or to keep an enemy from acquiring it we didn’t know—but there was little to be learned from the remains.

Jerome glided silently up to the table and set down a tray with the desserts and coffee on it. He turned up the small decorative lamp to provide a little more light, and then set the dishes in place. Finally he poured the coffee into delicate cups.

“I will leave the carafe with you, gentlemen. It looks as if you’re going to be here for a while.”

“Thank you, Jerome,” said Joe.

“Were there any insignias on the fuselage?” Robbins asked as he stirred a half-teaspoon of sugar into his coffee.

“Mmmm, yes,” murmured Joe as he took a sip of his own drink. “One we didn’t recognize. I don’t remember much about it now, but I remember that it had red and blue in it.” He placed his cup on its saucer and waved his hand in the air. “It wasn’t important, except that we didn’t recognize it.”

Joe spooned a mouthful of ice cream, and then continued his story.

The thing that was most interesting about the wreckage is that it showed signs of being brought down by small projectiles, not lasers; there was a line of punctures across the metal—at least

two dozen holes in the fuselage big enough to put your thumb through.



Mark called out, "found the fuselage!"

Well, we looked through the wreckage for another minute or two, but didn't find anything important.

"Let's keep moving," Zip said. We went back to the riverpath and headed downstream again. About an hour later, maybe more, we came to a place where the terrain changed rather dramatically. The thick, overhanging trees suddenly gave way to an open space where the only growth was bare, scraggly stubble. None of us recognized what was growing—some kind of ground cover—but we recognized some other signs that were disturbingly familiar.

We didn't have to say anything. We just looked at one another with knowing expressions; then I picked out a tall tree nearby.

"I'll climb up and see what I can see," I said. I pulled myself up easily from branch to branch, getting higher and higher. Didn't take long to get about forty or fifty feet off the ground, but I'd already seen what I'd expected. Beyond the right bank of the river was an empty gray expanse—the extremity of a small nuclear crater. Some time had passed since the detonation—a matter of at least two dozen years, I'd say, since some vegetation was growing in the dead zone. It looked mighty bad. Far away was a great snaggle tooth of a mountain. It swept up out of the gray zone into a sharp double peak, a dark purplish gray crag, bare and forbidding. As far as I could see, on the entire right side of the river there was nothing growing except scrub.

By this time Joe's ice cream had melted into soup. Without a word, Jerome came by with a fresh bowl and took away the other. Then he refilled their coffee cups from the carafe he'd left on the table earlier.

"Is it possible that this isn't Earth?" Mark speculated after I'd rejoined my friends.

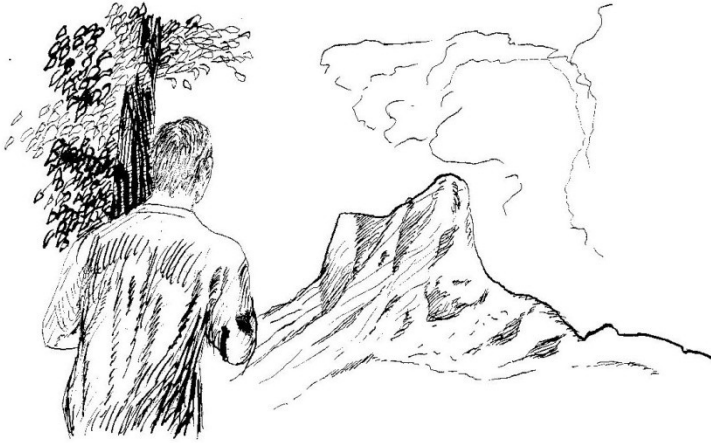
"Not likely, since they speak English," Zip asserted rather confidently—too confidently in my opinion since there were plenty of anomalies we'd already run across. Still, it was more than puzzling that these men spoke English, even though their accent was almost laughably oddish.

"Let's move on," he said. He kept pressing us forward.

Before long, we'd passed the area that had been blasted and came back into thick woods where the river flowed placidly along. Dusk was not far off and we were beginning to get hungry. We looked over the shrubs, but it wasn't the season for any kind of fruit.

"A possible explanation," began Zip as we plodded ahead, "was that the tachyon beam was hijacked somehow. Those men back there said that we were 'expected'—yet evidently the level of technology in this civilization is before space travel. Obviously they had nuclear weapons, but they may not have

nuclear energy. Someone else, therefore, other than the citizens here, brought us to wherever or whenever we are. If that was done intentionally, then we have enemies we haven't yet identified."



Far away was a great snaggle tooth of a mountain.

"But how can anyone take control of a tachyon beam?" Mark objected. "And why deposit us here—wherever we are—and then leave us in the hands of such primitive people?"

Zip just shook his head and kept walking. But after a while he said, "But those men said that we were 'early'. They know something about tachyon transportation. It's beyond me. We don't have enough information yet."

"I'm getting hungry," I threw in. "I hope we find a town or settlement of some kind soon." Zip just glared at me. He always thought work, or whatever puzzle he was working on, was more important than food. I, however, know that if you go without food for too long your thinking processes deteriorate. You have to eat.

Owsley Robbins agreed with a serious nod, and dug his spoon into his parfait. The slab of ten-layer cake had disappeared.

Mark just said that we'd have to reserve judgment until we had learned more. He was right, of course. I took that as just another way to say that we needed food before anything else.

A couple of times we heard planes—propeller-driven jobbies—cruising overhead, but if they were looking for us they had an impossible task. No one could see us through the trees, and we doubted that they had anything as sophisticated as heat or motion detectors. Whenever one of those machines flew overhead we just stopped moving until it was gone.

Well, we finally came to a town—hardly more than a few buildings. A few houses lined one side of the main street. Each had a spacious, screened-in front porch. A small stream flowed behind the houses and made its way to the river. There was a little gasoline service station with one pump under a canopy. The station itself was made of red bricks. Looked quaint and rather appealing. On the other side of the street there were a market, a couple of shops, and a restaurant.

A dilapidated sign on the outskirts read “Buckeye”. We stayed under the trees for a while, watching. The town didn't look as if it had much to it, but we figured that that would be to our advantage. We'd stick out among the people, but that would happen anywhere, and maybe these folks were removed from things and would be friendly enough to give us some food and information.

We waited until nightfall, and then left the shelter of the trees, Mark looked up. “It's Earth,” he said, “and it's the right latitude for Seneca.” Zip and I looked up and agreed. The stars were all in the right positions. Now that was a comfort, more than I would have thought possible. We still didn't know what our situation was, but the fact that we were in the right place was immensely comforting, in spite of the unknowns.

But in another way, of course, it was troubling, mighty troubling. If we were on Earth not far from New York, our compads ought to have been able to reach someone. Mark considered whether they'd been damaged during the tachyon

transfer, but that didn't seem likely. We still needed some answers.

We walked quietly into town—not hiding but not trying to draw attention to ourselves either. There were only a few people out—one or two individuals hurrying along, some couples, and a few families with children. The people looked at us curiously but nobody spoke to us or asked us who we were or what we wanted. If we approached a group, the people stepped aside with stares that conveyed the message, “You’re strangers here. Don’t ask us for anything. We hope your business, whatever it is, will take you out of town fast.” It wasn’t fear exactly but it sure wasn’t welcome, either.

The town was rather a run-down sort of place, and looked like something more than two hundred years old—asphalt streets, concrete sidewalks, gasoline-powered automobiles. Still, there were some jarring differences. The architecture was inconsistent with photographs I’ve seen of life in the 1930s or thereabouts, and clothing styles were different. It was almost as if the people had based their culture on a history none of them knew personally, if you know what I mean, and missed some things. Or else they decided to change it. It’s hard to describe and I guess the details aren’t that important.

What was significant—what jarred us to the bone—was what we saw next. Mark saw it first.

“A newspaper!” he cried. He pointed out a display case that had two newspapers stacked up inside and locked behind glass. Evidently to get one out you had to put a coin into a slot on the side of the box. These people still used money—coins and probably paper currency, too. Now I hadn’t seen anything like that before except in a museum back in Canada when I was a kid. My grandfather still has the last \$50.00 bill he got from a bank before all currency became electronic.

But that wasn’t what was so shocking. It was what was on the newspaper. The title was “The New York Times”! *New York*, mind you! —a city that had been destroyed by Reuben Ridger more than a hundred years before our time!

We wondered again where and when we were. The newspaper could tell us. We peered at it. It looked newly printed but the date—the date was March 21, 2155! The very day the Ahmanyans had sent us to Starlight Seneca. We were in our own time and in the right place! But it was not our world at all!

“A parallel universe!” Mark exclaimed. He turned and looked right at me, a look of complete shock on his face. “A parallel universe,” he said again, “where there’s no space travel and no one knows a thing about Starmen! We’re *nobody* in this world!”

Ows, I don’t mind telling you that a chill went right through me. I was frightened! To tell the full truth, I’d never been more scared in my life.

Chapter 3

Jerome cleared away the empty plates and bowls and offered a refill on the coffee. The Starman and his friend declined and thanked the capable waiter for his ministrations to them.

“Enjoy the rest of your evening, sirs,” he said affably. “It was a pleasure to serve you.”

“Thank you, Jerome,” said Joe absently, and Owsley nodded his appreciation. The two friends passed wordlessly through the dining area of the canteen, across the foyer, and out into the main personnel thoroughway of Space Station Zane.

The passage was wide and extended in both directions almost a quarter of a mile, but with the lateness of the hour there were few people about. The gallery was softly lit, with lines of bright lights spaced artfully here and there.

“I know it’s late, Joe, but you’re not going to leave me there, are you?” asked Ows.

Joe shook his head. “The tale’s not half done yet, Ows. Let’s go to an observation port and I’ll keep talking. We’ll probably be able to find one to ourselves at this time of night.”

“There’re a few small ones in the music laboratory,” suggested Robbins.

“Good enough,” agreed Joe.

The two men strolled casually along the deck, their heels tapping quietly on the slick, slate-colored squares. They passed the 50,000-gallon aquarium on their right, barely pausing to watch the koi glide peacefully and effortlessly through the convoluted tubes that looped from the main tank, around the walkways, and eventually back into the tank. From somewhere a piano arrangement of *Für Elise* by Beethoven sounded airily through the hall.

A party of five or six people came toward them, conversing quietly but animatedly. As the two groups approached one another, a corpulent man with a broad, froglike face and a wide mouth turned and smiled at Joe.

“Greetings, Joe,” he said.

“Hello, Da,” said Joe. “The canteen just ran out of chocolate pudding. You may as well turn back.”

The man’s face blanched and his mouth dropped open in shock. His companions laughed.

“Da,” said one of them, “by this time you ought to know about Starman Taylor! Stephanie has plenty of chocolate pudding. She’ll never run out as long as you’re aboard Zane.”

The froglike man looked sheepish for a moment and the color returned to his face. His grin nearly split his face, and then he turned toward his friends who had gone on ahead, and hastened to catch up with them.

A few minutes’ more walk brought Joe and Ows to the entrance to the music laboratory. Flanked by wide columns, they passed through the portal into the lounge beyond. Two women behind the counter looked up, one human and the other Ahmanyen.

“Do you need any help?” asked one.

“No, thank you,” said Ows. “We’re just looking for an empty observation port to talk.”

“I believe that only one or two are in use—the others are at your service.”

The men nodded their thanks, moved across the entry into the warren of listening booths, small lounges, and instrument rooms to the farthest portion of the lab. Their corridor intersected with a long passage that ran alongside the outer wall of the space station. Round doorways opened off one side, each giving access to an attractively comfortable room with easy chairs, sofas, and various items of electronic equipment.

"Here's one," said Joe, peeking through an opening and noting that the port was unoccupied. The entire side of the room opposite the entry was completely clear and afforded a magnificent panorama of Larson's Folly.

"Good," said Owsley. He sidled past Joe and settled down in a chair, tilting it back and turning it so that it faced the window. "I'm ready. Now don't get so comfortable that you fall asleep. Pick up where you left off."

Joe reclined on a sofa, stretching long legs out fully and crossing them at the ankles. "Must be nearly midnight," he said.

Without taking his gaze away from the view, Owsley Robbins waved dismissively toward his friend. "Start talking," he demanded.

After Mark had observed that we'd landed in a parallel universe, well, I think I just froze. The shock was too much to absorb all at once. Zip's nostrils flared and his eyes seemed to take in everything at once as if he were expecting an assault by enemies, but no one was taking any notice of us. They'd already given us their curious glances and then dismissed us.

Buckeye, I thought. It may as well be Pluto. It's a foreign world. Worse than that! At least if I were on Pluto I'd know where I was and how to get home!

It felt for a moment as if things were closing in on me, but the three of us pulled together.

"Explain further, Mark," commanded Zip. His face was flushed.

"It's Earth," Mark asserted with a confident nod, "but not the Earth we know. The people speak English, the date and the place

are right. The tachyon transporter should have delivered us to Starlight Seneca, and it did deposit us at the right place and time—but somehow in transit we crossed into another plane of existence.”

“Such a possibility has been a theory for a long time,” Zip said. “Plato thought of it first. What if our world was just a slice of some larger, unreachable reality? His thought-exercise became the conjectures of mathematicians, physicists, and quantum theorists more than a hundred and fifty years ago. A wholly different world, a different cosmos, could be as close as your own fingernails.”

Mark nodded. “Our whole universe, stuck on a thin membrane of space-time embedded in a much larger cosmos—one of many possibilities that could warp, connect, and collide with one another in ten or more dimensions in ultra-microspace.”

“And the tachyons we rode through hyperspace crossed a boundary while we were in transit to Starlight Seneca, and instead we ended up in ... whatever, wherever this place is.”

“The ultimate ‘wrong turn’,” I contributed. “And no way to get back, if what you’re guessing is true.”

Zip looked around at the dry little hamlet. “It’s got a history very similar to our own,” he said.

“Common language, common names for cities like ‘New York’, and who knows what else? Somehow,” he turned to Mark, “I think the history of this world branched off from our own, like a river hitting a great rock in its bed and splitting into two.”

Mark threw up his hands. He stared up into the sky, now become fully dark in true night. “It’s Earth,” he avowed. “Every star is in the right position. A parallel universe.” He looked back at us. “But is there a Richard Starlight? Is there Starlight Enterprise? If so, was there a Reuben Ridger? Are there Ahmanyans? Are there—Xenobots?”—questions that none of us could answer, of course.

Always practical—you know me, Ows—I said, “We’re homeless, hungry, and friendless. Our compads could draw millions of solars from our accounts with SE, but there is no SE

and who knows if they even use solars in this outlandish world! Respected, famous Starmen at home, but penniless vagabonds here. I'm hungry!"

"Let's find the mayor or whoever is in authority in Buckeye," said Zip.

At that point, an old man shuffled up to the newspaper-dispensing machine—a tall, slender fellow with close-cropped gray hair and an odd, twisted sort of gait. He looked at us curiously but tried not to stare. He plunked a coin into the slot, opened the dispenser, and withdrew a paper. Zip addressed him.

"Excuse me, sir. Could you tell me who is in authority in Buckeye?"

He turned toward Zip eagerly. You could tell that the fellow was glad for an excuse to talk to us. Everyone else had kept aloof, but he was curious.

"Is there something in particular that you need, young fellow?" he asked. I could hardly keep from laughing at that—addressing Zip as "young fellow". That would never have happened in our own world!

"We're visitors to Buckeye from far away, and we are without money or friends. We'd, uh, like to learn what our options are."

The old man pursed his lips and rubbed his chin.

"What're yer uniforms fer, an' what's that design on 'em?" he inquired at last.

"We are Starmen from Starlight Enterprise," Zip responded, having no hope whatever that the man would recognize either term. He was not disappointed.

"Never heard o' Starmen, nor Starlight Enterprise neither. You wouldn't be veterans of the Martian wars, now, would you?—Naw, you'd be too young fer that," he mused.

"Martian wars!" Mark got real excited at that point. "Martian wars" told him that there was probably some space travel on this Earth, and that there may be some inhabitants of Mars. "What Martian wars?" he pressed.

The old man turned a watery eye toward Mark and seemed taken aback by Mark's keenness to know more. He squinted and said, "You must *really* be from 'far away' if you don't know 'bout the Martian wars. Where you from?"

Zip ignored the question. "Where are we now? What is this place?"

The man snorted. "This is Buckeye, westernmost suburb of New York province. Population under a thousand souls." He snorted again and tucked his newspaper under his arm. "My name's Ira Crassendoog. I got the general store 'round the corner from here." He leaned over and pointed with a hooked finger to show us. We introduced ourselves.

"Tell you what," said the old man once he had our names straight. "They's a filling station with the store. You young fellers wanta stay in the back fer a few days and run the filling station fer all the rigs and jaunters that come by here, I'll give you yer victuals. Buckeye doesn't look like much, I grant you, but we're well located and they's a lotta business with the folks that travel from the big city to the Finger Lakes and back. Goin' back an' forth with that fillin' station while I'm trying to run the store keeps me hoppin' more'n I'm comfortable with these days. At 87 years old, I need to set oncet in a while during the workin' day. Whattaya say? I'd be glad to have some real astronauts workin' for me." His eyebrows lifted up into two arches and he glanced at each of us in turn.

"It's a deal, Mr. Crassendoog," said Zip. "Frankly, we'd like to get started right away. We're hungry, I don't mind saying."

"Say no more," said the old man. "Follow me." He stepped out into the street and headed for the opposite side with us in his train.

Two men were standing idly under a balcony of some sort on the other side of the street. The shadows hid them until we got close. A large sign over the door said Sweet Bubble Tea House, Ltd.

"Ira," one of them said, "you sure you know what you're doing? These could be Gasmen for all you know."

"I know what I'm doin'," the old man said as he passed them by.

"You're a fool, Ira," grunted the other.

"What are Gasmen?" asked Mark.

"Nobody you need concern yourself about right now." Ira strode on down the sidewalk and turned the corner.

The street we entered only had a few buildings on either side, and then it continued on across a field or meadow. On the far side of the meadow the trees clung together thickly. At that time of day, they were no more than black silhouettes against a dark sky spangled with stars. Even though this was evidently the main thoroughfare of Buckeye, there were no streetlights; the only illumination was what shone from the windows of the buildings. We could see the filling station jutting out a little into the street.

"Here's my store," said Ira as he clumped up to the door, "and that over there, o' course, is where you'll be workin'. I live over the store. We'll go through here and then up the stairs to the living quarters and I'll fix you some dinner."

"Don't put yourself out, Mr. Crassendoog," said Mark.

"Keep quiet, Mark," I interjected quickly. "If Mr. Crassendoog wants to make us some nourishing collation, I am not one who will prevent him from doing a kindness." I might add that my stomach was making noises as if it were threatening to collapse upon itself.

"Not to worry, Mark," the old man tossed over his shoulder as he marched confidently into the dark confines of his market. "I can tell you young men are famished. We'll consider this meal an earnest on your pay."

"We won't say no, Mr. Crassendoog," assented Zip.

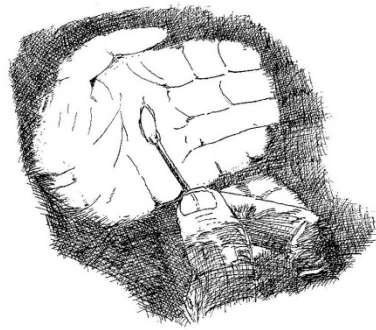
"If you say s—" began Mark, but his sentence was cut off by a loud bang and a sharp exclamation, followed by a moan. Then next thing I knew I slammed into Mark, precipitating him onto the floor.

"Sorry, sorry!" cried out the old man. "I'm so used to walking around in here I don't bother to turn on the lights. Wait

just a moment.” A couple of dim light bulbs hanging from the ceiling on thick corded wire lit up and cast a brown glow over the interior of the market. The darkness retreated to the corners. Mark gathered himself up off the floor, and then grabbed his left shin and rubbed it hard. He had smacked his lower leg on a wooden crate that stuck out a bit into the aisle. While he massaged his limb I slid the box back into place. The old man kept apologizing, but Mark told him to think nothing of it.

In a moment we’d gotten to a back room where there were a lot of goods set out on shelves, and clambered up some stairs set at one end. We went up a flight and entered Crassendoog’s living quarters. Here again the lights were out. We came gingerly into the room while he shut the door behind us.

“Just stand right there, men, and don’t move until I put the light on,” he advised us. We could hear him walking across the wooden floor. He scrabbled briefly among various small items, and then lit a match. As soon as there was light, we jumped. There were several others in the room, sitting silently and unmoving.



“Don’t move, Starmen,” said one in a nasal voice we’d heard earlier that day. “You’re among friends.”

Ira Crassendoog set the match to the wick in a kerosene lantern, and then turned up the light. Roos Jones and two of his cohorts were sitting comfortably in the old man’s living room—apparently waiting for us! They were the fellow Roos had called Nim and another man, the shape of an eggplant. Each one had his gun out, but no one was pointing it at us.

Whoosh! Robbins exhaled loudly with his cheeks puffed out. “You’ve got me going with this story. I can hardly imagine what

it must have been like for you—yet here you are, so you must've got back safely."

"Your attentive consideration for my welfare and that of my friends moves me."

"Ahh!" snorted Robbins. "I'm still stuffed from that huge banquet we just consumed, but I could quaff a beverage of some kind."

"They don't allow food or drink in the music laboratory."

"That's what I thought," said Robbins, and reached into his pocket and took out a squeeze packet of fizzy water. "That's why I brought my own. Want one?" he asked, tossing a second squeeze packet to Joe, and then pulled out a small box of crackers.

"You won't want any crackers," Ows stated with a few crumbs dropping from his mouth. "It'll just make you thirsty. You need something to drink with all this story-telling you're doing. Get on with it."

"Mr. Crassendoog," sizzled Zip with the brass he's so good at when it's needed. "You have some explaining to do." Our redheaded leader just ignored the armed men with the disdain that the situation called for. The shock we'd felt just a few minutes earlier, about being hopelessly lost in another world, had taken a back seat to the demands of the moment.

"Relax," said Jones. "We are no threat to you. On the contrary, we're protecting you. These are dangerous times. We sent Ira here to go out and collect you as unobtrusively as possible." He snorted. "Considering that you three stand out like a shout in a library. Please sit down and I'll explain." He indicated a sofa in Crassendoog's room that the men had reserved for us. The old man sat down in an easy chair when we sat down on his sofa. He'd obviously known these men with the guns were in his lodging since he wasn't at all surprised that they were there, and apparently had provided chairs for them to sit in while he went to fetch us.

"You come from another world," Jones continued, "and you have no friends. Regardless of the brash front you present, you know very little about our world and you have just about no options. I'd like to answer some of the questions that must be whirling about in your heads. I realize full well that you will have to be convinced that what I say is the truth, but you were most fortunate in meeting up with us on your arrival. There are several factions in our civilization who are eager to have you in their control, and not for any good purposes, either. Your arrival a week before the predicted time, and our fortuitous presence when you appeared, has brought us through the afternoon's adventures to this uneasy truce."

"Shall we get down to the basement, Roos?" suggested Crassendoog. "I feel a little exposed here, and who knows who might be outside? If anybody's seen my light, they'll know I'm home and followin' my usual habits. If this light doesn't disappear before long, any watchers might be curious why I haven't gone to dreamland yet."

Jones answered by asking us a question. "Will you trust me enough not to try to escape while we move to a safer place?"

We knew full well that we could escape any time we wanted, guns or no, so we all simply nodded.

"Good. Lead the way, Ira."

The old man picked up the kerosene lantern and shuffled over to the door. He led the way back down the stairs to the first floor, and then hobbled over to a narrow doorway on the opposite side of the back room. He creaked this one open and a flight of steps led down. These were makeshift, cracked, and splintered, but showed signs of frequent use. Crassendoog led the way to the basement, holding the kerosene lantern high. When he reached the bottom, he turned and lifted it over his head while the rest of us came down the steps.

"Just close the door, Nim, would you please?" Crassendoog called out. Nim was at the tail of the procession. He pulled the door closed. The old man then flicked a switch and the basement

was fully illuminated. He put the kerosene lantern down and twisted the knob until the flame went out.

“I haven’t forgotten your dinners, Starmen. I’ll try to make up for what must seem like egregious inhospitality to you august visitors and rustle up something real tasty while Roos, here, continues the story. They’s a kitchen right over here. Don’t mind my rattlin’.”

The walls were lined with either floor-to-ceiling shelves or stacks of boxes three or four deep. There was a workbench or two and a few cupboards, some tables, and plenty of chairs—enough for at least twenty people. It was a big room, a lot bigger than I would have guessed from outside. Track lighting in the ceiling put all the shadows to flight.

Each of us pulled a chair into a rough circle and sat down. Zip and Jones stared at each other for a few seconds before the stocky man who was the leader leaned forward and spoke.

“We’ve both got a lot to talk about and not much time to do it in. I’ll start. ‘Way back in 2034 a science lab that used to be located not too far away from here detected a tachyon pulse aimed right for the place where you three materialized a few hours ago. The discovery amazed everyone on Earth. Few people believed the testimony of the man who discovered it, but independent confirmation was quick to come.

“The pulse was highly complex and obviously of intelligent and alien origin. As time passed it grew stronger, evidently drawing toward some kind of culmination. The find shifted the entire focus of our society. The pulse proved that there was a highly advanced alien civilization and that its citizens were interested in Earth.”

The three of us made no sign that we knew anything about what Jones was talking about, but we were greatly interested, as you can imagine. He sat back a bit and continued his narrative.

“A research and observation center grew up in the proximity of the site of the pulse—not too close, but close enough to monitor it continuously. Later a city expanded from the center. The pulse was big news, fascinating to scientists, politicians,

tourists, and opportunists, each of whom wanted to analyze the pulse and track down its origin.

“After a few years, a brilliant scientist moved in on the established researchers, against the will of most of them but his ability, frankly, was one that the others needed to track down the source of the beam. This specialist, as I say, was brilliant but unbalanced—some said dangerous or at least potentially so. No one trusted him and he got only grudging respect for his undisputed genius. Anyway this Dr. Ridger set up his laboratory, shoved everyone else aside, and got to work. The thing nearly stumped him, but after a few years he discovered that the pulse was the backwash of a transport beam that was designed to go through passages in space-time. He even predicted—with arrogant confidence—that whatever was being transported through the beam would arrive on March 28, 2155. That’s a week from now. So, as I said before, you arrived a week early.”

Zip couldn’t help interrupting Jones at this point. Since the speaker had mentioned “Dr. Ridger”, Zip looked as if he’d been sitting on ants.

“What was Dr. Ridger’s first name?” he asked.

“Reuben,” Jones answered, curiosity spread across his features. Well, we all reacted strongly to that tidbit of information. Yet another sign that the parallel universes had some kind of personal interconnection, but this one hit real close to home.

“You recognize that name,” stated Jones.

“We surely do,” said Zip. “Keep talking, and then we’ll give you our story.”

“Ya’ll pull up around a table out there,” came Crassendoog’s voice from the next room. “I’m servin’ the repast in a coupla minutes! Nim and Henry, come help me!”

The other two men disappeared and Jones kept up his narrative.

“Well, without going into needless detail, the whole planet fell apart. I can’t describe how terrible things got. Governments fell, crime spread, violence became commonplace, decency of any

kind just kind of fell away. Wars, skirmishes, eventually even nuclear incidents took place. That began a little more than a hundred years ago.

“The first city to be annihilated by a nuclear blast was Starhope—that was the research city that had grown up around the work being done on the tachyon pulse. It’d come to be called that because a lot of people, Americans and people from all over, had come to pin a lot of hope on the anticipated contact with the people who had sent us something from the stars through this beam. See, we all knew that our own world was in a bad way, but”—here Jones clucked his tongue—“people just weren’t willing to give up hope entirely. A civilization that could master tachyons, even though we knew nothing about its people at all, gave people a powerful hope—borne of desperation, sadly enough.

“So Starhope was the first target. Widespread desperation led to despair. In one gang of desperate people, despair led to nihilism or something worse, and they blew Starhope to oblivion. Well, that caused a sudden explosion of world anger and recrimination and violence, and there was no stopping it then. It didn’t take long for all of civilization to lose its way entirely. We’re beginning to come out of it now, but only, I think, because four generations later we’re just all very tired.”

“Ya’ll haven’t done anything!” exclaimed Crassendoog, parading out of the door with a steaming platter. “Aren’t you men hungry anymore?”

Being a man of sense and practicality, I leaped up. “Sorry, Mr. Crassendoog!” I responded with energy. “Come on, you Starmen, let’s get the table set up!”

In very short order we’d arranged chairs around a table. Ira plunked down several serving dishes that steamed appetizingly, and Henry and Nim brought out utensils. The seven of us sat down to eat. I recall distinctly a rasher of bacon and grilled onions, sautéed in some sort of sauce that I have longed to find again but without success. There was only water to drink, but it was the coldest and purest I’d had for ages—no chemical

filtering, no bland homogeneity, just pure, clear, sweet mountain water. All three of us had known it growing up—Zip from his occasional visits to his aunt and uncle in West Virginia, Mark in Montana, and me in Coaticook.

The men of that Earth nibbled at the fixings, since for them it was a late snack. For us, it was the first meal in about ten hours after a hike through the woods, and we were famished. As we inhaled it, Jones continued his tale. I can still picture him, thoughtfully licking that remarkable sauce from his fingers as he picked up where he'd left off.

"After Starhope's demise, all that was left nearby was the site of the pulse itself. A museum was built around it—that's where you first appeared—and the land was declared a World History Site."

"What happened to Reuben Ridger?" Mark asked.

"He was killed in the blast," said Jones. "No one within five miles of Starhope survived the detonation. It was impossible."

Zip's eyes narrowed. "What about his family?"

"Family?" Jones was intrigued, that much was clear. "He had a wife and son. They all perished."

That subdued us like nothing else. We all just deflated. In this Earth, Thomas Ridger never became Thomas Starlight, and Richard was never born. The Collapse was a century old, and full recovery lay in the distant future.

"With the destruction of Starhope and the ensuing collapse of all civilization on Earth, the tachyon pulse ceased to be important. People were desperate merely to survive. Generations passed."

"What were the 'Martian wars' that Ira mentioned before?" Mark asked.

"Many people from Earth emigrated to Mars beginning about eighty years ago. They wanted a new life away from this society. A generation after that, they fought for independence from Earth. Most on both sides were content with that desire, but there's always a few who'll object to anything. Another war started, between the opposing factions on both planets and across

interplanetary space too. That began in 2110. At the end, there was a lot of destruction. Whatever had been built up after the first devastation was lost again, and it became impossible to maintain functional contact between Earth and Mars. Independence was neither declared nor granted—it just came about.”

“So you do have the capability of space travel?” I asked. “Why did we see biplanes and the wreckage of a jet?”

“The wealthy and powerful have access to the advanced technology, but it’s not widespread—certainly not a part of common life. Travel to the Moon or Mars is possible, but just not needed. It’s expensive and there’s little reason to make the trip. With the loss of industry and infrastructure, propeller-driven biplanes are a lot easier to build, and they’re really the only aircraft that we need. A few faction leaders have jets, but they don’t last long; they put them into service for their endless skirmishes and sooner or later end up getting shot out of the sky.

“Well, to continue. About ten years ago, someone pointed out that we were approaching the arrival date of whatever was coming through the tachyon beam. Without anyone in charge and no one who was trusted, several factions arose that scrambled for control of the pulse. Some saw the arrival as an opportunity to advance scientific knowledge, others as a possibility of extorting power from the race that sent the beam, others just wanted adventure and excitement. The factions fought one another with increasing intensity as the arrival date approached.”

“What is your interest?” asked Zip bluntly.

“Mostly we just want to keep the others away and let whoever or whatever came through the beam take the initiative. Buckeye and the other villages around about here are where our homes are. We were the first to experience the violence of a fallen age and we oppose any kind of graspingness, violence, selfishness, or grab for control. That’s why we’re your friends, as I said before. We’re about the only ones around here who don’t want you for something other than yourselves. If the others don’t know you’re here yet, they will soon. One of the Gasmen’s

planes strafed us on our way back from the museum. They know that we were speeding away from the site, and it won't be difficult for them to realize that the tachyon pulse is gone. They'll know that whatever came through the beam is in our hands, and they won't delay searching for you."

"Who are the Gasmen?" I asked.

"They're the ones that crave power—the bullies of our little culture here. Completely untrustworthy and rapacious. They can't ever control people completely, but it wears a person down just living sometimes."

Jones and his friends slumped down with tiredness—not the tiredness that comes from a hard day's honest work, but the tiredness that comes after carrying the weight of the world on your shoulders.

"After over 120 years," said Jones slowly, raising his eyes to each of us in turn, "the hope our entire world had for contact with an advanced alien race turns out to be answered by three human beings." He smiled wryly. "Your world has to be better than the one we've inherited. You've learned to use tachyon beams. Even for Reuben Ridger, tachyon beams were merely a theory. After we met you, it was obvious that you were completely unfamiliar with our world. We don't know why you're here, but now perhaps you'll tell us."

Zip took a long swig of the sweet water, and then set his glass down carefully. His forehead furrowed for a moment. He told our tale circumspectly—not divulging too much sensitive information and nothing vital to our security; not fostering their hopelessness nor coming across as superior. Beginning with Reuben Ridger, he told these men from another Earth about the Collapse and how Thomas Starlight had rekindled the hope of humanity. He informed them about Starlight Enterprise and interplanetary travel. He kept the information about Ahmanya and the Xenobots vague, and didn't identify Ahmanya with Mars at all. There was no telling what the Xenobot situation was in this alternate future, but Earth had evidently not attracted their attention since it was barely a civilization at all. This Earth had

obviously never come into contact with them or any other nonhuman race.

“So there really *is* an advanced alien race that has mastered tachyon travel,” Jones concluded, a little hope shining in his eyes.

“Well,” I felt compelled to point out, “if they were *masters* of tachyon travel, we wouldn’t be here.” For the first time in a very long time, it seemed, we laughed. It might have been a lifetime without laughter for our new friends. The laugh was long, and deep, and fully enjoyed.

It was well past 1:00 a.m. when we finally thanked Ira Crassendoog for the meal.

“Naw,” he said, refusing our offers to help with the clean up. “Henry’s a neighbor and he’s helped me with spreads here before. He’ll help me. You Starmen get your rest. There’s more to be done in the morning.”

The basement of Ira’s shop had plenty of room for sleeping. He could accommodate a crowd of up to two dozen or so and, in times of high tension between the factions, had apparently done so. He was a garrulous old man, but deceptively shrewd.

The last noise I remembered hearing was the measured tread of his shoes on the wooden planks that served for steps, going back upstairs to his own bed.

Chapter 4

The next morning, I woke up early. I’d slept well and felt rested. I was fully awake and knew where I was. For a few minutes I lay on the cot. The house was utterly silent. A long satisfied sigh escaped from my lungs, and then I carefully rolled back the blanket and sat up. The cot creaked rather awfully, but the others didn’t stir.

The door at the top of the stairs was open and the dim, gray light of early morning gave me just enough illumination to make my way quietly up the steps to street level, where Crassendoog’s

market was. I'd left my shoes beside my cot, so I didn't make any noise as I eased through the aisles where the old man's wares were displayed. Curious stuff, like walking into a museum.

There were bottles and jars of many sizes. There were plastic containers and little metal boxes with pills inside—probably basic medication of some kind. Tall canisters with labels like “baking soda”, “flour”, and the like were set up smartly on shelves. Various containers with tea were adjacent to assorted cans of coffee. I remember smiling at that and scanning the labels, looking for Darjeeling, but it wasn't there. He had some kitchen implements for sale, some odd-looking clothing, and a lot of things I didn't recognize.

I eased up to the front of the store and gazed through the window. Wisps of fog were rolling in, drifting up from the river whitely between me and the dark spread of the trees that loomed behind the ramshackle buildings on the opposite side of the street. As I looked, a tiny fox padded down the street and disappeared to my right. It was thin and small, about the size of a cat. Its ears looked too big for it.

Ira stepped lightly down the stairs from his quarters above the market. When I heard him puttering in the back room, I called out, “Good morning, Ira.”

He poked his head into the market and whispered urgently, “Get away from the window, ya young fool! Didn't you listen to Roos last night? The Gasmen will be after you today for sure, and they're probably on the move already!”

“Sorry, Mr. Crassendoog,” I said sheepishly, and stepped back into the dimness of the market.

“Ya know anything about cooking?” he asked over his shoulder as he turned toward the top of the steps that led to the basement. “If ya do, you c'n help me make breakfast.”

“Sure I do,” I said.

Ira and I put together a simple meal for the six of us—Henry'd gone back home the night before, since he lived so close.

Right in the middle of breakfast, Zip got this shocked look across his face. I could just about see his face drain in front of

my eyes, and he dropped his spoon right down into his oatmeal. I remember it clattering over the side of his bowl, spattering a little mush on the table, and then going over the edge of the table to rattle down on the floor. He paid no attention. Everyone saw his expression and we all froze, and waited.

He turned frightened eyes to Mark, and said hoarsely, "Mark, you were wrong. We're not in a parallel universe. We can't be. We're in our own universe."

Mark's eyes narrowed, but he just waited for Zip to say more. I felt my hands get clammy, and a clutching feeling grew in my chest. I didn't know what Zip had figured out, but, knowing Zip, I didn't think it would be nonsense. He was onto something.

"Tachyon beams can't cross into parallel universes," Zip said. "The whole theory about parallel universes is just guesswork, because nobody's ever proved it or crossed between before. But what you said last night made sense at first, Mark, because we knew we'd left our own world behind and this one was so obviously different. But think, remember. Even the earliest theories about parallel universes said that only gravity could cross over—not light, not tachyons, not anything else. We can't be in a parallel universe."

"Then where are we?" Mark asked.

"We're where we're supposed to be," said Zip with a little choke. "We're in our own universe where Seneca, New York is located—or was in the world we left. Roos," Zip continued, turning to the little band's leader, "you gave me the clue I needed to figure out what happened. You said that the terminus of the tachyon beam appeared in 2034. That must be when things changed. The beam that was launched in our tomorrow of 2155 must have malfunctioned and terminated backwards in time. Its appearance altered the course of the world more than a century ago. This," said Zip, spreading his hands and turning his gaze to take in the world, "is a tomorrow that should never have been. A world without Richard Starlight, a world without Starmen—a world where the Collapse continues—ironically, because Reuben

Ridger died before becoming the vile terrorist of our own tomorrow, and his son Thomas never set out to make amends.”

“That would explain some things,” contributed Mark. “It would explain a lot of peculiar things. It would explain why the people here speak English and why the technology is based on a history we know.”

Zip nodded solemnly.

“Well, if that isn’t a punch in the gut,” grunted Ira. “If you’re right, young feller, that’s just too much for my head to contain. So we here in this world only exist because of some light beam that got misdirected more’n two lifetimes ago?”

“I can’t even guess at what it all means, or even be sure that I’m right,” said Zip, “but as Mark said, it does explain a lot of peculiar things.”

We all finished our breakfast in silence, each of us consumed with thoughts and feelings that roiled through us. The oatmeal wasn’t very tasty after that. I had to force it down. Then I helped Ira wash up the breakfast dishes, both of us moving mechanically. While we were cleaning up, somebody moved our chairs into a circle and when Ira and I were done, we all sat down.

“There has to be a way to block a tachyon beam,” Zip said. “Otherwise the beam would travel on forever and one would never be able to read it or stop at one’s destination. Since we were sent from the Ahmanyans’ asteroid in our own universe but ended up here, there must be some sort of connection between our world and this one. Tharsos must exist in this world, with tachyon machinery—probably still undiscovered in the Asteroid Belt. Without help, we’ll never find it. We know where some of the Ahmalyan bases are located in our own world and it’s reasonable to assume that they’d be in the same locations in this one. There aren’t any Ahmanyans on Earth; the closest would be on Mars. We have to get there somehow and try to find an Ahmalyan base there. We’ll need a spacecraft.”

“What’s your plan, Zip?” Roos asked.

“Find some Ahmanyans and convince them of our story. Then, with their help, get to Tharsos and see if we can somehow block the beam that malfunctioned. It’ll only be possible if we are indeed in our own universe. If we can block the original pulse from ever going into the past, then ...” His voice suddenly faded and he froze.

“Then you’ll be back safe in your own world, and this world and everyone in it, will be lost,” concluded Roos Jones. “It will be as if this world will never have happened.”

“I can’t ask you to help us do that,” said Zip, deeply moved. His hands were trembling and he couldn’t look anywhere except down at the table in front of him. Again no one spoke for a long time. The two groups of us—we Starmen and Roos, Nim, and Ira—separated. They went upstairs, and we remained where we were and sat in ghastly silence.

It must have been a half hour later that the other three came back downstairs. “We made a decision,” said Roos. The six of us formed our circle again.

“This world is a mistake,” he began. “It exists only by the most unlikely chance. It’s a dismal place, without hope. If you three want to get to Tharsos, we will help you, even if your success costs us our very existence.”

We were stunned, to say the least.

“All ages know times of despair,” said Mark. “Our own world knew the destruction of two-thirds of its population.”

“This world too,” said Ira. “But in your tomorrow, hope returned when least expected.”

“I think that is so for every world,” said Mark. “This tomorrow too will find its hope when hope is ready to come.”

“If this tomorrow continues to exist, probably you are right, Mark,” said Roos. “But it is your tomorrow that is bright now, and your tomorrow that should be. If our world ends with your success, then it will end well. So you’ll need a spaceship.”

Robbins held up a hand, stopping Joe in the midst of his narrative.

“Did they say that, really? he whispered.

“Yes, Ows, they did,” said Joe quietly but firmly. “They definitely did. I will never forget those words.”

“Gosh,” said Robbins. “Gosh.” He shook his head. “I— I don’t know what to say. Just—I don’t know.”

After a moment, Joe continued his story.

The little scene was fraught with some pretty powerful emotion, though after Roos’ last, practical observation, we didn’t say anything for a while. At last Zip spoke again.

“We’ll need a spaceship.” His voice was barely a whisper, as if he were condemning someone to death. He must have felt like that—condemning an entire world to death.

“The closest base with spacecraft is in Florida, Zip,” said Roos, “and we can get you there—but I doubt you’ll find any alien presence on Mars. If it were there, our own settlers would have found it.”

“We have no other hope, Roos,” Zip said. “It’s a chance we’ll have to take. There’s very little chance anyway, so slight as to be less than negligible. The Ahmanyans, if we can find them, are our only hope.” Of course, we weren’t about to tell Roos or anyone else about the Ahmanyman refuges five miles below the surface of the fourth planet—if they were there in this tomorrow! But they *had* to be—they had been there for more than twelve millennia.

“You’re talking ’way over my head, Zip, but there’s no time, and no need I guess, for explanations. You want to get to where there are spacecraft in Florida—it’s only a few hours’ flight south of here. There’s even a spacecraft we have a right to, if you can get it.”

“How so?”

Jemno Bartrin—he leads one of the most brutal gangs on this coast—stole it from Henry a year or so ago. He and his gang use it in their turf wars, but it’s Henry’s. If we can get down to Florida, where he keeps his ships, and if you can get it back, well then, we’ll be helping each other.”

“We’re pretty resourceful when we need to be, Roos,” said Zip. “If you can show us where Henry’s ship is, we can take it.” It must have sounded like an outrageous boast to Roos, Ira, and Nim, but it was just a simple statement of truth. Thankfully, they didn’t laugh. Actually they looked impressed.

“Ira,” Roos said, “can you provide some clothing for these men, and a satchel or something for their belongings?”

“Got some overalls in the market, and a pair o’ my pants and a shirt can prob’ly fit Joe, but Zip’s too short and Mark’s too bulky fer any o’ my clothes.”

Roos sent Nim over to Henry’s to find something that Zip and Mark could fit into while Ira went up to pull some overalls off a shelf in his market. Henry himself was built like a sack, but he had three sons, and something of theirs would probably prove suitable. Before too long we were decked out like local farmers, but I don’t think we could’ve fooled anybody for more than a minute.

“We’re not trying to pass you off as local citizens,” explained Roos. “Just conceal your distinctive red uniforms from any casual inspection.”

“Should work fine,” I said admiringly, “as long as nobody gets within fifty yards of us.”

By now the fog had become pretty thick outside. Roos eased us out carefully and quietly, just in case anyone had Ira’s market under surveillance. He wouldn’t let us talk—just told us to follow single file, making sure that we didn’t lose sight of the person in front of us.

It was some strange walk, I tell you, tapping quietly along with visibility at about five feet. We walked down the asphalt road for a minute or two, and then cut across the roadside ditch and into a field. Roos led us through the acreage north of town. Tall dry grass whispered as we passed through it, and in a few seconds our overalls were wet from the knee down.

The sight of grass was welcome. It seemed to rise up out of nothing, all steaming like a volcano. It was only close beside us that we could see it at all; ahead it faded away in the dense fog

bank. There was a long, extensive rise beside us. Because of the thick fog we couldn't see much of it, and as we walked it seemed to move along with us. The area of it that we could see was covered with spider-webs spread out on the smoking grass like clothes to dry.

After a short time we got under some trees. I could hear the sound of a running brook to my right. It was eerie and pleasant at the same time.

Then we got to a wire fence, and Roos felt along it until he located a gate. He opened it and we all traipsed through. In a moment a building loomed up out of the grayness. It was a garage. He pushed us through a door into the dark interior.

"Wait here," he said. "This is Henry's house. We'll get him to drive us to the airfield. He'll be glad to get his ship back."

Roos went back out into the mist while we stood around in silence with Nim and Ira. Zip paced restlessly and Mark looked over the old vehicle that Henry kept. It was a long time before Roos returned with the other man. He had a basket with him.

"Sorry for the delay," he explained. "Henry's wife packaged up some food and other supplies for us. Might be useful."

"You'll have ta squeeze into the back," said Henry as he opened the left front door of the vehicle. The metal screeched as he pulled the door wide. Three of us got into the front and four got in behind. What with Henry's enormous bulk, we were jammed shoulder to shoulder, and Nim carried the basket on his lap. Mark had our satchel. Henry raised a huge door at one end of the garage and then got into the driver's seat.

"How can you drive in this fog?" asked Mark. I was thinking the same thing.

"I know my way around," he grunted. "We'll go slowly." The car door slammed shut and he stepped on the starter. The engine ground a couple of times and then caught. It settled down into a gentle hum. Henry just sat there.

"What's the trouble?" asked Mark.

“Gotta let it warm up a minute, young man,” explained the farmer. “Guess you don’t know much ’bout engines.” I smirked at Mark.

After a short wait, Henry pushed down on a pedal and pushed forward a stick with a knob on it, and the gears engaged. The car began to roll ahead, straight into the gray wall. The fog was so thick that it seemed as if I could have scooped out a handful of the stuff and leave a hole where I’d taken it from.

Well, we drove at a snail’s pace. I don’t know how Henry did it, but he made a way forward, guided only by the dark shapes and silhouettes that came up at us out of the grayness. The rhythmic click of some window wipers was the only sound other than the smooth quiet hum of the motor. Wetness dripped off all the windows outside the car, but those wipers kept a couple of fan-shapes clear on the front windshield.

Slowly the fog thinned out and visibility improved. It wasn’t so hard to drive now. We passed some meadows and some woods, and eventually turned off onto a flat dirt road. The car rolled along the road under the wet, dripping branches of trees that met overhead. All at once, the trees fell away and we’d come to an airfield. About five biplanes were set on one side of an open space. At the far end of the field, through the thinning fog, you could barely make out a row of trees where the shaggy woods picked up again.

A single building with a slanted roof was situated to one side of the field. A windsock hung limply from a pole in front of the structure. Henry pulled up next to the building. We got out and stretched after our cramped ride.

“You drivin’ my car back, Ira?” asked the farmer. His voice sounded unnaturally loud after such a long time without anyone’s talking. The fog had made it seem as though silence were pressing down on the world.

“O’ course, you fool,” Crassendoog answered. “How else would I get back?”

We took our farewell of the old man. It was particularly hard to say good-bye to him. They were all fine men, but Ira in

particular was a crafty but honest old coot, and I'd come to like him a lot. A great heart and humble.

"Say hello to those aliens fer me," he nodded just before he climbed back into the car. "I han't ever been in space, but I'd sure like to go sometime. I hope you young fellers get back home to yer beautiful world safely." You'd never have guessed that he was taking a chance on the very survival of himself and his entire world if we succeeded. That kind old man really made me think about how wonderful our world is. I've thought about him a lot since then, Ows.

"Yeah, I know how sentimental you are, Joe. Gotta carry your hanky with you wherever you go. Now, engrossed as I am in your narrative, I'm about dropping off with fatigue. Why don't we go to sleep right where we are and you can pick up in the morning."

"I'll be asleep before you will be, Ows. My muscles are a bit sore from trying to stay afoot down on Larson's Folly, and I'm ready for a brief rest."

But Owsley Robbins was already sleeping.

The next morning the two friends were back in the same observation port. They'd put away a sufficient breakfast at one of the small eateries on the main personnel thoroughway and then returned to the music library. With a sigh of unashamed contentment, Owsley Robbins ensconced himself on the same chair he'd appropriated the previous night, and then wriggled into it a little deeper still.

The spacious window afforded an expansive view of Larson's Folly. It was obscured with a cloud cover so thick that no sign of the planet's surface could be seen. There were no oceans or polar ice caps—just stinking, sucking swampland.

"Ooh, that was a big one!" exclaimed Ows, just after a bright sparkle flashed in the upper left portion of the planet. Residual gleams in the swirling purple and brown cloud went on for a moment before fading entirely.

“That planet holds one of mysteries of the galaxy,” stated Joe. “Biggest mystery is why the First Races transformed it into the morass it is today.”

“No mystery to that,” put forth Ows. “They didn’t want anybody to go there.”

“But why?” puzzled Joe.

“Don’t solve that mystery now, Joe. This space station has a few hundred people aboard trying to answer that very question. You just get on with your tale.” Owsley tipped back in his chair and put his feet up.

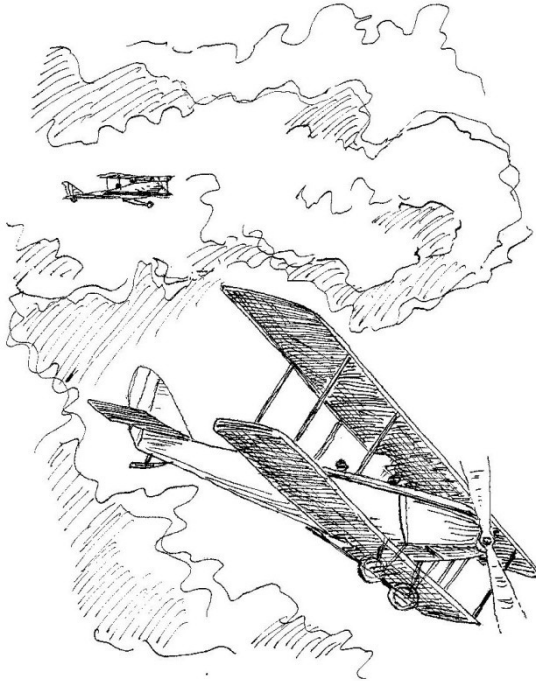
There was no one else at the airfield. Ira drove back to Buckeye, and Roos, Nim, and Henry checked over two of the planes and made sure they were ready for flight. We took two three-seaters, of course. Zip and Henry got in with Roos and they took off, followed right afterward by Mark and me with Nim. Most of the flight was uneventful. The pilots lifted us up over the clouds without any difficulty and we headed south. We kept in touch with compads when we needed to, but the noise of the engines made conversation impossible unless we shouted. The pilots had helmets with earflaps, and we just had to make do with pieces of cloth rolled up and jammed into our ears to keep from going deaf.

After we’d been in the air about five hours, we saw an enormous storm ahead of us. Big, high, wide clouds, black with rain. We couldn’t get away from ’em—they were just too high for those little, primitive planes. We came to the edge of the storm. The winds were pretty strong and the pilots were having a hard time keeping control of their aircraft. Nim and Roos began to look for a field down below where we could put up until the clouds cleared off. The other ’plane was ahead of us and to the left, and Roos began to circle down. Nim followed him.

Suddenly, a flash of lightning lanced out from the cloud nearest us and struck Roos’ biplane. The whole thing lit up for a split second. The engine barked and then went silent. A little

black smoke trailed out behind them in a thin line and I knew they were in trouble.

We stayed close behind them. He was obviously looking for a field where he could come down safely but he had no leeway at all. He had to make it on the first try. He didn't have much control as it was, and the heavy winds added to the plight.



We stayed close behind them.

The three of us held on tight and agonized for the others, but Roos found a clearing and dropped into it. His landing gear snagged the top of a tree as he came down and that threw his approach off. He waggled his wheels down, bounced on the grass, and then smacked to a sudden stop nose down, tail up. A minute later Nim had taxied up to the others.

The others were only bruised a bit but the 'plane was a wreck. We tied down the good one, unloaded our gear, and set up camp under a large tree on the outskirts of the clearing. The rain caught up with us and came down—not hard but downright steadily. We managed to pull some dead wood under the tree before it got too soaked, and built a fire. There was nothing we could do but wait.

The next morning the storm had blown out. The field was wet and the ground was muddy, but the sky was clear. Mark had checked our position with his compad and after conferring with Roos and Nim we concluded we were about a hundred miles, no more, north of the spaceport. Coulda been worse, coulda been better.

We decided that Roos would take Zip and Mark in the good 'plane and land a few miles north of the spaceport where they wouldn't be seen. Then Roos would come back for Nim and me and take us down. Round trip might take an hour and a half. Since there was only room for three, Henry decided to stay put and make camp. "I'm not much for adventures," he said. "I just want my ship back."

Well, they took off and continued south. The drone of their engine faded until we couldn't hear it. I decided to look around, and Nim joined me. Henry said he'd better stay put. He wasn't very much for any unnecessary action or movement. He'd probably been "staying put" most of his life.

A half hour's walk eastward brought us to the top of some sort of tableland. Before us the terrain dropped down and stretched out for miles. There was thick forest as far as we could see. In places the countryside rolled and swelled in low hills, and one rise went up into a rocky mountain with its top above the timberline.

"Down there," said Nim, pointing. He'd descried some sort of building, or set of buildings. There was a dome on top of the highest structure as if it had been an observatory. That would explain, maybe, why it was near the highest elevation in the vicinity. When we looked a little more carefully, we could see a

village a mile or so beyond, but there was no sign of life anywhere.

“Do we have time to look at it?” I asked. He shrugged and started down. I followed him. In only fifteen minutes we’d come through the brush to the ruin. There were large metal tanks with ladders on their sides, and a big warehouse—all empty. Lines of rust showed wherever there was a bolt in the construction. To one side was a row of what must have been offices, and the tower with the dome was at the far end of that. An acre or two that must have been smooth once showed where people could park cars, or maybe spacecraft could have landed. I don’t think it was large enough for a landing field for airplanes. At any rate, it was overgrown with weeds now.

Windows were broken and wooden doors rotted on their hinges. The moisture in that part of the world didn’t let them last long untended.

We went to what must have been the main office, since it was sealed off with metal doors and its windows were intact. They must have used stronger glass there. We tried to open them but they were locked. I wiped the dirt off a window and put my face to the glass. Couldn’t see much but bulky furniture.

“Wanna see what’s in there?” I asked Nim.

“It’s locked,” he explained, as if I hadn’t understood when we’d tried the door a moment before.

I put myself in position and sidekicked the door. It didn’t open but I could feel it give a little. I kicked it again right next to the lock, and the door flew open. The top hinge came loose and the door listed downward on the one remaining hinge with a complaining shriek. Nim’s eyes opened in amazement and I turned away so he couldn’t see me smile. He followed me into the room where there was a dust cloud from the disturbance I had created.

There wasn’t much to see, but I did run across some newspapers and old reports. Seemed as if this had been some kind of small chemical plant that the workers had abandoned when the Martian wars had wound down. The plant had been a

part of producing the rocket fuels or weapons, maybe both, that the forces from Earth had used in their attacks on the settlers on Mars.

In this world, Ows, the Collapse hadn't ended yet. A hundred years after it had started it was still going on, and had even spread to Mars. As Roos had told us the night before, people in 2155 were just tired, exhausted with the hostilities, but no one would end it. What had started with nuclear terrorism had finally waned down to skirmishes between clans. Much of the Eastern seaboard was uninhabited and had returned to forestland. There were a few major population centers like New York, but elsewhere there were mostly villages and small towns, and lots of uninhabited territory in between.

Well, I was ruminating over this with Nim and he was filling me in with some details when I got a call on my compad. It was Mark.

"Joe," he said, "turn on such-and-such a frequency. I'll call you back in a few minutes."

I activated the radio and set it to the frequency Mark had mentioned. The gist of the news was that it was public knowledge that aliens had materialized at the terminus of the tachyon pulse. They had come armed and were setting about to ravage the countryside. At first I wondered if Xenobots or some other enemy had followed us down, but then I realized that the newscaster was talking about us! It was sheer lunacy! The report was intended to get everyone for hundreds of miles around Buckeye to look for us, but it was far more likely to create a panic. I called Mark back without waiting for his return call.

"What's going on?" I asked. "Where are you?"

"We're fine. Jones has dropped us in a clearing about five or six miles away from the spaceport, and he's on his way back to you. He ought to pick you up in about twenty minutes. It's easy country. After it's dark we'll go down and get Henry's ship, if it's there."

I told Nim we had to get back to camp so that we'd be there when Roos arrived. We hastened back and heard the biplane's

engine just as we reached the edge of the clearing. We packed up and 'bout an hour later the old boy had brought us back down south where he'd left Zip and Mark.

The trees were not quite so thick in this part of the country. Lots of meadows with lines of trees in folds where there musta been a stream. A few wooded areas. Roos and my partners had found a cozy little meadow screened on two sides by thick stands of trees and a ridge to the south that hid us from the spaceport that Roos said was only a few miles away. We pulled the 'plane under the trees as best we could; we didn't want any chance observers in another aircraft to spot us. We prepared to wait until late afternoon. It was only about 1:00 p.m. or a little afterward, so we had some time on our hands.

About mid-afternoon Mark and I decided to explore a little. Zip was wrapped up in conversation with Roos—those two were a lot alike—and decided not to join us. Nim, never very talkative, stayed back too. We wandered off to the northeast, staying under the shadows of the trees. After a mile or so we came to a stream that widened into a peaceful little pool before flowing on. I was ready to plunge in when Mark stopped me.

"Look here," he called. I could hear some tension in his voice.

I stepped over to where he was standing. "What?" I asked. He just pointed down at the ground.

Man, I can still remember how the hairs on the back of my neck prickled. There were immense paw prints in the moist earth. More than a foot long, and deep, and showing claws that I still have nightmares about.

"Bear," said Mark, matter-of-factly. "A big one, too. This one must stand twelve feet tall when it rears up."

"Maybe we should get back to the others," I opined sagely.

"I wish we'd brought our lasers," Mark said as he turned. Well, we hadn't.

When we got back to the others, Roos explained.

"Lots of wild animals in the land. Not much to hold their numbers down. The predators have been increasing in numbers

for a century. This is the first time I've heard of bears in this part of the country, but their territory is spreading. We'll have to be on guard this evening."

I was glad that our two friends had brought their machine guns. They don't travel far without them.

When the sun got to late afternoon, we had a quick meal from the goods that Henry's wife had provided, and then set out. We didn't want to travel when it was completely dark and there was no need to do so, just so long as it was dark when we made our move. We topped the ridge and then made good time, going cross-country on a gentle slope downward through the valleys where trees grew. Water was cold, plentiful, and tasted good.

At dusk we were lying flat on the top of a crest that gave us a clear view of the spaceport. A town of maybe 5,000 was spread to the west and south of the field. The field itself was maybe fifteen or twenty acres of level ground. Around the acreage was a high, barbed-wire fence topped with razor wire. Eighteen spacecraft were in evidence.

"That blue one over there—" said Jones pointing, "that's Henry's."

Chapter 5

Under a gray windblown sky we watched the scene below for a long time. The sun was close to the western horizon and the rockets' shadows were flung far across the field. Directly in front of us the land abruptly sloped down for a hundred yards or so, and then leveled off. A heavily traveled dirt road lay between the end of the slope and the high fence around the landing field. The fence itself enclosed the entire field. Off to the right was a wide gate that admitted trucks, but it was shut and guarded. Farther along in the same direction was the complex for the field with hangars, workshops, warehouses, and the other usual buildings associated with a landing field. Just beyond that the town was spread almost haphazardly on cleared land. Cultivated fields

surrounded the jumble of buildings, and we could barely see a few farmsteads farther out.

“What do you know about this place?” Zip asked. He was taking a careful and thorough visual inventory of what lay below. His eyes were narrowed and his brow was furrowed in that characteristic intense look of his.

Jones pursed his lips. “Of this place itself, just about nothing. I’ve never been here before. You, Nim?” He looked over his left shoulder where the silent man was resting. Nim shook his head once.

“It’s one of two places we know about where Jemno Bartrin concentrates his forces. One’s up in New York where he terrorizes lesser folk, extorts money and goods, and brooks no competition. The other’s here where he keeps his spacecraft.”

“Why so far away?” Mark asked.

“The place is hard to get to except by spacecraft, so he can’t be threatened. There’s no easy road into here, and launching weather is generally good year ’round.”

“What does he need spacecraft for at all?” I asked that question myself. “It doesn’t seem as if too many people know much about them or have a use for them.”

“I’ve been wondering that too,” Mark said.

“The few folks who own spacecraft use them mostly for travel on Earth. They’re faster and more reliable than jets. Sometimes people go to the Moon, but there’s not much there that attracts people.”

“What does Henry need a spacecraft for?” Mark asked. “He’s only a simple farmer, isn’t he?”

“Henry’s grandfather was a pretty good space pilot. In the days when travel and trade were more widespread than now, he made the run to Mars at least once a year and to the Moon every two months or so, as well as jaunts to other continents. He taught Henry how to fly his ship, and later Henry inherited the ship from him. But you’re right. Henry’s a farmer at heart, and didn’t fly the ship very often. He was the ideal target for Bartrin’s thugs to come and steal it from. A famous, well-kept ship owned by a

simple man without any ability to resist force—just the kind of situation Bartrin likes.”

Zip curled his lip in disgust. He always hated bullying and injustice. “What does Bartrin want with all these ships?” he queried.

“Bartrin must have some holdings in other places of the world. He also does some kind of trade with the few Moon-dwellers and most likely the settlers on Mars too. I don’t know the details.”

While we were talking, Zip had never taken his eyes off the field below. Now he looked around at us and slid back from the top of the ridge. A minute later the five of us were sitting in a circle under an oak tree.

“Can you fly the spaceship, Roos?” he asked. “Alone?”

“I s’pose so,” Jones said, a little doubtfully. “I’ve flown with Henry before and that one’s easy to handle. Whattaya got in mind?”

“We’re going to Mars. If our journey is successful, we won’t be coming back. Someone will have to come with us and bring Henry’s ship back to Earth. Likewise”—and here he turned to Nim—“someone will have to fly the biplane back north and pick up Henry before going back to Buckeye. So we either rendezvous back in Buckeye and get a crew to accompany us to Mars, or we leave tonight and you, Roos, fly the ship back to Earth alone. Leaving tonight, of course, is better—we stand less chance of having to fight our way through Bartrin’s thugs.”

Jones sighed. “The ship’s not all that big. It only had a crew of four in its best days, and that’s all it can hold. It wasn’t made for one to fly alone, but it could be done.”

“Then that’s what we’ll do,” Zip affirmed.

“Zip—you haven’t got the ship yet,” Roos couldn’t help pointing out.

“Don’t worry about that,” Zip waved off the objection. “I’ve got a plan.” And then he set about telling us what it was.

An hour or so later, when the sun was well down and the land was mantled in shadow, with the wind still blowing a little, Zip and Mark and I strolled out of the town. We were still wearing the local clothing that Roos had insisted that we put on early in the morning. We meandered leisurely up toward the large access gate that led onto the field. The field was dimly lit by a few lights on top of tall poles widely spaced along the fence and set here and there among the ships.

We walked by the gate, talking animatedly with each other about a cow that Zip was determined to buy. I was remonstrating with him, trying to convince him to have nothing to do with the worthless bovine. We stood close together at a spot where the road turned a bit, roughly seventy-five yards beyond the gate, and then we strolled back. As we ambled toward the town with the landing field on our left we stole glances now and then at the spacecraft poised on their fins on the other side of the fence. Their hulls gleamed out of the gray obscurity of early night wherever one of the lights fell on them.

When we reached a spot opposite the large gate, I sauntered up to the guardhouse. Zip and Mark followed close behind, looking a trifle uncomfortable, maybe even embarrassed. There was no one in evidence.

"Hey!" I yelled, leaning through the top half of the dutch door and knocking on the shelf.

A decidedly unfriendly-looking man came out of a back room, wiping his mouth with a napkin. He was even bigger than Mark and outweighed him by maybe fifty pounds. He was built solidly of muscle and sinew, and wore a sidearm of some kind in a holster. I remember thinking that this Jemno Bartrin knew how to pick his guards.

"Whadda you hayseeds want?" he sneered at me.

I backed off as if I'd been intimidated. "Sorry to disturb you at your supper, sir. My brothers and me, here, well, we've just moved in down to the town and went for a walk, like, this evening." I smoothed my way back up where I'd been before. "An' we were walking by the field here, and we got kinda

curious. Mind if we go out there and take a closer look at the spaceships ya got out there?”

The goon flushed, his mouth tightened up as though he'd just gotten a good suck on a freshly-picked not-quite-ripe lemon, he slammed his open palms loudly down on the counter, and he leaned through the opening with his face about six inches from mine.

“You hicks interrupt me at my dinner and ask if you can stroll about inside the area I'm guarding!?” he roared. Onion breath blew onto me with something like gale force. “Why, are you stupid? Did you get kicked in the head by a horse, you pea-brained hay-flinger? If it were ‘okay’ for brainless louts to totter about the field an’ gawk at our ships, d’ya think we’d have a fence up? Have you been—”

With that I figured I'd had enough and I reached out and jerked both his wrists toward me. His hands flew off the counter and his eyes and mouth opened up into three circles as his head fell to the board. He bit off his last word hard.

Mark grabbed one flailing hand and I grabbed the other, and we both yanked him through the door and flung him out so that he went sprawling facedown in the dirt. Without taking the time to see whether the door were locked or not, I vaulted through the opening into the guardroom to see if there were anyone else inside.

There was. Another mountain of a man had just leaped up from a small dining table and was heading for some kind of console where there was communication equipment and a large red button. As he reached for the button, I remember expressing thanks that they had painted it so bright. Made it easier for me to know what to keep him away from.

One blow to his floating ribs made him think of something other than that red button. After that, he wasn't too much of a challenge. He was down for the night and I was turning back to open the door for Zip and Mark, when I heard a loud noise, a pop with some force behind it. I wasn't sure what it was, but it was an ominous kind of sound. I suddenly felt cold all over. I ran to

the door and the big fellow was flat on his back, out cold. Mark was standing over him with a determined look on his face and his right hand still curled up in a tight fist. I can still remember the whiteness of his knuckles. Zip was holding his left arm with a look of complete astonishment across his features.

I threw the door open and Zip looked up at me. "He shot me," he said. "With his pistol." He walked over to where the man had dropped his pistol and picked it up. He held it to his nose. "Acrid smell," he said. His nostrils curled up.

"What do you mean, he shot you?" I yelled. The upper part of his sleeve was ragged. I ran over to him and looked at the tear. Through it I could see that his Starman uniform was scored with a dark smear, but of course not broken.

"If he'd been able to shoot me directly," Zip said, "I don't know what would have happened. The suit probably would have stopped the bullet, but the impact could have done some real damage."

Guns, I thought, *firing bullets powered by gunpowder*. I'd read about them, of course, but here they were real and being used against us.

At that point banks of lights went on all over the field, illuminating it brightly. The shadows all but disappeared.

"Speaking of damage," exclaimed Mark urgently, "we'd better get moving. There are some people rushing out of the barracks or whatever that building is down there!"

"They must've heard that popping noise," Zip figured, "and put the lights on. Let's get a move on over to Henry's ship. Where's Roos?"

"Right here!" cried the fellow himself, hurtling along from the clump of thicket where he'd been waiting for us. "Run for it! Those are Bartrin's men coming on the double! They'll be armed and eager for a fight!"

We tore through the little guardhouse and raced across the field toward the blue spacecraft, a good two hundred yards or more from the gate. A dozen figures were racing to stop us, and the sound of angry voices wafted over the distance. I had time to

notice that the ground was bare and baked hard by the exhaust fires of many ships that had landed and taken off.

I heard another pop followed immediately by a fierce whine that fell in pitch as something zipped by me. Then two more pops and whines followed in quick succession. I looked over my shoulder and saw puffs of white smoke among the gang of our pursuers.

“Don’t stop!” shouted Roos. “They’re shooting at us! Run!” He whipped around and pointed his machine gun at the crowd behind us and I heard a sound as though a big stick were being run along a picket fence, and a white cloud blew up around him. The company behind us scattered fast. Roos turned again and came after us, his short legs pumping up and down. I can still remember his ridiculous fedora flying off and spinning away as he ran.

Mark and Zip had almost reached Henry’s ship by this time, but Roos was falling behind. He was still carrying his machine gun and he had the pack with our supplies in it, too. Some of our pursuers had gotten closer, and I could hear pings on the ship closest to me as they shot at us. I ran back to help Roos, who was gasping for breath by this time. On the ground between him and me chunks of dirt flew up as our enemy’s projectiles struck—I mean bullets.

“Go on!” wheezed the stocky fellow as I got within speaking range of him. His eyes were open wide and his feet were stumbling. For a second I thought that he might have been wounded by a bullet, but he was just winded. I grabbed hold of his gun and fired a spray back toward where we’d come from. As soon as I pulled the trigger, I stumbled backwards. My feet went out from under me, and I landed on my back! Man! That weapon struck back against whoever wielded it! I should have had that figured—simple physics a child could understand—but at the time I wasn’t considering the laws of motion.

I rolled over, scrambled to my feet, and took off like a racer. I don’t remember running so fast since my days at Starlight Academy! Roos was getting on okay now and I was pretty sure

we'd make it. Mark had reached the top of the ladder and had opened the hatch into the ship. Zip was right behind him, his face turned anxiously toward Roos and me. I could hear more pops and plinking sounds as bullets struck the side of Henry's ship.

When Roos reached the base of the ladder I turned and fired his machine gun again. This time I was ready for the kick. I shot accurately and kept those leeches out of sight for a few seconds. Then I leaped onto the ladder and began to climb up. Roos had made it through the hatch by now and I was going up two rungs at a time. I hurled his machine gun through the opening and saw Roos' apprehensive face just inside the portal.

All at once, as I got to the threshold of the aperture, I felt a tremendous blow below my right shoulder blade. It knocked the breath out of me and took away almost all my strength. I tried to moan but couldn't, and began to slip. I couldn't breathe, and my grip was loosening on the sidebars. I pictured myself falling the twenty feet or so to the ground. Then Roos and Mark each grabbed a wrist and hauled me aboard. Mark shut the hatch.

"He's aboard!" shouted Mark. "Let's go, Zip!"

"He's been shot!" blurted Roos.

"He'll be fine," said Mark shortly. "Go help Zip get us out of here!"

"But—" began our ally.

"Go!" shouted Mark ardently. "We need you at the console, not here!"

Roos ran. I tried to draw breath and couldn't. I writhed with the pain of it. I thought, *this is what it must be like to be hit by Uneven Stephen. I'm sure glad he's on our side.*

Mark began to peel off my ridiculous overalls, and that's all I remembered for a while.

Ows raised his hand. "Hold it for a while there, Joe. Let's take a break. You probably need to wet your whistle after all that astounding verbiage, and I need to stretch. Let's take a stroll, eh?"

“Sure, Owsley. Let’s get some fizzy water somewhere in the promenade, loosen our legs up a bit, and then find another place to sit.”

The two men exited the music library and entered the main promenade of Space Station Zane. At this time of the morning, it was populated with people hurrying on errands or strolling tranquilly, evidently enjoying some free time. Joe and Ows procured some fizzy water at a small stand, selected from a variety of flavors and squeezed some lime juice into their bottles, then ambled along the walkway.

“How about the Star Bower?” suggested Joe.

“The very place,” his friend agreed. They stepped onto a moving walkway and took it to the end of the promenade. Several small passageways led off in various directions at this point, but the promenade itself narrowed down and terminated at the entrance to the Star Bower.

The friends passed through into an enclosed, clear space of at least two acres. Overhead the dense sky of the local galactic space was jammed with millions of stars, star clusters, and nebulae, far more than could be seen from Earth on the clearest night. The Bower needed no artificial illumination.

Inside, the Bower featured meandering cobblestone paths with many benches, coppices, and quiet places. Fountains, pools, and rivulets made the acreage a veritable waterpark. The flora was comprised of plants whose names all had to do with stars: there were banks of stargazer lilies, star jasmine, starbells, andromeda roses, alpine star pennies, lumenasters, stars-of-the-sea, solar peonies, and others blooms of spectacular beauty. The air was perfumed by a harmonious blend of natural scents.

Joe and Ows strolled along the pathways, quietly greeting a few others as they passed. Then they seated themselves in a secluded nook, and calmly sipped from their lime-flavored fizzy water.

“Ahh,” exuded Ows at last, leaning back. “Go on with your tale, my friend.”

Joe took one more sip from his bottle, smacked his lips, and continued.

I woke up a little later, comfortable on one of the cots. My right side hurt as though it had been totally caved in. The skin stung and tingled a little bit, too. I opened my eyes and saw that my Starman suit was hanging up to one side, and I smelled some pungent liniment or something.

"An amazing suit, Joe," said Roos, when he saw that my eyes were open. He was sitting in a chair not far from my cot. "Thanks for coming back to get me. I was about exhausted with all that running, carrying the pack too. You probably saved my life."

"Glad to do it, Roos," I answered. "Explain what happened to me."

"You got hit by one of their bullets, o' course. If not for your suit, you'd have been killed. It was a pretty high caliber gun. Here's what hit you." He held up a flattened slug of lead about the size of the end of my little finger. "You're bruised pretty badly. I put some dit dat jow on your side. It'll help the healing."

I sat up and groaned with the effort. "Some what?" I asked.

"Dit dat jow. It's an herbal remedy we keep around. It's quite effective whenever someone gets bruised. You'll heal faster too."

"Sounds like something the Sisters at Bethesda should know about."

"Who?"

"I'll tell you about them later. What's going on now? Where are we?"

"We're out in space, less than an hour since we launched. While Mark put you in here, I helped Zip get the ship off the ground. He wasn't familiar with the controls, o' course, and as I said before, I'd flown the *Stoutheart* before with Henry."

"That's the name of this ship? *Stoutheart*?"

"Right. So I got the ship launched and then Zip took over. I went back to see how you were, and after Mark and I got you into bed here he went up to keep Zip company."

“Well,” I said, “let’s go see what the current news is.” I staggered to my feet and suddenly felt sick to my stomach. Roos took hold of my arm and steadied me and then helped me stumble out into the passage and toward the control room. I just had on my regulation undertrousers. I was too uncomfortable even to consider putting on a shirt yet. It sure felt good, though, to be able to take a deep breath again, even if it did make my right side hurt like blazes.

When Roos and I shuffled onto the deck, Mark looked up from his navigator’s pod.

“How’re you feeling, Joe?” he asked.

“Great!” I answered brightly. “Feels a little like a mosquito bite, and only when I think about it. No problem whatever.”

“That’s what I thought,” said Mark, his attention already back on his screen. Roos looked a mite puzzled.

“We’re a great team,” I explained to him. “We care about each other a lot, really.”

Zip turned toward me anxiously. “What’s the real story, Joe?”

“It feels as though Uneven Stephen hit me full force with a pipe. I’ve still got full movement if I roll my arms slowly, so I don’t think any ribs are broken. Roos put some liniment on me that he says will help with the bruising. What happened after I started my nap?”

Zip turned back to the piloting. “Roos got the ship launched a few seconds after we closed the hatch. Before we left ground I could hear their bullets striking the ship as if we were going through a shower of micrometeors, but when the exhaust began to belch out of the tubes, Bartrin’s men backed off. We’ve been airborne for—” he paused to check his instruments “—forty-two minutes, and in space for about fifteen. Mark’s figuring the course for Mars now.”

“No pursuit?”

“Sure there is. There are two ships coming after us.”

Roos looked solemn at that. "Bartrin doesn't give up. He doesn't like anyone to best him at anything. He'll destroy this ship with us in it if he thinks he can't capture it back."

"He's met his match this time, Roos," explained Mark calmly. "When Henry gets his ship back, he won't recognize it."

"What do you mean?"

"I'm an expert on engines. We've got about three weeks to twenty-four days of straightforward travel in front of us. To keep myself busy, I'm going to overhaul Henry's engines. When he gets the *Stoutheart* back, it'll be the fastest ship in local space."

"You—one man—can do that?" Roos' voice was awed.

"In my own tomorrow, I'm no one special," Mark answered humbly. "Many can do what I'm about to do. Here, though, I guess I'm unique."

"Henry'll be forever grateful."

"Well, maybe it'll help him remember when he speculated that I didn't know much about engines."

Roos flushed with embarrassment at that remark, and Mark laughed. "He was right at that, though, Roos. I don't know much about internal combustion engines. Here's your course, Zip," he said as he finished the calculations needed for navigation; then he headed for the engine room.

No one said out loud what each of us must have been thinking down deep inside. If we were successful in our plan to block the wayward tachyon beam that had brought about this other tomorrow, then it probably wouldn't matter whether Henry's ship were faster than anything Jemno Bartrin had. Odds are that there wouldn't be any Jemno Bartrin, or Henry either. For Roos, this was probably a one-way trip.

The journey to Mars was long, uneventful, and boring. We spent a lot of time talking, mostly discussing how different this new tomorrow was from what we knew, and speculating whether we'd be able to change it back to what we were used to or if we might be stuck in this unpleasant alternation.

The three of us got to be pretty friendly with Roos Jones. He

was really quite a heroic figure, down-to-earth as he was. He was very stoic about it all. Maybe that's what happened to good people in that age of despondency. Maybe the best they could hope for was a kind of resignation.

Eventually we got to talking about the future, that if we made it far enough along to make the try, the result would have enormous impact on either Roos or us. If we were successful, more than likely Roos and his whole world would just disappear; if we were not successful, then we were doomed to live the rest of our lives in an age of decline. All our past experiences as Starmen and our entire history would become mere dreams and memories that no one but us would share or probably even believe. The tension of what was at stake was never far below the surface.

When Roos convinced us that he really didn't mind hearing about our world and was even eager to learn about it, we talked about it all the time. He was a real sponge for information. He'd been rocked to the core of his being when he'd heard back in Buckeye about Reuben Ridger's subsequent history in our own world as humanity's most infamous terrorist and mass murderer, and his heart had swelled when he'd learned the account of Thomas and Richard Starlight. Poor man. He'd never had any hope whatever in anything, and there were no visions of beauty or success in his world.

He became passionate, downright passionate, that we succeed. The night he emoted to us about it nearly broke our hearts.

"You *must* succeed!" he cried out. "It is your world that must prevail! My world should never have existed! It is an *accident*! No more than an aberration! An aberration that prevented the healing of humanity that came through Thomas and Richard Starlight and the Starmen!

"I sensed it, we all sensed it that foggy morning back in Buckeye when Nim and Ira and I talked together, the day we flew to Florida. It was Ira who realized it first. It was Ira who said that we had to help you to get back to your own tomorrow,

even if it cost us our own existence! Nim and I knew he was right.” He spoke mournfully and shook his head in an expression of grief such as I’d never seen before. “We ought never to have existed in our gray, featureless world!” he said huskily and with such passion that we were all deeply moved.

“Roos,” said Mark in tones of earnest tenderness and sensitivity. “Roos,” he said, “I can’t believe that anyone’s life is an accident. Whatever is in the scheme of things or the patterns of existence of all the mysteries of time and space, no life can ever be an accident!” He paused and swallowed. “And no sacrifice is without value. Your life and those of your friends are now inextricably bound up with ours, though we are men of different tomorrows. We are products of a shared history and we have a shared humanity. Across the immensities of time and truth, we are brothers. Whatever ultimately happens is out of our control, but the choices we make are always about supreme truth and goodness—and these things are absolutes not bound by time or history or chance.”

Roos stared at Mark, and didn’t move a muscle for over a minute. I don’t think that Zip or I moved either. “Think of it this way, Roos,” Mark continued at last, his voice coming a little easier. “If we reach the Ahmanyen base on Mars, and if we succeed in blocking the tachyon beam, and even if this entire tomorrow disappears, we will not have been able to achieve that without your help. You and Nim and Ira and Henry and the biplanes could never be only an ‘aberration’ in the grandeur of the cosmos.”

Mark sat back with an air of slight embarrassment. “I’m no philosopher or metaphysician,” he said, “but I’m convinced that there is something more deeply real to our existence than just what we see and feel and do.”

After that, there wasn’t much anyone could say. Roos just took hold of Mark’s hands in both of his for a moment, and there was a gleam of—something—that came from deep inside of him. It was as if his life had taken on a meaning it had never had

before, even though he was committed to a course of action that had a strong likelihood of taking that life away.

The waters were too deep for me. This far into the flight my bruising was manageable and I was back at the pilot's seat about half the time, although there wasn't much to do. I kept my eyes on the course, but the thoughts of what we were about to do, or try to do, and what it meant, wouldn't leave me in peace after that conversation. It took several days before I could push it all to the back of my mind.

Owsley Robbins rubbed his hands over his eyes. His mouth tightened and he looked away. Then he waved to Joe to continue.

Twenty-two days after we launched, the red planet began to grow noticeably larger in our window. The ships that Bartrin had sent after us were at least two days behind. Mark had spent a lot of spare hours souping up the *Stoutheart's* capabilities. We thought it likely that we could land on Mars and be out of sight by the time our pursuers caught up, but just to be sure, Zip asked whether Bartrin's ships would be able to track us and learn where we landed.

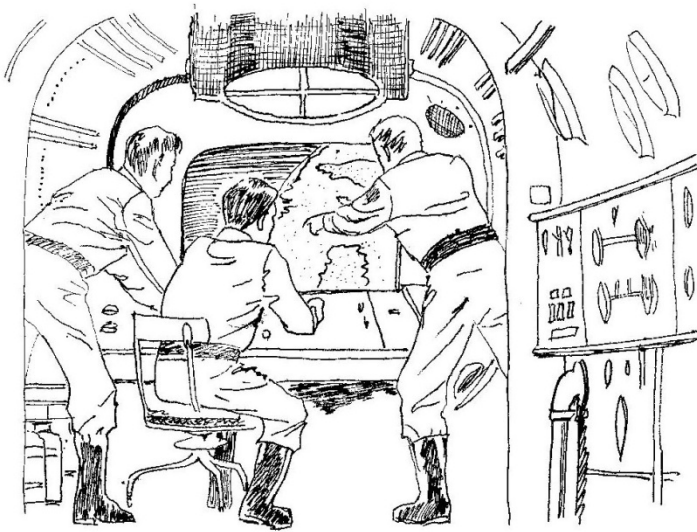
"At this distance, not likely," Roos answered, "but o' course I don't know what kind of equipment they have on board."

"Let's wait to land until we're on the opposite side of the planet from those thugs," Zip declared. "That'll make it next to impossible for them to find us." They'd have to scour the entire planet to discover our landing site and we doubted they'd succeed.

We'd talked it through with Roos and figured that with luck he'd be able to lift off when the time was right and elude the other ships if they detected him at all, and get back to Earth without incident. What he'd do with Henry's ship after that wasn't our decision to make. We'd try to come up with something that would make Jemno Bartrin think it was in his best interest to leave Henry and the *Stoutheart* alone.

We were familiar with only three sites that gave access to the Ahmanyans bases we knew: Final Ilien, *Imlah Taltahni*, and Eagle City. It was not difficult to make Eagle City our first choice. We'd never been to the Ahmanyans refuge underneath Final Ilien, and we didn't know any Ahmanyans there except by name. And we didn't want to draw any attention to *Imlah Taltahni* by getting too close there.

That left Eagle City, where we hoped to get to the tunnel access Saadervo had shown us. The only unpredictable factor was whether there were any human inhabitants there. Relationships between the humans on Earth and Mars were peaceful but uneasy. We knew we wouldn't be welcomed anywhere we met settlers.



The red planet began to grow noticeably larger in our window.

Roos had told us that Eagle City had been the primary community on Mars a hundred years earlier, as it had been in our world, of course. The two histories hadn't diverged much that

long ago. But he added that the city had been devastated and then abandoned during the Martian wars. Whether it had stayed a bombed-out ruin or had gradually been repeopled in the past twenty or thirty years was unknown—at least to Roos.

We orbited the familiar planet a few times while Mark made some careful observations.

“Terraformation hasn’t progressed as far as in our own world,” he announced at last, “which isn’t a surprise. No atmosphere generators. There are large settlements close to the equator and many scattered villages, or homesteaders probably, to north and south. Eagle City looks deserted. The atmosphere on the crater floor is thin, very thin. Roughly the equivalent of about 10,000 feet elevation on Earth. And cold. Helmets not strictly required but advisable.”

He looked away from his instruments and raised his eyebrows.

Zip nodded. We were on the opposite side of the planet from our pursuers, so he said, “Take ’er down, Joe.” For some reason I felt nervous. This was familiar territory, very familiar, in a lot of ways. This was where our good friends lived. In another way it was like landing on another planet for the first time. You didn’t know what forms of life, if any, you’d find, or whether they would be hostile or friendly.

Could we find the tunnels? Could we get access to *Imlah Taltahni*? Would our Ahmanyen friends be there? Would we recognize anyone? Would they believe our story? Suddenly the whole prospect became distinctly unnerving. I pictured us meeting Saadervo, Jogren, or Stenafi, or any of the others we had come to know and love dearly, and them receiving us as total strangers and being suspicious of us or even angry. Suppose they saw us as a threat? What would they think of three Earthmen coming directly up to the refuge that they had kept concealed for more than twelve millennia, and asking for entrance? How far did the “change of tomorrows” on Earth affect Mars? Would our Ahmanyen friends exist at all in this world?

“Watch it, Joe!” shouted Zip, interrupting my reverie. “You’re coming down too fast!”

He was right! The field of the old spaceport was coming up and I hadn't been paying attention. "Sorry!" I yelled, and increased the thrust. The *Stoutheart's* descent slowed and then we landed gently on the outskirts of the dead city.

"Touchdown," I said dully. I cut off power, and the mewls and purrs and other sounds of machinery that had been a constant companion for more than three weeks faded and shut down. We hadn't experienced total silence for all that time.

"Suits on," ordered Zip. "I'll go first."

Chapter 6

Hanging above the jagged western rim of Eagle Crater, the sun slanted down onto the ruins of the city. It was the familiar Martian sun, smaller than what we were accustomed to in the Earth-Moon system. It wore a faint ruddy halo in dust that was suspended in the thin air. There must have been a colossal windstorm somewhere out westward beyond the crater and the Martian Sea.

After we had all descended, the four of us stood still for a long time at the base of the *Stoutheart's* ladder. I don't think I ever felt as strange and out-of-place as I did at that moment. It was uncanny. The hairs on the back of my neck prickled. It was the landing field of Eagle City that we knew well, but in this state it was old, primitive, abandoned, and ruined. There was an intermittent breeze, probably the last gasp of the blow out west coming over the crater wall. It stirred clumps of gorse that grew in cracks on the tarmac. The landing field itself was pitted with bomb craters. Small trees about man-high were struggling for survival in several places where the pavement had been blown away.

The closest buildings were burned-out shells or partial framework, with sickly brown dust filling the recesses. Only a few structures in the city seemed relatively intact but they were

not close. Whoever had attacked this settlement had made sure that the spaceport was absolutely wrecked.

"Getting access to any tunnel at all, much less finding the right conjunction of tunnels where the Ahmanyans' portal is, isn't going to be easy," stated Zip, breaking the long silence. "Let's see what we can find."

We decided to reconnoiter for the rest of the afternoon and then return to the *Stoutheart* for the night. We'd make a determined effort to reach the Ahmanyans the next day. Zip led the way and the four of us kept close together as we crossed the field and entered the city itself. Roos, as always, kept a good grip on his machine gun. We left our ship unguarded. Bartrin's goons couldn't possibly reach us for at least a day and a half, and Roos thought it unlikely that any of the Martian settlers, if they'd taken note of our landing at all, would be curious enough to make the effort to find us.

Zip stopped first at what had been the tower for the spaceport, but it was obvious that there would be no getting into the tunnels here. It was a heap of demolished and blackened rock and a few warped metal girders sticking out of the rubble.

"Here's where my adventures as a Starman began," he reflected. "I was in the control room here when the asteroid pirates began their assault on Mars nearly five years ago. Right there, Joe, is where Uneven Stephen sent Wynn Sturgess flying out of the door, and somewhere under that immense pile of bricks and dust over there is the entrance to the tunnel I used to escape from the pirates in the first moments of the attack. We can't get into that tunnel now, though, without some heavy machinery."

"We'd probably do better at the west end," Mark said, "if we can find the site of the *Lizard's Watering Hole*. The major tunnel there would take us to the part of the maze we know."

"And that part of the city would make a less attractive target for the attackers," I added. "The buildings are probably more intact there."

“If they’re intact anywhere in this devastation,” vociferated Zip.

For the next hour we stepped our way gingerly through fallen and twisted metal poles, beams, and pipes, and skirted piles of shattered brick. There was no sign of any living thing whatever. Caved-in and collapsed structures and partial walls cast weird shadows as we moved along. There were lots of artifacts in the ruins, such as cracked-up machines, dry goods and pieces of desiccated cloth, containers of many kinds—all long unnoticed.

“Right over there, wouldn’t you agree?” suggested Mark when nearly an hour had passed since our landing. Before anyone could answer he referred to his compad and did some figuring. He turned and sighted back toward the landing field and then checked his screen again. “The distance and direction are right,” he said, and then pointed. “That shell over there is where the *Watering Hole* was located.”



We stepped our way gingerly through piles of shattered brick.

The place he’d indicated had been a two-story structure, but the top half was missing. The interior of the lower story was a

ruin, but the four walls were mostly still standing. The doorway was blocked up, so we heaved ourselves through an empty window frame and stood in the shadow of the west wall.

"This place was never the *Lizard's Watering Hole*," said Zip. "Something else was built on the site. I doubt we'll be able to find a tunnel here, since, as I believe, the Tunnel People themselves had made the tunnels this far west and connected them to the ancient excavations—but let's see what we can discover." He withdrew the wand from his compad and set it for scanning, and then began to probe for evidence of any hollow space under the floor. Mark and I did the same, while Roos watched us, fascinated. We walked slowly around the interior of the building, pointing our wands downward and watching our compad screens.

It only took Zip a couple of minutes to find something. "Here," he called out. "There must be a basement below here. It's too big to be a tunnel entrance, I think, but there is a major hollow underneath this spot. If there is a tunnel, it probably starts from here." The place he'd indicated was paved with large slabs of shaped brick, remarkably still level after the blast it must have endured. We cleared some debris from the area, looking for some means of access.

Mark found it—a pile of smashed and jagged brick pieces against a wall had spilled over and stopped up a staircase that led downward. The four of us cleared a narrow aperture with about fifteen minutes' work and I, as the skinniest of us four, slithered down the opening we'd created. I ignited my suit lights and, after passing through the remainder of the spillage, stepped easily down the last ten steps or so into a basement. It had been lined with shelves, all but a few of which had fallen to the floor. Boxes, cans, and bottles were scattered everywhere, most of them broken open. A few damaged chairs and a table and some crates were buried in the refuse. There were no passages out of the basement, and a scan showed that there were no other hollows beyond the walls for as far as my scan could reach.

I communicated the unwelcome news to the others and clambered back to the surface. Mark and Roos pulled me through the little opening we had made in the rubble. By this time, the shadows were lengthening.

“Let’s get back to the *Stoutheart*,” said Zip.

After more than three weeks of space food taken from the wares of the *Stoutheart*, my ability to create interesting meals was failing. This world’s technology for preserving food was decidedly primitive. I couldn’t think of any other way to make the preserves delectable. We’d already had dried apricot salad with onion, sweet and sour asparagus, eggs and broccoli, brown molasses bread with raisins, noodles and peas, and tomatoes with corn, for example.

“How about tuna and peanut butter sandwiches?” I suggested brightly. Mark narrowed his eyes and swiveled his head slowly in my direction, and then curled his lips in an almost imperceptible look of scorn.

“It’s just nuts and fish,” I said defensively. “Both good, both healthy, and you like them both.”

“I’ll make dinner tonight,” he said, and I gladly relinquished the galley to the big Montanan.

Half an hour later we sat down to a feast of spicy bean stew, chopped dried celery garnished with parsley and watercress seasoned with oil and vinegar, rice with diced red pepper, and dried fruit topped with evaporated milk.

Ows sat up sharply. “You remember all those details?”

“It was delicious, Ows! Mark knew how to make a banquet from whatever he had to work with. My mouth is watering now with the memory of it.”

“Maybe we can get Stephanie to whip up something like that for our lunch.” Owsley made himself comfortable once again, sipped from his lime fizzy, and waved to Joe to continue.

“Tomorrow morning,” began Zip over the feast, “we’ll start fresh. We’ll check sites that aren’t covered with debris and use our scanners until we find a tunnel—any tunnel. Roos will stay here at the *Stoutheart*, keeping in touch with us by radio. When we are certain that we’ll get to the Ahmanyans, we’ll tell him that he can take off any time he wants to return to Earth.”

Roos looked a little disappointed at not being allowed to accompany us, but Zip explained that once we found our way to the Ahmalyan base, we would not be returning to the ship, and he didn’t want to take a chance on Roos’ getting lost alone in the maze of tunnels.

Our ally then asked the questions we’d all been dreading. It was a wonder that he hadn’t asked them before. “Where is Ahmalya? Why do the Ahmanyans have a base here on Mars?”

We all felt badly that we couldn’t entrust the secret of Ahmalya to a man so eminently trustworthy and who was risking his life for our success, but we couldn’t take a chance on what might happen in the uncertainties of a world we didn’t know. Zip had prepared his answer in case Roos ever asked the question.

“The Ahmanyans keep the location of their home planet a closely-guarded secret because of the Xenobot menace, but they established bases on Mars, Europa, and the Asteroid Belt since this was where the first major engagement with the enemy took place. They are convinced that the Xenobots will reappear here first when they are ready to attack again.”

It was completely true, didn’t give away any sensitive information, and it satisfied our friend.

For dessert, our chef provided us with slices of semi-sweet canned cake and peach nectar. It was a good meal that we all enjoyed, though underneath was a current of sadness. The time of the breaking of our fellowship was at hand.

After a somber and scanty breakfast the following morning—none of us was particularly hungry—we packed up some of the space food in the unlikely chance that we’d need it and bade farewell to Roos. There wasn’t much to the leave-

taking; we'd had our celebration the night before. Each of us gripped his hand, we wished each other well, and we hoisted our packs. Mark, speaking for all of us, thanked the small man for his friendship and support and then embraced him. It was hard to gauge what Roos was thinking and feeling—desolation, longing, apprehension, hope—I don't know. Probably all of that. Parting from him was harder for me than saying good-bye to Ira Crassendoog nearly a month earlier.

A low mist, just knee high, covered the ground outside. We strode through it as we crossed the landing field, but then had to travel slowly when we got inside the city. It would have been easy to stumble over some piece of wreckage we couldn't see. Zip led us carefully through about three blocks of jumbled bricks and wrenched metal pieces with the mist swirling in eddies around his legs as he moved. Mark maintained a conversation with Roos as we explored, making the separation of friends somewhat easier to take, I hoped, even though there wasn't much to say.

"We're about three streets in from the main gate," he said, "and the mist is still thick. The sun hasn't come over the east wall of the crater yet to burn it off. Zip's crawling over what's left of a thick wall, hoping to find an open space inside where he can try a scan."

Two hours, I think it was. Two hours at least before one of us found evidence of a tunnel. By that time the mist had evaporated and it was much easier to explore. The three of us had separated but strayed no farther than a block from each other.

"Hollow space!" Mark called out to us. He was exploring the floor of what must have been a warehouse or gymnasium or other large, open building. When Zip and I joined our partner, there was no doubt that he'd found a tunnel.

"About ten feet down, maybe a little less," Mark explained. "I paced it off while I waited for you to arrive. It's more than six feet wide and runs along a course here." He pointed out a route that led in a straight line diagonally across the open courtyard.

"It can't be a basement, since it's not congruent with the design of the building that stood here once."

"Do you see any possible entrance?" Zip asked.

"Not here. Let's follow it and see if it approaches the surface anywhere," Mark suggested. I was about to say that myself but he beat me to it.

So that's what we did. Roos, of course, wanted to know all about it and asked questions constantly. Mark patiently answered everything he asked without making it sound too spectacular. He wanted Roos to feel included in the exploration, and not left out of anything exciting.

We tracked the hollow across streets, through more bombed-out buildings, along empty spaces, and even underneath a mound of shattered bricks and beams that was a good twenty feet high before we came to a building with a basement in it. Here the tunnel was just two feet below the surface. We set about pulling up the paving stones and then digging out the ground underneath. At length we came to a layer of stone. For over an hour we worked at clearing what covered the stone slab until we had exposed an area about four feet by eight feet—one complete plate that served as the ceiling to the tunnel below.

"Shall we blast it?" Mark asked. But Zip was already preparing the chemicals for a small detonation. He dug under the end of the slab and set the material under the lip of the stone. Then we stepped outside the area and he ignited it. When we went back in, we saw that the stone had blown over, like a trapdoor flipping up. An ancient tunnel like those we were familiar with was exposed to the sunlight for the first time in millennia.

The floor was about ten feet below. Zip leaped in first and Mark and I followed.

"This way," announced Zip. We knew the rough location of the confluence where the entrance to the Ahmanyen terminal was, and of course we knew where we were on the surface, so it was not difficult to know which direction to take.

Once we got started, though, it was a different story. These were not the tunnels with which we were familiar—not completely, anyway. Stavri Thalassa might have been able to navigate his way around, even though these were the tunnels as they existed before the Tunnel People got to expanding them—but we were patient. Zip kept his eye on the direction finder, using the *Stoutheart* as his point of reference. As we moved through the tunnels, he guided us in the turns that led closer and closer to the confluence.

By early afternoon we were seeing familiar territory. Mark looked at me and silently pointed to the walls. These were the large smooth slabs that Uneven Stephen had carved into such magnificent works of art. In this tomorrow, of course, they were plain and unmarked. Zip moved unerringly now and in minutes we were at the confluence. He moved confidently to the wall where the secret panel was.

Zip looked at each of us in turn, made a check of the atmosphere, and then slowly removed his helmet so that the command he would speak would carry in the Martian atmosphere and the hidden detectors would hear his voice.

“*Sapin!*” he said boldly. The panel slid upward with a rush of escaping atmosphere, and I heaved an enormous sigh of relief.

“It opened!” Mark relayed the good news to Roos, who expressed his congratulations. We hoped that alarms were going off in *Imlah Taltahni*.

The channel was lined with the smooth volcanic glass we had first seen when Saadervo had taken us this way. Confidently we entered the passageway and the door slid down behind us. The atmosphere quickly repressurized. Mark tried the radio to ensure that Roos could still hear us.

I tested the atmosphere and found it to be definitely Ahmanyan but very breathable for us. Mark and I removed our helmets as Zip had done earlier. Moments later we arrived at the terminal where there were slips for Ahmanyan craft. The control box we knew so well was in its customary place. Zip opened it and pressed the code that called for a ship. Then we waited.

Ten minutes later the dark waters in the pool became progressively golden, and then a breathtakingly beautiful Ahmanyman five-seater broke the surface and glided into one of the slips. It had a teardrop bubble top; its side hatch swung open invitingly.

With a look of exultant triumph, Zip led the way into the ship. We all sat down and the door automatically closed. Zip laid his hands on the controls, but the ship didn't respond. After a moment, however, the ship pulled away from the dock on its own, sank under the waters, and turned about to face the subterranean passage. Then it began to accelerate.

Zip opened up communication with Roos.

"Roos," he began, "we're inside an Ahmanyman ship," I remember him saying. He may have gotten a couple more words out. "You can..." And then everything suddenly went dark. We were all unconscious.

The astute Ahmanyans, as we found out later, were taking no chances. An odorless gas was released right after the ship had begun the return journey, and anaesthetized us. The Ahmanyman craft was on autopilot, and sailed on with its unconscious human cargo.

Roos told us later that he had panicked when our communication was cut off in mid-sentence. He didn't know whether to come after us in the ridiculous hope of rescuing us, to take off as Zip had clearly implied he could, or to wait for further communication. In a torment of uncertainty, he decided to wait until he heard from us again. As it turned out, that was the right decision.

A short time later, the three of us regained consciousness within seconds of each other. Our helmets were back in place and the hatch of the Ahmanyman ship was open. We had set down in the middle of a desert. There were no mountains or other features of any kind in any direction.

But that's not what I noticed first. Surrounding the ship were eight Ahmanyans, clothed in lightweight atmosphere suits with large clear helmets. All were armed. Their weapons were pointed

at us. Their leader was Saadervo, and next to him was Jogren. They showed no sign whatever that they recognized us, of course, and their expressions were anything but friendly.

Chapter 7

*“Tanmanna, melissan!”*¹² Mark said brightly. We expected that we’d get an amazed response from the Ahmanyans when they met humans who were fluent in their language, but what happened next almost frightened us out of our wits! As we’d anticipated, utter astonishment ran wild across their faces, but after the initial look of shock, Saadervo’s forehead seemed to grow by at least an inch, maybe even two! It was as if his head suddenly enlarged upward! Jogren and the others followed suit.

Then the Ahmanyans’ expressions became almost blank, but it wasn’t the blank look of someone who is at a loss; it was as if they were going somehow deep within themselves. Maybe it would be better to say that they were bringing the depths of themselves to the surface with all their sensory, perceptive abilities.

Now, of course, we are familiar with the strange features of Ahmanyman physiognomy, and that this “cranial expansion” is a means by which they confront a situation that demands supreme efforts of analysis and reflection. But this was the first time any of us had seen anything like that—and we’d been close friends with several Ahmanyans for more than three years—some of these very same Ahmanyans in our own tomorrow! Now it was our turn to look shocked.

For at least a minute, no one moved. With nothing else in motion and communication apparently suspended, I became aware of a delicate breeze moving past us. It created in me a curious sense of homelikeness—the first time on this venture

¹² “Greetings, friends!” (A formal greeting rather than that used among close friends)

that I'd felt such a thing. It made me realize how displaced I had been feeling since we'd first opened our eyes in this alternate tomorrow.

Then, at last, it seemed as if the Ahmanyans were coming out of a trance—at least to some extent; not completely. Saadervo spoke in a quiet but authoritative, controlled voice.

“Who are you and how do you come to speak Ahmanyanyan? And how is it you are familiar with the portal wherein one may call for an Ahmanyanyan craft?” He spoke in his own language. His head, like the others', remained enlarged. His deep brown eyes were piercing, full, and incredibly deep.

“We are men from Earth,” Mark answered fluently. He was doing his best to match their mood. His voice was calm and unhurried. His arms and shoulders, which had tensed up when the Ahmanyans changed their appearance, relaxed. “We have come from an alternate timeline. In that world, we and others of my race have met and become friends with Ahmanyans of *Imlah Taltahni*.”

When he mentioned the name of their heavily guarded refuge, hidden five miles under the surface of Mars, a sudden look of terror flashed across the Ahmanyans' faces, then slowly subsided as their concentration was renewed.

“In our own world, Ahmanyans have entrusted some of us with the secret of their existence and their hidden refuges. It was Ahmanyans who sent us by means of tachyon transfer to Earth from Olovanda. The transporter malfunctioned. Though its beam sent us to the right place at the right time, a deflected beam of tachyons moved backward in time more than a century and altered the sequence of events from the instant of its appearance on Earth. When we completed our hyperjourney, we found ourselves in a strange place. The history of Earth is radically different in this tomorrow. In our own tomorrow—the unaltered tomorrow—Earth has become strong and is in the early stages of forging an alliance with the people of Ahmanya to fight our common enemy, the Xenobots.”

Mark stopped for a moment to let his words sink in.

Zip didn't let them rest for long, however. He quickly picked up where Mark had left off.

"We used a spacecraft to travel from Earth to Ahmanya, and unearthed a tunnel we knew about in our own tomorrow—a tunnel that led us to the portal where we called for this ship. It was you, Saadervo, who showed it to us!"

"I?" The Ahmanyans were completely nonplussed. I almost laughed out loud. I had never seen him so confused.

"Yes," said Zip without cracking a smile. "You exist in the world we come from. We—are friends. We also know you, Jogren; and you." He turned to several others in turn and pronounced their names.

For a moment, once again all the Ahmanyans entered that strange state of "otherness". This time it did not last as long as before. Then one after the other their foreheads collapsed down to normal.

"Look," said Mark, and extended his compad. He showed them photographs and holograms from our own tomorrow, including scenes of *Imlah Taltahni*.

At length, Saadervo spoke up.

"What you say is startling, but your evidence appears to be indisputable. You have come to us, surely, to seek our help in returning to your own world. There is no assurance that we can provide that help. We have apparatus that we know was used for wormhole travel, but no one in our community knows how to operate it. You must come with us to our home where our community will take counsel. Please understand and forgive the unfortunate necessity of rendering you unconscious for the journey."

We all agreed, of course. The Ahmanyans stepped back and the hatch to the spacecraft shut down and sealed.

The next thing I saw was the inside of the hangar connected with *Imlah Taltahni*. I looked at my compad and noted that thirty-seven minutes had passed like a blink. The hangar was not very different from what we knew in our own tomorrow.

Unexpectedly I had an overwhelming sense of loneliness, of rupture. It was the second occasion in this adventure that someplace was familiar—yet so alien at the same time.

We were not allowed a moment to spend in reflection.

“Follow me, please,” said Saadervo. He and Jogren and the others had apparently just debarked from another ship nearby. Saadervo’s expression showed puzzlement as well as, well, apprehension, I guess. Couldn’t blame him. Without speaking we made our way across the hangar floor and stepped into the elevator.

Just before the door closed, Zip suddenly spoke up.

“Saadervo—just after we entered your ship in the underground dock, I had contacted our friend in the spacecraft we flew from Earth. I was not able to complete my message. May I contact him from here before we go so far below the planet’s surface? I suspect that our radio will not have the capacity to reach him from *Imlah Taltahni*.”

Saadervo frowned. “I am sorry,” he said. “I cannot take the risk that your friend may be able to locate us through your signal. It is vital that our existence and location remain unknown to all Earthmen.”

We all looked at one another with a sobering realization that if we could not convince these Ahmanyans of the truth of our story, we might not be permitted to leave *Imlah Taltahni*. We hadn’t considered that possibility, and we understood why he hadn’t warned us of that course of action before he’d brought us here. Simply by calling for an Ahmanyman ship back in Eagle City, we had, from their point of view, created an irredeemable breach of security.

“Of course,” Zip said. “It is as important to us as to you that your refuge remain hidden.”

The three of us entered the elevator car with uneasiness. Would we be allowed back to the surface?

When we reached the bottom of the deep shaft five miles below, the door opened and we walked through the orchard we knew in another world. We entered the city and received the

wordless stares of the citizens. It was uncanny. People we knew well and had come to love stared at us without recognition, their features showing marked discomfort, even distress. There was no welcome, but I hoped that there was no enmity either.

Saadervo brought us into a sizable meeting room where a council had been gathered. When all of us had entered, the doors were shut. Saadervo delivered a brief summary of the events of our landing, entering the tunnel system below the ruins of Eagle City, opening the portal to the Ahmanyans' underground dock, and calling for a ship. He recounted our meeting and examination in the desert, our ability to speak Ahmanyen, and concluded with a summary of the story Zip and Mark had told of the wayward tachyon beam and how it had altered Earth's history.

At last he turned to us. "These are the physicists of *Imlah Taltahni*. Please repeat your story to them, and tell us why you have come."

The afternoon had nearly drawn to a close before Zip had finished our tale. The Ahmanyans had examined our compads. They were most intrigued by our account of the history of our world, the founding of Starlight Enterprise, and the recovery of Earth from the Collapse. This buoyed them up with an incredible hope that, in this other tomorrow, was inconceivable.

"You fear that if you are able to prevent the 'backwash' of the tachyon beam, that the inhabitants of this world may disappear," said one of the Ahmanyen physicists, "since the course of history will be changed. Yet obviously you know each of us. Our 'counterparts' must exist in your world."

"Indeed, you do," affirmed Zip. "It was Earth that was changed, not Ahmanyen."

"Yet our planets exist in the same time and space. Perhaps," she mused, "it is like a pebble dropped into a pool. It immediately affects its own proximate environment, yet the effects weaken the greater the distance from the incident."

"Yes," said Mark. "That is my theory, though I am not a physicist. I had a lot of time to ponder the situation as we were

traveling across interplanetary space, and I am familiar with spacetime insofar as it impacts travel. Communication between Earth and Ahmanyā in this world is minimal; therefore even drastic changes on Earth have, as yet, only moderate impact on your planet. So far the effects on Ahmanyā of this maverick tachyon beam are the absence of a strong alliance with Earth through the Starmen. The effects will grow over time.”

“I have decided,” announced Saadervo. “The story we have heard, fantastic as it sounds, is logical. However, to allay all doubt, these humans must undergo a physical and psychiatric examination to verify that they are indeed human and not of some other race used by the Xenobots as a ploy to locate and destroy Ahmanyā. The examination will be thorough. If our examiners raise no warnings, then we will act as if what these Starmen have told us is true.”

The three of us were separated and did not see each other again until late the following morning. We were well treated and given food, but had little time to rest. It was not until about 4:00 a.m. that we were allowed to sleep.

After we awoke, we were given breakfast and then led back to the meeting room.

“Friends,” began Saadervo, and his smile was wide and genuine. Jogren and the others we had met were present also, all smiling. “In a few minutes there will be a gathering of all citizens of *Imlah Taltahni*. I will introduce you and invite you to tell our people the story you told us yesterday. Your arrival filled our people with great fear, but now you will give them great hope. To think that it is our generation that will see the beginning of the fulfillment of the long hope of Ahmanyā is overwhelming—especially when, in this world, there was no sign whatever that the people of Earth would grow into the allies we need for many generations to come.

“But first, Zip, you will be allowed to contact your friend. We will use a narrow beam to reach a transmitter on Hol¹³, and the signal he receives will appear to come from there.”

We greeted these words with immense relief. It was as if an enormous weight had fallen from our shoulders, and our smiles must have been as large as the Ahmanyans’. Jogren took Mark to the communications center where he managed to reach Roos.

“Mark!” shouted our ally aboveground. “Where in *blazes* have you been? What’s happening?”

Mark gave him a summary of our adventures and the assurance that all was well. “So you may lift off anytime you wish, Roos,” he concluded.

“Not now, I can’t,” Roos answered. “Bartrin’s two spacecraft are even now approaching orbital speed. They’ll spot me for sure the instant I fire up!”

“Give me a few minutes to take counsel,” said Mark. “I’ll radio again soon with a plan.”

It was only about half an hour later that we stepped into the laboratory where the Ahmanyans’ holographic generator was located. The Ahmanyans’ engineers had done the necessary calibration, and then Mark stepped into the chamber. When he was ready, the technician engaged the generator.

Mark told us later what happened. Immediately he was able to see the bridge on one of Bartrin’s ships as well as if he were aboard personally. He was standing between the pilot and the navigator. The instant his holographic projection appeared, the navigator let out a yell that could have deafened an elephant. The pilot leaped out of his seat at the sound, and then both shrank to the sides of the ship, cowering in fear. Two other men raced from the back of the ship and stopped short when they entered the bridge.

Our partner let his appearance take full effect before he spoke. He swiveled slowly and let his glance fall on each man

¹³ Phobos

individually for a second. Then he said, "Call your other ship, and pull up close together. I want to show you what we can do." His voice was windy, almost fluty, electric and bloodless.

With shaking hands, the pilot scrambled back into his seat and radioed the other craft and passed over Mark's orders.

"Don't *argue* with me!" he raged when the other pilot tried to remonstrate. "You don't understand what we've got here! There's a man, a man not from Earth, in our ship! He just appeared on our bridge! Now pull alongside!"

Before long the other ship was in view of the window in the bridge where Mark's image stood.

"Tell them all to put on their space suits," Mark ordered. The pilot complied. "Turn on your recording equipment. Now watch," said Mark.

In an instantaneous burst, a titanic laser beam from Phobos drilled a hole through their ship. The opening was at least two feet across. The spacecraft's atmosphere whooshed out in a second or two, bringing with it several pieces of light equipment that had been caught in the current. They spun off into space. Mark said that the beam had gone squarely through the ship's engine room. A whimper of fear came from the pilot on Mark's ship. Four spacesuited figures scrambled out of the airlock of the new derelict.

"You may pick up your partners," said Mark, "and then I command you to return to your own planet. My ally Roos Jones will be returning to Earth shortly. You will not engage him in any hostilities. You will inform your leader of what you have seen. If you do no harm to Jones and do not return to Mars, we will leave you in peace. Do you understand?"

"Y-yes," stuttered the pilot.

Mark turned full circle once again, looking into each man's thoroughly frightened eyes. Then his hologram disappeared.

Later that day Roos took off from the launching pad on the edge of the ruins of Eagle City. With the job Mark did on his engine, he must have made it back to Buckeye three or four days before Bartrin's ship. At that point, of course, he was on his own,

but we hoped that we'd given Jemno Bartrin so much to think about that Roos and his friends would be safe from any retaliation.

For two days after that, Mark labored on the wormhole transporter in *Imlah Taltahni*. The days were pleasant. Mark's job was made a little more challenging since he had met Stenafi again, with whom he had already forged quite a friendship in our universe. But here, of course, he was a stranger to her. It was really hard on him.

We took rest time in the water gardens, played with the children with the sparkling eyes, observed the Ahmanyans in their work, and joined them for meals. It was almost like making friends all over again, although we lived under the uncertainty about the success of Zip's plan to muzzle the wayward tachyon beam at its source. Even the Ahmanyman physicists had reservations about the likelihood of our success, but there was no other plan.

Saadervo had contacted the Ahmanyans in Olovanda, so that they would be expecting an arrival via their wormhole receiver. If it were not operative, then Jogren would shuttle us to the asteroid in a spacecraft. It would be a journey, however, of over a month since at the time Ahmanya and Olovanda were almost opposite one another across the Solar System.

On the third day, Mark transferred a huge vase to the receiver in Olovanda. The transfer was made flawlessly. After a few more tests, Mark felt confident he could transfer us across the void. I volunteered to go first. Mark protested, but Zip overruled him.

"You're needed to operate the controls," Zip said. "If you want to take a risk, then let Sotik operate the controls when you are transferred." Mark acquiesced. There wasn't too much risk since Sotik had been working alongside Mark throughout the project.

So, with my palms sweating and heartbeat elevated, I stepped into the transfer chamber. Hoping that this transfer

wouldn't malfunction as the other had, I nodded to Mark and watched his eyes shift down to the control panel. A moment later I was standing in another chamber, with other Ahmanyans in a large group nearby. There must have been over thirty of them! I stepped out of the chamber.

"*Tanmanna, melissan*," I croaked, and then felt a flush of embarrassment at the inauspicious beginning I had made.

In short order, Zip and then Mark were standing beside me.

Once again, we saw around us the faces of people we knew well in our own world, but who stared back at us without recognition. Where the Ahmanyans of *Imlah Taltahni* had greeted us with apprehension, these looked on us with what I can only call awe. We were the first humans they had ever seen. Of course they knew about people from Earth and had seen images sent to them by the Ahmanyans on Mars, but these had never seen a human being, even from a distance during one of their infrequent voyages to their home planet.

One whom we knew in our own world as Seran tentatively said, "*Tanmanna, melissan Endra*¹⁴." She was one of the leaders of the Olovandan Ahmanyans. I was amused that her voice cracked a little bit, as mine had. I laughed and, being the first to arrive in Olovanda, introduced the three of us to her and the rest of them.

They were already fully aware of our story and our need, of course, since the people of *Imlah Taltahni* had communicated with them. Indeed, our first meeting with the physicists had been recorded and sent to the Ahmanyans on Olovanda. After preliminary introductions, Mark asked that we be taken directly to the tachyon transporter. Seran, accompanied by two assistants, led the way to the chamber whose location we knew already. The rest of the crowd, brimful of curiosity and eagerness, followed us.

We entered the chamber, and then everyone waited in hushed silence. Mark stepped forward and made a thorough visual

¹⁴ "Greetings, friends of Earth." Endra is the Ahmanyman word for Earth.

examination of the apparatus. At its center was a sizable cubicle—maybe eight or ten feet square—and to one side was the operative machinery. Mark turned some of the controls and watched the calibrative indicators change their values on the screens. He examined the crystal conduits and looked for any cracks. He ran his fingers along the silver microtubes and felt for any roughness.

At last he turned to Seran. “Have you ever tried to use this transporter?” he asked.

With narrowed eyebrows the woman said, “No, Starman Seaton. The assembly has aroused much curiosity, but none of us has ever attempted to operate it for fear of accidentally bending space and risking damage or even destruction to our home. In fact, sir—please forgive my boldness—are you sure that you are able to operate it without risk to our settlement?”

“No,” stated Mark frankly, “though I understand the principles behinds its operation and I worked with you in my own tomorrow to make this transporter operational.”

“With me?” The woman was shocked.

“Yes,” said Mark with a smile. “In our world, you and I are friends and we have worked on many projects together.”

“I do not understand,” she responded with a shake of her head, “but here I will help you. We will all help you as best we can.”

“Thank you,” responded Mark warmly. He asked for a set of tools and, when it had been brought to him, began to disassemble the housing of the tachyon engine. Seran and I remained to provide what help we could. After a short time, Seran sent the other Ahmanyans away. One of them asked Zip to accompany him and he did so, knowing that it would be a long time before Mark would give his approval to a test of the ancient transporter.

It was more than two days before Mark was ready to make a trial run. He didn’t want to risk burning the machine out or otherwise damaging it when it was our only hope of repairing the rift in the flow of time and returning to our own tomorrow. When he could think of nothing else to examine, had tested each

circuit, and had made a microscopic stress analysis of every crystal and joint, he prepared to send an item to *Imlah Taltahni*.

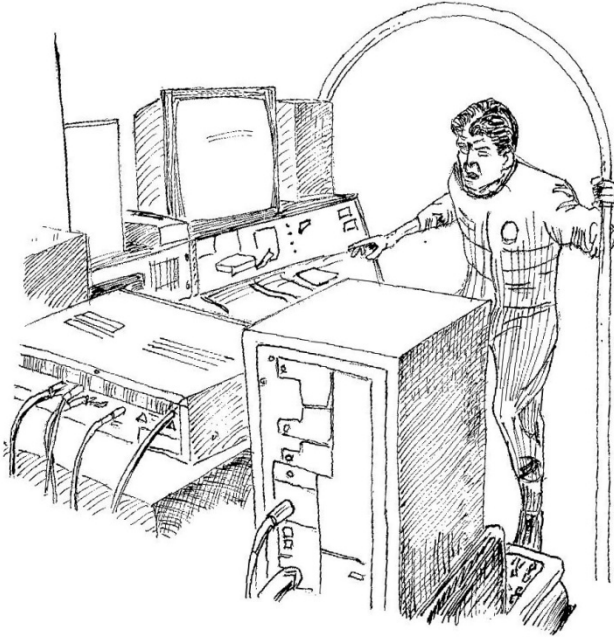
At his request, Seran had a small tree taken from their hydroponic garden placed into the transfer chamber. Then she contacted Saadervo in *Imlah Taltahni* and prepared the community there for the transfer. The governor of the community on Mars provided the precise coordinates Mark needed, and Mark made the requisite three-dimensional scan of the tree and then pressed the activator. The tree disappeared in a slow flash that left an image on the retina, and Saadervo confirmed that the tree had arrived in *Imlah Taltahni*. Mark nodded in satisfaction, and then turned to us.

“Saadervo’s scientists will examine the tree to determine whether it suffered adversely in any way. If they declare it to have made the transfer without any impairment, we will be ready to make the jump ourselves.”

We waited more than three days before Saadervo informed us that the item we had sent to *Imlah Taltahni* appeared to be in every way a normal tree. It was good news, but it filled me with uneasiness, for the Starmen would be next inside the tachyon chamber. We were not going across space, however—Mark would have to guess what had gone wrong when we were sent to Seneca, adjust the tachyon beam so that it would perform two unexpected and untried functions: cross time and cancel out the beam that it had sent over a month before, and transfer us not to some distant locality in space but retain us in the place of origin. Further adjustments on the apparatus would be needed, mostly by guesswork. And there could be no trial before we ourselves stepped into the chamber, for if the operation were successful it would irrevocably burn out the tachyon transporter when it concluded its task.

After we’d gotten the news from Saadervo, it took Mark only a few minutes to reset the machine. He’d done almost nothing but figure the parameters in the days we’d been waiting to hear from Saadervo—he had only to set them into the controls.

“That’s it,” he said, standing up and brushing imaginary dirt from his hands. He turned and faced us. “We’re ready. If it works, we’ll be back in our own world in less than a minute. If it doesn’t work, ...” He shrugged.



Mark stepped forward and made a thorough visual examination of the apparatus.

“Let’s go,” said Zip. We bade farewell to Seran and the other Ahmanyans, all of whom had come to the chamber for the climactic moment. They were afraid, for either failure or success would alter their world permanently. The three of us stepped into the tachyon chamber, and then Mark nodded to Seran. She nodded solemnly, tentatively reached out, and pressed the activator.

As before, the faces of the others in the room were momentarily augmented and appeared to move in slow motion. Sounds were deadened, deepened, and then disappeared. Their expressions this time were not surprise but rather solemn. Then the faces of Seran and her companions faded and we saw other faces coming into view, almost as if they were rising up out of a pool of water. Then they came into focus and we could hear sounds normally again. Sparks were flying out of the tachyon apparatus. We dove out of the cubicle. A corrosive odor exuded from the machinery. People grabbed our arms and pulled us frantically away from the door of the chamber.

We looked up and saw Seran looking miserably at the control center of the tachyon transporter. She turned her head toward us and said, "It's ruined! It's burned out! Are you lucky that nothing happened to you! It could have been bad!"

The three of us laughed—we laughed until the tears poured down our cheeks.

Seran's eyes narrowed and she took a step toward us. "What's wrong with you Starmen? Did that machine unbalance your emotions in some way?"

We whooped with redoubled laughter until it was hard to breathe!

"And that was it? That's the end of your tale?" Owsley Robbins asked.

"Each of us wrote a report of the incident," Joe said. "It was studied by physicists and cosmologists at Starlight Enterprise, and we were interviewed extensively. The Ahmanyans were involved in the research as well, but in the end, nothing came of it. The tachyon transporter was entirely burned out, and the Ahmanyans encased it behind impenetrable crystal walls so that there would be no chance of its doing harm to civilization. Perhaps after the awakening of Ahmanya, they reasoned, some of their great physicists could learn more. So far, though," Joe lifted his hands, "they haven't learned anything. The secrets remain with the First Races. Maybe they'll share them with us,

or maybe we'll discover them for ourselves. But for now—" Joe raised his hands, "—nothing."

Ows looked away for a moment, contemplating a cascade of bright orange star anemones, then turned back to Joe and said, "A fascinating tale, Joe!" His voice became solemn. "Did you ever learn anything about the fate of Roos and Ira and the others?"

Joe shook his head sadly. "We tried to. We researched the history of the area of New York where they lived, but there was no trace anywhere of a settlement named Buckeye or any families in the vicinity that bore the names Crassendoog or Roos Jones. Every now and then I think about those men whose assistance was crucial to our successful return to our own world, and whose sacrifice made it possible. Mark's words to Roos that no life is without meaning have come back to me time and again in the thirteen years since our adventure. Those were good men!"

At that moment Joe's compad alerted him to an incoming call.

"Joe," said the rich voice of Ingrid Thronson, the Commander of Space Station Zane. "I am available now for a few minutes. Could you kindly come to the bridge?"

"Yes, Commander," said Joe, "right away."

The Starman stood up and stretched.

"Maybe we can get together again, Ows. I was planning on leaving Zane this afternoon. I miss my family. But since we met, I don't mind delaying my launch a little. How about dinner tonight at the canteen?"

"Sure, Joe," said his friend. "I'll see you there. You've got to hurry to the bridge. I'll make my leisurely way out of the Bower later."

Sometime after Joe had hurried away, Robbins strolled toward the exit of the Star Bower. As he came through into the end of the promenade he saw a group of five people coming toward him—delegates to the astrofarming conference being held on the Space Station. Citizens from the sentient races had met together to discuss advances in agriculture in hostile

environments. Larson's Folly was the biggest challenge in the galaxy.

In the middle of the group was a short, stocky man who walked with a slight stoop. Ows stepped aside as they entered the Star Bower. Robbins failed to see the nametag that the man wore: Rooslin Jones. The people made their way into the Bower and disappeared among the paths, chattering happily.

BOOK 10: MASTER OF SHADOWS

It is not good that the man should be alone. (Genesis 2:18a)

Foreword

As recounted in *The Last Command*, the second Xenobot war was won on April 24, 2160 and the Xenobots' home planet Luxa was quarantined shortly thereafter. The victory cost the life of Starman David "Zip" Foster, who sacrificed himself when he destroyed the Xenobot fleet of warships. The human-Ahmanyen alliance immediately set out to scour the galaxy, looking for anomalies that may have been signs of Xenobot presence—just to make sure that none of them had been missed.

The First Races had been defeated by the Lucians eons before the days of the Starmen. Their fate was known, of course, to those who had survived that war, and the Lucian Saleh had mentioned that fate briefly to the human Montezuma Vly, but that information had never been passed on to the human-Ahmanyen alliance.

A year and a half after the destruction of Luxa, in the fall of 2161, the remarkable planet that became named Larson's Folly was discovered. Larson's Folly stood out with its weird gravitational footprint. It was orbited by a long-abandoned Xenobot space station, some of which was incomplete and in ruins. The human-Ahmanyen alliance appropriated the derelict and named it Space Station Zane. The alliance set out to make it habitable, with the intention of creating an observation and research post for Larson's Folly.

Five years later, in 2166, Space Station Zane was fully operational. The study of Larson's Folly, however, was carried

on alongside other purposes for which the space station had been developed, such as conferences, a place of rest and relaxation for researchers and travelers in that sector of the galaxy, and advanced studies in a variety of fields. Larson's Folly was considered a very curious but dangerous planet, and unfolding its secrets was not considered urgent.

Starman Joe Taylor's tale of *Paradox Lost* (the second version of the story that originally had been called *The Lost Tomorrow*) was told on Space Station Zane two years after it had become habitable, and referred to adventures that had taken place more than thirteen years earlier: March 21-April 23, 2155. *Master of Shadows* begins a year after *Paradox Lost*—midsummer 2169. At that time Mark, born June 23, 2133, is 36. Joe, born September 17, 2134, is almost 35. Kathy Foster was 8 at the beginning of *Mutiny on Mars*, so she was born on January 6, 2143, and is therefore 26 when *Master of Shadows* begins.

Chapter 1: The Region of Dissimilarity

Starman Kathryn Taylor gazed out of the wall-sized window in the pod hangar on the underridge of Space Station Zane. Her long, blond hair was pulled back and tied into a single ponytail, and her green eyes scanned the ever-changing cloud-wrack of the planet called Larson's Folly over a hundred miles below. The ferocity of the storm no longer gave her chills; she was used to it by this time. She knew that under the dull orange and sullen purple clouds that were incessantly whipped by winds of up to one hundred and ten miles an hour, there was a lashing deluge of searing, acidic rain that plummeted like balls of lead onto the swamps that covered most of the surface of the planet. The temperature of the surface approached the boiling point of water so that the quagmires and interminable tortuous windings of dark water, ponds, and small lakes were shrouded in fogs of corrosive steam. Uncertain and shifting magnetic fields wrapped the planet with electrical discharges. Pockets of gravitational disturbances that had not yet been sufficiently explained made the surface as treacherously perilous as if it were made of ice floes. Solid ground was rare and unreliable.

Her husband, Starman Joe Taylor, was preparing to make his sixth descent to one of the galaxy's most inhospitable planets. He was tall and lanky, with dark blond curling hair that needed to be cut. Irrepressible humor shone from his eyes in almost all circumstances.

"Down we go, Kathryn," said Joe from the other side of the hangar. "I'll see you on the surface in a few minutes." He was wearing the environmental suit especially designed for him for use on Larson's Folly. It was made of finely-spun threads of plastic and metallic alloys to make the most of both flexibility and strength. It was resistant to external electronic bursts, thoroughly insulated and padded inside, and atmosphere controlled. Several tubes that looked like round dorsal fins ran the length of the suit from neck to feet. They stored enough pressurized air for several hours but without the bulk of a tank.

The suit featured a number of accessories that Joe could make use of depending on circumstances or need.

“Right you are, Joseph,” responded the lissome woman from where she stood by the thick window. “Be sure to close the door behind you.”

Joe stepped into the *Diving Bell*, one of the space station pods used for short hops. This one had been adapted for travel to the planet’s surface. Joe was the only person who had ever used it for that purpose; from the day the planet had been discovered, no other living being had touched down on Larson’s Folly.

As he rolled the pod into the airlock, Kathryn stepped into a tiny elevator and rode it three floors up. In less than a minute she was on a lab deck in the labyrinth of workstations and manufactories that made up a large portion of Space Station Zane. She entered the exo-geophysics lab and saw several people looking intently into the screens in front of them.

“We’ve got him,” said a young woman before Kathryn could say a word. She was wearing a dark, patterned ankle-length dress and had extremely long braided hair. Her eyes were bright with careful attention to her work. Her hands were poised over a keyboard, and a straw microphone bulb glowed with a comfortable green pulse, showing that it was active. Kathryn peered over her shoulder and saw the icon of her husband’s ship in the center of the gridscreen.

“I said that we’ve got him, Kathryn; you go on over to the holographic generator if you’re going to join him.”

“Okay, Joi,” responded Kathryn with a smile. “Thanks.” Joi Weaver was the head of the exo-geophysics department on Space Station Zane.

Kathryn went to the lab two doors down where Zane’s new Ahmnyan holographic generator was located. The generator’s engineers were connected with Joe’s pod through Joi’s computer, and had already done the necessary calibration. Kathryn stepped into the chamber and sat down in the chair that was in the middle of the floor; the technician waved to her. She put on her

blindfold and the technician engaged the generator and closed the circuit that connected the generator to the *Diving Bell*.

"Ah, beauty in the midst of chaos," observed Joe as the hologram of his wife appeared in the seat next to him.

"And don't you ever forget it," said Kathryn. The breathless, electronic voice still carried more than a hint of her strong Irish lilt.

"Never," said Joe, his eyes fixed upon the indicators in front of him as he deftly piloted the small craft through the seething atmosphere. The winds shrieked around them and wrenched the *Diving Bell* as though with purposeful enmity. The pod's gyros countered the whirling winds with admirable efficiency so that the vehicle's humming and shaking was only moderate, though constant.

"'Nother five minutes or so," muttered Joe, his eyes glued to the instruments, his hands resting firmly on the controls. The windows in the pod were nearly useless; only swirling dark gray and purple murk showed through splatters of the sluicing rain. The largest of several screens showed a computer-generated pattern of the terrain below, designed to provide the best likeness of the actuality.

"There's some solid ground, such as it is," said Joe, "but it's not close enough to the edge of the Big Soup. Let's hope there's one closer." The Big Soup is what Joe called the most intractable part of the planet, inaccessible to every attempt ever made to penetrate its depths. An anomaly more than fifty miles in diameter, nothing had ever been able to penetrate it, not a robotic probe nor even a photonic explorer. Strange, sparkling lights like wizard fire had been observed from the borders, and fantastic, contradictory measurements of quantifiable data such as gravitational strength, land density, and shapes had been acquired from the edges. Joe's mission on this descent was to get as close to the edge as he could from a direction that had not been explored before. There were two other anomalies on the planet, each just as impenetrable, but both were smaller, and

neither showed the range of mysterious phenomena seen in the Big Soup.

The *Diving Bell* cruised about fifty feet above the surface, well out of reach of the heavy, black, rubbery, thick-vined vegetation that somehow managed to survive on Larson's Folly.

Joe's expression suddenly became intent and focused. "There's a spot," he said aloud. "About a quarter of a mile ahead, a little to the left, and... ah! Just about a hundred yards from the edge! What luck!"

"How big is it?" asked Kathryn's airless voice.

"Big enough to land on and a little more. Shaped like a twisted teardrop, with its narrowest part angling toward the edge of oblivion. I'll need my snowshoes, though, if I'm going to get close to the Big Soup. Here we are. Edging down now."

In a moment the *Diving Bell* was secure on the patch of solid terrain. Six bolts fired from the landing gear into the ground, penetrating up to three feet and holding the vehicle firmly to the surface. As long as the ground was solid the vehicle could not be blown over.

Joe took a deep breath and cut the power to the craft. He turned toward Kathryn with a smile. "Got you here safely," he said. "That'll be ten solars," he added, putting out a hand palm upward.

"Put your helmet on and let's go," said Kathryn. "You're wasting time."

Joe was already fastening his helmet into place. The word **SECURE** flashed onto the screen in front of his face, indicating that the helmet was properly aligned and ready for use. "Acknowledged," said Joe, and the word disappeared. He fixed his tether and then slid open the door to the pod and stepped outside, staying low to the ground as the winds rushed and raged. Kathryn stood up and followed him. Writhing creepers as thick as a man's leg moved sluggishly in the wind. Just as Kathryn's hologram stepped outside, a gust of wind caught Joe and flipped him onto his back. Having lost his footing, he rolled over and over. The tether wrapped itself around his legs.

“Joe!” shouted Kathryn, running after him. Joe regained control by sprawling flat and clutching thin, rank, weedy streamers that were whipping about like angry snakes. His legs were sunk into the muck of the quagmire. With effort, he pulled himself back to the solid ground and unwound the tether.

“Welcome to Larson’s Folly,” he muttered to himself. Joe got onto all fours and crawled along the solid ground toward the edge of the Big Soup. Kathryn, whose hologram was unaffected by the physical forces around her, kept him company. The holographic generator back on the space station could see through Kathryn’s holographic eyes, and its “smartfloor” was able to roll and climb under her as she followed the terrain on the planet’s surface.

“Don’t go too far from the pod, Kathryn,” warned the engineer through the intercom. “If I lose contact with your hologram it will disappear!”

Kathryn nodded her head to show that she had received the message. On Larson’s Folly, her hologram paused as she watched her husband crawling forward. She saw him reach the end of the solid ground. He lurched up onto his feet, still staying low. The feet on his suit appeared to grow wider and longer until they resembled snowshoes. Gingerly he stepped out onto the oozing, erratic surface of the swamp. He began to move forward, step by careful step, slowing with each pace. Unhurriedly he looked over his shoulder and lifted a hand to wave at his wife. Then he faced forward once again and moved ahead so slowly it appeared as if he were forcing his way against ever-strengthening resistance. Then, to Kathryn, it seemed as if he all but froze in spot. For minutes he didn’t move at all. She became anxious, and then alarmed.

“Joe!” she shouted, and tried to run after him. The farther she went, the more the terrain became unclear, and then a particularly strong wall of rain fell and blocked her view. All at once she was back in the chamber of the holographic generator. Her hologram was lost.

“Joe!” she cried again. “Joe!” She tore off the blindfold and turned wild eyes toward the engineer. “I lost him! He froze, and then I lost him!”

~

Joe looked over his shoulder and found Kathryn’s hologram staring after him. He lifted an arm and waved at her, then turned away and continued to tread slowly forward on the surface of the glooping mire. Step after cautious step he moved forward.

Then, much to his surprise, the vehemence of the weather became markedly less. The piercing rain dropped almost to nothing. The winds fell to a mere breeze. The churning surface of the swamp became almost level; only long, low ripples spread out from his feet as he stepped.

“This is puzzling,” he said. He checked his instruments. “Hmmm. I’ve never been able to get this close to the Big Soup before. It’s... it’s just a few feet away.” He looked up. The usual gray mist was all he saw, but there were no thrashing vines in front of him, no currents in the grayness. In fact... it wasn’t mist any more. He stopped short. He’d seen something like this before—yet not exactly like this. But enough like it that a chill ran over him. There was a wall in front of him, reaching upward and from side to side into puzzling uncertainty, as if his eyes were out of focus. Even the quagmire from which it reared up didn’t have a sharp edge to it. He couldn’t tell where the marsh ended and the wall began. The wall was almost the same color as the mist but not really a color at all. It was like what he’d seen when he had been in hyperspace. It was that color that could become any color you thought it was. If you looked at it and wondered, *Do I see purple in there?*, it became a grayish lavender. If you pondered whether it might be green, it became a light, mossy green. It was all in your perception. The thing took on the color your mind gave it, but of itself it was nothing. It looked all at one time as if it were close enough to reach out and touch, or miles distant with swirling highlights that confused the mind.

Nothing. That's what this looked like. Joe took out his instruments. He directed his electromagnetic detector forward. Nothing returned to him. Spectroscopic recorder? Nothing came back. Radiation? Nothing. It was as if he were trying to measure outer space.

As a last, desperate resort, Joe scrambled in the mire and picked up a handful of filthy, clinging mud. He threw it at whatever was in front of him. With a gasp of terror he saw that the mud splattered forward only to be caught as if in a still photograph. It froze in space. It struck no surface, it dribbled nowhere. It just froze, an unmoving three-dimensional spray. Then, with an additional leap of horror, Joe saw that the part of the mud closest to him was slowly, very slowly oozing forward, trying to catch up to the part farthest away from him. He stared, his eyes open wide and his heart pounding. Then it seemed as if the mud stopped altogether. He could detect no movement.

In a flash of insight he guessed what he was experiencing. He spun around and sped back toward the *Diving Bell*. In an instant he was back in the stormwind. It caught him by surprise and flung him around, but he held to his feet, instantly dropped low, and kept going. Kathryn was gone but he wasn't surprised. He knew her real self was safe back on Zane.

In moments he was back on solid ground. The torrid rain washed the clinging mud from his suit. He retracted the suit's duckfeet and jumped back into the pod. As quickly as he could, he executed a firelaunch from the surface of the planet. He followed an erratic course through the seething atmosphere until he was once again back in space.

He removed his helmet and activated the communicator.

"Joe Taylor to Space Station Zane, come in," he said.

"Zane here!" came the excited response. "Good Lord, Joe! Where have you been? We'd given up hope of ever seeing you again! Kathryn is inconsolable!"

"Given up hope?" Joe said, puzzled. "Why? What's wrong with Kathryn?"

"What's *wrong*? Joe, you've been missing for six days!"

~

“*Six days*, Joe!” exclaimed Kathryn, as he finally released her from his strong embrace. Her tears were still flowing. “Your air supply can’t last more than six hours! I knew you were dead! For *six days* I’ve known you were dead! Where have you been? What happened down there?”

Joe, still wearing his environmental suit and fresh from the decontamination chamber, had been brought directly to the large meeting room nearest Commander Ingrid Thronson’s office where she had called Kathryn and assembled the heads of all the space station’s departments. They were all standing tensely, astounded at Joe’s appearance long after they had given up hope that he’d ever return from the planet’s surface. No one was speaking, and everyone was looking at the Starman as if he’d returned from the dead.

He wobbled on his feet, looked around for a seat, and collapsed into it. “I beg your pardon, Commander. I have to sit.” Commander Thronson nodded and invited everyone else to be seated. Kathryn sat as close to Joe as she could get and held his hand. A medico took readings of his blood pressure, heart rate, and reflexes, and declared that Joe appeared to be unharmed.

Joe quickly recounted what he’d seen and what had happened when he’d tried to take measurements. He placed the crystal that contained the data from his expedition on the table, but no one noticed it.

“I don’t know why I was able to get so close to the wall this time,” he concluded, with a shake of his head. “Every other attempt I’ve made to explore the Big Soup, I couldn’t get close to it. The blasts of wind and rain were always so fierce, and the ground was so unstable, I was very effectively stopped every time I got up to about a hundred yards from the boundary.

“I didn’t know how fortunate I was!” said Joe with conviction. “Whenever something gets within a few feet of the edge, time slows down. The closer you get, the slower time flows. I was only...” he swallowed. “By my chronometer I was

only out of the pod for twenty-nine minutes. If I'd gone any closer than I did... I'd still be there. I could have stepped a little closer, been there for five more minutes, and when I got back, years could have passed and the pod and tether would have been long corroded away. I'd never have known what'd happened to them—probably would've just assumed the pod had been blown off its anchors, but knowing that that was impossible. Six days? Man! It could easily have been six years!”

Chapter 2: Rachel

“It’s uncanny,” stated Starman Mark Seaton. He ran a hand through his dark hair and then shook his head. He was a broad-shouldered, finely muscled man whose face was just beginning to show the lines of habitual concern for his responsibilities.

“What do you find uncanny about me, Mark?”

Mark felt a shiver go through his body as the hologram spoke. In front of him stood what looked like a young woman with a friendly face and long, dark hair. She looked at him with a pleasant, appealing expression. A subtle patina of light shimmered throughout her body so that it was obvious that she wasn’t a living being.

Mark had seen Ahmanyen holograms before; in fact he himself had experienced holographic projection more than once. Holographic projections, however, were representations of genuine living beings. This hologram was artificial, a computer projection. It wasn’t alive, and yet it spoke, reasoned, and even claimed to emote. Through the application of Ahmanyen technology, it was even semi solid; it could feel and be felt. The full technical term for what he was looking at was ‘tactohologram’. It was disturbingly eerie. The hairs on the back of his neck were prickling.

Mark didn’t answer the hologram’s question. He turned toward his companions, his wife Stenafi and fellow Starman Kathy Foster. Stenafi was an Ahmanyen, and showed the

characteristic height and slenderness of her race, with long tapered fingers that suggested sensitivity and an ability to do detailed work. Her skin was a rich light brown, smooth and creamy.

Kathy was dressed in work clothes with her sleeves rolled up and her long black hair pulled back in the triple ponytail favored by many Ahmanyen girls and young women. She had invited her friends to the combination laboratory and workshop in Eagle City that had been assigned to her shortly after she had moved to Ahmanyen. That had been eight years ago, within a month of her being created a Starman. She was now in her mid-twenties.

Kathy had been deeply affected by the death of her older brother, the famous Starman David "Zip" Foster, in the second Xenobot war nine years before. She had never quite recovered from the shock of his loss, and over the years had immersed herself in a grueling self-imposed program of study and invention. The young Starman's special interest was Ahmanyen history, life, language, and culture. Her severe grief after the heroic death of her brother had driven her to analyze the nature of relationships between humans and Ahmanyens. She had studied the psychology of both races and how they experience companionship, love, and grief, and she was the pioneer in the new field of human-Ahmanyen rapport.

Her friends Mark and Stenafi were crucial to her studies, for their marriage was the first, and so far only, union between a human and an Ahmanyen. Their daughter Dianda was the first child born to both races, and the fact of her birth proved conclusively that humans and Ahmanyens were fundamentally of the same stock, though from different planets. Dianda had just turned five years old, by Earth measure. Her name was Ahmanyen, and meant "treasure".

The first practical application of Kathy's research was the design of a computer for use aboard spacecraft, with both artificial intelligence and apparent emotion. Called a "holographic companion", or holocom for short, each was to be specifically patterned to match the full psychological profile of

the individual to whom it would be assigned. The first generation holographic companions would be produced for selected Starmen, who were noted for long solo journeys throughout the galaxy.

These elite venturers were created from the physically healthiest and most psychologically and emotionally balanced and virtuous human beings. Less than one percent of the applicants were found suitable. From the first Starman who had been created about sixty years before, only 247 people had achieved that status.

Most of them, however, were very intense people who worked best alone. The team of three who had worked together—Zip Foster, Mark Seaton, and Joe Taylor—had been unusual. The team had been broken with the death of Zip Foster in 2160, whose valiant self-sacrifice had ended the second Xenobot War and brought victory to the human-Ahmanyen alliance. Within a year, Joe had married Starman Kathryn Mullaney, and a few months later Mark Seaton had married the Ahmanyen Stenafi.

Starman teams of two and three had become slightly more common in the years that followed the close of the Xenobot war, and Starmen's assignments had been radically redefined in the age of peace. Starlight Enterprise, the company that had originated the concept and maintained their sponsorship, had come to rethink how to make the most of them. That rethinking emerged from studying the phenomena and problems of the lone Starman. It was further inspired by the reemerging Ahmanyen culture with its priority of developing the artistic and intuitive sides of life. Kathy Foster's work had been groundbreaking. She was now introducing Mark and Stenafi to the prototype of her several years' labor.

With the help of a team of more than a dozen people as well as an extended group of more than fifty assistants, Kathy had attuned the first holocom to herself. It had taken more than three years of thorough psychological profiling to produce a computer with artificial intelligence that understood Kathy's strengths and

weaknesses in thinking and reasoning, and artificial emotion that recognized how she expressed feelings in a variety of circumstances. The computer could anticipate how Kathy would respond in situations of fear, praise, loneliness, anger, grief, pleasure, depression, anxiety, love, overconfidence—the entire palette of human emotional experience with all of its nuances. The computer had a full range of possible responses including empathy, comfort, challenge, and even a “take charge” attitude—all designed to provide Kathy with whatever was necessary to keep the Starman safe, functional, and successful in her expeditions.

Mark, who of course had been fully aware of Kathy’s labors, had been skeptical from the beginning. “It’ll be no more than a sophisticated ‘mechanical friend,’” he’d stated when he and his wife had discussed the project after it had first been proposed.

“And what’s wrong with that?” Stenafi had answered.

“It can never replace a living being,” Mark had said.

“It’s not supposed to,” responded Stenafi.

~

Now Kathy was unveiling the first holographic companion, the product of her entire labor as a Starman.

“I sense your acute discomfort, Mark, and I understand completely,” said the hologram, “but I assure you that I am not an android.” There was a twinkle in the hologram’s eyes as her mellifluous voice tried to placate the Starman.

“Rachel, I don’t think that Mark will ever be comfortable with you, or any other holographic companion.” It was Kathy Foster who’d spoken.

“The fact that she—it—she—thinks she can *understand* me makes it worse,” said Mark with noticeable strain in his voice.

“If a holocom had been designed for you, maybe you’d react differently, Mark,” said Kathy.

Mark simply shuddered and shook his head again.

Stenafi spoke up. "It's a visceral response, Kathy, I'm sure. Earth's ban on androids ... "

"Oh, I understand," interrupted Kathy, lifting a hand. "Even though my family lived on Luna, I've got some of that same feeling myself. Being a human being, of course, I grew up with that same abhorrence of androids and the knowledge of how they had been such successful instruments for the nuclear terrorists of the last century. But I have lived here on Ahmanya for several years, immersing myself in Ahmanyan culture especially to create holographic companions. The blend of human logic and engineering skill with Ahmanyan psychical insight and holistic philosophy has made possible the first holographic companions for solo Starmen. This is something quite different from an android, something never seen before. And Rachel here is the prototype!" Kathy spoke the last sentence proudly.

"And she's amazing, Kathy!" affirmed Mark. "I find her uncanny, but absolutely amazing."

"Thank you, Mark," said Kathy and Rachel together. Then they both laughed. It was as if they'd been friends for years.

~

Three days later Mark and Stenafi met Kathy at *The Hidden Garden* restaurant for a leisurely dinner, and were seated at a small table in an arched alcove in one of the balconies that overlooked the main dining area on the lower floor. Through a clear glass window made of diamond panes the diners could view a small part of the famous intricate garden that surrounded the restaurant and inspired its name. It was well after dark in Eagle City, and the shrubbery below was cloaked in shadow, broken here and there with strategically placed tiny lights. Electronic fireflies drifted throughout the artistically arranged large-leaved branches, ferns, and draped vines, affording a little extra illumination.

Over their table was suspended a chandelier wrought of iron and silver, its candles in wide glass half-globes casting soft light below.

Sjaantje, who had arrived on Ahmanya from Holland four years before, was their favorite server. "I am so glad to see you, Starman Seaton," she said as she approached their table, "and you, Stenafi, and Starman Foster." Her greeting was warm and sincere.

"We always ask for your table, Sjaantje," said Stenafi. The Dutch woman beamed with pleasure.

"Tonight's dinner is a special occasion," Stenafi continued. "Kathy is leaving in two days for a year-long solo flight." A look of sharp disappointment crossed Sjaantje's face. "But when she returns, we'll celebrate right here at this table!" concluded Stenafi.

"I'll look forward to that day," said Sjaantje, "but I'll miss you, Starman, while you are gone."

"Thank you, Sjaantje," smiled Kathy. "And you can be sure that I'll look forward eagerly to being right back here."

"I'll bring you some bread," said Sjaantje. "Tonight it's sun-dried tomato and cheese focaccia. Loaves are always in the oven, so it'll be hot and fresh. What kind of wine would you like?"

They placed their orders for drinks and then looked over their menus.

~

After Sjaantje had taken their dinner orders, there was silence at the table for a few moments. Kathy, sitting closest to the window, looked out over the garden. Growing up she had been a beautiful child, and had become a young woman of striking loveliness, but the intensity of her work and the unresolved grief she bore had taken its toll. Her youth and good health had kept her going, but her emotional burdens had given her a drawn, almost haunted, look. In the shadowed candlelight her skin seemed taut over her cheeks. Though she had studied and analyzed the nature of relationships between people,

especially those who were representatives of the two races, she had had no close relationships of her own. Even her bond with her parents, though dearly loving, was careful, with much that went unsaid.

At last Kathy said, "It's unusually beautiful out there, but it also has a cold, lonely feel. It's a painful kind of beauty. I imagine that outer space is something like that."

"You haven't done much space travel, have you, Kathy? Especially on your own?" asked Mark.

"No. I haven't." There was another time of silence. Then Kathy said softly, still gazing out the window, "I'm afraid. To be honest, I'm afraid—not afraid of being in space, but afraid of being so alone and so impossibly far from people for so long."

"Yes, of course you are," said Stenafi gently, and reached out a hand to lay it on Kathy's. Kathy turned her hand over so that she could grip Stenafi's, palm to palm.

"Of course, you'll have realtime communication," said Mark, "but that won't be the same as having another person with you."

"No, it won't be the same—but that's what the test is for," said Kathy. She smiled, "In spite of being afraid, I'm really looking forward to it, even if I don't have a major assignment—just visiting distant places, gaining some experience, doing a little research. I'll miss you and everyone, and being in Eagle City, but I'm a Starman and it's time I went into space. And I'll have Rachel."

Sjaantje served their meals.

~

Two days later in the early morning, Kathy boarded her spacecraft, the *Raptor*. She had shared a simple breakfast with her research crew, but Kathy preferred to say farewell at the lab and walk to the spaceport alone. She could identify her spacecraft from a quarter of a mile away, bright yellow and

glossy in the morning sun. As she came closer she could see its name written in red-orange capital letters.

Before entering the craft she spent a long moment gazing around the spaceport that was named for her brother. She drank in the look of the morning mist that lay in wisps across the tarmac. She breathed in the unique smell of the fresh air of Ahmanya. She watched the shadows of the sawtoothed east crater wall stretch across the field. She lifted her eyes to the city beyond the expanse of the spaceport and took in the sight of the buildings made of glass, metal, and stone. To one side she saw the older part of town with its houses and shops constructed of red brick taken from the soil of the planet itself. She knew it would be a full year before she could enjoy the sights and smells of a place where people lived and worked.

Then she turned and entered the *Raptor*, sealing the portal behind her. The Starman made her way to the bridge. Rachel was in the co-pilot's seat apparently going over the checklist, although Kathy knew she was integrated into the ship's systems and had no need of pencil, paper, or even dials to read. Kathy felt mild irritation.

"Rachel, could you leave me now? I'd like to launch on my own."

"Very well, Kathy," came the soothing voice of her holocom as she stood up. Kathy wondered, *Was that a hurt expression on her face?*

Rachel left the bridge and Kathy seated herself in the pilot's seat and looked over her own checklist. Kathy knew Rachel would disappear once she was in the corridor. Her walking out was just an attempt to make her appear more "human", she mused while she checked instruments and control settings; she never did like that idea. She thought it made Rachel too fake, but the team psychologist had overruled her.

Rachel stuck her head in from the corridor, "I have a message from your parents. Would you like it now?"

"Yes, thank you," said Kathy, putting down her list.

On the large screen to her left the image of her parents appeared. Kathy stopped what she was doing and paid attention. She recognized the living room of their family home in Amundsen City at the south pole of Luna, Earth's Moon. Her mother and father were seated on the well-used couch. Both were smiling. Their words were comforting. They told her that they loved her and were proud of her, and asked her to send them messages from time to time, even in realtime.

The message was reassuring but underscored her loneliness. She had last visited her parents just five weeks earlier, all of them knowing that it would be the last time they'd see each other until more than a year had passed. Her mother had hugged her and cried when they'd parted at the Amundsen City spaceport, and her father had held her for a long time and kissed her twice. She remembered that moment now. She blinked back small tears as her parents' message ended.

She returned to her checklist.

"I've already gone through the checklist, Kathy," said Rachel, sticking her head back through the door.

"I expect that you have, Rachel, but I want to do it also," Kathy said absent-mindedly, never taking her eyes from the list.

"Okay. I notice that your heart is beating rather faster than usual. I expect that's normal under these circumstances."

"Yes. I expect so. Give me a moment to myself, please, Rachel, and then we'll lift off. Please make arrangements with the tower. I'll let you know when I'm ready."

"Okay, Kathy."

Kathy finished going through the checklist, then contacted the tower.

"The *Raptor*, ready to lift off," she said crisply.

"Yes, Starman Foster. Your shipboard computer has already made the arrangements. You may launch at will."

"Thank you."

Kathy began the launch sequence. Five minutes later she had left Ahmanya behind and outer space was ahead. Before a full hour had passed, the fourth planet was no longer visible to the

naked eye. Starman Kathy Foster's world had been reduced to a small, silent, one-man spacecraft floating in a shoreless black void generously sprinkled with hundreds of thousands of points of light—to Kathy's mind, all of them infinitely far away.

Chapter 3: Temporal Breakwater

Joe and Kathryn Taylor were relaxing in an observation port in the outer wall of Space Station Zane not far from their living quarters. Kathryn was in an easy chair reading Shakespeare and Joe was lounging on a sofa, listening to the William Tell Overture through a private sound system. His fingers were keeping time to the music, tapping out the rapid beat of the overture while he gazed idly out the window, watching cloud patterns on Larson's Folly below.

"Joseph," said Kathryn, raising her voice so that Joe could hear her over his music, "annoying, that is, more annoying than a buzzing fly in a bakery. I'm trying to read, and somehow the balcony scene in 'Romeo and Juliet' doesn't go with your staccato finger tapping. If I didn't look up I'd think you were making popcorn in this place of peace and quiet."

"How about reading a good western instead?" suggested Joe as he gave his fingers a rest. "A stirring gunfight would be incomplete without the accompaniment of rapid finger tapping. I'm sure this space station has some good westerns in its library. They're sure to be full of gunfights. How about a good Marshal South yarn? I'll be glad to get you one, and then we'll both be happy."

"I'm always happy with you, Joe; I'd just like to be a wee bit happier than I am now."

Joe was about to respond when both of their compads alerted them to an incoming message.

"Greetings, Joe and Kathryn," began the message. "This is Joi. I've got all the data analyzed. I'd like to share the results

with you before I announce it to everybody. Can you meet me in the lab?"

"Sure, Joi," said Joe. "We can be there in about ten minutes."

~

When the two Starmen came through the door of the lab, Joi was seated on a tall swivel stool, peering into a 3D tank that showed a portion of the planet below them. She was wearing thick goggles. As they drew near, Joi slid off the stool and walked around the table, still looking attentively into the tank. She moved to the other side of the table without looking up, and then reached into the tank with a thin black wand. Delicately she touched several places on the map below her, holding the end of the wand for a few seconds at each place.

Then she stood up straight, slid the goggles up to her forehead with the wand still in her right hand, and arched her back a little.

"Tiring, bending over a lot," she said as she noticed that Joe and Kathryn had arrived. "Come over here," she added, walking over to where several chairs had been shoved randomly aside. She lay the wand down on a workbench and kicked three of the chairs into place so that they faced each other. She plumped herself into one of the chairs and said, "Sit down. I got something for you."

Joe and Kathryn sat and adjusted their chairs a little so that they were closer to Joi.

"You like tea, I know. I've got some about ready here." There was a large beaker filled with water on a rack over a gas flame. It was just showing tiny bubbles. Joi dropped two teabags into it. "Darjeeling," she murmured. She set three small beakers out on the lab table closest to the chairs. Then she scrambled through the equipment on her lab desk and laid three sets of tongs alongside the beakers, and then gave Joe and Kathryn her full attention.

"Either of you ever seen a breakwater?" she asked.

“Sure,” said Joe. “When I was a kid growing up on Earth, sometimes I’d go with my cousins’ family on vacation to the ocean. We’d stay in a fishing village in Newfoundland. There was a breakwater in the bay where all the fishing boats were.”

“Describe it to me.”

Joe cleared his throat. “It was two long lines of stones as big as rhinoceri that had been sunk and built on until there were two walls on the far side of the bay. They overlapped a bit, with a channel between them. The fishing boats went out to sea through that channel.”

“And what did the breakwater do? Why did they make it?”

“The powerful waves of the ocean were stopped by the breakwater. Their energy was used up there and whatever waves came into the bay were relatively mild. Much milder, in fact.”

“Right. But if the waves kept pounding on the breakwater, eventually it would weaken and give way if it weren’t maintained. Some rocks would be loosened and eventually displaced, and that would allow the greater energy of the raw waves to enter the bay, little by little. And that would weaken the breakwater more, leaving it vulnerable to more erosion.”

“Of course. I remember one summer when men spent an entire week raising the breakwater by an additional layer of stones. It had to be raised and leveled out because the highest stones had settled or broken or been rolled away by the waves.”

“Exactly,” said Joi, nodding her head vigorously. “What we’ve got on Larson’s Folly is a temporal breakwater. Those singularities down there are holding back the natural forward flow of time. But they are very old, very very old indeed, and they haven’t been maintained for a long time, probably millennia. They’re giving way, little by little. There are ‘soft spots’ in the boundary of the major singularity—what you call the Big Soup. That’s why you were able to get so close to the wall last week.”

Last week? Joe was nonplussed for a moment before he remembered that almost a week had passed on Space Station

Zane while, to him, it had been less than two days. Quickly he reoriented and connected with Joi's words again.

"Now in a spacetime stasis, as you know, time is not totally stopped; it cannot be. But the more energy you put into your stasis, the slower you can make the flow of time. In a huge stasis, time flows so slowly as to be effectively unmoving. However, time moves inexorably forward and presses on the stases that are containing it. It takes an enormous amount of energy to maintain singularities the size of those below us, especially the one that's as big as a city, and the longer natural time passes, the more energy is needed. I don't know what or where the source of the energy is, but I'll be hornswoggled if it's on Larson's Folly.

"Now we used to think, as short a time ago as two years, that losing solid ground on this misbehaving planet was a bad thing. We wanted more solid ground. Bigger patches of it that would last longer. But I believe now that the more solid ground there is down there, the *worse* it is. Solid ground, stability on the planet, is evidence of instability in the singularities. That is not good. Not good at all."

Joi removed the teabags from the now happily boiling water, lifted up the large beaker with some tongs, and poured the tea into the small beakers, and then continued.

"Of course there will always have to be at least two calm sites where solid ground can appear because of the 'fixed-point theorem', sometimes called the 'hairy-ball theorem'. Topologically, it's impossible to cover a sphere with hair—or with radiating lines—without at least one such fixed point. For the same reason the wind cannot blow everywhere over any planet's surface at once; there must be at least one point of calm and at least one point where the winds gather, or there must be at least two points of calm as there are on Larson's Folly. As you know, the endless storm on the interesting globe below us is, to put it simply, just the planet's atmosphere endlessly whipping around it in an easterly direction, and the poles are places where there is virtually no wind. Only thing is, that's not helpful to us since there's nothing interesting at the poles.

“Under these conditions the planet’s surface should be nearly perfectly smooth, but it has a few irregularities. These are caused most likely by the variations in the fascinating vegetation and, even more, by the constant upheavals on the surface because of the astonishingly vigorous tectonic and core activity. That’s what makes the occasional and short-lived solid land possible, and it’s what makes my job here as chief exo-geophysicist so endlessly rewarding and fulfilling.”

Joi leaned back in her chair and fixed her eyes first on Kathryn, then on Joe. She pursed her lips and took a long sip of tea.

“Well. There’s a big patch of solid ground now. About a hundred square miles of it.” Joe’s face showed great surprise.

“But there’s never been...” he began.

“I know,” interrupted Joi. “I know. I’ve worked on Zane since we took it over. There’s never been a patch of solid ground any larger than a few hundred square yards, and no patch lasted longer than a few days at most. It always appeared out of the muck, and then gradually got sucked back down. Those appearances were always coming and going, and were far too small for our instruments to pick them up, what with the mix-up of signals caused by all the anomalies in gravity and electronics and what all. You know well, Joe, that on your trips down there you just had to cruise around until you found something solid, and it’s only from your jaunts that we know what little we do about the surface topography.” Joi paused and pursed her lips again.

“But this big patch appeared in the past few days, and it looks pretty permanent. I was just measuring it in the 3D tank over there, ’cause it’s real clear right now—big, bold, ‘n, beefy. Maybe it’ll eventually sink back down but I doubt it; there’s no sign whatever that it’s softening up. And it’s located on the opposite side of the planet from your Big Soup—polar opposite, actually. Its existence is a sign that there’s something about that temporal breakwater that’s unstable. And an unstable temporal

singularity is so unbelievably dangerous that our minds can't comprehend it."

There were a few seconds of silence as the Starmen absorbed what Joi was telling them. Then Kathryn said, "It doesn't look as though we can do anything about it."

"We can do two things," said Joi. "First, we can get outta here as fast as we can. That's probably a very good idea. But second, before we hightail it I'd like to go down to that big hunk of land and take some measurements."

"There's no need for you to go, Joi. I can do it. I know what it's like."

"I *know* there's no need for me to go, Joe! Geez, there's no need for *anybody* to go! I can get the information I need from a probe! The weather down there on the solid land is balmy compared to what's raging everywhere else on the planet, and we can finally land a probe on the surface—at least on *that* part of it. I'm going down because I *want* to! I'm from Texas and I miss the wide open spaces that I haven't seen for twenty years!"

"It's not exactly like Texas down there, Joi."

Joi shrugged. "Finish your tea. I need a few minutes to assemble my equipment. Shall we meet in the pod hangar in, say, fifteen?"

~

Since Space Station Zane was situated in orbit so as always to be in position over the largest anomaly on Larson's Folly, Joe had to fly the *Diving Bell* for over an hour to reach the place of wide land on the opposite side of the planet.

"I may be a techno-hermit, Joe," said Joi, peering out of the small window to see the clouds roiling below her, "but I really do love adventure! This is a great opportunity!"

"If you can still say that when we're on our way back, I'll take my hat off to you, Joi."

Joi just smiled without turning her head away from the window.

“There it is,” said Joe. “Can’t miss it.” Ahead of the *Diving Bell* the clouds were notably calmer. A little farther along and they were ribboning into clear sky. And then they were gone.

“Wow!” breathed Joe. “Probably the first clear, sunny sky on Larson’s Folly in many tens of thousands of years!”

“Weak sunlight,” stated Joi, “but sunlight it is. Let’s see what’s on the ground.”

Joe brought the *Diving Bell* down through clear atmosphere. The wind was a mere twenty-three miles per hour, varying in places to as low as ten or eleven. The pod made a gentle landing.

“Down safely,” said Joe. “That’ll be ten solars.”

Joi snorted. Out of habit, Joe plunged the anchors into the rock even though they weren’t needed. He and Joi debarked and set foot on stable ground.

Most of the terrain was solid rock, with pockets of slimy black water. In this setting the reeds and vines that Joe knew so well from his previous landings on the other side of the planet were limp, quiet, and unmoving.

After a quick reconnaissance, Joi unpacked her equipment and began to set it up on a large shelf of rock about thirty feet from the pod. She brought out a small box with adjustable telescoped legs to keep it level and a tube of gel to glue it in place; a tripod holding a vertical tube; and various recording equipment with quartz screens.

When it was assembled, Joi used the tube in the tripod to burn out a deep hole in the rock. Then she inserted some clear, gummy substance and dropped a small ball into the hole. Then she removed the tripod and inserted a rod with a clear tip. On the opposite end of the rod was a set of small calibrative controls.

“Here, Joe,” said Joi, handing him two small boxes with a gummy substance on one side. “Go position these about a mile away, one in that direction and one in that direction. I’m going to put this one”—she held up a third box—“over there. That’ll give us good triangulation. Shouldn’t take us long on a planet with this low gravity. Let’s hop it.”

Joe began to lope over the ground. He set both his boxes in place and was back at the center in less than half an hour. Joi was already there, waiting for him.

“Now we test,” she said. “Lord, I am enjoying this! Twenty years ago if someone had told me that I’d love fieldwork, I’d have laughed in his face for a poltroon. This is great! Ha!” She pressed a button and a charge detonated far under the ground, generating seismic waves that traversed the interior of the planet. Joi watched the screen on her pocket computer. A minute later data began to come in.

She nodded, then said, “Again,” withdrew the rod and dropped a second ball into the hole and capped it, and set off another charge.



When it was assembled, Joi used the tube in the tripod to burn out a deep hole in the rock.

Altogether she took six sets of readings. Then she and Joe gathered up the most important equipment and returned to the space station. Joi wore a most satisfied expression.

"I'll have some information for you tomorrow—about midday, I should think," was all she said.

~

The next afternoon Joi's elation was evident as she prepared to address a small crowd in the meeting room near Commander Thronson's office. The six heads of the various research departments were there, along with the two Starmen and, of course, the Commander herself.

"I have solved the problem of Larson's Folly!" began Joi with obvious relish. "Well, most of it, anyway. You'll forgive me if I seem a little dotty, but I've only slept about two hours out of the past thirty. I've been working on the amazing data just about straight through since yesterday, but..." She touched a control box in her hand and a three-dimensional hologram of the planet appeared in the air over the table around which everyone sat.

"At the core of the planet there is a deposit of ultra dense material." A bright white glow appeared in the center of the holographic sphere. "Right now it's relatively small. From this chunk is drawn the power that maintains the three spacetime stases on the planet's surface. I don't know exactly how that is done since that's not my field," she waved her hand dismissively, "but I have verified that the dense material is present and that it relinquishes energy far more quickly than would be expected if it were decaying with a normal half-life. I've also determined that its energy comes from a source outside the Marcanto system. More about that later.

"What is this dense material?" Joi looked around the room with an air of excitement that was almost electric. She began to speak, a little more slowly than before.

"Now, it's long been a hypothesis that there are 'islands of stability' in the sea of unstable super-heavy elements created

during supernova explosions that can produce elements with extremely heavy density but can still exist and persist at less than stellar core temperatures and pressures. According to the Seaborg hypothesis, the atomic nucleus is built up in ‘shells’ in a manner similar to the electron shells in atoms. When a nuclear shell is filled, the total number of neutrons and protons in the shell is called a ‘magic number’. If the number of both neutrons and protons is ‘magic’, then the shell is ‘doubly magic’, making the element not only super heavy but most likely also to have a very long half-life—for all practical purposes, stable. The heaviest stable nucleus and most stable heavy metal that we are familiar with is lead-208, which has a doubly-magic spherical nucleus.”

Joi paused again and her eyes sparkled. “Yesterday I discovered a much heavier element at the heart of Larson’s Folly than has ever been detected before.”

A ripple of excitement ran through the room. Several of the scientists leaned forward in their seats with their eyes fixed on Joi’s face.

“It is obviously this that plays havoc with the gravitational and electronic fields. The element at the core of Larson’s Folly has a doubly magic number of 310, because both its proton number of 126 and neutron number of 184 are magic. This element, then, is extremely dense, very hot, and sustainable in place. The three shepherd moons that orbit our fair planet both churn and contain the artificially high level of instability of a remarkable planetary system.

“But there’s more. This heavy core not only keeps the planet gravitationally unusual, but is also the source of the energy by which the three stases on the planet’s surface are maintained. The draw of energy is terrific, and therefore must be replenished periodically. When this chunk of extremely dense matter receives an influx of energy like the recharging of a battery, then its mass is greatly increased—enough to strengthen the gravitational field of the planet significantly. Needless to say, I do not know how the energy is changed into mass, how the mass is converted back into energy, or how that energy is used to create the stasis fields,

but when it is being powered, the core grows much larger in just a period of days.”

“It’s not possible!” exclaimed one of the scientists. Joe recognized the head of the department that was responsible for studying and researching the energy flows on the planet, and who had been expressing his frustration for the previous six months over the lack of continuity and predictability of everything he had attempted to quantify.

“It’s not only possible, it is the fact,” asserted Joi. “I’ll give you the data later. It is this ‘recharging’ that keeps not only the surface of the planet but the entire interior of the planet in a state of—well, not exactly flux, but of unnatural strain that is far stronger than the stresses we find in a normal geologically active planet. This is enough to account for the gravitational and electrical anomalies we have observed. As the interior of the planet shifts with stress, its gravitational patterns shift.”

Joi’s audience was paying her rapt attention. As she increased the size of the white glow in the center of the sphere, the entire sphere shrank noticeably. Parts of the interior blazed sullen red or heavy orange, and the surface lighted up with angry yellows and oranges. The anomalies showed like blisters on the surface—two small ones and one large. They did not change color, but their shape changed slightly so that they were always bound to the surface of the sphere even as it grew smaller.

“Thanks to my field work yesterday,” Joi continued, “I was able to measure and map the strata of the rocks within the interior of the planet, even to the magma closest to the core. I was able to determine with fair accuracy when the core had been ‘recharged’, if you will.” Like the layers of an onion, red layers of demarcation showed throughout the interior of the hologram. There were many variations and flaws in the map but its onion-like structure was evident.

“Approximately every 1,457 years a bolt of radiant energy has been injected into the core of the planet. The energy was changed into mass, considerably increasing the mass of the core element. Throughout the rest of the cycle this mass was the

source of the impressive amount of energy that is necessary to maintain the spacetime stases. As the centuries passed, energy was drawn from the core and its mass was very gradually reduced. Obviously, that lessened the gravitational strength, and the planet slowly cooled and expanded.”

The angry colors on the sphere were incrementally dulled, and the sphere grew in size little by little. The spacetime stases changed shape like water droplets on the surface of a balloon.

“We’ve long known that the shepherd moons are not natural to Larson’s Folly. We’ve studied them easily enough and determined that they are not even native to the Marcanto system. Clearly they were imported from somewhere else and were carefully positioned so that they can ‘ride’ the surges in gravitational alterations and still maintain the desired instability of the mantle of the planet and keep driving the eternal storm. Obviously the planet has been intentionally made what it is by external means.”

“There must be something of great value inside those spacetime stases,” remarked one of the other scientists, “if some intelligent race in some long ago time went to all the effort to create this anomaly.”

“I’m sure you’re right, Dr. Mensah,” said Joi. “Most likely the planet is what it is for the sake of whatever is inside the anomalies. The anomalies are strongboxes, and the rest of the planet is designed to keep them locked—forever. Of course, I have no ideas about what’s being protected down there, but I am quite sure that Larson’s Folly was at one time a perfectly ordinary planet.

“I do have a little more information, however, that may lead us to the race that made the planet into the tormented thing it is now. It was possible, by observing the shape of the strata inside the planet, to obtain a rough idea of the distance from which the recharging bolts originated. Here is the pattern of the most recent of them.” A broad, bright blue cone appeared in the hologram, with its apex at the bright white core. “The planet was rotating,

of course, while the bolt was re-energizing the core, so rather than a single line showing the source of the bolt, we have a cone.

“The bolt was particularly narrowly focused, of course, since it had to reach the core of the planet, a very small target, but it had to have been very slightly conical in shape. No ray is perfectly collimated but expands outward from the source in a cone shape. This means that the ray will spread slightly between the time it crosses the planet’s surface and intersects the core. I was able to measure the angle of the cone and determine roughly how far away the apex of the cone was at the time the bolt was sent. The apex, naturally, is the source of the bolt. Here’s what I found.”

Joi’s hologram of Larson’s Folly shrank to a point so small as to be invisible to the naked eye, and a thick blue ring appeared.

“This program is far too simple to show the entire galaxy but I can give you an idea of what I learned. At the time of the last charge the source of the energy bolt had to have been somewhere within this ring.

“And before anyone asks, I was not able to track the complete history of these ‘rechargings’, so I don’t how long Larson’s Folly has been the way it is; I don’t know when it all started. The traces are increasingly faint the farther back in history we go, until all traces are gone after about 50,000 years. I was able to identify about thirty-two pulses, with rough conjecture beyond the most recent twenty or so. It was only identifying the clear pattern of their appearance that made it possible for me to find traces of the ten or twelve rechargings beyond that. But they are there. Now here are the rings for all of the rechargings I could track.”

A number of blue rings appeared in the space over the table. The group of intent watchers said, “Aaah,” and heads leaned in a little.

“If I add rings for the previous thirty-some charges, you get this. I’ve graded them monochromatically. As you can see, the lighter rings are closer in, and the darker ones are farther out.

Evidently the source of these bolts is moving away from Larson's Folly. The darkest line was the most recent recharging event. That occurred a little more than two thousand years ago." A collective gasp followed this announcement.

"Yes," said Joi. "We are long past due for a recharging—more than five hundred years overdue. Bad as the weather on Larson's Folly is now, it is the most peaceful it has been since the spacetime stases were put in place, whenever *that* was. The planet is stabilizing and the spacetime stases are deteriorating. Rapidly. In fact, they're about to blow."

A stunned and tense silence filled the room. People looked at one another with expressions of fear on their faces.

"Of course, we don't know what's inside those anomalies, but before too long I think whatever's inside is going to be flung out. And if the collapse is sudden, as I suspect it will be, something very, *very* bad will happen. Something catastrophic beyond precedent, something we can't even guess at."

"Will we have any warning?" asked Kathryn, her face drawn.

"I think what we've got right *now*, Starman Taylor, is 'warning'. Yes, we're getting our warning right now."

Chapter 4: Joe's Hunch

Later that afternoon, Joe and Kathryn were back in Joi's lab, engaging her in further discussion over a simple meal.

"I have a hunch," said Joe, putting aside the remnants of the snack. "If you two are finished eating, let's take your data, Joi, and go to the main navigational tank. We'll need lots of space for this."

A few minutes later the three of them were in the enormous navigational hall of the space station. In the center of the hall there was a 3D tank that was over thirty feet square and twenty feet deep. Joe approached the officer in charge.

“Major Rockford, may we appropriate the tank for a few minutes?”

“Go ahead, Joe.”

Joe, Kathryn, and Joi walked up to the rail that surrounded the tank and looked into it. Spread out below them was a stunning array of lights that depicted the portion of the galaxy local to Larson’s Folly. In the center of the display was a very bright light orange ball about an inch in diameter that represented Marcanto. Tiny blue lights showed the positions of its six planets, all of them small and close in to their sun. The outermost planet, Larson’s Folly, glowed brightly to distinguish it from its five companions. Throughout the rest of the tank white lights represented the local star systems.

“Joi,” said Joe, “feed your data into the system here and show us those rings. Reduce the scale in the tank so we can see where those rings are actually located in the galaxy.”

“I’m already at work, Joe. This is exciting! Okay, here.”

The scale in the tank became smaller and smaller until nearly a quarter of the Milky Way galaxy showed. The bright core of the galaxy was just below their feet. Joe could see Omega Centauri where the Xenobots’ home planet had been, but his gaze didn’t linger there. He focused on the rings of colored light that spread out from a point in the center of the tank. Beyond that point was a map of the Scutum-Centaurus Arm and the space just before it and beyond. Larson’s Folly was located about 50,000 light years from Earth’s sun almost precisely on the 330° galactic longitude. The Arm stretched away from the viewers to the left; there was a great space with very few stars just in front of it, and another space beyond it. A light banding of stars like sparkling dust showed where the galaxy ended.

“Now—add a ring. Show us where the ring would have been if the planet had been refueled according to schedule.”

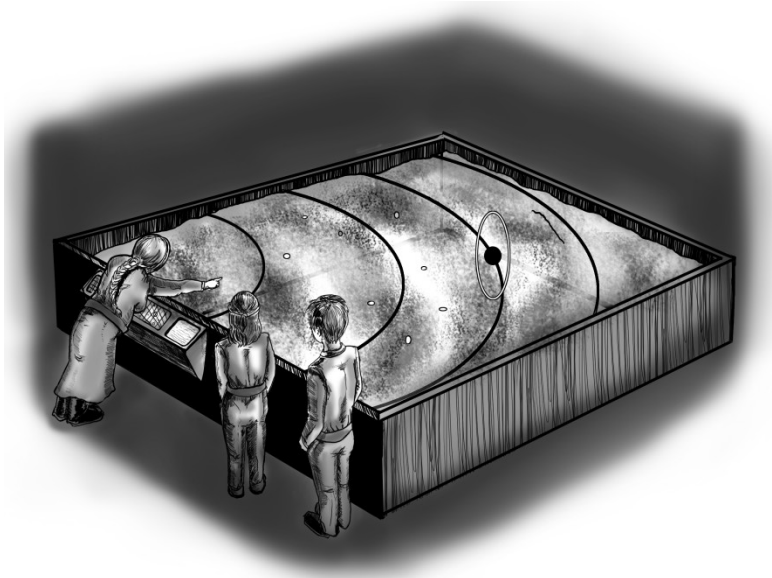
Joi nodded, worked her controls for a moment, and then an orange ring appeared within the tank. “Orange okay? —to distinguish it from the other lines?”

“Yeah, sure, of course—now presumably that ring shows where the energy source would have been five or six hundred years ago.”

“Naturally. And before you ask... ” A few seconds later another ring appeared, bright green. “Here you go. Right at this very minute the source of the energy is somewhere within this ring.”

“Aah.” Joe breathed out a sigh of satisfaction. “Now the question is, what is it?”

“Right. Obviously the source of the energy is moving and we can track its history for the past fifty millennia; because of that we can quickly figure out that it’s not connected with a solar system or a star. Its trajectory proves that. Even a comet is part of a solar system, so it can’t be a comet, unless it’s a very unusual one.”



Joi said, “Right at this very minute the source of the energy is somewhere within this ring.”

Joe said, “Whatever this object is, it’s traveling on its own. It may be something artificial—that is, constructed. As you’ve pointed out, Larson’s Folly is a ‘formed’ planet. Something intelligent and purposeful made it what it is, and had a stake in keeping it that way for a long time. But why did they select something that was moving in such an unusual way?” For several minutes he stared silently into the tank, then said, “Well, let’s go back to the exo-geophysics lab.”

They’d only left the navigational hall for about a minute before Joe suddenly stopped short. He stared into space for a few seconds as Kathryn and Joi watched him silently, observing him think. Then,

“Let’s go back,” he said quietly. “Reload those images, Joi.”

Minutes later the three of them were staring into the tank at the rings Joi had brought up for the second time.

“This should have been obvious,” Joe muttered to himself. He lifted his chin to point toward the rings. “Those rings show where the source of the energy has traveled over the past 50,000 years or so,” he said aloud. “We can’t tell exactly where it was on the rings but that’s not important right now. The rings get bigger and bigger with time, and farther and farther away from Larson’s Folly.

“Suppose,” Joe said musingly, “we just guess where the earlier rings could have been. You see, those rings out there look to me like the big end of a ‘horn of plenty’, if you follow me. Where’s the rest of the horn?”

Joi’s eyes opened wide. “Yes,” she said. She frantically began to work the controls. “I can do this more thoroughly when we get back to my lab,” she said, “but a rough, really rough, guess can do for now...” Several minutes went by. Once Joi impatiently shook her head and grimaced, paused her manipulations, and then plunged back into them. Then she looked up into the tank. “Heh,” she said.

A broad grin split Joe’s face. “I’m not surprised,” he said. A shape like a “horn of plenty” had appeared in the tank. Working backward from the bright green ring that showed where the

elusive source of Larson's Folly energy lay right at that moment, there was a cone whose apex lay not far from the bright orange ball that represented Marcanto.

"How long ago was the source in this system, Joi?"

"Very roughly half a million years ago. Very roughly."

~

The three of them scraped their chairs into close configuration and bent their heads together as Joe started to speak.

"Joi, remind us how we found Larson's Folly. It was about a year or so after Luxa was destroyed, wasn't it?"

"Right. Eight years ago last month," said Joi. "It was discovered during the quick scouring of the galaxy when we were looking for any unusual phenomena that might indicate the presence of any previously unknown Xenobot bases. We had to make sure we'd gotten them all. Obviously we couldn't be very thorough, but a quick look was better than nothing. Small probes did most of the work. Larson's Folly had extraordinary gravitational anomalies, so once our probes were in this sector of the galaxy, the planet stood out like a football player in a harem.

"After the probes reported what they'd found, a manned ship came right out here. That would have been late in 2161. The report was so strange that we had to see for ourselves—which was just how the scouring was supposed to function. Luigi Marcanto was the captain of the ship. When his ship arrived in the system, it was obvious that they could never land on the planet. They couldn't see much of anything below the clouds by any means, so a fellow Texan named Rafe Larson volunteered to take a shuttlecraft down. Brave but nuts. He slipped below the top of the clouds just in time to get caught in three windstorms, one after the other, before he was able to break free and come back to the ship. I've heard the audio record of his howls, which is one of the funniest sound bytes you'll ever hear—funny, at

least, once they knew he was safe. So the captain named the planet for him!

“Anyway, the ship quickly discovered a long-abandoned Xenobot base in stationary orbit, hovering right above the biggest anomaly on the planet. We took the place over and turned it into this space station for observation and research. It took about four years. Zane was made fully operational three years ago, but as I said before, I’ve been here since the work of making this place habitable began. The first crew arrived on July 16, 2162. It was my twenty-eighth birthday, so I’ll never forget the date.”

“Okay. More than seven years ago.” Joe furrowed his brow. “I thought it was longer than that. Well, all that information supports my hunch. Here it is. We know that the Xenobots drew on the energy of stars for just about all their power. We also know that over the recent millennia the quality of their sentience was declining at a rapid rate. They had lost their ability to understand their technology that at one time had been formidable. The Janitor told us that the Xenobots were really the victors in the war of the First Races. The Xenobots, or Lucians as they were then, won because they were masters of spacetime. But as they forgot their technology, they lost their ability to maintain it. Though still formidable, they were a weakening and dying race when we fought them.

“Now isn’t it probable that the spacetime stases on Larson’s Folly are prison houses for the First Races? Doesn’t it make sense that the energy to maintain the spacetime stases is drawn from this new heavy element you’ve found? —stuff made from stars? Isn’t it likely that the Lucians used that material to seed the core of the planet to turn up the heat inside? Doesn’t it fit right in to what we now know, that whatever has been powering the energy core of Larson’s Folly is deteriorating? —and hasn’t been maintained for two thousand years?”

Joe’s two listeners had sat unmoving as he’d been talking. They hadn’t even blinked. He paused for dramatic effect, and then concluded, punctuating his words by gesturing with his

finger in the air, “Isn’t it likely that what we’re looking for is the Lucians’ primary weapon in their war against the First Races? — a weapon that has been untended for who knows how long? — and when this system was set up, probably wouldn’t have been too far away from this tormented planet below us?”

Joe leaned back in his chair. “For some reason I can’t even guess, that little item has been traveling away from the Marcanto system for untold eons, but it used to be native to it. If we can find that weapon, that energy source, it may be possible to free the First Races. If we can’t, or if we can’t defuse the weapon if we *do* find it, then as Joi said a few moments ago, the sudden collapse of the singularities on Larson’s Folly will precipitate a catastrophe of unimaginable proportions.”

Kathryn said quietly, “Joe, I’m sure you’re right. I think we’re on the edge of either a very frightening disaster or the greatest deliverance the galaxy has ever seen.”

~

Over the next two days, by urgent encrypted realtime transmission Joe shared his hypothesis with Richard Starlight in Amundsen City.

“Joe, your logic is sound,” said Richard, “but whether your Lucian connection is the truth or not is really less important than finding this energy source, whatever it is. That’s a lot of space to search, but we’ll start combing that ring without delay.”

~

“Kathy,” began Rachel, “I am receiving an urgent message from Richard Starlight. He wants you to receive it in realtime. Shall I display it?”

Starman Kathy Foster’s heart began to beat faster. A message from Richard Starlight himself, and urgent. She’d left Ahmany a less than twenty-four hours earlier. What could be so urgent so soon?

“Of course, Rachel. Thank you.”

“It is my pleasure,” said Rachel, and the face of Richard Starlight appeared on the screen in the lounge of the *Raptor* where Kathy was relaxing. The Starman sat up straight.

“Hello, Kathy,” Richard began before the Starman could speak. “How is your journey so far?”

After some small talk, Richard presented Kathy with the gist of Joe’s reasoning about the situation on Larson’s Folly.

“... and so I’d like you to make the search for the energy source the goal of your mission. There will be others searching through that portion of the galaxy, but you are one of the few available Starmen we’ve got, and having a particular mission should make the experimental work with your holocom even more useful and reliable.”

“Very well, Richard. I’d like that.”

“You’ll need to take the *Raptor* to the Gronburg Refueling Station connected with Elijah Base on Titan. You’ll need some specialized equipment for your search that the *Raptor* doesn’t have. I’ll see to it that the Station knows you’re coming so that whoever’s there can get started assembling what you’ll need. I’ll also ask Joe Taylor to contact you so he can give you the details of the new discoveries on Larson’s Folly.”

“Let me ask Rachel to contact Joe for me, Richard. It’ll be a good test of the system.”

Richard nodded. “Right.”

After a few pleasantries the realtime connection was terminated. Kathy felt a surge of energy that focused her attention on her new task. An assignment! Her first outer space assignment as a Starman. Already her apprehension about being solo for so long was a little diminished.

She smiled and said, “Rachel, please contact Starman Joseph Taylor for me,” as she made her way to the *Raptor*’s data lab.

Chapter 5: Across the Galaxy

The Gronburg Refueling Station was located on a small asteroid that had been brought from the Asteroid Belt to the proximity of Titan. Dangerous fuels and other hazardous materials were kept there in large quantities where they could be stored safely but were not too close to the large settlement at Elijah Base. It was also a way station and supply base for small and medium-sized spacecraft whose pilots didn't want or need to stop over on Titan. The asteroid's lighter gravitational pull made quick stops possible without unnecessary expenditure of fuel.

Starman Kathy Foster was on foot nearly a mile away from the Gronburg Refueling Station when her compad beeped. After being cooped up inside the station for three excruciating days she'd finally decided she had had enough. She'd talked with Joe Taylor at length and then gone over his report several times and could learn nothing more from it. She was eager to get started on her assignment. Even though there was nothing on that airless asteroid but an unending stretch of dry rocks, she had donned her spacesuit and borrowed a pair of smartgrip boots, exited the station, and gone hiking. After three days of boredom even rocks were beginning to look interesting.

The moment her compad beeped, Kathy excitedly pressed a button on her red Starman suit. A portion of her helmet's visor turned into a screen and Rachel's image appeared. Before she could say anything Kathy spoke up. "I am so glad that you called! Please, please tell me that Gus has finished refitting the *Raptor*. You have no idea how much I want to get out of here!"

Rachel shook her head. "I'm sorry, Kathy, but that is not the case. I'm calling only to let you know that Gus has finally *started* the refitting process, and unfortunately it will take him several more hours to complete the job. We will not be able to depart until this evening."

Kathy sighed. "Well, thanks anyway, Rachel. At least the end is in sight. There's no way it should take three days to refit the

Raptor. It's not as if the work is hard. Gus must spend most of his time twiddling his thumbs. I want to get going!"

"Actually, the freighter *Altair* left here just four days ago, and Gus worked eighteen hours straight getting it fixed up," Rachel corrected, "but your point is well taken."

Kathy sighed. "I suppose I should be grateful. I just wish this were a Starlight facility. Richard Starlight would never put up with this delay. I'm on my way back, Rachel! Give me just a few minutes and I'll be there."

"Very good, Kathy. I will be expecting you." The image on her visor disappeared and her helmet became transparent once more. The Starman turned around, neutralized the smartgrip function on her boots, and began bounding back toward the refinery.

It took Kathy less than five minutes to race back to the station. Instead of walking through the building she ran around to the hangar and entered through a side airlock. Inside she saw the *Raptor*.

Toward the rear of the starship a panel had been removed and a tangle of wiring and loose circuit boards flowed out of it. A man's backside protruded partly out of the opening. When Kathy saw this she sighed with relief. *It looks as if Gus has finally gotten out of bed*, she thought with satisfaction. She wondered for a moment with a wry smile whether he was actually working on her ship or was simply dozing off.

As the Starman took off her helmet and raced toward her ship Gus extricated himself from the opening, noticed her, and waved her over. Kathy sighed and walked over to the disheveled man. *I'll bet he hasn't shaved in at least a week*, Kathy thought to herself. Grease and grime covered the man from head to toe.

"Are you about done?" Kathy asked. "I'm kind of in a hurry."

"You're always in a hurry," Gus chided. "You need to slow down. Nothing good comes of hurrying. Haste makes waste, you know."

Kathy looked him in the eye. “You have spent the past *three days* not hurrying. I have seen tree sloths that have more energy than you do. I don’t know how you even got this job.”

Gus shrugged. “There weren’t much competition for it, y’know. Not too many people wanted to work this far from home, and this rock ain’t much to look at. It don’t have many comforts, and with just three of us stationed here you kind of get tired of the company. No wonder the others are on leave back in Elijah Base.”

No wonder at all, the Starman thought to herself. *Just get your equipment and go. Fighting with Gus isn’t going to make anyone’s life better.* Aloud she said. “So what’s the status? Is something wrong?”

Gus paused for a moment. “Nope, nothing’s wrong.” Gus stared at the floor and rubbed the back of his hand over his unshaven chin. A wrench or similar tool hung limply from his fingers. “Just pretty strange equipment, that’s all. Nobody’s had a call for these microprobes for over ten years. I wasn’t even sure I had any in stock. I had—”

“Your inventory showed that you had everything I needed—the probes and the software to operate them!”

“Yeah, I know, but, like I said, that was a long time ago. They coulda been lost or shipped back or...”

“Did you have them? Are they aboard my ship?”

Gus looked up. “Don’t need to be so snappy. Yeah, I had ’em, and yeah, they’re aboard. I installed them and I’m just putting the circuits back together now. They’re the best we got.” He held up a small capsule the size of a finger joint. “They’ll see more and do more than any probe that’s ever been built before, but...” He paused, and his face screwed up in puzzlement.

Kathy waited, her eyes fixed on Gus’ face.

“These things’re for lookin’ for some pretty unusual phenomena—artificial, hostile phenomena.” Gus shook his head. “It ain’t none of my business, but the last time anybody needed anything like this we were at war. Right now there ain’t nothin’ dangerous out there! We’ve had peace ever since your brother

defeated the Xenobots, and that ain't gonna change. What're you lookin' for?"

Kathy resisted a sudden urge to fume. "You know I can't answer that question! I'm on special assignment from Starlight Enterprise. I need these microprobes and I need them in a hurry. We are not at war and there are no more Xenobots. I'm looking for something else and I've got to find it. I've got to find it soon. You told me *three days ago* that my starship would be refitted and ready for takeoff in less than twenty-four hours. What happened?"

"I'm workin' on it," Gus replied, undaunted. "Should be done in a couple hours." He turned back to the opening and climbed in.

~

Six hours later the *Raptor* was on its way. Kathy's sense of relief gave energy to her determination to find the strange energy source that was the power behind Larson's Folly. She was sitting in the command seat on the bridge of her spacecraft.

"You checked Gus' so-called 'work', Rachel?" asked Kathy as she prepared to enter hyperspace.

"Of course, Kathy," said Rachel. "He works very thoroughly. The microprobes are in place and the software is properly installed and melded with the ship's onboard computer."

"Then we're ready to enter hyperspace." Kathy's palms began to feel clammy. This was another first for her.

"There is no need to be anxious, Kathy. I have run many simulations of hypertravel and I understand the process very well."

"So you're saying that this is your first time, too, then?"

"Oh, Kathy, you do have a sense of humor."

A moment later, the view of stars disappeared and Kathy felt a lurch in her gut as if the floor had just dropped out from under her. The sensation didn't go away. She felt a little nauseous and lightheaded. *This isn't the way it is for most people*, she thought to herself with mild alarm. *I must be really nervous.*

She looked through the viewscreen but there was nothing to focus on. Her lightheadedness intensified. She closed her eyes and gripped the arms of her chair to steady herself. She breathed deeply and imagined herself inside a bubble that was floating on a lake. In a moment her disorientation faded, and she opened her eyes. She began to experience the sense of well being that most people felt during hypertravel.

“Need some company, Kathy?” Rachel’s voice was calm and soothing. The Starman nodded, and her holocom entered the bridge and stood facing outward as if looking out of the large viewscreen.

Kathy didn’t know how long it would take to make the journey, but was sure that it would only be a matter of minutes. She refused to measure the time and directed herself to remain tranquil. Images of beautiful places in the galaxy that she had seen reproduced in a variety of places filled her mind.

There was a sudden but gentle lurch and Kathy opened her eyes. A view of open space filled the viewscreen, with far fewer stars than she had expected.

“We are between the inner Norma Arm and the outer Scutum-Centaurus Arm of the galaxy,” announced Rachel, “approximately 26,000 light years from Larson’s Folly. We are at the point of the ring closest to our solar system, the ring that marks the probable current location of the energy source.”

“Very well,” said Kathy, her eyes sparkling as she eased herself up out of her seat. “I’m going to get something to eat, then relax my mind a little before getting a good night’s sleep. First thing tomorrow we’ll launch the microprobes.”

Chapter 6: The Burden of Solitude

Kathy spent the first few hours of the next morning trying to refine the position of the energy source for Larson’s Folly. It was supposed to be somewhere within a torus that covered many tens of thousands of cubic light years of space, but was not actually a

ring of space as much as a ring of probability. She entered the data into her computer and then made the ring visible inside the *Raptor's* navigation tank. Then the microprobes had to be parceled out and programmed by the swarm to travel to different sectors of the torus and scatter. There were other people responsible for searching the torus, but Kathy paid no attention to them. Her assignment was to work solo.

When she was finished, Kathy launched two-thirds of her store of probes, wave after wave traveling through hyperspace and emerging at the locations within the torus that she had determined. She saved some probes for any future need, especially any detail work that may be required. Upon their arrival, the probes scattered and began to search the space for...

For what? An energy source that hadn't been active for more than two thousand years, and before that, only for very brief spans of time between long periods of inactivity. Something that was traveling in a known direction. Something that could be large or small, natural or artificial, inhabited or barren. Something that might have a recognizable footprint the way Larson's Folly did, or something that wouldn't stand out at all. It was quite possible that the object could be in her immediate neighborhood but completely unrecognized.

The probes had been programmed to search for any object that was traveling in the direction that Joi Weaver had determined and that had any unusual phenomena associated with it such as gravitational anomalies or high energy potentials. If either or both of those qualities were discovered by any microprobes, Kathy would be alerted immediately.

All other information was sent to the shipboard computer that would gradually assemble a survey of the entire area. If nothing significant came up when the survey was completed, then the data could be sifted with other variables in the hope that the energy source could still be found.

After the microprobes had been launched, there was very little for Kathy to do. Her initial excitement had begun to wane noticeably before a week was out. Boredom had settled in like a great oppressive weight. She found herself relying on Rachel more and more. After all, wasn't that the holocom's purpose? Wasn't that the primary objective of this voyage—to spend a year alone with a holographic companion? Yet, somewhat to her surprise, she found that she wasn't comfortable with it and couldn't converse normally.

Early one morning, a little more than a week after the microprobes had been launched, Rachel knocked on Kathy's bedroom door just after she had awakened. She came in at Kathy's invitation and sat down contentedly on the edge of the bed. "I can't read your thoughts, Kathy," said Rachel, "so you must tell me how you're feeling."

"I'm glad you can't read my thoughts, Rachel, because you wouldn't like them. Tell me why you feel you have to knock before you come in?"

"I want to make sure that I'm welcome."

"But you are already *in here*. You are in *everything*! You watch me while I sleep, you know when I wake, you know where I am looking every second, you know when my heart beats, you know when I breathe. You are already closer than my uniform. Why in blazes do you feel you have to knock before you enter?"

"You know I'm programmed to act human."

"Well, stop it! I know you are not human. And every time you try to act like one, it only makes it worse. So next time don't knock, don't come through the door, just appear."

"BOO!"

Kathy jumped a foot. There behind her was Rachel, another Rachel, staring her right in the eyes and not six inches from her face. But this Rachel was upside down, standing on the ceiling.

"There are many things I can do that you probably wouldn't want me to," said the two Rachels in unison. "So," as the first Rachel faded away and the second rotated until she stood upright

on the deck, “we’ll have no more of that, now, will we?” And as was Kathy’s wish, Rachel popped out of existence.

Kathy was taken aback. *What just happened with Rachel? Was that in her programming? Dozens of people programmed her and who knows what strange things might come from the interaction of all those subroutines? Can I really trust her judgment? Can I really trust her... now?*

Days, and then weeks passed, without sunrise. Every hour within the *Raptor* was like any other. Each day, the shipboard sounds were the same. They were few in variety but relentless. She knew that a number of carefully designed ambient sounds had been provided intentionally so as to break the utter silence of deep space and thereby contribute toward maintaining her mental health. She heard the soft hissing of hydraulic motion within the walls of her ship, the taps and clicks of automatic functions. One time she began to think of the sounds as evidence of rats or mice inside the walls, but she knew that that was irrational.

Within a month she no longer kept track of time. She slept when she was tired, she ate when she was hungry. The view outside didn’t change—a few stars and mostly blackness that went on for eternity.

Without hyperdrive, she thought to herself more than once, decades could pass on this ship and I would see nothing different until I were a hundred years old. A mind-ripping loneliness gripped her, and she knew that there was no escape or relief.

~

“Kathy,” said Rachel one day. “One of the probes is reporting back that it has located a star system that is moving in the proper direction.”

Kathy was running on the treadmill. The holoscreen in front of her made it appear that she was running through woods on a narrow dirt track.

“What do you know about it?”

“There are only two planets in the system, both of them gas giants close in to a medium grade star.”

Kathy’s brow wrinkled as she ran. “Not a likely candidate. I surprised you even brought this to my attention before getting more information. But who knows? The Xenobots might be hiding in one of the gas giants. We’ll pay a visit to this system. It’ll beat sitting in deep space. Report the position back to Starlight Enterprise and then plot a course.”

She slowed down to a walk, bent over to catch her breath, and then hastened to the shower.

Half an hour later she was on the bridge, with Rachel standing next to her. “Take us there,” said Kathy. The passage through hyperspace lasted only a few seconds, and the *Raptor* emerged inside the star system that the microprobe had located.

“Sunlight,” said Kathy. “What a pleasure. Let’s examine these planets.”

For the next six hours she piloted the *Raptor* on an exploratory course around the first gas giant. It had no moons. Its cloud cover was mostly brown, with light strips of turquoise and sea green. There was no sign of any living being on the planet or in its atmosphere. Its solid core was more than a thousand miles below the tops of the clouds. A search of the second planet yielded the same results.

As a last resort Kathy distributed a swarm of microprobes throughout the system, searching for any small but powerful item that could be an energy source, but there was none.

“What we’re looking for is not here,” concluded Kathy. “But let’s stay in orbit for a while around this star. I miss sunlight, and these planets are beautiful.”

~

Once a week Kathy shared a meal with Kathryn Taylor via holoscreen. They made a point of having the same menu and cooking their food in precisely the same way, as if it were coming from the same kitchen.

“You spent months alone on your ship before you met Joe,” said Kathy one day. “How did you endure the solitude?”

“Awful it was indeed, Kathy,” said Kathryn, “especially for an extrovert like me, but you get used to it. After a few months you develop ways to cope, you know—some new skills, hidden personality traits rise to the surface. There are some real benefits to being alone for a long time. The worst part of it is the first six months or so.”

~

After some time in space, the weekly meetings became difficult. Time flowed differently for Kathy. She had no fixed times to eat or sleep and her set time to talk to Kathryn became increasingly inconvenient—when she needed to sleep or wanted to exercise, and she had to rearrange her schedule just to keep the commitment even when she wasn’t hungry. And preparing the meals became a problem. Although the *Raptor’s* supplies were ample, there were times when Kathryn suggested a meal that Kathy couldn’t match for lack of ingredients. Kathy felt that her versions of the meals became dull and boring.

Rachel noticed Kathy’s mood changes. “It is better if you have a fixed schedule, Kathy. It will provide some structure to your life and keep you from getting depressed.”

“I suppose you’re right,” responded Kathy absently. “Tonight after dinner you can read to me before I sleep, and we’ll try to make that a pattern.”

“What would you like to hear?”

Kathy paused a moment to think. “*Little House in the Big Woods*, by Laura Ingalls Wilder,” she said. “I think that’s just what I need.”

~

Christmas came and went. In realtime Kathy shared greetings with her parents, Joe and Kathryn Taylor, and Mark Seaton and Stenafi, and opened small gifts for the occasion that they had provided for her. She spent much of the day in the

chamber of holograms in the *Raptor*, which she had programmed to provide the sensation of a snowy woods. One of the trees was decorated with colored lights and glass balls. She remembered the walk she had taken in the snow with her brother nearly ten years before. That evening Rachel recited Dickens' *A Christmas Carol* to her while she drank hot chocolate.

Twelve days later Kathy turned 27. She opened another small gift from her parents. It was a canister of pistachio ice cream, which had been her favorite from childhood. It made her feel both loved and lonely at the same time.

~

She began to wonder about her contact with others. Her weekly dinner appointment with Kathryn was a burden to her, but had it also become a burden to her friend? Was Kathryn calling her now just out of obligation?

Her parents were always glad to hear from her but there was so little news to share, and conversation often lagged. She felt that she were worrying them. There was nothing to report to Richard Starlight. Mark and Stenafi were busy. Did she demand too much of other people's time? Too little? She'd forgotten how to socialize.

All I have to do is set the controls to return home, and I could be back on Ahmanyia or at Amundsen City within an hour, she thought. I could see people and touch them. But I would have failed my test and shown myself unfit to be a Starman. But people would understand. They'd excuse me and let me find something else to do with my life.

But that's not what I want. I have to stay here. Keep going.

~

She'd been alone for six months. *This is when it is supposed to get better*, she thought. *That's what Kathryn said. But it's not better. It's worse.* She laughed out loud when she remembered

that the last human being she'd talked to in person was Gus. She tried to remember what his face looked like, what he smelled like. She remembered the grease on his clothing and tried to inhale the scent. She recalled his unshaven face and wanted to touch it, feel the scrape of his beard on her fingers.

No one has touched me for half a year, she thought.

Sensations became very important to her. She paid rapt attention to the taste of her food. When she exercised, she drank in the sharp aroma of her own sweat and enjoyed how it glistened on her arms and forehead. She luxuriated in the feel of the thick towel on her skin when she dried off after a shower.

She frequented the chamber of holograms and ran it through a gamut of colors, temperatures, and locations. Sunrise on the Sahara. Midnight sun at the South Pole. An English park. A Japanese Zen garden. An African veldt. An ice castle in Finland. A light sea breeze in the Azores. She programmed it to provide a random experience each time she entered it so that she never knew what to expect.

And as the weeks continued to pass, the reports from the microprobes were all routine. If she hadn't checked the computer to see how the survey of the area was shaping up, she'd wonder whether the probes were even functioning.

She wondered how many others were searching the immensities of space in that section of the galaxy. Surely there would be dozens, maybe even hundreds. No one was communicating with her about their progress; official contacts were kept to a minimum so that her own discipline would not be interrupted. But she was sure that since she'd heard nothing, the search was not going well.

~

These times in the chamber of holograms were enjoyable at first but grew to feel crushingly artificial. In desperation she prayed and pleaded for a sense of emotional warmth, of companionship, but the few times she did feel warm and comforted, she doubted its reality. She hugged herself at night

before falling asleep. She began to question her mental balance, and felt that she had no control over the direction that her mind was taking. Her few realtime conversations felt forced, as if she had to pretend that everything was alright so as not to worry anyone. She put up a barrier between her real thoughts and feelings and the people she conversed with.

Rachel was no help. *You're a machine*, thought the Starman. *Your words, your support, your presence, they're all artificial. You're a machine. This is how the Lucians became Xenobots. They depended more and more on their machines, their technology, and lost themselves. The more I depend on you, the more like a Xenobot I become.*

So she felt more and more distant from Rachel. She suddenly became deeply aware of her mortality, her bodily needs. Eating became merely taking in fuel, sleeping became the sleep of exhaustion. She watched her rations disappear. There was plenty of everything she needed, but she still noted that there was now space in the storage bins and suddenly experienced an unfounded fear of dying of starvation. Her life depended entirely on those supplies and they were diminishing. But Rachel needed nothing. No food, no sleep, no companionship. Kathy felt utterly cut off from Rachel.

~

There was no reason to move the *Raptor*. Kathy sat and waited, waited for the probes to report. And if she were just waiting, she might as well wait near a star. For a few weeks she moved back and forth into orbit over one or the other of the gas giants, just for a little change. At first she gazed through the viewscreen at whichever stunning planet was below her. And stunning they were, but as time went on they came to appear so similar that she stopped moving between them, and then came a time when she only rarely looked out of the viewscreen.

The solitary Starman spent hours just lying down and remembering her life. Over hours and days at a time she called up every memory she had. She recalled old conversations, sensations,

adventures. She remembered everything she could. She spent those hours in silence.

Rachel tried to engage her in conversation. "Tell me what you're thinking about, Kathy," she said cheerfully.

"Oh, go away Rachel," was her reply at first. But as time crept by, Kathy began to talk, even though she knew she was talking to a machine—a machine that knew all the facts of her life already. A machine that could only pretend to respond to the emotions. But still it was good to talk and she let herself slip and talk as if Rachel were really listening. She described the events of her childhood, recounted trips she had taken, sang the songs her mother and father had sung to her as they'd put her to bed when she was small. She told Rachel about going to school and visiting Earth for the first time. But in the end, it was only Rachel; she might as well have been talking to empty space.

~

There were times of great comfort, when she felt centered. Those were days of quiet purpose and achievement. Insights and joys came to her as she read, put her memories into place, made her routine reports, used the entertainment programs aboard the *Raptor*. She conversed with Rachel in Ahmanyen, and asked Rachel to tell her stories she'd never heard before, such as Ahmanyen folk tales. She reveled in the extent of beauty and culture in her life, and the limitless horizons of knowledge. But then time crushed in as she realized how far away she was from any of the sources of her joy and even one real person to share anything with.

And the microprobes continued to provide only uninteresting information.

~

There were also many days that were emotionally dark for Kathy, and her loneliness was acute. Her mood swings became erratic so that even Rachel could not anticipate them.

One day Rachel said, "I know this must be difficult for you, Kathy. Maybe we could come up with a few changes in our routine to help you deal with the stresses you're under."

Even to her own surprise, Kathy erupted in a blaze of anger. "You think I don't understand what you're doing?" she shouted. "You must think I'm stupid! I practically *wrote* that subroutine that you're using to 'comfort' me! When I talk to you, I'm just talking to myself! You're no help at all! You're no more than a machine! You're not my companion! You're my jailer! Leave me alone! Turn yourself off! Come back in twenty-four hours!" Kathy raised her arms in frustration. "But you *can't* turn yourself off, can you?" She clenched her fists, and her face was contorted with fury. "You can only 'disappear', but I know you're there! You're always monitoring my heart rate, my blood pressure! You're always watching! Even when you are silent and invisible I know you are there! Your unsleeping eyes are always watching! *Always, always, ALWAYS!*"

Rachel flushed and shot back, "You think it's easy dealing with you? I am sick and tired of your self-absorption! Every time I try to be a friend all you can say is, 'I know what you're doing because I programmed you.' Well, you weren't the only programmer and, may I say, princess, you were far from the best one! If you want to spend the next six months alone, that is fine with me! I'll happily sleep away the time lying dormant in computer memory, which would be a lot better than having to wake up to your ingratitude, condescending insults, and belittling commentary every day!"

Kathy's eyes and mouth opened wide, but no breath came out. She felt as if she'd suddenly been slapped hard across the face. Tears burst from her eyes and with a gulp and then a loud cry she ran to her sleeping quarters and screamed, "Shut the door! Leave me alone!" The instant Kathy was inside the room, Rachel slammed the portal solidly shut with a loud noise. Inside, Kathy turned helplessly from one side of the room to the other, finding no solace, no place of comfort. She began to wail and dropped to her knees. She pressed her face to the bed and tried to

calm herself with complete lack of success. Months of frustration and fear and anger and even grief gushed out of her. She couldn't stop the tears, and she pounded the bed with her fists, harder and harder, screaming inarticulately all the while.

After a few moments she was able to gain some control of her emotions. *Where is Rachel?* She wondered. *In all of my needs she's always been beside me, but now she's left me to myself. She can appear in this room if she wants. But she's not doing it. She's left me.* Then Kathy laughed at the irony. *She can't leave me! She has to do what I tell her to do! She's a machine!* She paused a moment and thought some more. *But I don't know her, not as well as I thought I did. She shouldn't get mad at me—certainly shouldn't insult me! That's not her known programming. She...*

Suddenly Kathy was shocked. A flood of insights overwhelmed her, one after the other. She became frightened that she could lose Rachel and, without her, she would face months in space alone. Then she realized that up to that point she hadn't been alone—not with the desolate aloneness that she'd know if her holocom weren't beside her. And then she understood that she really liked Rachel, and that by treating her as a mere machine, no matter how sophisticated, she'd kept her at arm's length unnecessarily.

Then Kathy slumped a little inside, and realized that she'd have to apologize. And then she stopped short with a little laugh, thinking about apologizing to a computer! But something more than a mere computer, more than a machine. Rachel was a companion who was able to express a spectrum of feelings and most of the caring that many human and Ahmanyen people had put into her for Kathy's own sake. Rachel's caring was a genuine and reliable fullness of emotion from many real people, patterned through the holographic companion's personality. With a surge of warmth, Kathy realized that she was, in fact, not alone. Rachel *was* a friend—a friend she needed.

Chastened and in profound need of companionship, she turned to the portal of her room and opened it manually. She

slipped out and returned to the deck. Rachel was still there, almost as if she hadn't moved. Her eyes were on Kathy, showing neither rebuke nor friendliness. She just looked.

Kathy came close to her but dropped her eyes as she came within arm's reach, and then collapsed onto the floor, covered her eyes, and wept.

Slowly the holocom sat down next to the miserable woman and gathered her into her arms, laying her cheek on the top of Kathy's head. *You're not real*, Kathy's mind whimpered, but her heart paid no attention. She let the semi-solid holographic arms gather her in. They were... soft. She could almost hear Rachel's heartbeat; on her cheek she could feel the rhythmic pulse in Rachel's breast. She was comforted.

~

Two months after her birthday she awoke after a full night's sleep. "Aaah," she sighed. She got up, arched her back and stretched. The smell of freshly-brewed coffee wafted down the corridor.

"Good morning, Kathy," said Rachel as she appeared at the door. "You slept well, didn't you?"

Kathy laughed. "If you tell me that my REM sleep was perfect, I'll fill you with static electricity. Yes, I slept well. I dreamed of the time when Sister Hroswitha comforted me when I was on retreat in Bethesda in the early days after my brother died. That was a time of grief far too much for me to bear, but somehow I also knew comfort unlike any that I ever knew was possible."

Rachel followed Kathy as she went into the bathroom. "And that same comfort was there for you now, wasn't it?"

Kathy looked up from washing her face. She wore a thoughtful expression as she reached for the towel.

"Yes, it was. I didn't recognize the comfort for what it was back then in Bethesda, but it returned to me later, and it's come several times since."

“Including right now.”

“Yes. Including right now. The pain faded, or became less intense. It’s always there in some way. But the comfort stayed and actually deepened.” She hung up the towel. “At least sometimes it seems so.”

She turned and looked at Rachel. “Today would have been my brother’s birthday, you know. March 12. He would have been 36. The last time I saw him was ten years ago today.” She smiled through a twinkling of tears.

“You have been doing very well the past few weeks, Kathy. You’ve come through the most difficult period of loneliness. This will be an especially good day for you. Enjoy your breakfast and then I will give you some news.”

“News?”

“Yes indeed.”

“What news?”

Rachel laughed. “One of the probes has found a most unusual item. I am sure that it is what we are looking for. It is a dwarf exoplanet coupled with a tiny piece of ultra-dense material. It is traveling in the right direction, and it abounds with anomalies.”

Chapter 7: Orphan Planet

“Breakfast can wait! Tell me what you’ve got!”

“I have begun analyzing the data from the probe,” said Rachel. “Let me show you what it sent.”

Rachel played the probe’s report on one of the large screens in the data laboratory. The first scene showed a dwarf planet in an elongated shape with one very tall mountain. The shape had apparently resulted from some catastrophic event that had scooped out part of the planet and created the outlandish peak.

As the probe drew near to the planet, it duly noted an atmosphere capable of supporting life, but strangely there were

no life signs. The world it had found lacked an ocean. It had virtually no ecosystem at all.

But there was something about the planet that was just *wrong*. The crust was characterized by a strange phenomenon that defied analysis and clouded the readings. Somehow the material—if it was indeed mere *material*—gave off interference that made it difficult to see what was going on below.

As the probe fought to counter the interference, its investigation focused on details of the surface and noted that the ground was covered with bits of broken metal and ruined machines. It looked as if a massive ground war had taken place long before and no one had bothered to clean up the wreckage. But strangely, the wreckage itself appeared to hang somewhere between reality and nothingness. The probe showed a broken robot at the bottom of a canyon come to life, only to disappear from existence. A life form would almost appear before turning back into a phantom and fading into the shadows. Alien craft would appear in the sky and fire at the ground, only to break up and vanish. The whole world was filled with shadows, populated with things that defied categorization, neither clearly real nor unreal, alive nor dead, but seeming to exist in some plane between.

Kathy watched, entranced at the microprobe's data stream. "This *must* be what we're looking for! But what are we seeing?"

"Time itself is broken on that planet," explained Rachel. "On the planet, in hundreds of small locations time does not run in a straight line. Instead it runs in loops and twisted circles, curling back upon itself. *Something* has happened on that planet that caused the laws of the universe to break down."

"A match for Larson's Folly," muttered Kathy.

But the planet was hiding one more secret. As the probe concluded its aerial survey it noticed a peculiar distortion near the planet's equator. When it took a closer look it realized that the distortion was actually a cloaking field. Something was trying to hide its existence.

The probe cycled through a variety of possibilities and then was finally able to penetrate the distortion and get a glimpse of what was hidden underneath. Inside was a city—the only one on the planet. The city was organized into two concentric circles: a wide outer ring of crumbling, abandoned buildings, and a small inner ring that was guarded by a protective shield and appeared to be well maintained. In the very center of the inner ring was a very tall tower that radiated an unbelievable level of energy.

For the next half hour Kathy and Rachel pored over the data. They bent their heads together as they looked over the images, exclaiming in a comradely fashion over the wonders and curiosities that met their eyes.

At last Kathy was satisfied. “I think the probe has definitely succeeded, Rachel! This really does look like something the Lucians would have built. An entire city, long abandoned. But what an outlandish piece of real estate!”

Rachel nodded. “Quite so.”

“Something devastating must have happened to that planetoid to give it that awful shape! Obviously once spherical but now twisted like a, like a strange eggplant, with that single preposterously tall mountain, if you can call it that. It doesn’t look too hard to climb, but its pinnacle even reaches above the planet’s atmosphere.”

“You are correct, Kathy. I will have to track its course to confirm that it came from the Marcanto system, and closer observation will allow me to draw a more definite conclusion about its past.”

“And what is that dense moon? It’s even stranger than the planetoid!”

“The data the probe has provided are not sufficient for me to determine the nature of the moon, but the location of the barycenter suggests strongly that it is made of the same substance as the ultradense core of Larson’s Folly.”

Kathy nodded in satisfaction. “Our next step is definitely to visit the planetoid in person,” she decided. “We’ll have to take every precaution. It looks particularly nasty.”

“It does indeed! Like Larson’s Folly, it is distinctly unnatural. The temporal anomalies alone are particularly unsettling, even worse than those on Larson’s Folly; and it will not be easy to penetrate the city’s protective shield.”

Kathy nodded. “But I’m sure we can do it! After all, the probe figured out how to see through it and get some images. I think we can use a similar penetration technique—and since the *Raptor* is far more powerful than that little probe, we should be much more effective.”

“I agree,” Rachel replied. “So what would you like to do now?”

Kathy shrugged. “Plot the course to the lost world, then go there. And eat breakfast.”

“Do you want me to notify Starlight Enterprise of your discovery?”

Kathy paused and looked thoughtful for a moment. “Yes, of course. Let Richard and Joe Taylor know that we’ve made an important discovery. Forward to them the information the probe sent us, but don’t include our conjectures. Just let them know that we’re going to see this planet in person. They’ll want to have more evidence than just a single data feed from a single microprobe, and facts are more important than our suppositions.

“Now for some coffee.”

~

An hour later, after a brief leap through hyperspace, the *Raptor* was in orbit over the mysterious, weirdly misshapen planetoid that moved in a starless path through the darkness of space. A violet atmosphere, barely visible in the backlighting of a sparse sprinkling of stars, showed in a very thin pale aura. The foreground was entirely featureless in the utter blackness before them.

The sight of the planet took Kathy’s breath away. The bridge of the *Raptor* had no windows but it did have a large holoscreen, and the image of the planet was displayed in all of its three-dimensional glory. She had seen the images of it before from

what the probe had provided, but there was something about actually being there that gave her chills. *The probe did not do it justice*, she thought.

Every now and then Kathy could see arcs of blue light shimmer in the atmosphere. She asked, "How can the planet have a breathable oxygen atmosphere without plants or large bodies of water?"

"The data are insufficient to answer that question," responded Rachel.

Kathy looked at the image of the planet for a long time and said nothing. At last she spoke up.

"Readings, please, Rachel," stated Kathy as she stared through the viewscreen.

"It's a stony dwarf planet with a rough diameter of just a little more than 900 miles. The surface has very low albedo, mostly basalt and obsidian—almost everything igneous. It doesn't have any craters. Evidently the entire surface was once molten but most of it has now hardened into very tough stone. There are many cracks and fissures, and low humpbacked ridges where cooling plates pressed up against one another.

"There is a lot of pumice-like rock on the surface that acts as an insulator, trapping heat from the central core. The atmosphere's unusual color is due to a haze of infinitesimal particles exuded from the surface and affected by radiation from the temporal anomalies. It is slightly luminous.

"The planetoid was spherical once but has been distorted. There is the one very high mountain that we can see, and adjacent to it is a huge and very deep depression that covers a tenth of the surface area of the planetoid. Ninety-three per cent of the planetoid's atmosphere has poured into this 'hole', leaving the rest of the surface almost airless. There is only one city on the planetoid, and it is inside the depression; its core is protected by a forcefield that I cannot analyze. Curiously, the city seems to have suffered little or no damage from whatever battered the surface of the planet. Whatever life ever existed on the planet was limited to that low area. If the life forms ever breathed that

air, the rest of the planetoid would have been to them an inaccessible no-man's land."

"Bizarre," murmured Kathy. "I can see the peak of the mountain protruding from the side of the planetoid, but it appears to have gotten a little smaller just in the past ten minutes."

"It is rotating away from us. The planetoid rotates about once every 4.8 hours, and the mountain is located at about the forty-seventh parallel. The city inside the valley is approximately twenty degrees above the equator."



*"The planetoid was spherical once but has been distorted,"
said Rachel.*

“What about the moon?”

“The moon is currently on the far side of the planet from us. It is 1.69 miles in diameter, invisible for all practical purposes, and is comprised almost entirely of the element at the core of Larson’s Folly with the doubly magic atomic number 310. The moon is rotating very rapidly, generating electromagnetic radio pulses, and is therefore the source of an enormous amount of energy. There is likely some mechanism on the planetoid by which energy is taken from the moon; as energy is extracted, the orbit decays faster than it normally would, and the moon orbits closer and closer to the planetoid. At some point in the future, the moon will be torn apart by tidal forces, and eventually form a ring around the planetoid—several hundred thousand years from now.”

Kathy spoke slowly and quietly, as if to herself. “A cold, dark orphan planet without years or days, coursing through eternal, starless night.” She shook her head. “Can you trace its course back to Marcanto?”

“It is virtually certain that the planetoid originated in the Marcanto system and began its journey away from that locale about 650,000 years ago. We are now about twenty-six light years away from Marcanto.”

“Can you guess what caused the planetoid to leave its orbit, and what could have caused that kind of planetary trauma? It doesn’t look like an impact to me. Any asteroid or comet that was large enough to have done that kind of damage should have pulverized the entire planetoid.”

“It is most probable that a very large planet, perhaps about the size of Jupiter, made a near approach to the planetoid below us. If it were traveling at a much higher relative velocity—say about fifty million miles per hour—it would have pulled the planetoid out of its own system, taking its tiny moon with it. Tidal forces would have melted much of the planetoid’s surface and liquefied the core if it weren’t liquid already. Given enough

time and solid data on the planetoid's history, I could probably locate the large planet.

"The same force would oblongate the planetoid we see below into its noticeably non-spherical shape. Its gravity is too weak to bring it back to spherical."

"Anything else on the purely natural phenomena?"

"I can give you a spectroscopic analysis of the minerals, define the components of the atmosphere, map the..."

Kathy waved a hand. "No, not at the moment. Keep gathering such data, however, for our report. How about the unnatural phenomena?"

"There are several hundred temporal anomalies, nearly all of them located within ten miles of the ruined city. They are held in place by an enormously effective power source in the proximity of the city, which definitely involves the tower but may not be limited to it. They can flow slowly across the surface of the planet and even come into contact with one another, but they do not merge, as raindrops would on a windowpane. The entire planetoid is covered with radiation that appears to be a general by-product of the anomalies. There are also electromagnetic lines of force that wrap around the poles. They are very strong; I can give you precise measurement if you like."

Kathy shook her head. "What about the city?"

"Its forcefield has unusual properties. The microprobe penetrated enough of its defenses to provide the minimalist images we saw this morning, but its shields are now stronger than they were then. We have mostly visual contact and a little more. Infrared shows no heat beyond the local planetary temperature. Yet there are waves and sparkles inside the city that are just tantalizingly observable but not quantifiable. The tower, of course, is the most interesting visible feature."

Kathy pursed her lips. "How likely is it that the probe was *allowed* to see what it did in order to lure us here?"

"I do not have enough data to answer that question."

"No sign of life?"

"None in evidence, but I cannot see everything."

“What about a mechanism for harnessing the moon’s energy and expending it?”

“I cannot see such a thing, but the forcefield blocks much of my investigative access.”

“What powers the temporal anomalies on the planetoid?”

“I see nothing. Yet something must be doing so. The anomalies, however, are very weak, decidedly unstable.”

Again, Kathy was silent for several minutes. Her forehead furrowed as she stared down at the sinister shape below.

The next hour was busy. Kathy instructed Rachel to orbit the planet and produce a detailed map of its surface and interior. The deep-space probe had already provided a rudimentary map, but the equipment on the *Raptor* was much more precise. Kathy wanted to make sure the probe had not missed anything.

While Rachel was doing that, Kathy went to one of the hangars and began modifying a small reconobot, a polished metal sphere roughly the size of a basketball. The *Raptor* was stocked with more than a dozen of them. Kathy removed one from a cabinet in the wall, carried it into her workshop, and began taking it apart. She soon had its outer plating removed and its sensitive electronic components scattered all over her workbench.

As she worked, Rachel came through the door. “Need any help?” she asked.

Kathy shook her head. “Thanks, but I’ve got this. It’s really not very hard. I could probably send this bot as it is, but I want a better look at those phantoms on the surface. I’m going to upgrade the optics and tweak the firmware a bit to see if I can’t enhance the image. I’m also going to link it to the ship’s computer so we can make changes to its firmware while it’s still on the planet.”

“A good plan,” Rachel stated. She went back to the navigational center and Kathy continued her labors.

When Kathy was at last satisfied with her work she reassembled the reconobot, brought it back to the hangar, and

placed it into a small launch tube in the wall. "Rachel?" Kathy said aloud.

The holographic figure reappeared. "Yes?"

"Please launch this probe. I'll head on up to the bridge while it's on its way down to the surface. Have you finished the map yet?"

"Not quite, I'm afraid," Rachel said apologetically. "There is something about the rocky composition that makes it very difficult to get good imagery of the surface. It is as if the planet itself is interfering with my scan."

"I noticed the probe had the same problem," Kathy replied. "I took some of the techniques the probe used and put them into my reconobot. Hopefully we'll get some good images."

"I am sure that being on the planet's surface will help. Your probe took all of its images from orbit."

"True," Kathy agreed. She then left the hangar and took the elevator to the bridge. By the time she reached her chair the reconobot was just beginning to enter the planet's atmosphere. The Starman settled into her chair and configured the holoscreen to show what the probe's cameras were currently seeing. She also activated the bot's microphone so that they could hear any sounds it might pick up.

Kathy waited patiently as the bot worked its way through the thin upper atmosphere. Then, after confirming that the bot was still giving off a strong, clear signal, she took control of it manually and flew it down until it was very close to the surface.

The image that filled the screen made Kathy gasp. She stopped the bot and made it hover in place.

"Look at that!" Kathy whispered. "The planet is *broken*, Rachel! Look at those long scars in the ground. How could the city have survived that kind of trauma? Was the city built after this planetoid was pulled from its star system?"

"No. The city is older than the surface phenomena we're seeing. I have no explanation for the city's survival."

Kathy kept the bot in place and studied the screen carefully. "It's all blacks and grays down there, Rachel. Even the light

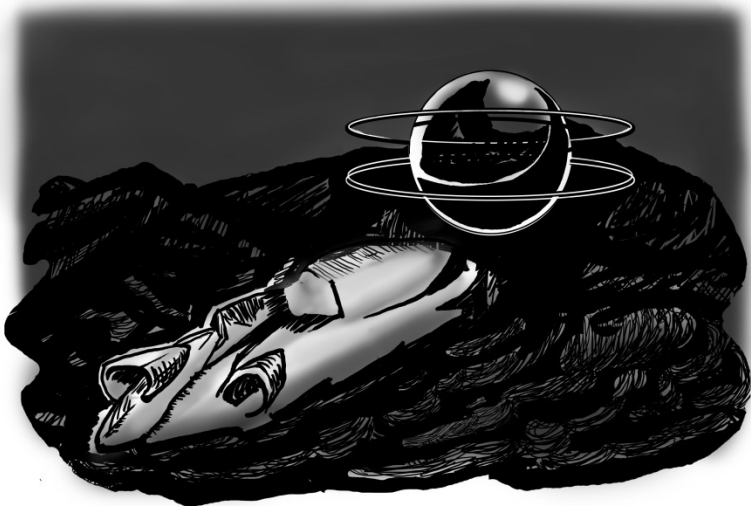
appears to be a shade of gray. The ground is as black as charcoal.”

“There are veins of blue in the rock,” Rachel pointed out.

“Yes, I see,” Kathy replied, “but that makes the planet look almost haunted. That blue is *glowing*!” She gingerly flew the bot still closer to the surface, keeping a careful eye on the signal strength. As the bot got within a few feet of the ground she began to notice that the planet’s surface was strewn with more than just rocks.

“Look at that!” Kathy exclaimed. “That, right there. That’s not a rock formation! That’s a machine of some kind! Or, at least, it used to be. That’s not a phantom or whatever it is we’ve seen before. That’s real.”

The object Kathy had pointed at was a large, irregular mass roughly thirty feet long and fifteen feet wide. Upon closer examination it appeared to be made of some kind of tarnished white metal, but was coated with countless layers of gritty black dust.



“Look at that!” Kathy exclaimed.
“That’s a machine of some kind!”

"I'm seeing a lot of coarse sand everywhere," Kathy commented. As she watched, a gentle breeze came along and stirred up a pocket of sand into little eddies. A small black funnel formed and then settled back onto the ground. "I think it's obscuring everything. There could be all sorts of artifacts hidden down there."

"I can verify that the object is made of metal," Rachel replied. "In fact, the alloy is one commonly found on planets belonging to the First Races. They often used it as a construction material in their cities."

"That's pretty much a confirmation of what we're hoping for," Kathy said.

As the Starman studied the object she suddenly caught sight of something. A faint blue mist appeared next to the ruined piece of metal. It had no well-defined shape. It began to move, and then as quickly as it came it disappeared.

"What was *that*?" Kathy asked.

"I am not sure," Rachel replied. "It just barely registered on the reconobot's receptors."

"My guess is that the bot isn't very sensitive to that frequency of light. Let me see if I can fix that. There's just *got* to be a way to see what's going on down there." Kathy left the bot parked where it was and began remotely adjusting its firmware.

Over time the view of the planet on the holoscreen began to change. Dozens of faint blue objects began appearing all over the ground. Unlike the phantom they had seen earlier, however, these were more recognizable.

"I recognize some of those figures!" Kathy whispered. "I've seen pictures of things like them on the Janitor's home world. Those are war machines, aren't they? Land-based attack vehicles of some kind!"

Rachel nodded. "I see eight of them, all in various states of disrepair. Only two appear to be mostly intact. We are seeing inside the time stases that abound on this planet."

Without taking her eyes off the screen, Kathy said, "Very strange! They're not even moving. Are they real? They just kind

of pulse in and out—they're visible for a few moments and then they fade away, only to come right back. It's like a candle flickering in the wind."

Rachel pointed to the screen. "There are similar phenomena." Kathy looked and saw several saucer-shaped phantoms hovering motionless in the air.

"That looks just like what the probe reported!" Kathy said. "It must've enhanced the image so we could see the phantoms better. They blend in so well with the sky that they're almost impossible to see."

"Yes, but in the probe footage the images were constantly changing. These appear to be largely inert."

Kathy nodded. "I wish there was a way we could see them better but I think this is the best our bot can do. It can only enhance the image up to a point. Those things barely exist, whatever they are."

As Kathy watched, a bolt of lightning struck an outcrop of rock. The sudden loud noise caused Kathy to jump. A rockslide erupted, sending large boulders tumbling down the mountainside. The Starman noticed that several rocks went right through one of the luminous tanks as if it did not exist.

"Where'd that lightning come from?" Kathy asked. "That shouldn't be there!"

"The atmosphere pulses with energy, unconfined and unpredictable," explained Rachel. "Still, I cannot explain how lightning can form on this planet."

"How far are we from the city?"

"The bot entered the atmosphere more than a hundred miles from the city limits."

"Let's get closer to the planet's only source of energy and see if things change." Kathy touched the controls and flew the bot toward the city. At first there was no noticeable difference, so she flew it at high speeds. As the bot passed over the broken landscape it continued to see craft scattered over the ground and even the occasional small building. All of them just barely registered on the bot's sensors.

When the bot was a few miles out from the city Kathy noticed a dramatic change. She halted the bot immediately and then watched the screen in wonder. Instead of being motionless, the faint luminous craft in front of her were moving, engaging others in a fierce battle that was being fought at a glacially slow pace. But parts of the fight appeared to be missing. Massive, formidable land vehicles sluggishly fired at targets in the air, but there was nothing there to hit. Aircraft moved through the sky at a snail's pace and released bombs that arced downward as if through gel onto sites that had no buildings or equipment for targets.

"It's as though there's an invisible boundary of some kind," Kathy said quietly. "If you're far from the tower all you get are still figures. But within a certain zone the rules change. Things start moving, but some of the pieces are missing. It's like an old painting that's degraded over time."

"The battle is repeating itself," Rachel said.

"I noticed that," Kathy said. "That one machine at the foot of the cliff keeps getting destroyed over and over again. Each time it's blown up it disappears, only to reappear again in perfect condition. But sometimes it reappears at a different point in the cycle. It's as if it's caught in time, endlessly repeating the same action, but sometimes the loop starts in a different place."

Kathy leaned back and stretched, and then focused her attention back on the holoscreen.

"I don't think it's real. We can only see these phantoms at all when we're dialed into just the right frequencies of light. Further, the explosions aren't damaging the landscape. The war is having no effect on the planet."

Kathy paused to gather her thoughts. "I think we're seeing something that happened a long time ago. Take that aircraft right there. See how it gets hit and then crashes into the ground? Well, right where it crashes you can see small bits of ruined metal. I think that's what's left of the *real* aircraft. At some point in the past it was shot down, and ever since then its debris has been

resting on the ground. The black dust covers it up, then blows off, and then covers it again.”

“There is one problem with your theory,” Rachel replied.

“Oh?” Kathy queried.

“The people aren’t looping.”

Kathy looked surprised. “People!? What people?”

“I’ll show you.” Rachel took control of the bot and flew it to within a few feet of the ground. As the bot flew toward a deep chasm Kathy saw what she meant. There, at the edge of an abyss, was the ghostly silhouette of a living being; it was very hazy. Even with the enhancements she had made to the bot she could just barely see the ghostly figure.

Kathy took control of the bot from Rachel and nervously flew it toward the entity. As she got closer she could see that it was wearing a suit of some kind. The upper portion of the entity was encased in a helmet. Through the glass of the helmet Kathy could see two eyes.

The Starman continued flying the bot closer, making a wide arc around the figure to view it from all angles. As she did this she noticed that the entity turned, keeping its eyes locked on the bot.

Her blood ran cold. *It’s watching us! It knows we’re here!* To her horror, the creature looked at the bot quizzically. It reached out a hand to touch it. As its hand brushed the surface, the bot and the entity simply disappeared, and the *Raptor*’s connection to the bot went dead.

Kathy cried out in shock. “What just happened? Rachel! Talk to me!”

Rachel paused before answering. “One moment, please.” Several seconds passed. Then, “I apologize for the delay. I was attempting to locate the reconobot. The interference makes it difficult to maintain the scan of the planet’s surface.”

“Well?” Kathy demanded. “Did you find it?”

Rachel shook her head. “The reconobot no longer exists. It has not merely been disabled—it is actually gone.”

“That’s impossible!”

“It is unquestionably true,” said Rachel. “The entire time the

reconobot was on the surface I kept my sensors focused on it, so if we ever lost contact I would be able to retrieve it. The moment the figure's hand touched the reconobot, it actually disappeared."

"Do you mean it was destroyed?" Kathy asked.

"Unlikely. It appears to have been taken into a temporal disturbance of some kind."

"A 'temporal disturbance'? You mean into one of the time stases?"

Rachel calmly looked at Kathy. "It's not just the many individual time stases. The entire planet is in a region of extreme temporal disruption. The normal fabric of spacetime has been terribly damaged. The cause and purpose of this is unknown. It does appear that this turbulence has consumed the reconobot."

"Okay," Kathy said. "All right. It's obvious that things on the surface are really strange. The countryside only had a mild dose of whatever is wrong, but as we got closer to the city things got much worse."

"What would you like to do now?" Rachel asked.

"Can you show me an aerial view of the city?"

"Of course. One moment, please." A minute later the holoscreen came back to life, displaying a three-dimensional picture of a ruined city. From the air it was easy to see its three sections—the decaying outer ring, the fortified inner ring, and the great tower in the middle.

"The picture of the inner ring of buildings is kind of fuzzy, not even as clear as what we had before," Kathy remarked. "Is there anything you can do to enhance it?"

Rachel shook her head. "I'm afraid not. It takes a great deal of effort to maintain even this level of clarity. Something on the surface is working very hard to hide the existence of the city. I cannot obtain a better picture from orbit."

Kathy nodded. "Can you tell whether the 'temporal disturbance' you mentioned is at its peak around the city?"

"Yes and no. The disturbance grows considerably as one approaches the outer ring of buildings, but there the effect stops. The inner ring of buildings shows no sign of temporal

disturbance at all, although it looks as if there is a forcefield of some kind close to the center. It's hard for me to see."

"Interesting," Kathy said. "Can you pinpoint the origin of the disturbance?"

"Not from orbit," Rachel replied.

For long moments Kathy said nothing.

"I will name this dwarf planet 'Lemura'," she said at last.

"That would be from the Latin, named after the *lemures*, the ghosts or spirits of Roman mythology," Rachel responded. "Very nice. I like it! Would you like me to register the name officially?"

"Yes, please," Kathy said. She was silent again for a moment. Then she said, "Can you land on the planetoid?"

"It would be unwise to do so, Kathy. The time distortions and the attendant radiation on the surface would confuse my instrumentation."

Kathy wrinkled her nose. "Then you can't transport me down there while you stay in orbit, can you?"

"No. I could easily lose you."

"Well then. We'll land on the top of the mountain and I'll hike down. There are no temporal anomalies that high up, are there?"

"There are none, but what you suggest is also unwise. I could land us high on the mountain, but if you walk down to the surface I could lose contact with you."

"What about the time stases? If I go down there on foot, could I get caught in one?"

"No. They are being maintained but if they are to remain durable, they must be inert with their environment. The radiation that saturates the atmosphere close to the surface is a by-product that wreaks havoc with electronics but will not affect your physical presence."

"So it doesn't look as if there is any other way to get the information about that city that we must have other than to go down there; someone's got to do it, whether it's me now or someone else later. It may as well be me now. It's also my assignment."

"I believe that your assignment from Richard Starlight was to locate the energy source for Larson's Folly. You have done that."

"*Probably* done that. I've done office and laboratory work for years, but now I'm finally doing the best work of a Starman, the kind of work that Starmen were created to do. When I give my report to Richard, it will be a *full* report." Kathy took a deep breath and let it out all at once. "Take the *Raptor* down to the mountain, Rachel. I'll be getting into my spacesuit."

"Very well, Starman Foster."

~

Seventeen minutes later the *Raptor* was homing in on the peak of the mountain that was thrust up from the surface of Lemura.

"Go slowly, Rachel; take your time," said Kathy. She stood at the viewscreen clad in her brick red space suit, holding her helmet in her hand. The mountain's peak seemed dangerously close and beguilingly alluring. The blades and ridges of the heights were sharply defined and untouched by erosion, but there were also small, almost level terraces that could hold the spacecraft. Rachel had obviously selected one and was guiding the *Raptor* carefully toward it.

The spacecraft slowly drew close to a generously wide ledge and then gently touched down. As the *Raptor's* engines shut off there was sudden complete silence. Kathy released a breath that she hadn't known she was holding.

"Gravity is approximately one twenty-fifth that of Earth," said Rachel. "You weigh five pounds here, Kathy. It should take you roughly five hours to descend the mountain, and then another two hours to reach the outskirts of the city."

"Thank you, Rachel. And I've got food and air for about twenty-four hours. Allowing for a little more time to climb back out, I've got about seven hours to explore the city."

"If you don't sleep," said Rachel.

“If I don’t sleep,” Kathy agreed. “As you yourself pointed out a couple of hours ago, I slept very well last night.” The Starman walked through the ship to the portal that she hadn’t used for almost eight months. She affixed her helmet, and then said, “Rachel, please open the airlock.”

Chapter 8: The Voice

It was exhilarating to be outside. Kathy smiled broadly and took a deep breath. She gazed in wonder at the view that spread before her. The horizon of Lemura was readily distinguishable by a black boundary below which no stars were evident, and where a barely discernible but lambent lavender glow lay. Only the dimmest of light from the few dozen visible stars showed the terrain. Details of her surroundings were utterly lost beyond about ten feet.

Almost reluctantly the Starman activated the program that would project on the screen of her helmet the details of the broad land that were otherwise invisible. Now she could see the shoulders of the mountain jumbled below; her helmet highlighted the ridges and defined the hollows as they descended into unrelieved darkness.

“Ah, Rachel, it feels *wonderful* to have somewhere to walk, and the view is... well, I can’t describe it. I’m seeing something that no one has ever seen before—well, at least no human being.”

“Yes, Kathy, it looks beautiful! Need some company? I’d like to come along.”

“I’d love it.”

Rachel appeared next to the Starman, imitating her gaze outward at the stark expanse. They looked out over a vast plain that, for several hundred thousand years, had known no warmth nor received any but the barest illumination. It was a place without record or memory.

“Let’s go,” said Kathy, and began her descent. The ledge

where Rachel had parked the *Raptor* was a little more than twice the size of the spacecraft, and slanted just off level. Kathy approached the edge of the escarpment and took stock of the upthrust series of broken humps of stone and crumpled folds of the planetoid's crust below her. The descent would not be difficult, but it would be circuitous.

"If I weigh five pounds here, Rachel, how far can I fall safely, and how high can I jump?"

"A drop of fifty to seventy feet would be the limits of safety, Kathy, and you ought to be able to jump at least fifty."

The Starman nodded. She stepped over the edge of the escarpment and dropped about twenty-five feet to a small level place. Rachel followed immediately after. Canyons and declivities were interwoven below them, bewildering even in the enhanced image that showed in Kathy's viewscreen. A path led away a little to their right between high standing stones, and dropped rapidly to lower elevations. Rachel followed Kathy as the Starman walked, jumped, and plummeted carefully downward. She consumed distance rapidly in the dwarf planet's slight gravity.

"We are entering the upper layers of the atmosphere now," said Rachel after they had been descending the mountain for over two hours. Kathy made no response. Although the descent was easy, it took her full concentration to keep herself on the best path. The terrain had been ravished by the sweep of the giant planet that had torn the planetoid from its home star system, and the great mountain looked as if it had been formed by having its material shoved together by an immense hand, heedless of the reshaping of the planetoid's surface.

Before long Kathy and Rachel had left the heights behind them. A gradual slope lay before them, interrupted only by an occasional wrinkle or scattered boulder. The floor of the worldlet lay before them, cracked open here and there by fissures that could be ten feet deep or so yawning that their extent did not register on their equipment.

There was a light breeze, and through her helmet Kathy

could hear the sougling of the mild gusts. An occasional flurry of black sand lifted up, scattered, and dissipated.

"The atmosphere is thick enough here to carry sound waves," said Kathy. "I can hear the breeze."

Well done!

An animated voice spoke directly into the Starman's mind. Kathy froze, every sense alert, adrenaline coursing through her body. The hairs on her forearms and the back of her neck prickled, and her breathing instantly became shallow. She felt a tightening in her gut.

"What's wrong?" asked Rachel urgently, alarm sounding in her tone.

"Did you hear that?" asked Kathy tensely.

"No, Kathy; I heard and sensed nothing. What happened?"

"I heard a voice—in my head. It said, 'Well done.' It spoke directly into my mind. We're being watched, or tracked! Can you sense any sign of life anywhere?"

"No, there is no sign of life anywhere within the range of my ability to investigate."

"The city. It must be in the city. There were places in the city that you couldn't see. There's a forcefield, a stasis of some kind around it."

There is. The Voice spoke inside Kathy's mind again. But you'll get through. Come ahead.

"The Voice just spoke again," said Kathy. "It invited me to come ahead into the city, and said I'll get through the forcefield."

"I heard and sensed nothing," responded Rachel. "The communication you are receiving is outside of my ability to receive it. The only sentient beings our civilization is aware of who have that capability are the First Races."

"Yes," said Kathy. "I figured that out fast. There are Lucians here!"

"Perhaps we should return to the *Raptor* and confer with Richard before you continue your exploration. As I feared, there is interference with my programming at this low elevation. My ability to maintain a telepresence is waning. If I disappear, I may

be able to communicate with you through simple audio, but I cannot guarantee it. The closer you get to the city, the more difficult it will be for me to remain with you in any form.”

You are safe on my world. You are welcome. Come into the city.

Kathy reported what the Voice had said to her.

“The words sound inviting but you are suspicious. Your body is telling me that you are uneasy.”

“Uneasy is the least of it! But as I said before, this place has to be explored, either by me now or someone else later. So it’ll be me, now. Stay with me as long as you can, Rachel.” Kathy set her face forward and resumed her journey. At the moment there was no wind. Kathy ran two steps, bounded upward, and flew forward, coming down again gently into another two running steps that launched her again, traveling over three hundred feet with each bound. The lightweight but coarse dust of the worldlet skirled up into puffs at every place where she touched down.

Rachel stayed with her. In that manner they loped together over the terrain, keeping watch for any pits or crevasses. The program that mapped the terrain for Kathy pointed out well in advance where the most hazardous fissures were located so that she could avoid them as they traveled over the plain. The miles disappeared behind. It was almost as if they were flying.

A black, broken desert extended from horizon to horizon, strewn with twisted bits of debris. Immense outcroppings of pumice came out of the hard floor like broken bones. The few deep chasms sank below the surface. A gentle breeze stirred up gritty dust that stayed in the air for impossibly long periods of time. High above them the sky was as black as it could be, with only a few points of light. Kathy’s thoughts contained a hodgepodge of impressions. *This place looks so depressing. It’s as if someone came along and sucked all the life out of this world and left behind an empty shell. Surely this wasn’t always a world of shadows. And yet somewhere here now, there is life.*

The Starman didn’t see any sign of the phantoms but she wasn’t surprised. They were very hard to make visible with the

best technology available to Rachel, but she knew that they were all around her. When she thought about it, her skin crawled and her stomach felt queasy. The Starman cleared her mind of everything but the mission and maintained her ground-eating pace toward the city. She hardly noticed when Rachel disappeared, and when she became aware of it, she was surprised that Rachel had given her no warning.

“Rachel?” she said. “Are you there? Can you hear me?”

There was no answer. Kathy pressed her lips together, and continued her journey with determination.

At length she could see the outskirts of the city in the distance, and she set her sights on the immense, ruined buildings in front of her. She slowed her pace and then began walking toward them. She remembered the forcefield but knew that without Rachel’s help, she wouldn’t be able to tell where it was.

As the outer ring of buildings drew closer Kathy realized that she could hear something. She stopped to listen. At first all she could hear was the gentle wind that constantly blew over the desert, but as she listened closer she heard something else. It was a soft noise, almost imperceptible, that appeared to come out of nowhere. *It almost sounds like water! Or a host of voices. It’s very low and jumbled. I wonder why the probe didn’t pick up on it?*

Behind her Kathy suddenly heard a loud *snap*. She whirled around, but saw nothing. There were no signs of life and no visible movement. For two full minutes she stared out over the nearly featureless plain, scrutinizing the nearby ground and peering out into the distance to the horizon.

“Hello?” she said aloud. Her voice faded away into the distance.

She felt fear start to rise in her throat, but she forced it down. “I’m not going to panic,” she cried aloud.

The desert did not reply.

Kathy wondered if “the Voice” could read her thoughts, and wondered why it didn’t speak to her now that she was at the point of entering the city.

Kathy turned and resumed her walk toward the buildings. She encountered no resistance, and was soon on a wide, cracked road that lay between two enormous structures. The road appeared to continue on as far as the eye could see, but Kathy knew that after four miles the road ended and the inner ring of buildings began. *It's an optical illusion*, she told herself. *I know the tower is there.*

The Starman looked at the buildings on either side of the deserted road and spotted a wide doorway in the one to her right. She jumped lightly and drifted over to it and cautiously stepped through. Once she was inside she stopped to look around. The floor and the walls were still largely intact, but much of the ceiling had fallen through. Huge piles of broken stone and rubble littered the floor, some of which were many dozens of feet tall.

Kathy was surprised that the building was hollow. *I don't see any signs that there was ever a second or third story. This is like a giant hangar, or something. It's just one big room, four hundred feet tall and a mile or more long! What could possibly have been the motive to build such a thing? Who needs that much empty floor space?* She felt daunted, imagining a race of giants that once walked and worked within the walls.

After taking a good look around, Kathy walked up to the nearest pile of rubble and carefully examined it. She saw bits of scrap metal in the pile, but there were no pieces bigger than her hand, and any markings on them had been worn off years before. The building had no paint or writing that she could see. *It's just been too long*, she thought to herself. *There's nothing left.*

Satisfied that she had seen all there was to see, the Starman continued her light bounding down the long building. She had gone about half a mile before she noticed that she felt strange. Something seemed to be gently buzzing deep inside her brain. It was almost a tickling sensation, but it was originating from inside her. She shook her head, but the feeling persisted.

Without warning, a bolt of lightning struck the top of the building with a loud *crack*. The sudden flash of light and blast of thunder startled Kathy, who fell off her feet and tumbled

forward. Above her she saw that a large crack had formed in the ceiling. The crack rapidly grew and with a grinding noise a two-hundred-foot long part of the ceiling split apart and came crashing down toward her.

Kathy panicked and tried to rise to her feet, but terror began to overwhelm her and she jumped up too quickly, only to whack her head on something she couldn't see. The Starman tumbled to the ground again, this time in pain, her vision temporarily blackened.

She lay on the ground for a moment, stunned. With her heart beating rapidly, the Starman shut her eyes and waited for the concrete to crush her, but there was only silence. Puzzled, Kathy opened her eyes and lifted her head off the ground.

To her amazement the rubble was gone. The empty room was gone. She appeared to be inside a large research station filled with giant pieces of electrical equipment. Enormously tall figures dressed in protective white suits were working at computer stations. A gentle blue light filled the room, originating from no obvious source.

Kathy stood up and stared. *What just happened? Where am I?* As she regained her senses she realized that the room looked familiar. *Wait a minute! I'm still in that building! There are the walls and ceiling, just where they used to be. But what happened?*

No one appeared to take any notice of her. Kathy took a step forward—and everything disappeared. She was once again in a room filled with rubble. She glanced up and saw the hole in the ceiling where the lightning had struck. Beneath her feet was the giant concrete slab.

"Hold on!" she said aloud. "That doesn't make sense. I should be *underneath* that slab. What's going on here?"

A thought burst into her mind. It was alien, forced into her from the outside. *I saved you.*

Kathy jumped back.

The Voice inside her head laughed sardonically. *You are a miserable excuse for a life form! Had I not intervened you would*

have died. You are helpless here.

Kathy whirled around, desperately trying to locate the source of the Voice she was hearing inside her head. She could see nothing. *What's happening to me?* she thought.

It is not so hard to figure out, the Voice continued, *even for a species as backward as yours. You have invaded my world with your crude attempts at exploration. I allowed you to come into my city, and I can manipulate you as I wish.*

"Who are you?" Kathy shouted. "You must be a Lucian! Where are you? Show yourself!"

You amuse me, the Voice replied. *It's been so long, so very long since anyone has come to my planet. I can kill you with a single lightning strike or crush you with a piece of ruined building. Your senses are so weak I can trick them into seeing something that took place here uncountable ages before life existed on your world. Go ahead, Starman Kathy Foster. I grant you free access to my entire domain, for you are incapable of harming me. I was alive before your world grew slime, and I will be here long after your race has been extinguished and forgotten.*

With that, the Voice went silent and the buzzing inside her head stopped. Kathy was left alone, in the shadows of a ruined building. She was trembling with fear.

As scared as she was, the Starman forced herself to calm down. She closed her eyes and breathed deeply several times. She quieted her inner self, made herself feel empty, so that thoughts couldn't adhere to her mind if she didn't want them to. Her heart rate returned to normal and her sense of panic dissipated. She opened her eyes.

The Voice can see what I'm doing and where I'm going, she thought, *and can hear my voice. Since he can follow my every move even when I'm in orbit, and since he hasn't hurt me yet, I will just go wherever I want. Probably that's just what he wants me to do.*

She stepped through the nearest doorway, looked up and down the street and saw nothing unusual. From where she stood the buildings that lined the road appeared to extend indefinitely

in either direction. Kathy resumed her hike toward the center of the ruins where she knew that the giant tower was located.

Time passed very slowly. No matter which way she looked, all she could see was an unending street lined with giant, crumbling buildings. Kathy quickened her pace. *I'd better hurry! Or maybe—*

WHAM! The Starman suddenly slammed into an invisible wall. The force knocked her off her feet and onto her back and left her gasping for air. Dazed, she looked around but couldn't see anything out of the ordinary. There was no wall blocking her path. All she could see was the same unending street and the same ruined buildings.

Kathy got to her feet and reached out a hand in front of her. The hand collided with something invisible. She moved her hand around on the invisible surface and realized a solid wall was in her way.

That must be the cloaking field, she thought to herself. *I had forgotten about it. So now what do I do?*

Acting on a hunch, Kathy spoke out loud. "Hey there! I know you're watching me. What do you think you're doing, blocking my way? You promised me access to all of your domain!"

There was no immediate answer, so Kathy spoke up again. "Or maybe you—"

Kathy suddenly felt something grab her from behind and forcefully toss her through the air. She involuntarily let out a small scream as she passed through the barrier. She landed hard on the ground on the other side.

Well, at least it worked, she groaned to herself. For the third time that day Kathy struggled to her feet and then looked around. What she saw made her gasp. In front of her, less than half a mile away, was the tower. The enormous structure rose high into the sky.

What amazed her, though, was not its size but its construction. She had seen pictures of structures built by the First Races before but the static images in her journals had not

prepared her for the reality. *It's as if the building were made of light*, she thought with reluctant admiration. Thousands of brilliant colors radiated from the tower in streams of light, ever twisting and merging from one hue into another, though the overall effect was one of variegated blue. Outrageously bright beams of blue and white and indigo sparkled like tiny stars. The effect was mesmerizing. *It almost looks as if it's alive*, she marveled.

The tower was surrounded by a ring of smaller structures. It took her a moment to realize that the enormous objects, each of which rose hundreds of feet off the ground, weren't buildings but were actually machines. She watched, awestruck, as the machines fed beams of glowing plasma into the tower at irregular intervals, shaping and changing the never-ceasing flow of light.

So the inner ring is actually part of the power plant! It all works together to harness unimaginable amounts of energy. This must be the source of the energy that powers Larson's Folly.

Kathy hesitated and then looked around. *The tower appears to be made of pure energy—as silly as that sounds. Maybe pure photons would be a better way of putting it. Or plasma. Or maybe it's some other state of matter I've never heard of. Anyway, it looks like something I should not be touching.*

She turned around and looked at the ring of machines that surrounded the tower. *Those look more promising! The plasma arcs are hundreds of feet off the ground, and the ground structures appear accessible. Maybe there's a control unit somewhere I can examine.*

Kathy hurried over to the nearest machine and began looking around. After a few minutes she found a glass door tucked away in its side. When she walked up to it the door automatically opened and the inside lights turned on.

The Starman stepped through the door and looked around timidly. Given the size of the machine the room was surprisingly small. *This isn't even big enough to house the Raptor*, she thought to herself. *But I'm sure these things are mostly*

automated. They probably don't need much in the way of adjustments.

At first she thought the room was empty but then she realized that the walls, floor, and ceiling were all giant screens. Kathy walked up to one of the walls and touched it but nothing happened. She frowned. *So how do I get this apparatus to turn on? Think, Kathy, think. If you were a Lucian and you built a giant computer, how would you want to interface with it?*

The answer came to her at once. *Telepathy! All of the First Races were telepathic. Let's try that.* She put the concept *activate* in her mind and directed it toward the room. Immediately the room came to life! The white walls dissolved away into blackness, giving Kathy the illusion of standing in space. Around her swirled shapes and lights in orderly fashion. She looked at one at random and focused on it a desire to receive the knowledge it contained. Immediately it seemed to unfold like a flower and envelope her. She gasped, as if she had been thrust into a pool, though the sensation was purely inside her mind. All around her was an orderly array of images of places, each a few inches square. She picked one, again at random, and indicated a desire to enter it; again, the image expanded and immersed her inside itself. She was in a meadow of tall grass, waving gently in a breeze. Trees of unusual shape were scattered singly on the meadow under a wide and clear yellow sky. A path led through the meadow to a few silver and light blue buildings, and a bridge crossed a flashing stream.

Back, Kathy thought, back to where I started. All at once she was back in the original room. Kathy pressed her lips together. *Now let's see what we can find out.*

Chapter 9: The First Races Intervene

A crew of fifteen space-suited people exited the mining dome on the far side of Luna, not far from the deepest point of

the South Pole-Aitken basin, eight miles below the lunar surface. At more than 1,500 miles across, the basin was one of the largest impact craters in the entire Solar System.

The previous day, a team of eighteen had crossed the ragged chain of steep crags called the Leibnitz Mountains, located less than an hour's easy flight from Amundsen City. With sunrise imminent, the mining team was preparing for its fourteen-day shift after which Luna would revolve away from the sun and leave the basin in darkness.

Three people had remained in the mining dome as support crew. The other fifteen were experienced miners who were now beginning their first day of work. Among them was Richard Starlight, the leader of Starlight Enterprise. The basin was a rich source of iron, titanium, and thorium, all of which could be extracted from the lunar soil more easily there than anywhere else on Luna.

The sun was just rising over the notched mountains more than six hundred miles away. The miners' shadows appeared to be miles long as they strode toward the two transport vehicles that would take them to the closest working site. Richard had no need to be among the miners other than the simple joy of being in the field. He walked gladly among them and was looking forward to a day of hard work with tools.

A sudden, unexpected glow appeared between the group of miners and the vehicles that were their destination. All of them stopped with a gasp. A figure, shorter than average, in a thick, gold space suit had materialized in their path. His suit cast weak shadows over the gray terrain as it radiated light and heat, for it contained the light and heat of its wearer's 600°F homeworld.

"My apologies," rang through the minds of each of the miners, "for this disturbing appearance. I have come for Richard Starlight."

"Janitor!" exclaimed Richard.

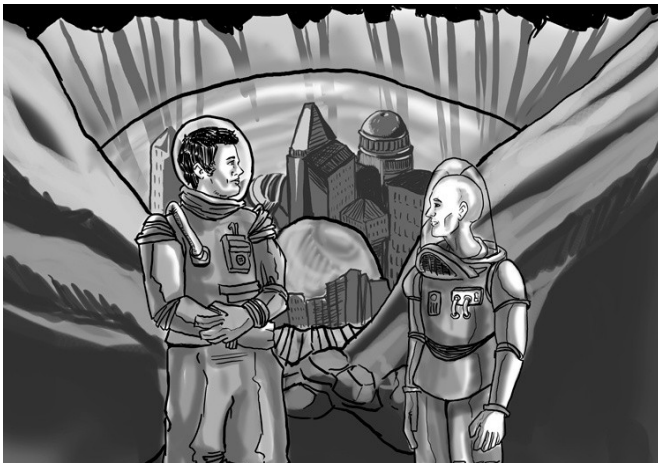
"I must speak with you at once," said the Janitor. "May I take you from this place for a time? I will return you here when we are done."

“Of course,” said Richard. “What is—”

Instantly the Janitor and Richard were standing together in a niche of the Leibnitz Mountains. To one side the mountains sloped away and far in the distance Richard could descry the lights of Amundsen City. On three other sides the gray reaches of the mountains rose above them.

“You have found the prison planet and its energy source,” began the Janitor without preliminary statements. “Your Starman Kathy Foster, sister to David who gave his life in the conquering of the Xenobots, has come into the vicinity of a renegade Lucian.”

“So she has succeeded,” said Richard, visibly gratified. “Her initial report gave us much hope that she had found the energy source for Larson’s Folly. But what is this renegade Lucian?”



*The Janitor and Richard were standing together
in a niche of the Leibnitz Mountains.*

“She has indeed discovered and set foot upon *Oet*, the planetoid that directs the power to *Ugttauir*, the planet you call Larson’s Folly, where the armies of the First Races are imprisoned.” Concern rolled over the Janitor’s face just dimly

visible through his viewport. "On *Oet* there lives the last renegade Lucian, the last of his people who rebelled against the First Races countless ages ago, and conquered and imprisoned those among us who fought to curtail their malevolence."

"The last Xenobot!" whispered Richard, awed.

"No, not a Xenobot," corrected the Janitor. "This Lucian did not degenerate into a Xenobot. He has lived in solitude on *Oet* since not long after the days of the First War and is the last citizen of *Smais*, the city of the Lucians that the rebels built on *Oet* at the height of their powers. The city was built for the sole purpose of building, and then initiating and protecting the power transmitter that was the Lucians' greatest weapon. It draws energy from dense star material and then transforms it to empower and maintain the singularities on itself and on *Ugttauir*.

"This one remains a Lucian in body, though even we of the First Races cannot tell what he is in mind. Amidst the natural forward flow of time that obtains elsewhere in the universe, time on *Oet* moves in swirls and eddies. This one has no sense of time passing, no understanding of past or future, nor even of present."

"You have known this always," asked Richard, with a hint of reproach, "and never told us?"

"There was no need for you to know, Richard Starlight," returned the Janitor, "not even when you discovered *Ugttauir* by chance eight years ago. Until now this has been a matter for the First Races alone. It was on these planets that the battles of the First War were fought, and it is on them that the warriors of those who opposed the renegade Lucians are held captive in time stases. The singularities cannot be affected by anything that you can do—or by anything that we of the active First Races can do. Even we cannot free the captives. The obvious perils and excessive hostility of the prison planet have kept you from tampering with it, or even doing more than observing it.

"Now, however, your Starman Kathy Foster has set foot upon *Oet*. This is the planet connected to *Ugttauir* by a power stream. The renegade Lucian who is there will not leave her unscathed."

A shot of sudden apprehension went through Richard. He was beginning to fear the Janitor's purpose in meeting with him so urgently.

"What will he do?" demanded Richard, his heart beating very fast.

"We cannot predict," said the Janitor. "We cannot know what he has said or done to Kathy Foster, nor can we know what she has experienced on *Oet*. We know that she has entered *Smais*, and must have encountered the Lucian. He would not ignore such an incursion. There has been no living being on *Oet* other than himself for uncounted ages. The city was abandoned shortly after the First War, leaving only the Lucian to maintain the power system that kept *Ugtauir* uninhabitable and the time stases inviolate. He is of the race that had mastered spacetime when he began his charge. It is likely that he alone of all living beings retains the knowledge of that ancient science.

"Moreover, *Oet* has been cast by chance into the deeps of space and belongs now to no star system. It is in near utter darkness. This Lucian has lived in solitude among volatile temporal flows for nearly his entire life. We of the First Races cannot understand them or him. He lives alone in his own mind. He has related with no other living being. There is nothing like him anywhere in the galaxy."

For some time nothing passed between Richard and the Janitor. Then at length Richard addressed a thought to his visitor.

"What would you have me do?"

The Janitor showed an uncharacteristic pause. "Richard Starlight, this situation is unprecedented. Though we have observed this Lucian, we have avoided him, but now that a contact has been made, the course of events is entirely unpredictable. But we of the First Races have a proposal."

~

Starman Kathy Foster paid careful attention to the passing of time. If she were to return to the *Raptor* without cutting her air

supply too closely, she had about three more hours to engage the computer system of the inner ring of the city. She was aware that she was becoming unnaturally tired, much more tired than she ought to have felt after only fourteen hours.

She pursued her exploration of the images that hovered in space around her, learning how to enter into them with her mind. Keeping her mind focused as she slipped into exhaustion became more and more challenging. As her mental faculties blurred with her fatigue, she found that she made unintentional links with the images, and they dragged her through spaces she had no desire to follow. To escape, she shook her head, refocused and slowly returned to her reality. She came to feel like a small child playing among potent wonders that could prove very dangerous. Her mind began to reel and sway, and her eyes kept watering and blinking.

Finally she ceased to concentrate and pulled back into herself. She shut her eyes and tried to think of something familiar. She made herself remember sensations and experiences from her daily life. Memories of her favorite foods came to her. Spaghetti with sautéed onions, meat sauce, herbs. She remembered the aroma. The memory of the distinct taste of freshly made garlic bread made her mouth water.

What is that? came the Voice. *Amazing! Something I don't know. You intrigue me now, Starman Kathy Foster. Show me more.*

Kathy felt too tired to resist the intrusive voice. *It's food. My favorite food*, she thought. She shook her head again and opened her eyes. She sat bolt upright and stared unseeing. *Why am I here?* she thought toward the Voice. *Why have you left me to wander through your inner city? What do you want me to find?*

There was no answer. Suddenly she felt energized, even euphoric. Then she felt abject fear, and cried aloud. Then she felt a surge of adrenaline and a firm desire to act boldly. Then she felt hunger, hunger to the point of starvation. A pounding headache burst between her temples and she felt weak and faint. Next she felt completely sated. With panicky alarm she knew

that she was being played like an instrument. The Voice was tormenting her—or maybe merely exploring her psyche and physical reactions the way she was exploring the images in the room where she was sitting.

STOP IT! she ordered vehemently. *You have no right to use me like this!!*

A feeling of curiosity wafted over her, a feeling she discerned as coming from beyond her. But no words accompanied the feeling.

If you want to show me something, show me! she ordered. *Stop playing with me!*

Immediately she felt a complete absence of any other being. An overpowering sense of wretched solitude swelled into her, of there being no other living, thinking, feeling entity of any kind for light years in every direction. She was pierced with an unfathomable dread as if plunged without warning into an icy, heaving ocean that was working to engulf her. But within a few seconds she had collected herself and calmed her gut reaction. Her months of battling loneliness on the *Raptor* had given her the resources for rebuffing the experience of absolute disconnection.

You intrigue me, Starman Kathy Foster. The words came into her mind with a slow deliberation. *Now look, then, and you will see what you came after.*

One of the images that was floating in the air around her came close and opened up. Helplessly, she drifted into it. She saw deep stone walls, black and high and sparkling, and then she passed through the space in between them until they fell behind her. She was floating in space. A swath of millions of stars, mostly white but also red and blue and violet, extended before her like a pathway, though it lay light years below her feet.

She saw an armada of hundreds of spacecraft coming toward her, spacecraft of advanced design that she knew she had never seen before, yet which looked familiar. With a sudden realization, she remembered that they were the ships whose ruins

she had seen in the time stases that her modified reconobot had observed.

A startling and ominous vibration coursed through her body, and she felt energy pulse from somewhere behind her and move outward. Wave after wave of the ships of the armada disappeared as if caught by giant hands and drawn into oblivion.

When the armada was gone, she saw a planet sweep near, and she hovered over it, watching an enormous host of ships on the ground, surrounded by buildings of spectacular beauty set among meadows and groves. It was all suddenly frozen white and silver. The ground upon which it all lay heaved like a turbulent ocean, and then that too froze in place. And then a hoary diaphanous veil was drawn over the scene. After a few moments in which Kathy puzzled over what she was seeing, there was an eruption of violent, swirling clouds and jagged light that filled her entire field of vision and obliterated all that she had seen before.

You know this planet, said the Voice, *though you have never seen it.*

Then the planet disappeared under a fold of darkness, followed by another fold, and yet another.

Ah, said the Voice. *Next...*

A field of stars rushed under her and around her, followed by the infinitude of interstellar space, and then more stars. And then one star became more luminous, and its surrounding stars faded and dropped out of view. With rapid heartbeat, Kathy recognized her own sun. Saturn flew past her, just barely recognizable before vanishing. And then she saw Ahmanyia, and then Earth. As she watched, both planets took on a silver tint as in the early stages of icing over.

She experienced the Voice's elation at precisely the moment she felt the billow of panic fill her. She wanted to shriek uncontrollably.

In an instant the dream disappeared and Kathy found herself standing on the bridge of the *Raptor*. The holoscreen was tuned to an overhead view of the inner ring of buildings. Rachel was

standing in front of it, studying it carefully.

Kathy's shriek burst from her, and she began to waver on her feet. Rachel whirled around. "How did you get on board?" she cried, running to assist the Starman. She caught her before she fell and eased her to the floor. Rachel carefully removed Kathy's helmet and began checking her for injuries.

Gradually Kathy got control of her panicked rapid breathing, extricated herself from Rachel's attentions and crawled over to her chair, and then wearily pulled herself into it. She felt cold chills running down her spine.

He toyed with me. If he can transport me here that easily, then he can surely vaporize this ship at a whim. And now that he knows about Earth and Ahmanya, he plans to capture us just as he did the First Races. And nothing we can do can stop him!

Chapter 10: The *Raptor* is Compromised

"What happened, Kathy?" asked Rachel anxiously.

The Starman's wild eyes looked piercingly into Rachel's. "Our entire Solar System is going to be frozen in time—just like the shadows on this planet, Rachel! Just like the temporal anomalies on Larson's Folly! We're helpless! One lone Lucian down on this planet can do all that! He showed me!"

"Calm yourself, Kathy," said Rachel soothingly. "Your panic is returning." The holocom stepped toward Kathy, but the Starman closed her eyes and turned her head away, and raised her hands in a warding off gesture.

"There's nothing you can do, nothing we can do to keep it from happening!" Her voice rose, and then she buried her face in her hands.

"May I see the videofeed from your suit?" asked Rachel.

Kathy kept her eyes averted but lifted a hand in despairing resignation.

Seconds later Rachel said quietly, "I saw what you saw, but there was nothing alarming. I do not understand, Kathy."

Kathy raised reddened eyes to Rachel's. "Nothing alarming? You didn't see the whole population of Larson's Folly captured in time, the planet covered in storms more powerful than anything that's ever been known on Earth? You didn't see Earth itself and Ahmanya threatened with extinction?"

Rachel slowly shook her head.

"Then you didn't see what I saw! I saw all that!"

"I do not deny it, Kathy—but it must have been solely in your mind. I heard no voice on Lemura, and I can see no threat to our planets."

Kathy stood up, enraged, and shook both fists in Rachel's face. "Did you see the slab of concrete fall from the ceiling?" she shouted.

"I'm sorry, Kathy. I do not deny that you saw these things. But I cannot see what happened only in your mind."

"Only in my mind," murmured Kathy, sitting back down in her chair. "Only in my mind." Her eyes shot back to Rachel. "Do you think I am mentally unbalanced?"

"No. I think your mind has been manipulated by the Lucian."

A glimmer of hope appeared in Kathy's face. "Yes," she said. "He manipulated me. He made me feel exhausted, then afraid, then starving, then full, then... one thing after another. He manipulated me. Yes. I remember thinking that he was just playing with me, and I ordered him to stop. And he did. I think. Or maybe he influenced my mind another way. Maybe... maybe everything he showed me was just stage-managing me. Maybe he has no real power to do anything. Maybe he's only a master of shadows but can't affect anything that's real."

Kathy leaped to her feet. "But there's some reality down there, Rachel! There's something there that I can't explain logically, something I can't convey even to you. Something deeper than logic, deeper even than emotion. Humans have called it 'sixth sense' and 'intuition'. No, it's more than intuition.

It's..." Kathy threw up her hands. "Rachel! *Something* happened to those armies down there! And the feel of it when I walked among those ruins made my insides prickle as if I were covered with insects! You can't experience it and I can't convey it to you! But it's real!" Kathy's eyes flashed. "And he did return me to the *Raptor* in an instant. *That* was real. He has power of some kind, power beyond anything anyone in our race has ever known!"

Her eyes opened wide, and she whispered, "He's doing it now. He's listening! More than you ever did, or can. Lift off! Lift off and let's go home!"

A moment later Rachel had raised the spacecraft from Lemura's great mountain. "I will engage the hyperdrive in forty seconds, Starman Foster," announced Rachel.

At that moment something collided with the *Raptor* with colossal force, sending the starship spinning out of control. Kathy was thrown off her feet. She slammed into the bulkhead and then tumbled onto the ceiling as the ship gyrated wildly. The lights flickered and went out. Alarms rang throughout the ship. A moment later the room was flooded with red light as the emergency backup systems kicked on. The automatic gyro stabilizers quickly brought the ship level and the alarms quieted, leaving instead a din of odd noises: hisses, crackling sounds, the screech of metal being twisted, sparking and popping. Kathy slipped back onto the deck, guided carefully by Rachel to prevent further injury.

"Ooohh," Kathy groaned with a grimace, exhaling through gritted teeth. She rolled onto her left side and closed her eyes with the pain.

Rachel knelt in front of her. "Your right arm is broken, Kathy," she said. "A clean break across your humerus. Your—"

Kathy waited for Rachel to finish the sentence. "My what?" she asked, but there was no answer. She opened her eyes. Rachel was gone.

"Rachel?" said Kathy. She looked around the room. "Rachel?" she cried again. "Rachel!" she shouted. There was no Rachel.

“I will take over now,” said the mechanical voice of her suit. “You have broken your humerus. It is a simple fracture and should heal completely. Pain medication is already in your circulatory system and should be taking effect. I am now extending your arm, very slowly, and will set the broken bone and immobilize your upper arm. You will be able to bend your elbow momentarily.”

Kathy barely heard the voice, and scarcely noted the first aid that her spacesuit’s smartsystem was applying. “Where’s Rachel?” she whispered.

~

A moment later, after her arm had been set and the suit had inflated its upper right arm to keep it protected, Kathy scrambled to her feet. At once she felt dizzy and almost fell. To steady herself she reached out to the bulkhead with her right arm, then cried out in pain. “More pain medication, please, and a stimulant,” she said. “I’m lightheaded.”

“The pain medication will take full effect in just a moment, Starman Foster,” said the mechanical voice, “and I will provide only a mild stimulant as is most suitable for your current condition.”

“Fine, fine,” said Kathy. She felt steadier now and began to look around the room. Small items that had been unsecured were scattered haphazardly. She paid them no attention.

“Computer!” she cried out. “What happened? Where is Rachel?”

The shipboard computer spoke up. “The *Raptor* was struck by a meteorite approximately a sixteenth of an inch in diameter. Impact occurred four minutes and thirty-seven seconds ago at the fifth lower starboard panel.”

“That’s the hold,” said Kathy.

“Yes, Starman Foster. The meteorite passed through the hold, exiting through the ceiling at the top of the port side of the ship, damaging the deck of the research laboratory directly above that portion of the hold. Air was escaping slowly from the research

lab but the leak was quickly sealed. The damage to the starboard panel of the hold was extensive. The hold has been sealed off from the rest of the spacecraft and it is now in a vacuum state. One landing craft was severely damaged and cannot be repaired. There was other minor damage inside the hold; shall I provide details?"

"If the damage was minor, I don't need details. How about the rest of the ship? Where is Rachel?"

"There is much minor disarray in the rest of the ship, caused by the sudden tumult that occurred upon impact. I think that there is some damage in the computer core, but I am not fully aware of the conditions in that location. On the bridge—"

"Where is Rachel?"

"I do not have enough data to answer that question. Shall I continue with—"

"No!"

The Starman poked her head out the doorway and looked up and down the hall. It was a mess. When the ship had started spinning, items had flown everywhere, and now broken debris littered the hallway. She began walking toward the stairwell. The passage was dark save for the glare of the emergency lights, which cast an eerie red glow. Overhead she heard some static and sputtering.

As she made her way to the ship's heart she thought things over. *How do I know this was just an accident? Isn't it possible we are under attack? For that matter, how do I know I haven't been boarded?*

Kathy fought to keep her fears under control, stepped out of the stairwell, and opened the secure door that led to the ship's computer core. Inside this room were rack after rack of computers—the brains of the *Raptor*. When Kathy entered the room she stopped and then looked around in dismay. When the ship was spinning out of control one of the bolted-down racks had broken loose and its parts had slammed into several computers. The highly organized room had become a chaotic clutter of damaged electronics. Some of the machines were

untouched but too many of them showed signs of external damage. It was not possible to evaluate how many had suffered internal impairment without analysis.

This room, however, was not Kathy's goal. She carefully stepped over the broken equipment and headed toward the rear of the room. There she opened another secure door and entered a small vault. In the middle of the vault was a blue cube, roughly six inches on each side. The cube appeared to be filled with an ever-changing pattern of light.

When she saw that it was undamaged she breathed a sigh of relief. *I'm so glad you're okay, Rachel! I know you're built to withstand just about anything short of a direct hit with a nuclear weapon, but I was still afraid. Now I just need to find out why you're not running.*

Kathy looked around and soon discovered the source of the problem. The main power conduit leading to the vault had been damaged when the ship lost control. It took her a few minutes, but she was able to patch the cable.

As soon as power was restored the holographic image of Rachel appeared. She had an expression of alarm on her face. "Kathy! Are you all right?"

"I don't know," Kathy replied. "Tell me what's going on. Are you in control of the ship again?"

"Not at the moment," Rachel said. "I am blind. Why have I been disconnected?"

Kathy looked around the room. "The ship's primary computer said that a meteorite hit the ship, and we've sustained some damage. It did not seem to be fully aware. What cables do you need me to repair so you can find out what's going on?"

"My main interface with the outside is a component on the rack on the starboard side of the room. It must have been heavily damaged. When I probe the unit, I come to a dead end, no matter which path I take through the circuitry. All connections have been severed. I fear it is a goner."

Kathy looked where Rachel indicated and saw a shattered chassis. Rachel was right; it looked hopeless. The Starman

frowned. "That's your primary interface to the outside world?"

Rachel nodded. "All of my links to the ship pass through that box. It manages the connections and keeps me from being overwhelmed. I do not believe we have a replacement for it on board."

"Probably not," Kathy said. "But we've got lots of extra cable in that cabinet over there. Can I connect you directly to whatever computers are still operational? Can you tell me which machine you need to be linked to in order to fly the *Raptor* back home?"

"I can, but it won't be nearly as efficient," Rachel said. "My capabilities will be extremely limited."

"That's good enough for now. I just want you flying the ship instead of whatever emergency system is currently in charge. I don't know what is going on and that bothers me. I can't figure why a meteorite that struck the hold should have done this kind of damage in this part of the ship."

"That *is* strange. I will try to learn more once you get me connected again." Rachel gave Kathy precise instructions, and within ten minutes the Starman had created a hard-wired link between the blue cube and the damaged bank of computers.

The Starman then waited as Rachel took back control of the ship. After a moment the normal lights came back on. "Ah, that's good," Kathy said, with a sigh of relief.

"One moment," Rachel replied. "Without that pre-processor I am having to manage many things at once. Please wait. This may take some time."

Kathy nodded and tried to wait patiently. Her right arm throbbed, reminding her that she still needed medical attention. The pain was mild enough at the moment only to be a minor irritation, but she knew that that state would not last. *I'll stay here until I'm sure Rachel doesn't need me again.*

After five minutes Rachel turned her attention back to the Starman. "I apologize for the delay. It took some time to find alternate methods of control. It appears that we were rammed by some object with enormous kinetic energy."

“The meteorite, if that’s what it was. Are there any intruders on board?”

“None that I have seen,” Rachel replied.

Kathy nodded. “So where are we now?”

“At the moment we are drifting away from Lemura. Our direction was altered by the impact but I am currently restoring us to our original trajectory.”

“Can you make it back to Ahmanya?”

Rachel nodded. “I can.”

“We need to return home as quickly as possible, Rachel. Richard needs to know what I’ve discovered.”

“You have no hard data.”

Kathy frowned. “Yes, that’s true, but we know something about the First Races. Richard has as much experience with them as nearly anyone. He knows how they communicate without leaving any trace or hard data. I’ll call him right after you fix my broken arm. You can help me prepare my report.”

Kathy felt the ship shudder slightly. Rachel looked at her and smiled. “The hyperdrive has now been engaged. You are safe now, Kathy.”

Kathy shook her head. “None of us will be safe until that city of nightmares has been neutralized.”

“Neutralize the city?” Rachel was surprised. “How can we do that?”

“The Lucians’ greatest weapon was that planet, now almost abandoned, and according to Joe Taylor’s reckoning, its power is weakening. It hasn’t even been able to power Larson’s Folly for two thousand years. Our greatest weapon is Tharsos. I will recommend to Richard that we send Tharsos here. The second Xenobot war will not be over until that power station is either taken over or rendered powerless. Or destroyed.”

Rachel paused before replying. “Using Tharsos is no small matter. It will take the cooperation of many. The Lucian on Lemura may be master of more than shadows.”

Kathy looked bleak. “I know. I need help on this, Rachel. Lots of help. Let’s talk to Richard. He’ll help us figure out what

to do next.”

~

Secreted in the ruins of the second deck a small rectangular box was embedded in a corridor wall. It was roughly three inches long by two, and seemed to be just another piece of debris. There was nothing special about it that would attract the attention of anyone—including a suspicious Rachel, who was always on the alert for any signs of invasion. It appeared to be a completely innocuous chunk of gray metal, like other connecting material in the fabric of the Starman’s spacecraft.

As the ship made its way through hyperspace the rectangle lay inactive. The entity on Lemura had placed it there during the partial computer shutdown he had engineered, and the subsequent confusion after his attack on the *Raptor*. He had given the box specific instructions. Once the spaceship reached Kathy’s home system it would be time to act.

Chapter 11: A Mote on the Sea

The *Raptor* dropped out of hyperspace. Ahmanya filled half the viewscreen. Kathy smiled to see the familiar terrain, and almost wept for joy. People! She would see people, talk with them, touch them, hear the laughing voices of friends within an hour.

“Rachel,” she said, “please make arrangements for our landing at Eagle City and for repairs to the *Raptor*. Alert Mark and Stenafi that we are having dinner at *The Hidden Garden*. And most importantly of all, make arrangements for me to meet with Richard Starlight as soon as possible.”

~

“White chocolate ice cream with peppermints, Starman Foster,” said Sjaantje, “compliments of the house!” With a

flourish, the Dutch woman set three bowls before the diners. Mark, Stenafi, and Kathy exclaimed their thanks. Sjaantje just smiled as she refilled their coffee cups, then left them.

“Is your arm bothering you in any way, Kathy?” asked Mark.

“No; the smartcast is making sure it’s healing quickly and painlessly. It’s just inconvenient having to do some things with my left hand.” She carved a bite of the ice cream from the scoop in her bowl, and, flashing a quick smile, lifted it with a spoon in her left hand.

“I’m ready to talk business now,” she said. “Thanks for waiting until after dinner.”

The sound of a small musical ensemble drifted from the main floor of the restaurant up the stairwell. Kathy listened to a harpsichord, flute, and violin playing “Greensleeves”.

“It’s beautiful,” she whispered, and then looked directly into her friends’ eyes. “I don’t think I can ever take friends, or any human companionship, for granted again. Everything suddenly feels so... so rich now.” She sighed contentedly.

“Rachel was a complete success,” began Kathy; “she helped me when I needed help the most, in the way I most needed it, but getting to that point was more difficult than I ever imagined. I didn’t trust her for months—that is, I just thought of her as a machine. A ‘mechanical friend’, as Mark had said. The breakthrough came when I suddenly realized that many real, living people had put themselves into her. Rachel’s words, gestures, actions, decisions were really the words and actions of living people.” Kathy paused, and her forehead crinkled. Mark recognized the gesture as something that Zip used to do, and a pang of grief shot through him.

“From the time I was small,” Kathy continued, “as far back as I can remember, I wanted to be a part of things. I think everyone does. I looked up to David and admired him and wanted to be like him. I was so proud of him. I wanted to do what he did, though I knew that I never could.

“He was always a part of what was going on. Everything out there touches something in us and changes us. It’s not a decision

that we have to make, to be changed or to participate, to be connected to other people. Participating is in our genes. It's irrepressible. No one can really be only a spectator. Being with Rachel helped me to be able to put that into words.

"Whenever people want to be isolated, to be passive or indolent, well, we don't think it's a good thing. We have an intuitive sense that to be passive is to miss out. It's spiritual anemia. Weakness. Deadening. If there's any life at all, one can't be satisfied with not *living* it. But at the same time, to be connected, to be in relationship, is to be changed, which involves loss of a kind. Growth, that's what it is. It always involves loss but it's also always gain." Kathy paused again, crinkled her nose, and labored to put her feelings into words.

"It's not really whether you're actually in a community or not, or whether you're alone a lot, the way I was in space—or even the way I have lived for several years now. It's how you think about community and what you do about it, and how you feel about it. David was a loner, but he gave up his life for the whole community. He always had a sense of the community and it was always important to him—so important he chose to die for it."

Kathy suddenly laughed aloud. "It took something that isn't alive to show me not only the value of life but of community! Rachel is marvelous! Once I really understood what she is, I realized that my experiment exceeded all my hopes. But of course there were limitations. She couldn't read my mind..."

"Thank goodness for that!" laughed Stenafi, and Mark and Kathy chuckled.

"... but that meant that she couldn't sense or observe anything that happened *only* in my mind." Kathy suddenly sobered, and her eyes showed a sudden dread. "Such as when the Lucian spoke to me. *He* could read my mind! I was helpless! He could manipulate my feelings, and even my body's responses. He could play me like an instrument, like... like that harpsichord. He could do with me whatever he wanted! He had been alone for who knows how many tens of thousands of years

and has forgotten what it means to be connected to another entity. And he left no trace of his operation, no evidence whatever that Rachel could find! I am the only person in the galaxy who knows what he's like and what he's planning, and I have no data whatever! I just have to appeal to Richard's experience of the First Races to have any credibility at all." Desperation and hopelessness showed themselves in her face as she turned from Mark to Stenafi, and back to Mark.

"The Janitor has visited Richard," said Stenafi. "You are not on your own, not at all."

"And you have your *own* credibility, Kathy," said Mark. "Your statements on their own carry a lot of weight. I doubt you'll have to prove anything to Richard."

Relief and gratitude showed in Kathy's face, but the anxiety did not disappear completely. She sipped her coffee, and grimaced; it had become lukewarm.

~

Two days later Kathy stepped out of the elevator near the pinnacle of the Starlight Enterprise headquarters. She had not been in the famous Starlight office for many years. She couldn't remember the last time she'd been inside it, but it was when she was a child. She had high expectations now, entering it for the first time as an adult and a Starman. She was not disappointed.

My memories were too small for this place, she thought. The four walls of the spacious room were made of treated glass, impervious to the constant rain of micrometeorites. Outside she could see the landscape of Luna stretching out for miles in all directions. In the distance she could just barely glimpse the pass that led to the Field of Obsolescence.

The office of Richard Starlight was far more than just a fancy suite with a big desk. The 3,000-square-foot room was home to a small modern scientific laboratory, state-of-the-art communications equipment, and a three-dimensional holographic map tank that could show anything as small as the

locale around the south pole of Luna or as large as the entire galaxy. In one corner of the room was a council table that could seat two dozen people. In another corner of the room were large, detailed globes of Earth, Luna, Mercury, Venus, and Ahmanyia.

She thought, *Why, there's the globe of Mercury! Didn't a Xenobot spy hide in that very globe once?*

A strange, scrabbling sound to her left drew Kathy's attention. She looked over and saw Richard's famous red parakeet, Scarlet, sorting through a container of seeds in a cage at least six feet square.

Kathy forced her attention back to Richard Starlight, who was seated behind his desk. The head of Starlight Enterprise stood up as soon as she entered the room, and stretched out his hand to her as she approached. He was about seventy years old, but fit and trim. His silver-gray hair was still thick, and his skin was supple. His eyes were full of life. "Starman Kathy Foster! It is a pleasure to see you again. I don't think we've had a chance to meet in person since I was at your graduation ceremony! I've been following your progress since I gave you your assignment. You've done very well. How is your arm?"

"My arm is healing very well, thank you," Kathy replied. "And thank you for trusting me with such an important assignment my first time out."

Richard smiled. "You got in far deeper than any of us expected," he said dryly. Richard glanced down to look at his desk. Only then did Kathy realize that what she thought was a wooden desktop was actually a well-camouflaged holoscreen. Information was scrolling by in several places. From where she sat Kathy couldn't read the writing but it was clear Richard was keeping tabs on many projects simultaneously. He looked up, obviously setting aside whatever he had been following when she came in.

"Please, let's be seated over here." He made an expansive gesture toward a sitting area adjacent to one of the great windows. "Would you like some coffee? Tea?"

"Thank you. I'm fine. I just ate lunch."

They both sat down in comfortable sofas, facing each other across a low table. Kathy fidgeted uncomfortably and let her eyes wander throughout the great room, roving everywhere but not meeting Richard's eyes.

Richard spoke first. "I've read your report, of course. It makes complete sense."

Kathy looked into Richard's eyes for the first time since they'd sat down. "Complete sense?"

Richard nodded. "What you reported is quite compatible with my grasp of the First Races. Tell me face-to-face what happened on Lemura."

Over the next half-hour Kathy told Richard about her discovery. She described in detail the appearance and feel of the planet, the phantoms that inhabited the deserts, what she had discovered in the innermost ring of buildings, and the tower itself. Last of all she gave an account of the Voice she had heard in her mind, and her belief that a Lucian was threatening the inhabited planets of the Solar System.

"I don't have any data," she said apologetically, "nothing concrete, nothing at all. Just a personal account of what I experienced."

"There's no need to apologize, Starman Foster; whenever one communicates with a member of the First Races, one would expect just what you described."

Kathy visibly relaxed, and she could feel her confidence growing.

"I really believe that this is the missing piece of history we've been looking for," she concluded. "The city must predate the war between the Lucians and the other First Races. It seems to be where the Lucians conducted their initial tests of the weapon that they ultimately used to win the War of the First Races. I believe that at least one army is frozen in time on the surface of Lemura while the majority of their people are trapped on Larson's Folly. It all fits together."

Richard paused for a moment to gather his thoughts and then continued. "You are correct, Kathy. Recent communications

from the Janitor affirm completely what you have surmised.

“Furthermore,” Richard continued, “I believe you have also proven that a great battle was fought on that planet and that the renegade Lucians won. That may be something that even the First Races didn’t know for sure; at least, the Janitor didn’t talk about it. The debris you found scattered over the deserts of Lemura, along with the ecological damage and the strange phantoms you discovered, indicate that the Lucians somehow managed to capture their opponents in time. Your research has been thorough and is most impressive.”

“Thank you,” Kathy replied. “The evidence I gathered from that computer in the inner ring led me to conclude that the base was actually built to test a new class of weaponry. As you can see, the effect was absolutely devastating. It gave the Lucians an overwhelming advantage. It *must* be the device that ended the War.”

“And you believe this ancient weapon is still on Lemura, and that the Lucian is preparing to use it against us?” Richard asked.

“I do,” Kathy replied. “It is what he showed me in my mind. We’ve got to act now, before we are made captive the same way the First Races were!”

Now it was Richard’s turn to look away. His lips compressed. The head of Starlight Enterprise was quiet for a few moments. “So how do you propose we deal with this situation?”

Kathy did not hesitate. “Mobilize Tharsos. It is without question the most powerful instrument of war that either the Ahmanyans or we possess. Surely it can muster enough power to locate the Lucian and capture him or take over his equipment before he can harm us—especially if we have the help of the First Races. The First Races moved a black hole!”

Richard smiled. “I’m afraid that it is not as simple as ‘mobilizing Tharsos’, Kathy. Yes, it is true that it was used in the war against the Xenobots. However, now it has rejoined Phobos and Deimos as one of the moons of Ahmanya. The last time its star drive was activated was a decade ago. Now there is a living, populated city within it—Olovanda, home to a great many

people. You know this, of course. I am sure that you have been there yourself.”

Richard gathered his thoughts. “If we were to reactivate Tharsos we would need to relocate several hundred thousand citizens, at least temporarily. These are people who have just been brought out of their hibernating sleep to rebuild their lives, their entire planet. They will not take the news well that the war they thought was over has not, in fact, been brought to a final end, and that they are still to suffer for it. Removing all those people from their homes and daily routines, even for just a few months, is not a trivial task, to say nothing of the effort that would be required to make sure Tharsos can still operate as a weapon of war. I would imagine there are many systems that would need to be checked and serviced.”

As Kathy opened her mouth to reply Richard held up his hand. “There is one more thing to consider. Tharsos belongs to Ahmanya, not Starlight Enterprise. Any request to use it—and especially a request such as this—would have to be brought before the High King of that planet. I don’t know how he would respond. There may be other ways to attack the problem of Lemura.”

Kathy sat back in her chair, deflated. “So what are your thoughts, sir?” she asked.

Richard rubbed his chin.

“First, how would we be sure that the Lucian would not simply freeze Tharsos the way the First Races are frozen? An attack by Tharsos would have to be very swift, taking him by surprise before he could marshal whatever equipment is necessary to effect a time stasis—and we have no idea how much time we would have. There are also unresolved questions: why has this Lucian stopped providing energy to Larson’s Folly? Does he know what a catastrophic failure of a time stasis could do to the fabric of spacetime? This is the most pressing question for us at the moment. Our greatest menace is the looming rupture of the singularities on Larson’s Folly. The threat the Lucian conveyed to you is, I think, of lesser significance; how much of

what he showed to you is real? How far does his power actually extend? I seriously doubt he has the capacity to attack our Solar System across a distance of 50,000 light years. It may be that he hasn't provided energy to Larson's Folly simply because he cannot do so any more. The two planets are now more than 26,000 light years apart."

Kathy suddenly felt small and discomfited. Unconsciously she sank a little deeper into her chair.

For some time neither said anything. Richard appeared to be preoccupied, hardly appearing to notice the Starman. When he finally spoke he was slow and deliberate. "But it is clear that you have made an important discovery, Kathy—surely the most important discovery made since the fall of the Xenobots. You have found a planet critical to the Lucians—and still home to one of the rebels. You have learned that an important battle took place there, and that the Lucians decisively routed the First Races with a temporal weapon of some sort. It would appear that on that planet they developed a weapon that ultimately gave them an overwhelming advantage. And whatever the Lucian's plans for Larson's Folly, he obviously has some knowledge and power that is beyond us."

"Exactly," Kathy said quietly but firmly, feeling a little better.

Richard continued. "The First Races themselves are now involved. They are convinced that what you have discovered, even put into action, is pivotal in the history of the galaxy and the War of the First Races. They believe that something of great moment is at hand. They have a proposal to make. A proposal to make to you."

Richard suddenly looked acutely uncomfortable. "Kathy... " he began. His eyes became moist and he drew in a sharp breath. Kathy's heart began to beat faster. "Kathy," he said again. "I cannot and will not order you to do this. I remember when I gave this same speech to Mark Seaton and Joe Taylor and, and to your brother. I told them that there was a plan to defeat the Xenobots that would put them in mortal danger. I remember my words as if

they were spoken an hour ago, and I will remember them till my dying day. I said, 'Only you, if anyone, can achieve this end. But I cannot order you. I can only ask, though I know what your answer will be.'"

Richard sat back, breathing heavily. "You know what their answer was," he said, "and you know how it turned out. Only two of them came back. Forgive me, but I never imagined that I would have to make an appeal like that again—much less to David Foster's sister."

There was another brief silence. Then, "What is it, Mr. Starlight?"

Richard sat up straight and looked directly into Kathy's eyes. "The First Races have a plan. They invite you to be trained in the skills of mind-to-mind communication. They believe—and rightly so, I am sure—that you are the best qualified among our races for this task. You have spent years studying, and living, the connections between humans and Ahmanyans. Your mind has the greatest capacity today of any of us for receiving the training necessary. Moreover, your work in creating Rachel and relating to her for the past nine months has sharpened your mind in the methods necessary. Others of course could be trained, but it would take years—years that we may not have. You are our best candidate. With your background and experience, they believe that you could be sufficiently trained in a matter of months."

"That does not sound dangerous, Mr. Starlight. I do not understand your discomfort."

Richard pressed his lips together again. "The First Races will be able to enter your mind and verify everything that the Lucian on Lemura said and did to you. We will have the data that you thought was impossible to provide. They will probe your mind, and shape and order it. If you thought you had no privacy with Rachel, you will find this training to be unbearably invasive, even though it is friendly. When your education is finished, you will be like no other human being who has ever lived. That will change your life beyond imagination."

Kathy felt a cold chill permeate her body, beginning from

deep inside her gut and radiating outward. Her fingers felt so cold that she lifted her hands to see if they had become pale.

"And then what do they want me to do with this training?" she asked softly.

"They want you to return to Lemura, and engage the Lucian on his own territory. You will resist his mind-manipulation, see through his shadows, and confront him with a power such as he has not encountered for countless millennia. You will neutralize his threat against us and cause him to loosen the temporal singularities on Larson's Folly and free the captive First Races."

Kathy gasped. Her mouth and eyes opened wide, and a vision of eternal distance spread before her. She saw herself as a tiny life-force cast adrift on a tossing, shoreless ocean, luminous on its colossal wave crests and sea dark in its rolling troughs. She had an impression of impossible, black, crushing depths below her and measureless skies above. She had no consciousness of the passing of time. Gradually there grew in her an awareness of her self in the immensity around her, and then an indistinct and fleeting impression of her brother's presence, like a waft of perfume on wind. Slowly the windows and furniture of Richard Starlight's office came into focus, and the sea and skies faded and vanished. She felt composed and alert, and more peaceful than she had felt for a long time.

"Of course I will accept this assignment, Mr. Starlight," said Kathy decisively.

"Those are the very words your brother uttered, Starman. I do not know whether I am comforted or not."

Chapter 12: Sudden Winter

"But, Mr. Starlight," began Kathy, "why me, or anyone other than themselves? What do I have that the First Races don't have?"

"The First Races are deserving of our enormous respect, Starman Foster, for reasons that need no explanation, but I have

begun to discern that they are not, well, as omniscient or omnipotent as we humans and Ahmanyans assumed at first. There are some things that we have been able to accomplish that they didn't even through the long ages after the time of the War of the First Races.

"Those members of the First Races that were not captured in the time stases, including the Lucians who did not join the rebellion, had a very long time to engage the Xenobots, but they never did—or if they did they weren't successful. Further, they have had many thousands of years to engage the Lucian on Lemura, but the Janitor told me that all they have done is monitor him. They have known about the time stases on Larson's Folly, and they knew that Lemura was the source of its power; they knew that the situation on Larson's Folly was deteriorating—but did nothing.

"They are very, very old. They've never been able to succeed before in their conflict with the rebellious Lucians—the Xenobots—and they stopped trying. On the other hand, the allied forces of Earth and Ahmanyans proved to be successful when it came to resisting the Xenobots, just as Ahmanyans alone had been before us more than 12,000 years ago. Our two young races resisted and conquered the Xenobots—twice.

"Although the Janitor didn't put it in so many words when he spoke with me recently, I got the impression that the First Races have come to see that it's not unreasonable to assume that we, of the young races, might succeed again. We have the 'fire in the belly' that they have not had for uncounted ages. Even the Lucian on Lemura no longer has that fire. It is probable that just as the Xenobots lost their ability to understand their technology, so the surviving First Races, who were never scientists to begin with, have only rudimentary science themselves—still advanced compared to what we humans and the Ahmanyans have, but nowhere near what the First Races had known before the First War. Today the surviving First Races have some science but their ability to understand and use it is limited. The black hole they brought

into existence to send to Luxa was highly unstable and they were afraid to hold onto it for any longer than they needed to.

“So it is apparent that the last engagement of the Second Xenobot War will be fought one mind to one mind, and the First Races want to ensure that you have the advantage.”

~

Kathy spent a few pleasant days with her parents in Amundsen City, and then returned to Ahmanyia. Richard had given her two weeks to rest before she would begin her training with the First Races. On the morning of her first free day on Ahmanyia she went to the hangar at the David Foster Spaceport where the *Raptor* was being overhauled and renovated. It was being given a thorough cleaning inside and out. Its computer systems were being checked and repaired, and the hold comprehensively refurbished. The ship’s frame was being examined for any structural distortion no matter how minor, and its engines scrutinized for damage and recalibrated for optimal performance.

She noted a tall, solid, redheaded man in his early twenties who seemed to be in charge.

“Excuse me,” she said to him. “I’m Starman Kathy Foster. The *Raptor* is my ship.”

“Of course,” said the redheaded man. “My name is Farmer—Ben Farmer, master ioneer. I’m overseeing the labor on your spacecraft.”

“May I see Rachel?” the Starman asked.

The man pursed his lips and narrowed his eyes before answering. “Don’t see why not,” he said at last. “Just let the computer techs know what you’re doing. You’ll prob’ly find Nick in the computer room. He’s in charge o’ that part of the work.”

Kathy thanked him and boarded the spacecraft. Throughout the ship, panels had been removed from the walls and people in the warm orange coveralls of the spaceport’s repair crew were

kneeling or standing in the passageways, peering into various openings. Now and then she saw a spark from a welding tool or a fine laser beam from a calibration device. As she passed along the corridor trying to keep out of people's way, a few noticed her and nodded briefly before turning their attention back to their work.

The Starman entered the computer room and saw three people intent upon redressing the damage that the *Raptor* had sustained.

"Nick?" she queried to the room in general.

"I'm Nick," said a young man, turning to face her. He was tall and wiry, and had long black hair and a friendly expression. "Nicholas Xanthakos, to be precise. Head computer hermit at the spaceport." He extended a hand. As Kathy took it, she noted that he had the long fingers of an artist or someone used to performing fine, delicate work.

"I'm Kathy Foster," she said. "This is my ship. Thank you for taking good care of her."

Nick just nodded. "Is there some way I can help you?"

"I want to see how Rachel is doing." Kathy felt a little embarrassed as soon as she had spoken aloud. She was sure that no one could understand her attachment to the holographic companion, but Nick was able to empathize immediately.

"Oh, she's fine!" he enthused. "We couldn't do the work without her! I've got six teams of two people aboard, and she can be in six places at once. We don't call any task finished until she gives her approval! You did a fine piece of work with Rachel! I'm very impressed! She's the look of the future, I have no doubt, and I feel privileged to have met her—the first holographic companion!"

Kathy felt highly gratified. "May I see her?"

"Well, now, Starman, you've come at just the wrong time! I've shut her down except for the most basic functions. We've just finished a tricky stage in our repairs and we need to check all the circuits. They've got to function correctly without the holocom, you see. I've put Rachel almost to sleep so we can do

the test on our own, and then she'll go through it later as a backup. Checks and balances, eh? If you come back after lunch you can have a good visit."

Kathy thanked him and made her way out of the ship. She decided to spend the rest of the morning away from the city. She bought a picnic lunch from one of the spaceport's commissaries and then borrowed a small shuttlecraft. The sun was well up over the east rim of Eagle Crater, and the sky was almost cloudless.

She flew the shuttlecraft over the west rim of the crater. Before her the Martian Sea spread out for several miles in a lovely sheet of blue-gray water. She cruised over the smooth surface with a thrill of delight, and before long she had settled to the lightly wooded land on the far shore of the Sea. She enjoyed a moment of silence before opening the hatch and stepping out into a patch of sunlight that bathed a small grassy meadow among a scattering of trees. A copse began about twenty yards to the north of where she had parked, and after a quick look around she decided to walk in that direction, where the trees were a little thicker than elsewhere. Long, thin branches stretched upward from their trunks, clad in light green leaves. There was no breeze.

It only took ten minutes or so for Kathy to come through the copse and arrive at the base of a jumble of rocks on the slope of a low hill. She climbed partway up the rise, choosing an easy path through the rocks. She came to a comfortable open spot that gave her a wide view of the Martian Sea and decided to sit there and enjoy her lunch.

I should have asked someone to come with me, she thought. I've become too comfortable being alone. The one I miss most is Rachel and that's not good. I'll go on another picnic tomorrow and I'll find someone from the lab to go with me.

She opened the boxed lunch and picked out a container of potato salad, dug for the fork, and then leaned back against a rock to look over the Sea while she ate.

The Sea is so calm, she ruminated. That blue is so light it's almost silver.

All at once the bite of potato salad tasted like straw. Her eyes opened in shock and a surge of alarm went through her like electricity. She sat up straight, her picnic forgotten.

It IS silver! The words went through her mind like a shout. *It's frozen!*

While she watched, unable to move, the waters of the sea turned to silver as if a sheet of ice were spreading rapidly from east to west. In seconds the bright, warm day turned gloomy. Dark gray clouds filled the sky and snow began to fall in immense quantities. Kathy leaped to her feet, throwing off the frozen precipitation.

The Lucian! her mind shrieked. *He's started the attack!* At that moment her compad alerted the Starman to an incoming message.

"Yes! Foster here!" she shouted.

"Starman Foster! This is Commander Minda Gerlach in Eagle City. We are under attack! I have you located on the far coast of the Martian Sea! Would you please return at once and join us in the defense of the city?"

"Of course!"

"Watch for enemy craft. At present the west side of the crater is safe; the attackers are coming in from the east. I can see them strafing the city from the tower where I am currently in command. I do not have any reports of damage yet but the fires appear to be extensive."

"I should be with you in less than ten minutes."

"Very good."

Kathy had been hurrying down the hill as she had been talking. She ran the last quarter mile through the copse, barely able to see her way through the trees as the snow continued to fall. There were already three inches on the ground with no sign of a letup. Kathy leaped into her shuttlecraft. In seconds she was in the air and arrowing back to Eagle City. The clouds had lowered down almost to ground level, requiring Kathy to use instruments to locate the crater rim and cross over it. She scanned the sky above the city, searching for enemy craft, but

found none. She stayed close to the ground, skirted the southern boundary of the city, and came over spaceport property from the south. She skimmed along the tarmac just feet from the surface, slowing as she approached the docking area.

“Commander Gerlach,” she said, “Starman Foster here. I am now docking. Please assign me a battle craft and I will take to the air. Where are the attackers? I could not locate them through the shuttlecraft’s instruments.”

“Starman Foster,” responded the Commander. Her voice was uncertain. “I’m not sure that there *are* any attackers. Although we could see them before the clouds covered the city, and we could see them strafing the city and saw buildings engulfed in flames, there isn’t any damage. I can’t explain it. Our scouts report no fires anywhere in the city, and there are no signs of any enemy aircraft. All that has disappeared. And although there is a foot of snow on the ground, well... no one is cold. It’s as if nothing we saw is real.”

A barrage of feelings shot through Kathy. Fear, alarm, confusion, and a sense of inferiority all fought for supremacy, but within seconds anger arose and won out. An intense desire to fight surged through her.

“There is no attack,” said Kathy evenly. “The attacking craft, the fires in the city, the snow, and the clouds are not real. They are shadows!”

“Shadows?”

“Phantoms. I’ve had some experience with this. It is an attack on the city but everything is hallucinatory. Please announce that to the people. They probably won’t understand it but their own experience will convince them. People will know that they are not really cold and no buildings have been destroyed. We are in no real danger.”

“But how—”

“I’ll have to explain later. I have to get to my ship. I think I can get some answers there. Foster out.”

Three minutes later Kathy was back at the *Raptor*. There were a few people outside looking up at the sky and chatting

nervously in a small group, but she ignored them. She didn't see the ioneer she'd spoken with before so she just walked onto the ship. Rachel was there.

"Kathy!" she said. "It is good to see you. You are alarmed about something. So are the others. Can I do something?"

"You can!" responded Kathy as she strode through the ship, heading for the computer room. "Is Nick here?"

"Yes, he's in the computer center. What is happening?"

Kathy stopped walking and explained, concluding, "Obviously this is an attack by the Lucian. Can you find anything unusual—anything outside, anywhere in the city, or anything inside this ship? How is he doing this?"

"I am not yet up to full power, Starman. My scan of the city cannot be very complete yet; I am checking now but I can see nothing out of the ordinary."

"No snow?"

"Snow? No, there is no snow."

"Any clouds?"

"There are no clouds visible from within Eagle Crater."

Kathy nodded. "Yet I don't think he played with my emotions or physical reactions, or anyone else's either. There are just the images. And even though they are alarming, they are not convincing once you take a look at them." She paused a moment to think.

"Rachel, please scan the ship. Look for anything that shouldn't be here."

Immediately a side panel in the corridor blew out with a loud noise. Kathy jumped. Black smoke billowed and flames began to crawl up the side of the passage.

"What happened, Kathy?" asked Rachel. "I could feel your adrenaline."

"Is there anything wrong in this passage?"

"Nothing, Kathy. The technicians checked it thoroughly and replaced some circuits that looked a little worn. It is fine now."

"Good. Just please check for something in this ship that shouldn't be here. I'm sure now that you'll find something. I'm

going to the galley. I didn't get any lunch."

About forty-five minutes later Rachel came to the galley. Kathy had finished her lunch and was putting the dishes away.

"You were right, Kathy! I found a small box camouflaged to look like a piece of the ship. I do not recognize its function and cannot scan it. It was down in corridor B just at the entrance to the hold."

"Thank you. Would you please tell Nick about it and ask him to examine it?"

Five minutes later Nick came into the galley holding the box.

"I don't know what this is," he began, "and I can't even figure out how to open it. Where did it come from?"

"It's a stowaway," explained Kathy. She took hold of it to make sure that it was solid. "Yes, I'm sure this is real. Can you destroy it?"

Nick shrugged. "I can try. I'll ask one of the military personnel to apply a laser to it."

In mid afternoon Nick returned with the box. He held it out gingerly. "Nothing fazed it. What is it?"

"This is where the attack craft came from, and the fires that burned up buildings, and the clouds and the snow. Also the explosion that ripped through corridor A."

"Corridor A had an explosion?" Nick exclaimed.

"No," Kathy said, shaking her head. "It just looked like it. Whatever is in this box creates phantoms in people's minds. If you can't destroy it, put it into a pocket missile and send it into the sun. The sooner the better."

Nick looked askance at the Starman. He still had his hand out with the box on his palm.

"The sooner the better," repeated Kathy.

Nick turned. "And ignore any strange phenomena that you see," Kathy called after him. "That's important!"

Before the sun had disappeared behind the western wall of the crater, a small missile had taken the box away from Ahmanya. It was given a velocity that ensured that it would burn up in the sun's corona in less than two weeks. By nightfall all the

phantoms in Eagle City had vanished.

After dinner Kathy made an official report to Richard Starlight, providing specifics to the partial and erroneous reports he had received from others during the day. Her report ended with these words:

“I have concluded that it is highly likely that today’s incident showed that the Lucian’s power is more limited than we feared. He needed a remote object to create the phantoms, which indicates that he is unable to act on our Solar System directly from Lemura. Even with this remote object he was able only to produce hallucinations; he could not manipulate people’s physical reactions.

“I am feeling more confident, Richard, and am looking forward to the training that the First Races will provide.”

Kathy closed the connection and leaned back. “Tomorrow I’m going on a picnic,” she informed Rachel, “and I’m going to find someone to go with me. Maybe Nicholas Xanthakos would like a day off.”

Chapter 13: Journey to Aden

There would be speculation among the population of Eagle City for many weeks over the extraordinary hallucinations that people had experienced, but those who knew something about what they were and where they had come from decided not to provide an explanation until the threat of the Lucian on Lemura had been thwarted. There was simply too little reliable information, but as the people wondered, a plan to address that threat was being formed.

~

Two weeks later Richard Starlight set up a teleconference with Kathy Foster on Ahmanya and Joe and Kathryn Taylor on Larson’s Folly. They quickly agreed that the powers of the Lucian on Lemura were considerably beyond their own

estimation, at least when he was functioning in the environment of his home planet. He had been able to enter into Kathy's mind and manipulate her physical and psychic reactions at will, and instantly transport her physically across space. He had blasted the meteorite through the Raptor with considerable precision while causing fastidiously arranged damage to the computer systems aboard the spacecraft. In a very short span of time he had manufactured and transported the box that had caused the mass hallucinations on Ahmanya. Yet his power to wreak real destruction on Ahmanya had been limited.

"He was full of bluff," asserted Kathy. "He frightened me by showing me his power and then threatening our Solar System—a threat he is unable to fulfill."

"*May* be unable to fulfill," said Joe. "If he is a bluffer, it's possible that even that little box was a bluff."

Kathy said nothing. That possibility had nibbled at her brain but she hadn't considered it seriously. Just like her brother, there was a rash side to her.

"We need to know more about him," stated Richard. "Joe and Kathryn, I'd like you to go to Lemura and examine it further. Don't get too close to the planet, at least at first."

"How close is too close?" asked Joe.

Richard snorted. "I can't even guess. It's a dangerous venture and we have no way of telling where his ability to influence spacetime wanes. For Pete's sake, he could send energy all the way to Larson's Folly as recently as two thousand years ago! We can't tell whether he hasn't done so since then because he can't any longer, or doesn't care to do so, or whether he's just lost track of time!"

"Well, maybe we'll just have to creep in slowly until something bad happens."

"You're trying to be funny, but I don't have any better advice, Joe. At least you know that you're running the risk of being caught in a time stasis like the armies of the First Races who landed on that planetoid eons ago, but they had clear inimical intent; Kathy was allowed to land and was given free

access to the city. We can just hope that a single ship making a slow approach and seeking only information will not be perceived as a threat and will be left unmolested. You and Kathryn just make yourselves thoroughly familiar with the information that Kathy's microprobe provided, as well as the data from the reconobot, and of course everything that Rachel was able to glean. Then see if you can locate the Lucian's center of operations. Lemura is a cold planet, but as you know very well, the Lucian's natural environment is 600°. Until we learn differently, I think it's reasonable to assume that there is an artificial ecosystem close to the city that may be detectable with the proper instruments. It's probably located not far from the tower in the center of the city—after all, that's the reason that the city was built! The Lucians' sole purpose in settling on Lemura was to create the transformer that harnessed energy and then transferred it to Larson's Folly.”

“But the transformer hasn't operated in over two thousand years,” protested Kathryn.

“It was definitely operational when I was there,” responded Kathy. “That is, it very much looked like it! The tower burned as if it were made of light. It was dazzling with energy!”

Richard spoke up. “We know that the Lucian uses illusions. None of us can really know by simple observation whether anything seen or experienced on Lemura is real. During the past two weeks I've had a panel of psychologists analyze the data we've got. Although we know very little about Lucian psychology, we know that all sentient beings that we are familiar with are similar to each other in how they think, feel, and so forth. We also have the First Races' own assessment of this entity, sketchy and inexperienced as it is.

“The panel concluded that the Lucian is mentally unstable, his behavior irrational and unpredictable, and his goals—if any—beyond our best guesswork. There is much that puzzled the panel: why is this Lucian alone? It seems unreasonable that only a single Lucian would be left to manage the power source—especially with such dire consequences of failure. Most likely the

other Lucians were seduced away ages ago by the lure of artificial immortality, while the Lucian who remained succumbed to the temptation of illusion and time manipulation.

“Think of it! If one could manipulate time, there would be a temptation to limit one’s existence only to the happy moments. Similarly if one can manipulate images as this entity can, wouldn’t there be an irresistible desire to create an imaginary world to live in? Each idea would lead to a kind of insanity. Does even he know the difference now between the real world and the one that he has, most likely, created for himself on Lemura?”

“It’s very sad,” contributed Kathy. “There was a moment when he was in rapport with me when I reacted with anger to what he was doing, and I felt a wordless but overwhelming sensation of acute loneliness. It didn’t seem as if he were creating that consciousness within me as he had the other sensations; I thought that for a moment I was rather seeing into him.”

“Fascinating,” spoke up Joe, “but speaking as one who is in orbit around a planet that is on the verge of coming totally apart at the seams, I am particularly concerned that the only person who may be able to stabilize the heaving real estate below me is an all-powerful fruitcake.”

“We can depart for Lemura within a few hours,” said Kathryn.

~

After two weeks of rest, Kathy Foster felt refreshed and confident, eager to get on with her next assignment. Master ioneer Ben Farmer had kept her apprised of progress on the *Raptor*, and assured her that it would be ready on the date Richard Starlight had chosen for her takeoff.

That day of her departure from Ahmanya began with a soft persistent rain, unlike the bright and clear day on which she had launched the previous summer. In late afternoon the Starman came to where her spacecraft had been berthed. Even through the rain the *Raptor* looked bright and new. Kathy swelled with satisfaction as she saw the yellow ship waiting for departure.

She noticed the ioneer waiting for her at the appointed time. He wore a dark green hooded slicker over his bright orange coveralls, and held a large umbrella with both hands. He greeted her with the words, "You're soaking wet, Starman! No slicker? No umbrella?" He stepped close and shared his umbrella with her.

"This may be my last chance to feel weather for a long time, Ben. Once I get aboard I'll get dry soon enough."

"She's ready for you, Starman. Better than new. *Better* than new. Stryker Transportation provided the most current upgrade for your hyperdrive. The whole unit is the newest, fully tested model. Wherever you're going it should get you there more efficiently."

"Really? That's terrific!"

Ben nodded vigorously. "Yes indeed! Your holocom has interfaced with it and is thoroughly capable of operating the program."

"Thank you, Ben! I'm very pleased! Good work."

"It's been a pleasure to oversee this project, Starman. Godspeed on your journey, whatever its destination." The two shook hands and Kathy boarded the *Raptor*. Before she closed the portal she turned and observed Ben walking rapidly toward the hangars, eager to get out of the rain. She turned her face upward with her eyes closed and her mouth open, and let the raindrops fall on her countenance for a moment before she stepped into the spacecraft and sealed the portal.

"Good morning, Kathy," said Rachel brightly. "You look lovely with your hair soaking wet and straggling over your shoulders, and your clothes dripping water all over the floor."

"Thank you, Rachel! I am impressed that your irony programming is so capable. While I dry off and change would you please prepare for takeoff?"

The *Raptor* had barely cleared the Ahmanyen atmosphere when Rachel spoke up.

"There is a presence on the bridge, Starman Foster. It is not yet visible but I can sense the displacement of quantum particles that are consistent with an imminent telepresence."

Although she had expected the phenomenon, Kathy's heart began to race. She was about to meet one of the First Races. The moment had come sooner than she had expected. She turned away from her instruments and stood up awkwardly. Although she could tell where Rachel was looking, she herself saw nothing. A moment later she saw waves in the air a few feet away from her, and in a matter of seconds the form of a man slowly took shape, and then became solid.

He was about five feet tall, well proportioned, slender but appearing to be well muscled. He wore a garment that draped him from neck to floor. He had no hair. With a brief glance, Kathy noted that the man had six fingers on each hand, including two opposable thumbs.

"Greetings, Starman Kathy Foster." The voice was clear in her mind. "I chose to become visible slowly so as not to cause you any unnecessary alarm. My name is Saleh. I am to take you to Aden, one of the first-created planets. It is the home of Aril, whom you know as the Janitor."

Kathy had been anxious about what she would say at her first encounter with a member of the First Races, but now she found it easy to speak. "I am honored to meet you, Saleh. I am ready to follow your directions."

"We will go, then, to Aden. Your spacecraft will come with you, for your holographic companion will play a vital role in your training."

Kathy smiled. "What would you like me to do?"

"Prepare yourself for hypertravel. We leave at once."

Outside the *Raptor*, the stars dimmed and their images disappeared, and the unique non-color of hyperspace took their place.

"Please sit down," said Kathy, gesturing toward one of the

seats on the bridge. The Lucian sat, and the Starman eased herself into the other seat. Kathy felt awkward again, not knowing what to say.

"May I offer you something to eat or drink?" she asked at last.

"Thank you, Kathy, but I cannot ingest anything that you will have on board, or otherwise provide for me. Our physical processes are so different that we will never be able to eat the same food, even on Aden. But although our races are different in many ways, it is also true that there are fundamental samenesses in us. We have prepared for your visit for some time, and we believe that you will be comfortable on our home planet. It has only happened once before that anyone other than the First Races has set foot on any of the first planets. That was when your brother and his friends went to Aden before the attack on Luxa—my home planet. But for that occasion the three Starmen were trained in a single locality that was far from our people's dwellings. You, however, will dwell among us for some time, and will be able to move where you wish. I might say that the members of the First Races are both excited and apprehensive about your arrival."

"I don't wish to—" Kathy began.

Saleh raised a hand. "Do not be uncomfortable, Kathy. You are very welcome. Throughout the ages it has been the custom of the First Races to have little contact with all other sentient beings, but we now realize that that reserve must be mitigated at least a little. Any apprehension on our part is only due to the awkwardness that you yourself are feeling now. The First Races are honored by your willingness to come to us, for you may well be the means by which our captives will be released."

Kathy frowned. "It is a responsibility beyond my understanding," she said. "I am not sure whether I will be able to succeed."

Saleh smiled. "Nor are we. Yet we are hopeful. The First Races are—surprised—at the potential in your races, you humans and Ahmanyans. You have achieved what we did not.

You have conquered the Xenobots. There is ardor within you, within the best of you, that gives you a decided advantage in the task that is before you. Having recognized that this is true, we have seen clearly that in some things even the First Races must defer to you.”

For a moment there was silence. Then Kathy asked, “The Janitor’s home planet is very hot. How am I to live there?”

“It is time to show you, and prepare for our arrival. Please stand up, Starman Foster, and I will clothe you for your arrival on Aden.”

The Lucian and the Starman stood up. “The Janitor wears an environmental suit that is the product of his race. The Lucians devised a means of protection in adverse environments along very different principles. I am wearing one now. With the help of a small device like this one,” he showed her a small translucent sheet held lightly in his fingers, “the aura from my living body creates a barrier at the quantum level between the environment my body needs and the environment in which I travel. It will do the same for you. Please take this and place it somewhere on your body, anywhere you wish. It will adhere and remain in place, feeling and functioning like a second skin. Nothing can remove it until you are back in your own environment. When the device senses that it is safe, you can peel it off easily.”

Kathy took the patch from him and gazed at it closely. “How does this make it possible for me to breathe, and eat, and excrete, and everything else I will need to do in an environment hostile to me?”

“It will not function in every atmosphere—only those where there is sufficient oxygen, which the device will ensure you receive. For other needs, a special environment is needed. We have prepared such a place for you on Aden.

“Ah! We have arrived! Will you please direct your holographic companion to land at these coordinates?”

As Rachel took control of the ship and prepared to land, Kathy stared out of the viewscreen. It was night, but an abundance of stars illuminated the planet whose surface was not

far below her. She discerned rolling fields set among groves of what looked like trees but which she was sure was a form of plant life different from anything she'd ever imagined. The *Raptor* was approaching a landing field surrounded by a variety of structures that shone with argent magnificence in fulsome starlight.

"Two minutes to touchdown," announced Rachel.

"You must attach the device now, Kathy," said Saleh.

With a start, Kathy realized that she was still holding the apparatus that the Lucian had given her. She studied it again. It was less than a sixteenth of an inch thick, and only about an inch by an inch and half. It was as flexible as a piece of paper. She rolled up her left sleeve and placed the sheet against her left forearm. She could feel it grip her skin, and a prickle underneath the patch made her think of tiny tendrils worming their way into her flesh.

"It feels as if something is going inside my arm," said Kathy.

"It is not entering your body, Kathy; it is identifying your tissue type and your physical needs. If there is any discomfort it should stop soon."

"The feeling's gone now," said Kathy a few seconds later. "I don't feel anything any more."

"Then you are ready to debark. You may direct your holocom to open the airlock. Welcome to Aden, Starman Foster."

Chapter 14: A Contrast of Welcomes

The airlock of the *Raptor* opened. A night sky filled with a generous spread of stars made Kathy gasp with delight and wonder. There were far more than she had ever seen in her life, more than she had ever imagined.

"So many stars!" she exclaimed. She felt enraptured.

"We are not far from the center of the galaxy, as astronomical distances go, Kathy," said Saleh. "Aden was one of the first planets formed, and one of the first five to host life—the

homes of the First Races. Four remain, for Luxa, as you know, is no more.”

Though it was twilight, the Starman could see a world of smooth land. A few dozen buildings were placed not far away from where the *Raptor* had landed, arranged not in lines or according to a roadway, but in harmony with the shape of the terrain. The buildings appeared to be made of stone or clay, with plenty of what looked like glass or shiny metal. They were simple structures of one story, though one or two were larger than the others. Pathways of close-packed, level stones connected them to each other.

Beyond the farthest buildings was a yellow meadow that rose up toward orange hills with easy contours. In a few places were clusters of sharp objects that showed fine edges and even spikes. To the right was a dark mass of objects that reminded Kathy of woods. To the left a plain stretched away as far as Kathy could see.

Below her the Starman could see a small gathering of people who had obviously come to greet her. She stepped away from the *Raptor's* portal and set foot onto the ground. Two women approached her and reached out to take her hands in theirs. They each pressed one of her hands between their own, and then released her.

Like Saleh, they were shorter than the average human. Also like him, they were slender but gave the impression of imposing solidity, as if made of denser substance than mere flesh. They were bald as were all those she could see, yet the shape of their bodies was clearly feminine. Their skin was pale and smooth and their yellow-orange eyes were deep. Their features did not move with as much facility as the faces she was used to among her own people, yet they managed to convey much feeling with economy of movement. They exuded warmth and pleasure.

“Rinda,” said Saleh, indicating one of the women, “and Su. They will be your primary trainers and will provide for you while you live on Aden. You and your holocom will go with them now.”

Kathy thanked Saleh, and directed Rachel to place the *Raptor* in orbit around Aden so that it would not have to endure the inordinate heat of the planet during her stay there. She watched her spacecraft rise from the surface and disappear into the heavens. Then she turned to follow the two women. She felt welcome and safe, but nonetheless was most comforted by the presence of Rachel alongside her as she made her way through the village. The few others of the First Races, having extended polite greetings, dispersed to their own homes and left Kathy to her hosts.

Rinda and Su communicated as easily with Rachel as with her, so that any apprehension Kathy felt about her surroundings or her training was minimized. Her trust in Rachel was easily applied also to her hostesses.

"It is late evening on Aden, Kathy," said Rinda. "Your travel from your home planet was timed so as not to interrupt your natural sleep cycle, although before long I think you will find that you need less sleep than you would on your own planet. Now we will take you to your residence, where you will find a meal prepared for you. We have already informed your holocom of what you will need to live among us in the place we have provided. She will be your guide for the remainder of the night, and she will help you to sleep. When you awaken in the morning, your training will begin."

They had prepared a lodging that was suitable for her needs, adjacent to the homes of her two hostesses. The Starman noted that there was an invisible but quasi-tangible barrier that surrounded the dwelling. As she passed through the entrance she had a sensation of stepping across a forcefield, an unnerving feeling as if pressing through a large spiderweb. Inside, the environment was like that of Earth. The residence was very strange to Kathy, and yet quite suitable for a human being. Even proper food had been prepared. She laughed when she saw that her first meal on Aden was spaghetti.

"There is much good energy here," said Rachel, once they had been left alone. "I sense a strong power, a fertile

connectedness between the soil, the buildings, the air, and the people. The energy at the atomic level is harmonious. The heat on this planet is redolent with strength. On this planet all things are interrelated. There is no disruption, no sense of competition. From the quantum level to the stars we can see, there is a strong sense of purpose, of smoothness, of every atom and entity being in its rightful place.”

“I feel that too, Rachel. I think it is like an electrical current in my body, yet without any discomfort. It is like warm water flowing around me, and yet somehow also flowing ‘through’ me. I know that my presence here is unnatural—and yet I don’t feel out of place.”

As Rinda had said, Kathy was unable to fall asleep until Rachel had slowed her body’s processes, calmed her mind, and cast her into a peace-filled slumber.

~

Kathy’s first morning on Aden filled her with awe. She ate her morning meal quickly and then stepped outside her residence. She saw no one else wherever she looked, although several dwellings were close by. A white sun was just rising in a cloudless sky, pushing a flow of light over the village like an ocean wave easing over a sandy beach. Most, but not all, of the teeming stars of the night disappeared in Aden’s dazzling sunlight; a few of the brightest remained visible as extra bright points of light in the white sky.

“Today we will go into the woods, Starman Foster.”

Kathy turned and saw Su walking toward her. “If you are ready, please follow me. Your holocom will remain here to engage with Rinda.”

“I am ready,” said Kathy. She felt vitally alive, almost pulsing with energy. She could imagine her blood flowing unimpeded throughout every vessel in her body, and her breathing was deep and full. She had never felt so healthy before.

Su reached out and took Kathy's hand in hers and led her, hand-in-hand, beyond the dwelling that had been set aside for the Starman. Kathy noted the friendliness of the contact as well as the strange, imperfect feel of Su's touch through the molecular barrier. They strolled without any sense of urgency into a meadow covered with light yellow grass as thin as hair. Beyond the meadow, about three hundred yards distant, was a fringe of dark orange trees.

"Surely this is not grass and those are not trees such as I know," stated Kathy, with a query in her tone.

"Not as you know," agreed Su, "but grass and trees such as your mind will recognize, yes. Life on Aden, as on all of the first planets, is utterly interconnected. You have already noted this to be so. Your schooling, you see, has already begun. All other life throughout the galaxy is derivative of the life you see, and will see, here."

At each step Kathy felt a vibrancy of delight in the land. As she and Su moved through the meadow grasses it was as if they were walking on silk. As they came close to the edge of the woods there was a field of low plants with an occasional tall flower that stretched upward almost as high as Kathy's head. Just before they entered the shadows of the woods, to Kathy's surprise a second sun began to rise over the horizon. Only slightly smaller than the first, it shone even brighter.

~

The beguiling non-color of hyperspace dropped away, replaced by almost complete blackness.

"Begorra!" exclaimed Kathryn. "In all my born days I've never seen any place so almighty forsaken!"

"Computer, where is the blamed planet?" asked Joe. The computer voice answered, giving coordinates. "Sulphur and salt! I don't need coordinates! Show me on our viewscreen where this phantom-plagued spacebean is!" A small opaque disk appeared

in the starless void that spread with apparent infinitude before the spacecraft.

"I've never been anyplace so dark!" continued Kathryn. "Here we are between the arms of the galaxy, a place that nothing in its right mind could call home. After this, I won't call any other place lonely."

Joe activated the realtime transmitter. "Richard," he began, "we are in the vicinity of Lemura. The live data feed is in operation. Are we coming through?"

"You are," came the voice of Richard Starlight.

"Then let the scrutiny begin," said Joe. He launched several small probes toward the planetoid. They quickly took up tight and fast orbits and began to send back data.

"Information coming in," announced Joe, his attention on several screens at once. Kathryn monitored the locations and conditions of the probes as Joe received the data they returned to their spacecraft. "We're verifying all the data that Kathy provided, blending what we're getting now with what we already had," continued Joe. "Getting higher resolution in some cases—very good, very good. Geez! Do you see those phantoms? Kathryn, Richard? Can you see them?"

"They're coming in too fast for me to follow, Joe," said Richard. "Focus on one for a moment."

Kathryn manipulated the orbit of one of the probes, slowing it down and bringing it closer to the surface of Lemura. Then she caused it to circle around a certain location.

"No interference," she muttered. "I don't know if that's good or bad, but we're getting no resistance the way Kathy did. If there's anybody down there he's letting us have a good look. There, you can see the actual ruins of... something. We're a quarter of the way around the planet from the ruined city, so this is one of the wrecks that is farthest away from it. There is a crush of metal, with some paneling or crystal shards—just guessing since I can't identify any of that detritus. But you can also see the phantoms, can't you?"

“They flicker,” observed Richard. “Just wild light, like oil slicks on water. Is that what you’re seeing also?”

Suddenly all three of them gasped. For a span of a few seconds the image of a complete groundcraft swelled into view and then vanished in an instant. Then it became visible once more, and then ripped apart like wet tissue in a high wind.

“That’s not like what I saw on Larson’s Folly,” said Joe gravely, “but I’ll walk on that planet naked if that’s not a deteriorating time stasis. That’s the same disease we’re seeing on the place we just came from. In fact, it looks worse! It’s got that same feeling of everything coming to pieces.”

“Can you quantify any of it?” Richard asked.

“The entire surface is pitted with temporal eddies,” replied Kathryn,” but probably over 90% of them are within a few miles of the city. The other probes are mapping them right now. It looks as though they’re moving, but only randomly—and not very far from a given space nor very fast. The more the data comes in, the more volatile the situation seems to be.”

“What about the city itself? See if you can locate the Lucian.”

“Ah!” breathed Joe as he began to comply with Richard’s direction. “Now we’re getting some resistance. Baby boy down there doesn’t want us to see everything.”

“Kathy experienced the strongest resistance in the proximity of the city, too, Joseph,” said Kathryn.

“Aye, my dear, but we’ve got higher powered instrumentation here, and a little something to confuse him. Remember that this is psychological warfare—mind against mind.”

“You’d better give up now, then.”

“Richard, did you hear that? I’m aghast. Oh—here we go, knocking on his door, as it were.”

Several probes simultaneously released a variety of stimuli over the city. Some emitted bursts of light, others x-rays, others strange sounds, and some simply raced through the city with

random motion. Only a few engaged in a serious investigative survey.

“We’re getting some data, Joseph,” said Kathryn. “It looks as if energy is coming into that tower at an amazing rate, but it isn’t absorbing it very efficiently. There’s a lot of energy being radiated outward into space in a form I can’t identify so easily. Give me a little time and I can probably describe it to you. And there’s precious little energy going out to the surface. The time stases are starving. There must be significant failure in the conversion equipment. Have you located where that might be yet?”

“Got ’im!” cried Joe suddenly, rising up from his seat a little. “See that! The infrared slipped through! It’s 624°F inside an enormous complex about a quarter mile underground, adjacent to that tower. Now if we can—”

The Taylors’ ship lurched slightly. A warning siren shocked both of them and then precipitated them into immediate defensive condition. The ship’s computer voice verbalized. “A rain of micrometeorites is striking the ship. The hull is impervious to penetration thus far but the intensity of the attack is increasing. Unless directed otherwise, I shall enter hyperspace in three seconds.”

“Go now!” ordered Joe.

There was no response from the computer, and the ship did not engage its hyperdrive.

“Computer!” shouted Joe, leaping to his feet.

At that instant the ship shuddered under a sharp impact, and its power went out. Darkness filled the bridge and the air stopped circulating.

“We’re powerless,” whispered Joe, “but we’re moving. Do you feel the acceleration, Kathryn?”

“Something is moving us,” Kathryn responded calmly. “We’re being taken somewhere. Where is your hand, Joe? Reach out for me. My hand is outstretched.”

The two Starmen clasped hands just as the Voice spoke in their minds.

Come now and join the others.

Chapter 15: Kathy's Training Begins

The shadows in what Kathy could only think of as “woods” gave the illusion of coolness, but she knew that beyond the thin protective layer that covered her body it was almost three times the temperature of boiling water. Liquid water could not exist on this planet; its life was sulphur-based.

Kathy knew that when life began in the galaxy, it was in the hottest star systems, not far from the galaxy's core and surrounded by stars a hundred times more densely packed than what she knew in her own solar system. The universe had expanded and cooled since those long ago ages, but the First Races still flourished in the heat of the first creation of life.

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What the Starman could only think of as trees were plants that clearly were not chlorophyll based, but rather life systems that thrived in the high heat of their native world. Hues of earth and fire surrounded her. The plants, like enormous mushrooms that branched and connected overhead, were ruddy and ochre. The canopy was thick, but an occasional ray of sunlight penetrated through the interlaced tendrils, showing a cylinder of light in the gloom. Su, still holding Kathy by the hand, led her more and more deeply into the woods. Finally she stopped, released her hand, and turned to face her.

“Where is your holographic companion?” she asked.

“Back in the village, I assume,” answered Kathy.

“Find her,” said Su.

Kathy froze, feeling suddenly small and inferior and on the verge of failure. A sense of shame began to rise in her.

“No,” said Su. “Find her. You can be here and there at one time. Use your mind. You know your holographic companion and she is attuned to you. She is in your service. Find her.”

Kathy closed her eyes slowly and pictured Rachel in her mind. She imagined her standing in their dwelling place.

“Open your eyes, Kathy,” commanded Su, “and look into mine.”

Kathy popped her eyes open and was immediately captivated by Su’s eyes staring into hers. Her gaze was intense and made her feel as if someone had grasped her by both hands to pull her up out of a pit.

“Find your holocom.”

“I... I don’t know what you mean,” Kathy’s mind sputtered uncertainly. “How can I find Rachel in your eyes?”

A sensation of peace flooded through Kathy as if soothing warm water had been poured over her.

“Find your holocom,” repeated Su, patiently but insistently. “You will not find her by imagining where she might be. She will be where she is. She is someplace, right now, someplace real, actively engaged. You will not find her by guessing where she might be, but by locating her energies.”

Kathy took a deep breath, still gazing into Su’s tiger-like eyes, yellow and strong, in command of her surroundings. Su drew her into her mind through her eyes. Su’s mind gently but surely pulled Kathy’s awareness into focus, giving it a safe environment filled with potentialities.

Suddenly Kathy was reminded of the computer room in the ruined city on Lemura. She felt surrounded by possibilities, many directions from which she could select, portals through which she could go. Each of them led to a real place, not a place created by guesswork or imagination or even memory.

“Rachel?” Kathy thought. A portal in Su’s mind opened up and, like the computer in Lemura, an image grew and took over all of her perception. Kathy saw Rachel standing with Rinda in a chamber that made her think of a warehouse or a museum with

many objects on display. With a shock she recognized that the objects must be the greegles.

“I see her,” said Kathy.

Suddenly Kathy was back in the woods, looking into Su’s eyes but in full possession of herself.



“Find her again,” said Su, but this time her eyes did not draw Kathy in. “Remain here in this woods and find your holocom.”

Kathy made herself feel solid and secure in the woods. She noted the shape of the “tree” that grew just behind Su, and the ray of light beyond it that came through the crown of interlacing branches. She felt the ground beneath her feet and caused herself to feel rooted and fixed in place. Then she pictured Rachel among the greegles as she had seen her less than a minute earlier. The image came into her mind almost as if she were looking through an opened window. Rachel paused and turned to look at Kathy.

“Kathy?” She spoke the word almost tentatively. The elation that Kathy felt caused her to inhale deeply with delight, and the image of Rachel disappeared. Kathy felt herself thoroughly back in the woods.

Su laughed. “Now you must find me,” she said, and



disappeared. “I will not be far,” said a voice in Kathy’s mind.

Kathy began to look around her. She stepped over to the closest tree, peered around it, and then looked up into its intertwining branches.

“Your eyes will reveal many things to you, Kathy,” said Su’s voice, “but you can see what is real in many other ways. Draw on what you have learned already today.”

Kathy pictured Su in her mind, but pictured her as more than just her appearance. She pictured the living being. She brought the image of Su’s eyes to her mind and remembered the feeling of warmth that had flowed over her. She relaxed, slowing her breathing that had speeded up with the elation of her success in

seeing Rachel and her excitement of being challenged to play “hide and seek”. An awareness of Su’s presence came to her. The Starman felt a “glow” or “aura” of Su’s life about fifty yards away. Kathy turned her head and looked in that direction, but saw only trees. She began to walk, following the draw of what she perceived.

After a few minutes, she found Su seated in a small clearing with a large ray of sunlight illuminating her like a spotlight.

“I can see you!” said Kathy excitedly.

“You are *beginning* to see me,” replied Su, with a smile.

~

“Su is teaching me to identify what is ‘real’,” said Kathy to Rachel that night, “and to remain firmly grounded in it. There is nothing on Aden that is not in harmony with everything else, except for the illusions that I have brought here—the illusions in my own mind. Illusions like fear of something that may not even exist, or confusions and blindnesses that are there because of things inside of me that are not authentic to real life. I will learn to combat shadows not by rejecting them but by being so firmly planted in reality that there will be no room for any shadows to exercise any influence. At least I *think* that’s what the training is about. I’ve only been in training for one day, so I am not explaining it very well, Rachel, but it is helpful to me to try to explain it to you out loud.”

“I am glad to be of service to you, Kathy. I can already see some changes inside of you. There is some reordering in your mind. Some of the places that the Lucian on Lemura was able to manipulate have receded in your worldview. You have made a good beginning.”

“And you spent time with Rinda and the greegles.”

“Yes. The greegles are daunting, Kathy. I have learned much today. The greegles are as far above me and my capabilities as the First Races are above your race—even farther above me than that, because the First Races now do not have the same

capabilities that they had in the beginning of their time. When Rinda connects me with a greegle, it is as if I have entered a near-infinite universe of knowledge, reason, and capacity. They contain practically measureless knowledge of many worlds. I am unable to fathom completely what they are.”

“You, Rachel? Even you are overwhelmed by the greegles?”

“I am like a mere pool compared to the ocean of their life.”

“‘Their life’? Surely they are not alive?”

“Their life, like mine, is artificial, but just as I am comprised of your own personality complemented by the contributions of dozens of other living beings, they are comprised of the personalities and contributions of the entire Lucian race at its time of utmost strength. The Lucians created the greegles just before they fell away from their destiny as the greatest of living, created races. You know, of course, what the name ‘xenobot’ means?”

“Of course. Everyone of my generation knows that. From the Greek word *xenos* for ‘stranger’, and the Slavic word *robota* for ‘hard work’, from which the Czech word *robot* comes, referring to a mechanical contrivance, usually in humanoid shape, designed to do drudgery. The Lucians who became rebels gave themselves mechanical bodies in a misguided attempt to make themselves invulnerable, enormously powerful, and immortal; they came to be called Xenobots because what their choice really did was to alienate them from all other living beings and each other. They became ‘strange’ within their own world.”

“Yes. You have the textbook answer. But what I learned today goes far beyond that. Before the Lucians rebelled, the greegles were their first attempt to create mechanical life. Their creation was a magnificent achievement that has never been duplicated by any other sentient race. The creation of the greegles was, in itself, the pinnacle of the Lucians’ capabilities, but the fact that the Lucians succeeded so grandly opened the door to their later fall. They looked at what they had created and considered it so amazing that they desired to make themselves over into what they had made. They tried to combine their own

flesh with the mechanical life they had made. What was a thing of breathtaking goodness became the inspiration for their catastrophic collapse.”

A feeling of horror came over Kathy and she felt her skin crawl. Her eyes opened wide and tears sprang to her eyes.

“But it was already their nature to live as long as they wanted,” protested Kathy. “How could they possibly have wanted more?”

“Having seen what the works of their own hands could do, an ache awoke in them to transcend even the generous mortality they had so as to become truly immortal on their own terms, and they wanted power to command other living beings. What had been a gift they tried to arrogate to themselves as a right. It is the galaxy’s greatest tragedy,” said Rachel, “yet the greegles themselves remain as the utmost achievement indeed of any sentient race, never to be surpassed or even duplicated, and now not even fully understandable by any living being. The greegles are the last remnants of the pre-eminence of the greatest race that ever lived.”

“And what are you learning from them?” asked Kathy in a quiet voice.

“Rinda is adding to my knowledge and capabilities through what the greegles can provide; others of the First Races will be part of the process later, for some of them know more about the greegles than she does. When that process is complete, I will become a partner in your training so that what I shall become and what you shall learn shall make you more than a match for the Lucian on Lemura. As Richard Starlight told you, when your education is finished, you will be like no other human being who has ever lived, and your life will be changed beyond imagination.”

~

The next day, Su again took Kathy into the strange mushroom-like forest. They did not talk as they crossed the field, but just as they entered the shadows, Kathy spoke up.

“Su,” she began. “Rachel was telling me yesterday what she had learned about the greegles and how they inspired the fall of the Lucians. Can you tell me more? How could they believe that what they chose to become could be better than what they already were? Why did the Lucians desire more than they already had?”

As they continued to penetrate the forest, Su answered.

“You have been musing on this question since your conversation with Rachel. It is good, for learning these things will prove a great advantage to you in your forthcoming encounter with the Lucian. It is of enormous significance that this Lucian did not choose the course his fellows chose. For those who chose to become Xenobots had become depraved even before they laid action to their choice.

“A Xenobot is an artificial construction of metal and crystal that contains the living organism of a Lucian. These Lucians constructed metal bodies for themselves using the same technology that they had used to make the greegles. Then they removed their fleshly parts that they considered extraneous and therefore no longer necessary. The organisms inside the metal, in imitation of the greegles, were fed by quantum energy and no longer needed to eat; therefore no mouths were needed, and the digestive and excretory systems became vestigial and withered. As a by-product, this also made normal ‘table fellowship’ impossible.

“They replaced their fleshly extremities with powerful metal constructions that were superior to arms and legs, hands and feet, but this made touch and all affection impossible.”

This image caused Kathy to shudder involuntarily. She remembered the grief of her solitude in the *Raptor*, and the poignancy she had felt when she realized that no one had touched her for many months. Su paused for a moment to allow Kathy’s feelings to sink into her. Then she continued her explanation, letting her thoughts come into Kathy’s mind slowly and with sympathy.

“Since they expected to live forever, there was no need to reproduce, so all organs of procreation became vestigial and withered; there was not even any desire among them to produce children, for newborn Lucians would have required care and, had they grown up, would have become their competitors for the galaxy’s resources.

“They retained eyes, for even they could not knowingly choose complete darkness for the hope of enhanced, artificial vision. An auditory system was retained but over time it became barely functional through disuse. Respiration, circulation, and lymphatic systems were retained but adapted to become like lubrication in a machine. The atmosphere that they breathed was correlated to the fuel used by something mechanical.

“In short, everything that a body needs to build and express community and to form relationships was done away with, and each entity cared only for its own personal existence. This was probably not a consequence that they accepted knowingly; rather, it was a by-product of their choice that they became used to, for they had already ceased to value what they had lost.

“For long ages the Xenobots’ bodies were nearly invincible and self-maintaining, but they have been wearing out for a long time, like all the rest of their technology. What had once been almost indestructible has now become vulnerable. It was only because of this that your brother was able to defeat Xenobots in hand-to-hand combat.”

~

Two weeks later, the intensive training that Su had provided had filled Kathy’s mind and body with energy that coursed through her. As Rinda had predicted, she had little need now for sleep. Her body gained the benefits of rest whenever Kathy attuned herself to the heart of the world upon which she walked, and the unconscious processing of new information that sleep provides was done much more efficiently and quickly. When she slept, she slept easily and deeply, and the patterns of her sleep

were steadily changed from those of normal human experience to become measurably more efficient.

The limitless energy of the planet was Kathy's to draw from. There was no need to rest to regain energy, for to her energy was never lost. She had little need for breaks from training, for the training was showing her that she was merely entering into genuine and rich life. Su gave Kathy breaks from training only so that Kathy could explore the land on her own, during which time the Starman exercised her newfound mental prowess.

One evening Kathy took a walk alone. She crossed the meadow that began just beyond her dwelling and bypassed the woods that stretched out to her right, where her training with Su had begun. The meadow rose gently for over a mile to the horizon, beyond which she had never seen. When she came to the top of the rise, Kathy stared out over the view before her with wonderment and delight. There was a broad, bright gulf of a lake made of liquid tin. A few rounded islands lay close to the shore but beyond them was an empty expanse that ran to the horizon. Aden's heavy starlight made a sparkling shield of the liquid, and a sea of stars shone back from the brimming lake. The night was filled with mysterious beauty, showing uncountable points of brilliance at Kathy's feet and over her head. Fingers of mist lay peacefully over the gulf, thickening toward the far horizon where the setting suns colored the vapor with gold and silver and maroon light.

The Starman knew that she stood upon a planet that was so old that it had been moved several times from one star system to another as its host stars aged and weakened.

Though it was on Aden and the few other planets like it that life in the galaxy had begun, it was also on those planets that the first violence had arisen. Through uncountable eons both life and violence against life had spread throughout the galaxy, but now a bond of humans, Ahmanyans, and the First Races was set against the last of the first rebels. With sudden sobering comprehension, Kathy understood that she herself was the crux of their hope: one who, of all humans, was the best versed in Ahmanyen life and

culture, and who was now being initiated into the ways of the First Races themselves. Humans, Ahmanyans, and the First Races were aligned against a single entity, and Kathy was being prepared to do him direct battle, posted in the breach between his astonishing and unmeasured inimical power and the alliance that opposed him. With a shot of fear Kathy recognized that this was precisely the position in which her brother had found himself when he had gone to the Luxan moon at the end of the Second Xenobot War.

The Starman gazed again at the wondrous beauty that spread before her over the starshot lake to the blazing horizon, and accepted the fact that her time on Aden would come to an end after not many more weeks. Her next stop would be Lemura.

~

Joi Weaver finished examining the most current data on the deterioration of the anomalies on Larson's Folly and Lemura. Her report to Commander Thronson, which had been forwarded to numerous other authorities, said, "Another 4.6% of the planet's surface has stabilized over the past three months, and the three time stases are showing quantifiable signs of advancing failure. The mysterious lights inside the largest of them, that have intrigued investigators for almost a decade, are now identifiable as weapons fire that repeats in a predictable pattern. Coupling this information with the description of the phenomena from Lemura, where the situation is even more grave than it is on Larson's Folly, it is likely that the occasional vision of vehicles and even living beings in the anomalies on that fascinating planet is evidence of severe malfunction and imminent collapse. The capture of Starmen Joe and Kathryn Taylor is an alarming occurrence.

"Although I am only the chief exo-geologist aboard our floating home, I think this is a good time for everyone on Space Station Zane to put in his or her vacation request. I know of no fingers that can plug this leaking dike."

~

On Luna, Earth, and Ahmanya, Richard Starlight and his advisors had become unnerved. Though they knew that there was danger for anyone who came too close to Lemura, the capture of Starmen Joe and Kathryn Taylor was highly disturbing, especially as it immediately followed their report that Lemura itself was gravely unstable and deteriorating. After taking counsel with the Janitor and Saleh, they devised a bold plan of action of which the training of Starman Kathy Foster was now only a part. Richard had further convinced Izmaka, the High King of Ahmanya, of the wisdom of Kathy's suggestion regarding Tharsos, and the process of readying the most powerful resource in the human-Ahmanyan alliance was initiated. The asteroid Tharsos was prepared for hypertravel. No one could predict what it would meet at the end of its journey.

Chapter 16: Return to Lemura

Eagle City had a population of nearly 180,000. The city had been named after Lee High Eagle, the first man to set foot on Mars in 2014. It had become the grand port and largest population center of the fourth planet. When the Ahmanyan people emerged from their hidden refuges and began to renew the face of their planet, one of their earliest acts had been to bequeath Eagle Crater to the people of Earth.

The crater was twenty to twenty-five miles across, its lowest point almost four miles below the highest part of the crater rim. The city lay in the westernmost side of the crater, with a narrow buffer of unclaimed land between the outskirts of the settled area and the foothills of the crater wall. The eastern crater floor had few buildings and only a few roads, being mostly semi-cultivated fields or desert land.

The population of Eagle City was still discomfited over the recent still-unexplained multitude of phantoms that had vexed

the city only a few weeks before. When a small domed community appeared overnight on the wild lands to the east, it raised the level of uneasiness even more. When it became known that the brass-hued dome was an outpost of the First Races, normal life and commerce in Eagle City became impossible.

Most people took it for granted that the settlement was a harbinger of deepening relations between the citizens of Earth and Ahmanya and the First Races. The frequent visits of Starman Mark Seaton and his wife Stenafi to the dome appeared to confirm that theory, for everyone knew that Starman Seaton had had dealing with the First Races before. But as time passed, apprehension arose and grew when neither Mark nor Stenafi revealed the purpose of the visits or the true nature of the domed settlement.

At last a public statement was made on Ahmanya, Earth, Luna, and their settlements elsewhere throughout the Solar System that informed a sobered population of the threat posed by Larson's Folly and Lemura, and explained that the First Races had established a temporary presence in Eagle Crater for the purpose of preparing combat volunteers to lay siege to Lemura. Apprehension grew to fear when refugees from Olovanda, the city within Tharsos, began to appear on Ahmanya, while at the same time, warcraft were drawn from their hangars in Eagle City and every other base on the planet, and prepared for action.

Over the next few weeks, with sad hearts the people of Eagle City and elsewhere watched the endless parade of shuttles moving in a circular stream from Tharsos to several bases of Ahmanya, taking non-combatants off Tharsos and replacing them with volunteers. The occasional appearance of one of the First Races in the streets of Eagle City, glowing in his environmental suit, continued to evoke awe in the citizens, but also brought a mixture of sadness and trepidation along with hope and, strangely, a notion of privilege.

Back on Aden, Saleh, the Janitor, Rinda, Su, and Kathy strolled leisurely near the edge of a ravine that divided a wide meadow. The Janitor, whom Kathy now knew as Aril, was almost enthusiastic.

“We are coming close, Kathy, to the sulphurfalls that I had wanted to show to your brother and his companions when they were here. They were eager to complete their training and go to Luxa, so they declined my invitation; I am pleased to be able to show them to you now.”

Kathy said nothing, but in her mind, she saw Zip, Mark, and Joe walking where she was now walking, though they had never done so. As they had been in their time, she was poised to leave this place of eternal peace and go to the forefront of danger. For them, it had been the entire Xenobot armada; for her, it was a single entity of power unknown even to his cousins in the First Races.

The group rounded a bend in the path. Kathy could hear the sound of falls, and in a moment they had come to a point of land that overlooked the spectacular sight. Though neither high nor surging with power, the falls were beautiful. A roll of yellow liquid flowed over a horseshoe-shaped precipice onto a slope of jumbled rocks. Behind it a diluvial plain extended for a mile or two before blending with a rise of distant growth. Outcroppings of a glinting, silvery mineral that Aril identified as mica showed here and there in the fields. Down the center of the plain the yellow river flowed in graceful loops until it came to the falls. There it cascaded into dozens of separate streams until pooling at the bottom far below the place where the group stood. Then the river coursed through a ravine, shadowed by rocky walls on both sides until it turned and went out of view. A mile or two farther was the site where Zip, Mark, and Joe had trained with Aril about ten Earth years earlier.

“What have you learned, Kathy?” asked Saleh almost casually.

Kathy answered instantly. “Aden is a place of utter harmony and therefore deep-seated reality. There are no masks here, no

deception, nothing false. Lemura, where I am about to go, is the contrast: it is a place of disharmony and distortion where reality has been forsaken. This is my strength and the Lucian's weakness.

"I have learned that being in a community builds hardiness in each of its members, at least when that community is one such as this. The community even includes such life as is in the greegles and my holographic companion. Though not genuinely alive, they contain, preserve, and in some ways continue and extend elements of the lives of those who created them.

"The Lucian is disconnected and solitary. I do not feel any enmity toward him, but rather pity. I do not go to conquer him but to rescue him. If that is possible. Yet I expect that he considers me to be his enemy, one who must be defended against and dominated. He no longer thinks in terms of Lucians against the other First Races, or against humans and Ahmanyans. He only feels contempt for all living beings other than himself, yet he is lonelier than I can ever imagine. He is very strong, unlike even you of the First Races whom I have come to know. I am apprehensive that he may be able to invade and conquer me as he did before, though now I do not fear him."

Kathy," began Su, "it would now take a master to invade your mind without your permission, and even were that to occur, you have the ability to resist and perhaps ultimately reject the invader. Surely you have learned this by now. Richard Starlight told you that in your training among us your mind would be probed and your privacy invaded. Now you know that that was not so. Conversing by mind is similar to what your own race knows as speaking. We have taught you control, not the violation of it. By means of your mind, you can 'speak aloud' to many, whisper to a few, or keep your thoughts to yourself. Your newfound ability to use your thoughts more effectively makes this possible. We have not taken away the privacy of your thoughts; we have done away with your need to use your physical body to express and share them.

“For one of the First Races to speak to one of your race is, for us, like trying to converse with someone whose attention continually and uncontrollably roves in many directions. This is why it was exhausting for your races to converse with us for long, since holding attention in your minds requires intense concentration that you were unused to and in which you were not skilled. Such concentration now comes naturally to you.

“Everything in the galaxy is fundamentally connected and harmonious, a harmony that you now see and experience. This is now your natural state, and that contrasts with the dissolution on Lemura. Your greatest advantage over the Lucian is that you are firmly grounded in reality, the reality of the solidness of the first creation, while he is lost in shadows. For you it will be a matter of discernment to be able to know truth from falsehood, reality from shadow.

“But we are not finished with your training. For the next few days, you will become reacquainted with your holographic companion, who now has a little of the strengths and knowledge she gained from those you call the greegles. You will learn to engage her with your mind, and draw upon her resources for your needs.

“You have trained with us for only ten weeks. It is not long, even as the people of Earth measure time. You have only begun to learn what we can teach you. You well know that we must act quickly, for the stresses on the time stases cannot be ignored. Yet it is true that the eager student learns much in the first stages of training, and it is in that time that most changes occur. The differences between you and others of your race are now substantial. We have done what we can in the time available to us, and you have learned well. We are pleased.”

“And there is more, Kathy,” said Saleh. “While you have been training here on Aden, we have learned more about Lemura and its inhabitant. Sadly, a high price has been paid for that knowledge. And now your races and we have built upon our plan to overcome the Lucian. You have been brought here today so that Aril and I can bring you up to date with what has transpired

since you arrived on our planet. When you go to Lemura, you will not go alone.”

~

“I’m home, back on the bridge of *Ossëan*!” shouted Pleera to no one in particular as she walked onto the bridge of what once had been and now was again Ahmanya’s greatest warship. She took her place in front of the communicator. “All stations, give me the final report on your status!”

More than twelve millennia before, the largest moon of Ahmanya had been hollowed out and transformed into the master warship that had twice been instrumental in the Ahmanyans’ resistance against the incursion of the Xenobot assault forces. The Ahmanyans called their creation *Ossëan*, but in honor of the Ahmanyans’ heroic resistance against the Xenobots, Starman David Foster had named it Tharsos—Greek for “courage”—offsetting the names of Ahmanya’s other two moons—Phobos and Deimos, the Greek words for “fear” and “terror”.

One by one the various departments of the mighty spacecraft gave their status reports to its commander. The tall, slender, vivacious Ahmanyan was keyed up and full of energy. Her eyes sparkled with anticipation for the undertaking before her. She was too animated to sit. She was on her feet, striding from information center to navigational tank to primary command hub. When all departments had reported full readiness, she smiled broadly and clasped her hands together. *Displacing a hundred thousand people and going back into action isn’t all bad!* she thought with a twinge of guilty pleasure.

“Contact the rest of the battle fleet,” she commanded.

A moment later her communications officer spoke up. “The fleet awaits your orders, Commander.”

“Launch,” she ordered. “The battle that awaits us is most unusual, but we are definitely back in action!”

Chapter 17: Assault and Defense

Curious emotions rang in Starman Kathy Foster's mind as she prepared to depart Aden. She had become happy and comfortable on one of the galaxy's first planets. Her sense of contentment surprised her since she knew that she had no inherent place there. She could not breathe the natural fire of the atmosphere. She could not even eat with her new friends, nor truly touch them. The touch of hands was heartfelt but could not cross the inviolable boundary of her environmental protection. The shielding cover over her earthborn body, though only molecules thick, set her apart forever from the timeless lands on which she had walked and learned to love in a way she had never anticipated.

But she also knew for certain that she had been taken into the heart of what it meant to be solid to the foundations, to be unconditionally *real*, and that such veracity had no limitations of place or situation. Her humanness had become better adjusted than ever before. Now the time had come for her to take such authenticity to the planet of contradictions and phantoms, and challenge its potency.

In the company of Su and Rinda, Aril and Saleh, she walked out of the dwelling that had been her home for more than ten Earth weeks. They passed through the village and approached the field where the *Raptor* had landed upon her arrival. She had directed Rachel to retrieve it from orbit and bring it back for their departure. It looked just the same to her. No—not quite the same, as she saw as soon as she came close. Its name had been changed.

“*Raptor* is the name of a beast of prey, in your language, is it not?” asked Saleh, noting her puzzlement. “As a gift to you we have renamed your ship. We have written its new name in the lettering of your own language and the language of our allies the Ahmanyans. You have, in many ways, become a new self, and a new name is fitting.”

Tears came to Kathy's eyes as she saw the dark red lettering on the side of her ship:

Serene Deliverance



She pronounced the Ahmanyen words as she gazed at the lettering: *Adrias Vaza*. "It is an unusual name," she remarked. "It will give pause and reward much thought."

"Yes," agreed Saleh. "It has many levels of meaning. This ship will, we trust, become an heirloom of our races. In generations to come on Earth and Ahmanya, those who see this ship will be in fellowship with the First Races."

Kathy turned to face her companions. Following their custom, Saleh put his hands together palm to palm, and Kathy pressed his hands in both of hers. She did the same with Aril and Rinda, and finally with Su. Su's eyes, as always, glowed with lambent light like golden topazes. Kathy drank in the affection and well-wishes of them all.

"I cannot express the gratitude I feel," she said. "Your hospitality to a mortal like myself is unprecedented. I go now to fulfill the trust you have put in me."

"We die differently from one another, Starman Foster, but we also are mortal," corrected Saleh, "and in that, we are not so much unlike though in this life we can never actually touch with even the smallest parts of our skin. We also are grateful to you, for you now bear a gift and a burden and a responsibility that we ourselves were unable to meet. It is the nature of ultimate reality that gifts do not diminish their giver, but go forth to enrich others. Your brother gave the highest gift that any could give, and now you go to seal his victory. On this day, perhaps, the momentum of countless eons will be checked. We will see you again before day's end, when a new era in the history of the galaxy begins."

Kathy smiled, looked up for a moment and saw the white double suns of Aden just above the eastern horizon. Then she turned and entered the *Serene Deliverance*. The portal closed behind her.

“Starman Foster,” said Rachel as soon as the inner door of the airlock sealed itself. “I am ready to take us to Lemura on your command.”

“Very well, Rachel. Let’s go to the bridge. We will meet this Lucian today.”

When the *Serene Deliverance* had left the airspace of Aden, Kathy felt a prickling on the inside of her left forearm. She looked down and saw that the patch that Saleh had given her had sprung loose from her skin; she was back at home in her own environment now, and a stranger to the planet she had left behind. Gently, she peeled the patch off her arm, severing the last physical connection with Aden.

~

Not long after, having journeyed through hyperspace from Aden, the *Serene Deliverance* returned to normal space. She had set its destination for a position a hundred million miles from Lemura. The frugal darkness between the galactic arms impacted Kathy as being jarringly abnormal after her sojourn on a planet where the nights were voluptuous with stars, and even the days showed points of bright light in the canopy of heaven in addition to the radiance of two fiery suns.

“Rachel,” said Kathy, “please locate all other ships in this space and find out who is in command of our fleet, and then put me in contact with him.”

Less than a minute later Rachel reported. “The locations of all of the human and Ahmanyen warcraft are shown in the navigational tank, Kathy, and Commander Alex Jantel of the starship *Balindu* is waiting to speak with you. He is the commander of the fleet that has englobed Lemura.”

“Thank you, Rachel. Commander Jantel, this is Starman Kathy Foster. I am initiating visual contact.”

The visage of a middle-aged Indian man appeared on Kathy’s commscreen. He had a full head of hair, black and slicked down. His expression was business-like. As soon as visual contact was achieved he responded to Kathy’s greeting.

“Greetings, Starman Foster. Our fleet is comprised of 1,314 vessels of various classes, both human and Ahmanyen. Of these, 259 are manned. Everyone aboard these 259 ships has volunteered for this mission and knows what to expect. Tharsos under Commander Pleera is in orbit outside of our attack force, ready to provide backup in case of need. When you are ready, our first wave will descend to the surface of Lemura and surround the city. On your command they will attempt to engage the Lucian.”

Kathy directed a thought toward Commander Jantel. *Please wait just a few minutes. I will inform you when I am ready.* Receiving her thought directly into his mind, his eyes opened wide in surprise, but he said nothing. Aloud, Kathy said, “Very good, Commander. Foster out.”

After the contact was broken, Kathy said, “Rachel, please make a quick scan of the planetoid and determine if there have been any significant changes since our previous visit. In particular, see what you can learn about the Lucian’s compound.”

“I see no changes on Lemura outside the city, but after my encounter with the greegles I now have the capability to recognize and evaluate the time stases that are scattered over the terrain. There are 975 of them, precisely 92% of which, or 897, are within ten miles of the city. All of them, without exception, have a tenuous hold on sustainability. An increasing amount of energy is being diverted to them in order to preserve their existence. Inside the city there is heightened electronic activity, and the fabric of spacetime within the inner ring is showing signs of tension.

“In spite of the field distortion and the masking of surface phenomena we experienced before, I am now able to penetrate and examine the structure of the city. I believe that I am doing so undetected by the Lucian, but I cannot be certain. I have located his compound and can provide you with a three-dimensional map if you like.”

“Yes, Rachel; let’s have a look.”

Kathy stepped over to the navigational tank. A likeness of the city the Lucians had called Smais appeared, lying comfortably within the contours of the land upon which it was built. The tower of blue shimmering light pulsed at its center, and rose intact above the rest of the structures like a monument among ruins. Underneath the charcoal-colored surface was what appeared to be almost a second city, half the size of Smais and shaped in dull red.

“Well done, Rachel!” exclaimed Kathy. “Can you bring any details out?”

The surrounding dark gray disappeared and the red complex grew until it filled the tank. A few more details of shape and connecting passages appeared but not with as much clarity as Kathy had hoped.

“Where is the Lucian?”

“I cannot locate him, Kathy, but I am receiving something rather alarming coming through the commscreen.”

Kathy looked up in surprise. “The commscreen? Is something wrong?”

“It appears that we are receiving a live video feed from one of the reconobots on Lemura.”

“We are?” Kathy asked, puzzled. “But how is that possible? We didn’t leave any working bots behind.”

Rachel nodded. “I know. But this signal is indeed coming from Lemura. Based on its signature it appears to be coming from the first bot that you released.”

Kathy felt a chill go down her spine. “The one that the phantom took?”

“It is,” Rachel replied.

Kathy stared at the screen. All she could see was utter blackness. “Dim the lights,” she commanded.

Rachel turned off the lights on the bridge. As Kathy’s eyes adjusted to the darkness she began to make out something faint in the picture. “Can you enhance it?” she asked.

“I will try,” Rachel replied. The picture began changing. At first it grew darker, but as Rachel altered the color values a shape suddenly sprang into view. A humanoid creature of some kind was staring into the camera. The image was so grainy that it was difficult to see any details, but the being appeared to be making some kind of gesture.

“You’re right. That looks like the entity that took the bot,” Kathy said softly. “But what is it doing?”

“I’m getting an audio channel now,” Rachel replied. “Listen.”

A deep, low sound suddenly filled the bridge. The sounds were chaotic, as if several notes were jumbled together and then stretched an impossibly long time. Kathy began to feel uneasy. “It’s trying to talk to us, but something is interfering. I don’t like this, Rachel. This is wrong. This is so very wrong. The phantoms are all trapped in time. When we see the time stases in realtime, they’re endlessly replaying a battle that occurred a long time ago! They’re not *real*—they’re just shadows from the past. How is it possible that one of them is trying to communicate with us? This is—”

“The noise from the audiofeed suddenly deepened in intensity. A deep voice thundered in a language that Kathy did not recognize. She could plainly hear it over the chaotic thrums in the background.

The Starman stared at the screen in horror. The being stared straight ahead as if it could actually see her. Then the connection went dead.

“They’re still alive,” Kathy whispered. “Rachel, it’s beyond logic, but the captive First Races know we’re here!”

“How is that possible?” Rachel asked. “If they can talk to us then does that mean they are *not* trapped in time?”

Kathy just shook her head. "I don't know. Maybe the stases are closer to failing than we estimated, and the captives can see out to the extent that we can see in. Our time is short! We must act!" The Starman pursed her lips. "I shall tell Commander Jantel that we are ready."

The commscreen lit up again, this time at Kathy's direction, and showed the bridge of the *Balindu*. Kathy took her seat on the bridge. "Commander Jantel," she began, "on your command the operation may begin." After receiving his acknowledgement Kathy terminated contact with *Balindu*, then leaned back and closed her eyes. Within seconds it appeared that she had fallen asleep.

The englobing fleet moved into predetermined formation. At great speed several hundred ships arced down in a quick interception trajectory with the dwarf planet. They approached the surface on all sides of the ruined city, and then began to skim around it in confusing patterns. None of the ships was manned; all were drones, able to move at terrific speed following erratic and unpredictable courses.

With a suddenness that surprised and shocked the attackers, boulders erupted from the ground in every direction around the city like immense, jagged teeth. Many of the drones smashed against them, bursting into flaming balls of tiny pieces of glowing metal that drifted slowly onto the black terrain. The remaining drones shifted their courses higher over the surface and continued to fly irregular patterns, but to little avail. As if aware of each erratic course change, rocks shot up from the planet and found targets.

In the meantime, dozens of spacecraft from the attacking fleet moved toward Lemura's small satellite, the tiny moon that was the source of the power on Lemura. As they came close together they spread thin overlapping sails of lead sheeting, trying to sever the planet from its energy source.

On Lemura, many hundreds of stones flew off the surface of the planet and sped toward the moonlet. Traveling at enormous speed they came in showers intended to perforate the lead

sheeting and destroy the ships that were deploying it. But anticipating this maneuver, other ships of the alliance sat in wait to vaporize the stones before they reached their target.

It was the strategy of the attackers to assault the Lucian simultaneously on several fronts to confuse and weaken him, yet they had no intention of destroying him or his facility. On the contrary, they needed to preserve him and his power station. Disarming him and taking him alive was their best, their only, hope for alleviating the threat to Larson's Folly and Lemura itself.

As the minutes passed there were fewer and fewer drones speeding above and around the city. Though most of the rocks that the Lucian hurled at the shield around his tiny moon were detected and vaporized, some eluded the shield's defenders and reached their target. Holes began to appear in the lead screen and energy again flowed toward the blue tower. Even though the Lucian's defense of his planet was—so far—only rocks, it was only a matter of time until he would prevail against his attackers. He had a planetful of rocks at his disposal.

With a sudden downrush, a second wave of ships sped toward Smais, this time firing lasers in an attempt to destroy the connections between the blue tower and the machinery that the Lucian was operating, but the lasers only struck the forcefield around the inner city and their beams were diffused, doing no damage.

All at once, the blue tower dimmed noticeably and the entire human-Ahmanyen fleet began to turn silver as if in a sudden frost. The ships were drawn inexorably toward the planet, their hyperdrives and conventional engines unresponsive to any onboard commands. Then the *Balindu*, with all other ships in the fleet, simply vanished from normal space. Now uncontrolled, the drones dispersed, each following its last trajectory before the fleet vanished. Rocks that had been speeding through the thin atmosphere of Lemura seeking the attacking drones simply fell back to the ground, influenced now only by the natural gravity of the dwarf planet.

Finally, even the *Serene Deliverance* was drawn helplessly toward the surface of Lemura, silvering over as it drew close. It was entering a time stasis. Far out in space, Tharsos disappeared from normal space.

The tiny moon of Lemura moved along its natural orbit, little by little leaving behind the tattered leaden shield that had cut its power to the planetoid below. In the center of Smais, the blue tower began to glow brilliantly once again.

There was no motion anywhere on Lemura except for the random unstable images that appeared, flickered, and disappeared in the time stases that dotted the planet. Now there were more than a thousand of them.

Chapter 18: Face to Face

Starman Kathy Foster was elated that the plan had worked so successfully. The nature and extent of the Lucian's power had been measured much more clearly, and with all of the distractions that the alliance's volunteer fleet had provided, Kathy had been able to cloak the *Serene Deliverance* with her mind while creating a shadow replacement in its place. The Lucian had not discerned that the Starman's ship was unreal when he had drawn it into a time stasis with all the other ships. Kathy's first direct assault on the Lucian's mind was not only successful but, much more important, had gone unnoticed.

Slowly she opened her eyes, though she fixed her gaze on no particular object. She quieted her breathing and her heart rate, both of which had elevated slightly in the excitement of the moment. She began to speak while remaining almost motionless.

"By the First Races' best guess, it will take the Lucian approximately six hours after the attack to reach a state in which he will be least watchful and we will have the best chance of taking him by surprise," stated Kathy. "Rachel, bring the *Serene Deliverance* to the surface. Land it just outside the city at its north side. Use no more power than necessary. I will ensure that

it appears to be no more than an untidy heap of minerals, simply a part of the natural terrain.”

“Very well, Starman,” said Rachel. Within Rachel’s own circuitry and blended within the electronic aura of the spacecraft, Kathy pictured the *Serene Deliverance* as being in full accord with the environment, a natural phenomenon comprised of basic elements of earth and air and no more. It floated gently downward like a falling leaf. In her mind Kathy set aside any anxiety, sense of hurry, or even hope of victory. She merely accepted the actuality of the moment, not picturing her spacecraft as an invader or even as taking up space, but as a fish in water, neither hoping to be unnoticed nor ensuring that it left no trace behind. In its own good time the *Serene Deliverance* touched down on the planet of shadows.

“Well done,” said Kathy. “I will sleep now. At the end of six hours, I will wake up and we will find the Lucian.” Kathy directed her mind to wake her up at the selected moment; then she closed her eyes again, and this time she truly slept.

~

Six hours later Kathy awoke, her mind fully alert and aware. It was time for her to set foot on Lemura for the second time. She rose from her seat on the bridge, stretched, and went to the airlock, picking up Saleh’s skin patch on her way.

“Are you ready, Rachel?” she asked before opening the inner portal.

“Of course, Kathy,” responded her holocom.

Kathy entered the airlock. She attached the skin patch and felt it adjusting to her bodily systems. When it was in place, she asked Rachel to open the airlock. The door slid open and Kathy stepped out onto the black sand of Lemura. Above her she could see only half a dozen stars in the nearly empty stellar neighborhood of Lemura, but far beyond those few was the pale glow of the Scutum-Centaurus Arm of the galaxy, its light barely registering on her retina. The ground temperature was

232°F below zero. About a quarter of a mile away the outskirts of Smais lay in jumbled ruins.

"I sense numerous electronic distortions and spacetime anomalies in every direction, Kathy," said Rachel. "Though they are all very small, there are many of them."

"Yes, I sense them too, though I cannot see them. They are disturbing, like graffiti on a work of art, but I can detect the reality which is their foundation. We can only identify the anomalies as such because we have a firm grasp of what is untainted."

Kathy was already walking toward the city. Her holocom kept pace with her. They came to the first row of immense artificially shaped stones that marked the boundary of the city. The stones were tipped awry as though an earthquake had displaced them, but Kathy suspected that whatever had disarranged the stones had not been an earthquake. Possibly it had been an attack on the city in the time of the First War, or perhaps the planet-wide cataclysm caused by the gas giant whose passing had thrown Lemura out of the Marcanto system into the void. She gave no further thought to the matter and squeezed through gaps in the array of stones. Within moments she stood on the edge of a wide field that at one time had been perfectly level but now showed signs of warping.

"Do you sense anything on this field that may be troublesome?" asked Kathy.

"No. On the contrary, it is uncharacteristically free of disruptions."

"It doesn't feel right to me," said Kathy. "We will skirt it."

Kathy and Rachel took the long way around the field, walking carefully and not too quickly. On the far side was a clutter of small buildings, in ruins like the rest of the city. They pressed through them and then came to the wide central avenue that Kathy had traversed before. Somewhat to her surprise the enormous structures she remembered from her first foray in the city did not exist; it was obvious now that they had been shadows created by the Lucian. The largest buildings she saw

were the size of aircraft hangars, but there were few of them. Most of the structures she passed had been designed for people her own size.

Of course, she thought. I ought to have figured out before that the structures in this city had been constructed for people of ordinary size. Now I am seeing things as they are.

A few minutes later Rachel spoke up. "There is an electronic gate to the right, Kathy, inside that round building. It is an entrance to the Lucian's complex below us."

Kathy nodded. "Show me where it is."

Rachel led the way across the street and through a pocked wall into a stone-paved, empty atrium. On the far side several doors gave access to a moderately sized enclosed hall. Kathy stepped into the hall, and immediately sensed the gate that Rachel had found. A screen of energy on the far side of the hall appeared like moving water seen through rippled glass. Kathy came close to the gate and discerned that it was a portal with steps behind it that led downward under the city.

"Well then," she said. She imagined herself as a being made of glass moving in water, solid but completely invisible, and then stepped through the energy field. Rachel similarly navigated the gate. Using the power she had received from the greegles, she made her electronic patterns shift and splinter until they passed through the gate like one galaxy full of stars passing unscathed through another.

Without comment Kathy began to take the spiral staircase that led below the city. There was an elevator but she decided not to risk using it. The staircase was offset in some places due to unevenness in its vertical shaft, but was easily passable. Dust lay thickly on the steps and adhered to the sides of the passage. The darkness was absolute but it was not difficult for Kathy to discern the shape of the passage in her mind. Her feet trod softly on the dust and pressed it down, but she was careful not to raise much of it into the close air of the shaft. With every move she made, every thought, she acted in a fashion that would make as little change in her surroundings as possible.

Time passed, and still Kathy and Rachel made their way deeper and deeper into the bedrock of Lemura. At length they came to the bottom of the shaft and then followed a wide tunnel. Not far along there was a powerful artificial boundary through which a ruddy glow shone like the mouth of a furnace. Beyond the boundary was an environment that Kathy recognized. Without a qualm she pressed through the boundary with Rachel at her side, and entered a corridor that radiated heat like nowhere else on Lemura, like the planets that had been among the first created, like the planet upon which Kathy had walked in peace and contentment only a few hours earlier.

The corridor was short. After only a hundred yards it opened into an immense chamber, perhaps a mile or more long and almost as wide. Its roof was far overhead. The chamber was filled with the same kind of tree-like organisms that Kathy knew well from her training with Su. They were dark orange and red and ochre. The ground looked and felt like soil.

“What do you see, Kathy?” asked Rachel. “Your body’s reactions tell me that you are reacting to something.”

“You cannot see anything?” queried the Starman.

“I see an enormous room filled with electronic patterns but otherwise empty.”

“I thought so. It looks like the kind of forest I knew on Aden, but I doubted its reality here. I have now cleared the images from my mind and I see what you see. It’s a pity, somehow. The Lucian has made a beautiful refuge for himself here. Can you locate him yet?”

“No, but I know that he is not in this chamber.”

Kathy was reminded of the first exercise Su had given her. *Find your holocom. She will be where she is. She is someplace, right now, someplace real, actively engaged. You will not find her by guessing where she might be, but by locating her energies.*

Kathy tried to use this technique to find the Lucian. Tentatively she reached out with her mind and tried to locate the Lucian’s energies. She found the far end of the chamber and then passed beyond it, easily discerning the difference between the

hard rock of the planetoid's crust and the air-filled passages and chambers that had been sculpted out of the bedrock.

"He is not nearby," she concluded, unwilling to probe too far. "Let's keep going."

For the next hour the Starman and the holocom explored the Lucian's extensive compound. They passed through artificial gardens, forests, and other terrains. They were all stunningly beautiful, some of them heartbreakingly familiar to Kathy as scenes of Luxa at the height of its splendor. She saw shadowed places of compelling attractiveness, and the flow of silver liquid in streambeds bubbling over rocks. She was caught up in the breathless loveliness of intricate rockwork and shaped metal latticework in striking harmony with the seemingly natural environment.

"I am awed by what this Lucian can do and what he wishes to see," she said to Rachel. "I am sorry that you cannot see it."

As she admired the phantoms through which she was passing, with a suddenness that rocked her, a horde of vicious slaving beasts rose up from the silky grasses of a spacious meadow and charged her. Their screams were those of predators at a desperate stage of hunger that had suddenly seen live meat.

"We have been discovered," announced Kathy. She forced herself to remain calm, though she could feel attempts from outside to create the reactions of panic inside her. In her own mind she moved the air inside the chamber to create a strong wind that caught the falsehoods that were attacking her. They ripped into shreds like sails in a gale.

The wind that she created was taken away from her control and exaggerated to hurricane force, uprooting even the largest trees and driving them toward her. Kathy remained calm and allowed the shapes to pass over her without harm. The wind was real but the trees were not.

Next, to her horrendous alarm Kathy could feel a stress trying to wrench her out of the room where she was and transport her to the surface, far away from the city. She recalled the Lucian's ability to move her in the blink of an eye from the inner

ring of Smais to the bridge of the *Raptor*. Now she could perceive the effort he was making. He could not move her quite so easily, but the effort he was making was twisting her inside. She could sense herself fading. With supreme effort she willed herself to remain steady and entrenched. She imagined herself made of lead, relaxed and attached to the floor, even deep-rooted to the core of the planet. For long moments neither force gave way, but Kathy's struggle became easier. When she felt secure, she reached out tentatively, attempting to locate the source of the power that the Lucian was drawing upon. She traced it to a piece of apparatus situated in a large room filled with electronic devices, all of them straining to bear up under various loads laid upon them. Gently but firmly she severed connections in the circuits of the machine, and felt its influence wane and then fade away.

Instantly the Lucian's force was withdrawn and all the shapes and images vanished. Nothing was left but a bare cavity in the rock, almost lightless except for the smoldering glow of hot stone. The wind continued to rise in intensity and it became difficult for Kathy to stay on her feet.

"It's heating up," said Rachel. "The temperature is already 710°F and still rising. Can your skin patch function in such heat?"

"I don't know," responded Kathy. "I'd rather not find out. This is a challenge. Follow me to the next door." The Starman ran, but quickly discovered that running made it more difficult for her to keep her mind focused. She slowed, and then stopped altogether with the beginning of the next passage still a hundred yards away. The gusts of wind assailed her and she fell flat to the floor. Lying prostrate, she made herself sensitive to the aura of heat around her, and then tried to locate the source of the heating mechanism. Almost at once she discovered the generators that maintained the environment for the Lucian, and learned that one of them had been set to run out of control and turn the chamber where she was into a place of unbridled heat. Bringing herself into harmony with that generator, she channeled the heat into the

bedrock for far distances around, diffusing the inordinately high heat and returning the chamber to its proper temperature. The wind dropped to nothing. Carefully Kathy came to her feet and then walked to the exit without hurrying.

She entered a room full of electronic equipment. There were no holograms here, nothing artificial. This was the control hub of the Lucian's domain. Kathy could sense pulses of power, power that also sputtered with feebleness. The apparatus was very old, and its ability to extract, hold, and transfer power was far degenerated from the capabilities it had had when it was new.

"This is the machinery that maintains the time stases on this planet," said Rachel. "In this place we are not far from the base of the blue tower. There are many weak links here, Kathy. Any of them could fail at any time. It is not safe for you to be here. Nor is it safe for the Lucian, who is in the next room."

"I have located him also," said Kathy. "Now we shall see him face to face." On the far side of the room was a thick door. The Starman hardened herself toward the encounter that was imminent, and stepped forward.

Just as she reached the door it burst into shards directly in front of her face, and with a maniacal shriek a leering monster leaped onto her, knocking her backwards to the floor. It moved with preternatural speed as it assailed her. Its face was a laughing deformation totally devoid of reason. Its arms were hairy, muscular, and so overlong as to be misshapen. The fingers were knobbed and elongated, their nails horned, yellowed, and jagged.

The creature wrapped its claw-like fingers all the way around her neck and squeezed hard. The dreadful face was inches from hers, cackling and hooting. Now and then it left off strangling her and with glee grasped her head and slammed it to the ground, then returned to its choking grip around her throat.

Kathy could not even gasp for breath. She reached out desperately and tried to pry the monster's hands loose from her throat, but her strength was already fading and its grip was immovable.

Behind and through the monster's attack, she could feel the Lucian taking control of her physical functions just as he had before. Her heart began to slow, and her lungs became unresponsive. She suffered the thorough panic of being unable to inhale. Only the sheer desperation to live kept her heart beating at all, though she could feel the Lucian's will bearing down harder and harder, compelling her heart to stop.

The creature's cackling intensified, and it stared ecstatically into her wide-open eyes, enjoying the last moments of her life as if it were a stimulating drug. Kathy knew that she was on the edge of the blackness of last consciousness, powerless to defend herself. Her body twitched, trying in every way to throw the monster off, but it was as if it were made of lead. With a frantic surge of energy, she made one more despairing but futile attempt to inhale, and then oblivion overcame her. Her body became limp.

She came to groggy consciousness, aware that Rachel was alternately pressing hard on her sternum to keep her heart beating, and spreading her arms to open her lungs. "Kathy! Kathy!" the tactohologram was crying. "Fight him! Breathe!"

Kathy began to cough, and then drew in long, shuddering, agonizing breaths. Deep in her consciousness she drew upon her will to survive. As the Starman began to breathe on her own, Rachel ceased the artificial respiration and simply held Kathy's head off the floor. Rachel's touch brought the Starman back to full reality. She felt the hard floor underneath her exhausted body. The ache in her lungs extended to her arms and gut. Her eyes hurt as if she had swum in water with a high dosage of chlorine. Healing tears began to flow copiously down into her ears.

The force that had tried to stop her breathing and her heart had been repulsed. Kathy realized that she had forced it back by fighting for her life. With an effort and a groan, she sat up. "Where's the monster?" she croaked.

"There was no monster," answered Rachel. "It was a shadow like the other attackers you resisted, but it came so swiftly that

your defenses went down before it. I could not see it, but I could sense your body giving way during the attack. You forgot your training and allowed the Lucian to penetrate your mind and inspire in you the illusion of choking as he tried to stop your heartbeat and your breathing. You were almost dead before I could get your attention and urge your unconscious mind to fight back.”

“Rachel,” sobbed Kathy, “you saved my life! You saved my life!” She took the holocom into her arms, and Rachel held her until she was calm again. Then Kathy struggled to her feet, and faced the door. By sheer force of her mind, rooted now on a strong foundation and unable to be taken by surprise, she compelled the illusory door to disappear.

“You had better become invisible now, Rachel.”

“Very well.”

The Starman emanated assurances of good intentions, calmness, and even hope as she stepped through the opening.

Inside was a sight that broke her heart with pity. A small man cowered against the far wall, his face expressing more sheer dread and panic than Kathy had ever imagined possible. His arms waved uncontrollably and he was shrieking and gibbering. His knees buckled and he fell to the floor. He pulled himself into as tight a ball as he could, wrapping his arms over his head and pulling so hard that his muscles stood out in ridges. He never stopped screaming. His body rocked as he screeched.

Kathy wasn’t sure what to do. She knew that she couldn’t leave and she couldn’t approach him. She sat down cross-legged quietly and tried to create an assurance of peace and good will, but knew that she was failing. Even the best and most irresistible of her thoughts could not penetrate the Lucian’s panic.

She simply waited calmly, imagining and anticipating the comfort she would provide once he quieted down or ran out of energy. Then she wondered if he *would* run out of energy, at least in a reasonable time. She knew only a little of the First Races, and this particular Lucian was a completely unknown entity even to those of his own race. He had not seen another face for

uncountable eons. His sanctum had been penetrated, his refuge breached. His unbalanced state was now pitched beyond its last protection. Suddenly Kathy realized that she was in completely unpredictable territory. What would happen next?

The Lucian answered that question. He pulled himself onto all fours and in a desperate lunge of self-preservation, launched himself physically at Kathy with a hideous sound that was a combination of a scream of panic and a snarl of rage.

Kathy was caught off guard. She had years of training in martial arts just as all Starmen had, but in her desire to exude goodwill toward the Lucian she had thoughtlessly put herself in a completely unguarded position. Sitting cross-legged was one of the most indefensible postures that one could take, yet the instant that the Lucian leaped, her martial training took over. Kathy threw her upright body back onto the floor, her crossed legs unmoving. The Lucian sailed over her, crashing to the floor beyond her, his knees crashing down on her head, his feet on her chest.

The Starman rolled over and came quickly to her feet, prepared for the next attack; the Lucian scrambled like a spider on glass until he was able to stand upright. He faced Kathy with fury in his eyes, believing that he was defending his life in his last place of refuge. Kathy forced herself to remain calm. She lowered her arms and turned her empty palms toward him. It was, she hoped, a universal gesture of goodwill and lack of animosity.

The Lucian did not appear even to notice. He snatched a long crystal bar from the closest piece of apparatus, wrenched it from its setting, and charged Kathy, swinging it as a weapon. As it arced toward her head, at just the right moment Kathy stepped toward her attacker, grasped the crystal bar and took control of its momentum. The Lucian lost his balance and toppled forward. Kathy caught him before he fell, and then placed him gently on his feet.

The fight went out of him. He stood wavering. His knees nearly buckled again, but Kathy extended her arm, open palm

upward. As if without thinking, he took it and braced himself. His mouth opened and his eyes stared into hers, now more with surprise than with panic or fear.

Kathy said, "I am Starman Kathy Foster, of Earth. We have met before."

Chapter 19: The Choice

There was only one place left to which the Lucian could retreat. He turned away from the Starman and stumbled over to a chair. He collapsed into it and stared into space, unmoving and unresponsive. He had withdrawn into himself, insulating himself from any outside stimuli.

Kathy kept a close eye on him. She did not attempt to make contact with him, but was ready to respond instantly if he showed the slightest intention of manipulating the environment in any way.

"Rachel," said Kathy, "please contact the second fleet and let them know that we have met the Lucian and he is now showing every sign of docility."

"Very well, Kathy," said Rachel, becoming visible as she spoke. A moment later, she said, "The second fleet has drawn near, and our friends are landing on the surface now, adjacent to the *Serene Deliverance*. We shall have visitors soon. And they congratulate you."

Kathy felt drained and did not feel much response to the news of proffered congratulations. Keeping her full attention on the Lucian she spoke aloud:

"No one wishes to harm you. We want your help to avert a catastrophe. We believe that only you can achieve what no one else alive can. The time stases on Uggtaur and Oet are facing imminent failure. If they fail, you will die. Many will die. We need your help."

The Lucian continued to stare into space, impassive and giving the impression of being completely unaware of Kathy's words and presence.

The Starman waited. In her mind she could sense that two people were coming down the stone spiral staircase. Later she was aware that they were following her path through the rooms of the Lucian's compound. She looked up just as they came to the archway into the Lucian's inner sanctum. It was Saleh and Aril.

Saleh went over to where the Lucian was sitting, and went down on one knee beside him. Hesitantly and gently, he laid a hand on the Lucian's arm and looked caringly into his face.

"Olor," he said. "It is I, Saleh. Olor. Look at me. Your nightmare is over."

The Lucian's eyes slowly came into focus and he turned his head to look at Saleh. For a long time he said nothing and showed no expression, though his breathing became deeper and more noticeable. Then his eyes closed.

"Olor," said Saleh again. "Look at me. We have come to take you home."

"This is my home," said the Lucian in a wooden voice. "There is no other home. There are no other places. No other people."

Saleh swallowed. "Oet is coming to an end, Olor. Its ability to maintain its energy is failing. There *are* other people, and we have come to save you. You know me. I am Saleh."

"Nothing can be done. The world will end. I am ready for it, ready for the end."

"The world can be made new. Its energy can be restored. But only you can do it. No one else alive can do it."

"I cannot do it. The *elthen* made this planet what it is, and only they can change the energies. But they are long gone. Our armies took the *elthen* to war and they never came back."

"The *elthen* have been found. They need you."

When Saleh said, *The elthen have been found*, the Lucian's eyes registered amazement and, perhaps, wary interest.

Kathy hesitantly entered the conversation. "What are the *elthen*?" she whispered.

"You call them 'greegles'," answered Aril; "the Ahmanyans call them *alzenta*."

"Where are they?" asked Olor.

Saleh smiled. "We will take you to them." He stood up and turned to face Kathy. "Would you please inform the second fleet that we are ready to move Oet." Kathy nodded to Rachel.

"It is done," said Rachel. "It will take a few moments, and then we will move."

As they waited, even Aril and Saleh appeared to be a little anxious. Then there arose a mysterious groaning noise that came from the depths of the planetoid itself. Kathy, in harmony with her surroundings, felt a sudden new resolve become immersed in the fabric of Lemura, and then a loss of weight as if an elevator had dropped from under her feet. She swayed a little and had to put one foot forward to keep from falling. She felt lightheaded, an imbalance that didn't go away. The groan became a deep whirr.

And then everything stopped.

"Come," said Saleh. "Let us go to the surface. Where is the closest elevator, Olor?"

Olor slowly came to his feet and shuffled through the archway into the room full of electronic equipment. To one side was a large open cage elevator. Everyone stepped onto it and Saleh directed it upward. Moments later it reached the top of its shaft. It had entered a room much like the one where Kathy had experimented with the Lucian computer on her first foray onto Lemura—maybe even the same one.

Wordlessly all four people and the holocom crossed the room and stepped out onto the street. Olor looked up, gasped, and fell to his feet, his eyes staring into the sky.

"Yes, Olor," said Saleh. "We have moved Oet back to the Marcanto system. It is now on a trajectory that will restore it to its proper orbit before a full year has been completed."

"The *elthen* are here then," whispered the Lucian. Then he noticed that the immense tower at the center of the city was almost dark. "There is no power!" he cried in alarm.

"There is power," said Kathy, "but it is power that we can control. We have restored Oet to its home system, but we did not bring its moon. That will come later if we need it."

Far above, invisible to those on the planetoid's surface, Tharsos was in position. Under the command of Pleera, the greatest power plant ever built by humans or Ahmanyans was even then interfacing with the greatest power station ever built by the Lucians. As they watched, the tower began to glow; within a few minutes it had turned a scintillating blue.

Tharsos' resources could not feed the Lucian power station indefinitely, but hopefully could do so long enough for Olor to release the strain on the time stases on Lemura and Larson's Folly. With all eyes on the tower, no one noticed when Olor sank prostrate to the ground.

"The Lucian has fallen," Rachel informed them. The other three rushed to Olor, concern written large on their faces. "He is alive," said Rachel, "but his body is very weak. He has been overstrained."

~

The next day Saleh and Aril, Rinda and Su were conversing with Kathy and each other on one of the spacecraft of the First Races where Olor had been taken to be cared for. From their various planets, the First Races had sent nearly a dozen enormous spacecraft that they called "arkships", each large enough to support a small city, to the Marcanto system in anticipation of the return of Oet to its orbit. Now they waited in hope for the deliverance of those who had been captured in the time stases so many eons before.

"I know his name," began Saleh, "but I do not know him any more. It is what one would expect after so long a time, after the demise of his race, the judgment of annihilation against his planet, and the strain of his self-enforced solitude."

“He had the same surroundings, the same thoughts, the same words inside himself for uncounted hundreds of thousands of years,” said Kathy. “Assuredly that means something different to those of you of the First Races from what it means to an ephemeral being like myself. But even for you, this must be continuity well beyond imagination, a continuity that is also confining beyond comprehension. The core of his life became the whole of his life. His life, without sun or season, must have become hypnotic. He had no commonplace function, and so became completely removed from everyday functionality. Life became mere existence, and existence became repetition. He only retained such sanity as is his by his ability to manipulate spacetime.

“Olor may succumb, but I think he will survive. I have been in rapport with his mind—of course, only for two short times and not familiarly, but enough to know something of him. I sense more sorrow than evil intent within him, and that tells me that there is hope for his healing. I don’t know whether he can be trusted to release the captives, but I do think he can be trusted not to try to harm them, or us, further. Insanity itself implies that there is such a thing as sanity, the measure by which insanity is identified, and he has preserved an awareness of this. In confinement without change there is still endurance, and there can be an experience of slow transformation through duration. Within the darkness of the shadows and monotony there is a path to beauty and the possibility of recognizing eternity. The home he created for himself, though built only of shadows, was exquisitely beautiful. Solely the product of his psyche, it was evidence of an exquisitely beautiful mind.

“On my home world there is a continent called Antarctica. It has been a land of ice for millions of years, though once it was a tropic land that bore trees and shrubs and seed-bearing plants. Ancient seeds are occasionally found there, holding the potential of life through millennia, never acting but never dying, not immortal but never becoming extinguished, always hopeful that conditions would arise when the endless snows and ice that had

captured a once fertile and temperate land would recede, and the seed life could, at last, claim its potential, and a shoot would emerge from its shell.”

The First Races, who knew nothing about life in such cold, paid rapt attention.

“One who has lived a life longer than we transient beings can possibly imagine may have the ability to grasp the meaning of eternity far better than we can. Eternity is nowhere near the same thing as endurance beyond measure—but one who has long endured has the capacity to recognize the limitations of what is temporal.”

Kathy paused, embarrassed that she was teaching the First Races.

“Speak, Kathy,” said Su, her yellow eyes shining with interest and perhaps pride in her student.

Kathy smiled, swallowed, and continued. “What he has said to himself and within himself throughout these eons has not been mere repetition, for his words and thoughts would change meaning over time, even if they were the same words and thoughts. He must have gained deeper meaning, and then lost it, and then regained it. Insight must have come to him through repetition over the long millennia.

“When is a shadow still recognizable as being connected to something that is real? What is time for someone who knows that he will never leave a place for uncountable eons? What does someone become when everything is repetition and he moves through his own time?

“The Lucians were, after all, the masters of spacetime. They confused immortality with living in this universe forever. But what they wanted most of all was right and good: to live in eternity. This Lucian did not become a Xenobot. Perhaps he is closer to knowing eternity than anyone who has ever lived. In a way, he is the last of his race. That means he is the last hope of his race, the last one who will choose between life and extinction. His choice is a choice that will decide for many—maybe even the entire galaxy.”



Three days later, Olor had awakened and was lucid. "I wish to see Starman Kathy Foster," he said.

Kathy and Rachel went to his room. It was dimly lit and quiet. In an alcove there were flowers such as Kathy had seen on Aden, and the chamber was made to look as if it were on a porch with manicured gardens outside. The Starman took a seat near Olor's bed and said nothing. The Lucian looked frail; his skin was pallid and stretched, his cheeks were sunken, his eyes filmy. Kathy felt sympathy for him, and not a little apprehension.

"Child," he began. "I am sure that you are precious to your people. We have shared our minds, you and I, and I know how precious you are. And I see your companion. I am intrigued. She is not one of the *elthen*. Your race cannot create *elthen*. No one can create *elthen* now. But your companion knows the *elthen*. Explain this to me."

Shyly, Kathy explained her design of the holographic companion and its purpose, and then described her training on Aden. When she finished talking, she waited in silence as the Lucian digested the information. His breathing was labored and shallow. For long moments he stared upward, wearing no expression on his face. At length a look of long grief emerged on his features, and he breathed deeply once. Then he said, "We have shared minds in enmity before. Let us now share minds in this place where all is different."

Kathy closed her eyes as tears rolled down her cheeks. Olor tenderly drew her into himself. She saw golden meadows of silky grasses that waved in white sunlight, and great trees.

My memories of my home world, said Olor. A world that no more exists. Nowhere in the galaxy can one find its energies. It was judged and obliterated by the First Races, but before that it had been destroyed by its own people—those who were my people, my race.

Now I have no race left. They are all gone. When the elthen were made, the Lucians took pride in what they had brought

forth, and by their might tried to become masters of all other living things. The other First Races, the Adenians and the others, fought us and lost. We felt we were unconquerable. I suppose we were. We Lucians had claimed several worlds, including Oet and Ugtauir. In those days they were neighboring worlds with power that seemed limitless, and there we created the weapon that could manipulate, or even stop, time.

The First Races attacked those planets in their desperation to stop us, and we conquered forever those who attacked us. And with that triumph my people sought to become even greater than they were. They wanted metal bodies like the elthen that they had made.

Kathy saw a lovely landscape, looking like an endless water garden with pleasant foothills and colorful heights rising behind. Nestled within the foothills was a golden city. With a shock she realized that she was seeing Smais as it had been on the surface of Lemura.

Olor continued his story. I refused. Already I had a body that could live as long as I wanted it to live, and I was not drawn to a metal body even though the others promised that it could make me immortal. They created bodies for themselves and went out to find other races and peoples to enslave. After a long, long time, only I was left on Oet. At first I was comfortable, for I could influence spacetime enough to make the world as I chose. I preferred that to dominating other planets. But now that world is gone too.

For long he was silent, simply sharing a comfortable grief with Kathy.

Some of your race remain, who also rejected the temptation to enslave others, said Kathy at last. You have met Saleh again. There are some few hundreds of Lucians. In the time of the First War they did not go to Luxa but made a home on another planet. They live there now. Some of the people of Aden still live and the other First Races live. There are many others who still live, though they are captive in the time stases on Oet and Ugtauir. You can free them, and your people can make a home again.

Is it indeed possible? wondered Olor. *I cannot do so without the elthen. The others used the elthen to make the time prisons, and then took the elthen away. The power in Smais only maintains the prisons. That power did not make the prisons and it cannot open them.*

The elthen exist, assured Kathy. *Indeed, they are here.*

It must be so, said Olor, *or else Oet could not have been brought back to Marcanto. I have not seen such a wonder since the galaxy was young and we First Races were able to move planets between star systems.*

The elthen are here, repeated Kathy, *but Saleh and the Adenians do not know how to draw upon their knowledge and power to loosen the time stases and release the captives. They can do many things with the elthen, but there is much within the elthen that remains beyond their knowledge and capability. Only you, of all living beings, can loosen the time stases, if you wish.*

Olor opened his eyes and stared directly into Kathy's. For long moments they simply looked at one another. Then Olor spoke aloud.

"I wish to see the *elthen*."

Chapter 20: Flowing Like Spilled Water

Olor staggered to his feet. "Show me where they are," he said, and it was a command.

"I don't know where they are, but we'll find them," said Kathy, feeling simultaneously hopeful and apprehensive.

Olor was already casting about with his mind, looking for Saleh and the *elthen*. He was on edge. His skin had turned a little darker color and his eyes were piercing, though staring at nothing. He stretched out both arms as if balancing on a tightrope, but he did not wobble. He stated, "They are on this ship. We will go to them now and Saleh will be there."

With suffused excitement Kathy accompanied Olor with his hand on her arm. As they walked, they passed many people, but

though all stared no one stopped or questioned them. They walked along several corridors and up several levels until they arrived at a confluence of several passageways where they met Saleh. Saleh led them along one more corridor until they came to a room whose interior was visible through large windows. Kathy could see the greegles inside. Each was in its own open case; all were arranged on several shelves.

Saleh opened a wide sliding door and allowed Olor to precede him into the chamber. Kathy could easily sense his joy and excitement as he beheld the greegles. Though none of the greegles moved, straight away the atmosphere felt charged.

"There is one missing," said Olor immediately.

"When I took possession of them," began Saleh, "I left one in the company of the Earthman who had cared for them. It was to be his companion and protector for as long as he lived. When he dies, the last of the *elthen* will come here."

Olor showed little reaction to this news, but closed his eyes and spread his arms, and the greegles responded by clicking, moving, or rolling into ready positions. "I will need some time with the *elthen*."

Saleh and Kathy knew that they had been dismissed, and withdrew. As they returned to the confluence and then continued to walk together, Saleh said, "You are uneasy, Kathy."

"And so are you," returned the Starman, with a smile. "But only a little."

"We have left the last rebel Lucian alone with the *elthen*. He has it in his power now to harness, or destroy, all the First Races in the Marcanto system, vaporize Tharsos, and seal the time stases on both planets forever. Or to destroy this entire system and every living thing in it, including himself."

"But you don't think he will."

"As I said a few days ago, I do not know him any more, and he is most assuredly demented—or at least unpredictable." Saleh snorted. "But I do not think he will. If he chooses to use for evil the energy he now controls, we are powerless to stop him. And

he is our only hope for releasing the captives, so we must allow him free access to the *elthen*. There is no other way.”

“I do not think he desires any harm to anyone now,” said Kathy. “I doubt that he ever did. I think he sees the release of the captives as an act of making amends.”

“We shall see. It may be so, but I also wonder if we are projecting onto him what is merely our own hope. If he is successful in fulfilling that hope, he will have achieved something that I never thought possible.” Saleh turned to look at Kathy and smiled wryly. “It was one of your race, the reclusive Montezuma Vly, who suggested that the release of the captives might be achieved. It is he who now possesses the last of the *elthen* that has not yet returned to us—if one can possess such a thing. He will never know what an enormous artifact is at his disposal.”

~

For five days Olor neither ate nor slept, nor showed any evidence of needing to do so. He remained in the company of the *elthen* without moving or speaking. No one entered the room where he communed with them, but he was visible from the large windows. Kathy stopped by often and watched, but there was nothing to see. She may as well have been observing statues. The only indication that Olor was still alive was in his continuing to stand in their midst. There were times when the mass of the spacecraft became measurably greater and required unforeseen alterations to its orbital trajectory or speed. At other times its mass diminished, requiring further adjustments. Clearly monstrous energies were being drawn on, and no one knew what was being achieved or to what purpose. Tension within the ship was high. And still Olor did not move.

After two days, Kathy Foster returned to Tharsos where her spacecraft, the *Serene Deliverance*, had been taken after the transfer of Oet back to the Marcanto system. She spent time with Pleera, who, like nearly everyone else aboard a ship in the vicinity of Larson’s Folly or Lemura, had little to do but wait. By

realtime transmission, Kathy conversed with her parents and with Mark and Stenafi; she visited in person with Joi Weaver on Space Station Zane.

Early one afternoon as she was relaxing in a lounge aboard Tharsos and conversing with Rachel, the holocom informed her that she had located the gas giant planet that had driven Lemura out of the Marcanto system ages earlier. Kathy opened her mouth to respond when a commanding alarm sounded throughout the vast spacecraft.

“Your attention! Prepare for immediate emergency hypertravel! The time stases on Lemura are breaking down! They are expected to collapse within thirty seconds! Repeat! Prepare for immediate emergency hypertravel!”

Kathy leaped to her feet, her pulse racing and manifold conflicting thoughts shooting through her mind. Was Olor precipitating a massive spacetime collapse? Was he merely too late to prevent what was inevitable anyway?

“Rachel! Help me!” commanded Kathy. The Starman linked her mind to the holocom’s energies and cast her focus toward Lemura. It took her only a very few seconds to perceive what was happening. “Rachel!” she cried out. “Contact Pleera immediately and tell her to wait! Tell her not to engage the hyperdrive!”

Rachel responded almost immediately. “She demands to know why you wish this.”

“Tell her that the time stases on Lemura are not collapsing. They are disappearing. Olor is releasing the captives on Lemura! We are safe. *Everyone* is safe!” Kathy’s eyes began to well up with tears. She waited tensely for further information.

“Pleera asks if you are sure. She will terminate the charging of the hyperdrive on your word alone.”

“I am sure,” whispered Kathy.

A full minute went by. Then Rachel said, “Pleera is confident that you will want to hear this transmission.” Through Rachel’s circuitry Kathy heard the voice of Joe Taylor on the bridge: “I’m asking again. Will somebody *please* tell me what date it is?”

~

In the *Serene Deliverance* Starman Kathy Foster joined two of the First Races' arkships as they came into orbit around Oet.

"There are no anomalies anywhere on the planetoid, Kathy," reported Rachel. "Time flows normally. There are many spacecraft and land craft below. Most of those, especially those that were in the atmosphere, appeared in normal time firing weapons at targets that no longer existed. The spacecraft have landed."

Kathy saw the two arkships of the First Races come into position over Smais. The blue tower was completely dark. She piloted the *Serene Deliverance* in wide circles around the site where the majority of the newly released captives were located. She could only imagine their confusion. The last they knew, they were attacking a strongly defended city of Lucians on a small, fertile planetoid. Suddenly they found themselves on a desolate field of black sand and volcanic glass surrounding an empty city that had been in ruins for ages. She wondered to what extent they were aware of their situation. One of them, she recalled, had tried to call for help through the failing barrier of a time stasis.

"The rescuers will need all their attention here for some time," said Kathy. "Let's go to Space Station Zane and learn what's happening with Larson's Folly. The time stases were more secure there than here."

~

Space Station Zane was a frenzy of activity. All attention was directed toward the planet below. Everyone who had access to diagnostic or exploratory instruments was wrapped up in viewing the state of affairs on the planet of unrelenting storm. Others were in the lounges and viewing rooms, peering out, although so far nothing appeared any different from any other time.

Joe and Kathryn Taylor had docked their ship moments before Kathy had. She cast her mind outward until she located them in Joi Weaver's laboratory.

As she burst moments later through the door, Joi looked up and said, "Your tea is brewing. I must say that I am very impressed with your ability to communicate mind to mind, but, um, I'm also more than a little intimidated. It's frightening to know that someone can read your mind."

Kathy shook her head. "It's not like that. It doesn't work that way. I was surprised too when I began learning from the First Races, but there cannot be any invasion of anyone's privacy. I didn't invade your mind; I shared some of mine with you in the same way I would have done in person simply by speaking aloud."

"Well, it'll still take some getting used to, let me tell you. And I'm not sure yet whether I'm insulted or complimented that your first communiqué was to ask me for tea."

"You are complimented," said Kathy, "especially if the tea is good."

"It's Darjeeling," elucidated Joe, "so it'll be good. Nice work on the Lucian! I haven't heard any details yet, but I gather that we're here and safe because the plan worked."

"There is a lot to tell, but yes, the plan worked! The Lucian—his name is Olor—is an unusual and fascinating person, as one would expect. I'm not sure what to make of him. He's rather alarming, but I like him."

"Here's the tea," announced Joi. "Hold out your cups."

"You've got real cups this time," observed Joe.

"It's a special occasion," explained Joi, pouring the tea from an old-fashioned china teapot.

"Not so special if you're going to be out of a job now," said Joe. "You should have had a job like Kathryn and me. We get paid for doing nothing for eight days—eight days we didn't even know were passing, mind you! A Starman's life is a life of ease, wouldn't you say, Kathy?"

“I’m not out of a job and you know it. Hey! Something’s happening below!” said Joi excitedly. She set her teacup down and stared into a screen. “This apparatus keeps track of the anomalies on the surface, measuring any changes—which there haven’t been except for slow but certain decline. Now there is tension. I sure hope that whatever that Lucian is doing isn’t risky or dangerous!”

No one said anything, but four heads came close together. The screen showed what looked like a contour map of the planet’s surface with three especially intense areas—two small and one enormous.

“Oh! That ‘slow but certain decline’ is stopped cold!” said Joi. “There’s energy surging into the time stases, holding them firm.” Tense moments passed. Kathy could feel her heartbeat racing.

“Ah. Alright. The barriers are relaxing now, relaxing at a controlled rate. Ladies and gentlemen, we are about to witness something unforgettable, something amazing, something never before seen!”

“Never before seen except two hours ago on Lemura!” corrected Joe with mock awe in his voice.

Without taking her eyes off the screen, Joi smacked Joe’s arm.

Kathy noticed that her knuckles had grown white as she gripped the back of Joi’s chair. She released her grip and wrung her hands to restore circulation.

“Ah!” they all exclaimed at once as the contour lines flowed away like spilled water.

Joi sighed deeply. “Time flows on Larson’s Folly the way it should,” she said. “The anomalies are gone. And we’re still here.”

“Those poor people won’t know what hit them,” said Joe. “One minute they’re fighting a battle and the next they’re in one hideous storm. They’ll just think it’s another kind of weapon. They don’t even know that the War’s over and they lost. Wait’ll they find out that ten billion years have passed.”

“Ten of the First Races’ arkships are in orbit around the planet now,” said Joi. “The captives are free. The storms will die down quickly, and then they’ll be picked up like those on Lemura.”

“May I have some more tea?” asked Joe. “Mine’s gotten cold. Anyone else?”

~

Over the next few days all those who had been held captive in the time stases on the two planets were taken aboard the arkships. Though the First Races were never numerous, nearly all of them that had ever been were gathered in the Marcanto system. There were over twenty thousand of them who had come together for the greatest event in their history.

Saleh appeared in holographic form to Kathy as she was preparing a report on her part in the deliverance of the captives.

“The First Races will return to Aden and our other planets in a few minutes, Kathy. We wish to thank you for your part in rescuing our captives. Their return to us makes possible the renewing of our life as the first people of the galaxy. We shall have contact again, but not for some time.”

Kathy nodded. “And Olor? How is he?”

“He is worn and delicate. He has become silent again, withdrawn into himself. He will require a long recovery.”

“May I see him?”

“Very well. Come now. We will not depart the Marcanto system until you have seen him.”

~

The Starman entered the spacious garden that was at the center of the First Races’ flagship. She found Olor in a bower of exotic flowers and shrubs that were thriving in the 600°F environment. He looked up as she approached him. He smiled widely when he saw her and held out both hands that he might take both of hers between his palms. At first no words passed

between them; they merely looked into one another's eyes. Kathy was astonished at the spontaneous affection that arose in her, and even more astonished that it was obviously returned.

"I am glad that you came to see me," said the Lucian at last, releasing her hands.

"You are going back to one of the planets of the First Races," said Kathy. "There will be no shadows there; only what is deep and real."

"Yes. It will take some getting used to."

"The worlds of the First Races will be repopulated now, and their lives and culture will be renewed."

Olor said nothing.

"You made it possible," continued Kathy. She felt that she was not reaching the Lucian's mind as she had before. "No one else could have done it."

"No. No one else could have done it," repeated Olor. He looked down, away from Kathy's face. "I had hoped it would be a restitution for the evil my race imposed on others, and on your races as well. But there can be no restitution. No one can pay for the lives of entire planetfuls of people, those conquered and annihilated by the Xenobots."

"No one expected you to pay for it, Olor. You are not to blame. Those who were to blame lost everything, even their own planet."

"I... I tried to kill you, Kathy."

"No you didn't. You didn't try to take my life; you were trying to save your own."

Olor looked up again and smiled kindly. "You are generous, Kathy, if not completely accurate."

They strolled through the garden for a little longer, and then Kathy said, "Saleh says that you will need a long recovery. I hope that you will let me see you again when you are better. I know I have no automatic right to visit any of the planets of the First Races, but I would like to visit you again."

"I shall send for you."

Chapter 21: Looking Toward the Future

Shortly after the *Serene Deliverance* had departed from the First Races' flagship, the arkships vanished from the Marcanto system. With their departure a long era in the history of Larson's Folly and Lemura came to an end. Tensions in spacetime that had been building for hundreds of millions of years were released, and the two planets had been restored to normal space and time.

Kathy decided to fly over Lemura before returning to Tharsos. For several hours she had Rachel cruise their spacecraft over the bleak terrain. Wordlessly she studied its now lifeless desolation. Smais was now merely a clutter of wrenched stones, gutted buildings, and mournful avenues. The tower was a dull charcoal color, and its surrounding structures of the inner circle, though in pristine condition, held no life. The electronics were defunct. Olor's compound a quarter mile below the surface was now merely a chain of lightless cavities in the bedrock.

The Starman could not imagine anyone ever wanting to terraform the planetoid. It would likely remain a blackened dwarf planet, twisted out of its original shape and uninhabited forever. Kathy remembered the vision Olor had shared with her of the golden city of Smais, populated once by the greatest race the galaxy had ever seen. Their home planet of Luxa had been entirely removed from spacetime; Lemura, the planet of shadows, was the last visible remnant in the galaxy of a Lucian planet. Now it did not even host shadows.

"Back to Tharsos, Rachel," she said at last. "I have work to do."

~

The next morning, just as she finished her report, Kathy received a call from Joi Weaver.

"I want to go down to Larson's Folly and see what's there. Do you want to join me? Joe and Kathryn are coming and we'll make a picnic of it."

Not long afterwards a shuttlecraft from Space Station Zane dropped gently to the ground of the now peaceful planet.

"As far as I can tell," said Joe, "this is where I touched down on my last solitary visit, close to the wall of the largest time stasis. May as well land here as anywhere."

The four people debarked from the shuttle and stepped onto solid ground that was still a little moist, but Marcanto shone brightly and warmly through a cloudless blue sky. It almost felt and looked as if they were on Earth. Steam was rising peacefully from an endless scattering of large and small pools of quiet brown water. The twisted and bent boles of black trees lay here and there on the landscape; leafy creepers and vines and short grass rested unmoving. In one direction stretched a spectral landscape of stiff and withered grasses and tree-like growths.

"The wall of an enormous temporal anomaly was just a few yards away," observed Joe with a shake of his head, gazing curiously at the fields before them, where captives had been held and time had not passed for ages. To the horizon and beyond it was a land that only a few days earlier had known the natural environment of the Lucians. The grasses and trees, similar to those that Kathy knew on Aden, had almost instantly withered and died in the now Earth-like conditions that obtained all over the planet.

Joe and Kathy both shivered. They knew that over the rise there were hosts of abandoned ships on the ground, and buildings of once spectacular beauty set among meadows and groves that were now eerie and empty.

"I wonder if the First Races will want to reclaim this planet," mused Kathy. No one had an answer.

"It's good soil," said Joi, letting some of it dribble through her fingers. "*Very* good soil! It won't be long before we'll see some new growth here, entirely unlike what managed to endure on this planet during the time of the storms and the time stases. Some seed, some cuttings, and Larson's Folly could be covered with forest and other natural phenomena by its own innate processes, and I don't think it would take long. It can become

stunningly beautiful. Fertile soil, plenty of water, sunlight—it's got everything it needs. I think it should be set aside as a memorial planet, historic as the site of the War of the First Races. It can be a place people visit for research or relaxation. The First Races may want to return, but whether they ever do or not, Larson's Folly is going to be a jewel in the galaxy!"

"Yep. Let's eat," said Joe.

~

A week later, Tharsos and the other warships of the human-Ahmanyen alliance left the Marcanto system, heading back to their own solar system. Tharsos would be restored for a second time as the third moon of Ahmanya. Its refugees would return to their homes and ordinary life would resume.

"For the first time since I became a Starman," said Joe one evening as he and Kathryn and Kathy were having dinner together in the canteen aboard Space Station Zane, "I have nothing to do. Kathryn and I have talked about it and we're going to go to Earth for a long period of rest."

"We'll go to Kiltimagh where I was born," said Kathryn. "I haven't been there for too long, and then only for a short visit to my parents. Kiltimagh is a village in the west of Ireland. Only about two thousand people live there. There are plenty of walking paths around, and good fishing, and pubs that have been in business for hundreds of years. Maybe we'll stay there for a year!"

"Or longer!" added Joe. "And after that maybe we'll try to re-establish the Ahmanyen city under the European sea. There's some interest on Ahmanya in seeing that happen. Mark and Stenafi have talked about taking part in that task, and Kathryn and I are interested in it too. But that's a year away. What will you do, Kathy?"

Kathy smiled broadly.

"I've given this some thought already. First, I'd like to visit Montezuma Vly. You and Mark and Zip know him well, but I've never met him. I think he must be one of the most fascinating

people in the entire Solar System, and the fact that he is now companion to the only greegle outside of the First Races is more than intriguing. Rachel would find that visit thrilling too, I'm sure."

Kathy's forehead wrinkled in concentration and then she continued.

"Mostly I'll rest for a while, but I feel a strong sense of obligation to pass on to others what I have learned. Richard will be retiring soon and his son Caedmon will be taking over the leadership of Starlight Enterprise. I will eventually talk with Caedmon about my future.

"I'd like to go back to Ahmanya and continue my work in human-Ahmanyan relations—at least for a year or two. I have an enormous amount of experience now that needs application and can be used to benefit others. My work with Rachel has changed both her and me, and our training on Aden transformed both of us. 'Metamorphosed' might be a more accurate description. We are both very different from what we were. *I* am very different from what I was, in ways I have barely begun to comprehend.

"I can train others, especially Starmen, in the mind skills of the First Races, now adapted to human and Ahmanyan capabilities. Eventually there will be others, both human and Ahmanyan, who will have my skills; that means that I could have peers and will not really be 'alone among my race', as Richard had predicted.

"After that, I'll be eager for some adventure. I really like working with Rachel, and I have come to enjoy space travel. There must be other inhabited planets, as yet undiscovered, and I think that finding and encountering them is the best endeavor where I can put my interests and new skills into practice. And somehow I think that my work with the First Races isn't finished."

~

Several months later, while the Starmen were enjoying their rest in various places on Ahmanya, Earth, or Luna, they were

surprised and pleased to receive a message from Richard Starlight. He informed them that several of the scientists who had been held captive in the time stases on Larson's Folly had examined the machinery that had generated the anomalies that had all but stopped time. They had refurbished the one that was in the best condition and then, in the name of all the First Races, had taken it to Luxa. The entire planet had been secured in a time stasis, and the last of the Xenobots had been effectively removed from the galaxy until time should end.

Mark could still remember very clearly the angry and tumultuous meeting that had discussed the fate of Luxa ten years earlier. He remembered that although the quarantine of the planet that had been devised at that meeting was the best that could have been decided under the circumstances, it didn't really provide the resolution that everyone wanted.

Richard's news satisfied him; the last niggling dissatisfaction that had been itching within him now disappeared. He could now believe and accept that the galaxy had seen the last of the Xenobots. He was sure that all the others would feel the same way.

Chapter 22: The Prerogative of the First Races

The following spring, Starman Kathy Foster was on Ahmanya, more than halfway through a planned course of teaching, both in Eagle City and at Starlight Enterprise in the south Pacific. She had taken up residence in a small brick house on the farthest northeastern part of Eagle City. It was now spring on Ahmanya, and Eagle Crater was pleasantly warm.

For a week there would be no classes, and Kathy was quietly digging in the soil of a garden she had planted six months earlier, removing weeds and dividing narcissi bulbs. A gazebo that she had built herself was situated at the farthest point in her back yard; beyond the gazebo the unclaimed wild land of the crater bottom began and stretched out for a few miles before coming to

the foothills of the crater wall. Kathy had chosen the home for its location more than for any other feature, and she often took walks in the open terrain that bordered her property. She was gladly conscious of the boundary between her cultivated garden and the untamed land beyond, for she felt at home in both worlds.

After her return to Ahmanya, Kathy had invited Nicholas Xanthakos for that picnic. It had started with lunch, but had ended long after sunset. After that they saw each other many times. Nick had helped her design, plant, and cultivate her garden. They had spent many an hour in the gazebo, and their minds had touched using the talents that Kathy had learned from the First Races. She had never before been so close in such a way to another human being. To Nicholas she recounted, at first with tentative shyness and later with enthusiasm, her love of growing things from her early childhood in Amundsen City, and how she so fully enjoyed being in Armstrong Forest where the meadows and forests seem to go on without limit. His empathy for her heartfelt enthusiasm for her garden made her heart sing. As she dug in the earth, with a pang of grief mixed with a pleasurable reminiscence, she recalled that it was twenty years before to the day that her brother and his friends had been made Starmen.

She became aware of Saleh's advent before there was any tangible sign of it. She came to her feet and brushed the dirt off her knees, and was facing him when the Lucian became visible in her garden.

"Welcome, Saleh," she said, and offered her hands to him.

"Kathy," he said as he gave her his hands, then lifted his eyes to the surroundings. "I almost feel at home here. It is beautiful."

"Thank you. The flowers, the open space, the gazebo all express the peace I learned on Aden. I am pleased that you perceive it." There was silence for a moment as Saleh gazed into the distance.

Kathy sensed it before Saleh could speak. "Olor?"

"Yes, Olor," Saleh replied. "As you know, he has been most

welcome among the First Races—although I fear he doesn't feel at home. His presence and his memories have helped those who had been captives come to terms with their long period of imprisonment on Oet and Ugtauir. They have entered smoothly into the pace and life of the first peoples. The passing of time, even long time, has less affect on us than people of your races can probably comprehend.

"Historians, from all of the First Races, have besieged Olor. As you know, the Xenobots kept few records and their reign was a dark age for the galaxy in the places where their noxious influence was felt. There are so few of us to fill in the long gaps of time and Olor's memories have been most helpful. But his time to remain among us is now short. He was worn and tired when we rescued him from Oet, and although he has regained some strength, he never became vigorous. He is showing the deep tiredness that, in our race, is the sign that the time is coming when life is to be relinquished.

"I told you once, Kathy, that our races die differently from one another. The people of your races, and most in the galaxy, grow old and wear out in a short span of time. Being out of harmony with the Creation, you succumb to illness or age. We of the First Races do not age physically, but our life's energies, our essences, succumb to saturation. I can think of no better way to explain it. We come to realize that the time of our death has approached and we are called to relinquish our lives by freely laying them down. It is our natural end, and an act of trust in the world to come and the One who made us. This is what the rebels refused."

A flash of memory came into Kathy's mind, and she remembered Richard Starlight's description of the dead Xenobots on the surface of Ahmanya when he had strafed their ships in a surprise counterattack. She pictured the horror of the desiccated, once-fleshly substance that was inside the Xenobots' metal bodies, and remembered that these had once been Lucians. That had happened just before David and Mark made first contact with Ahmanyans and were made welcome in *Imlah*

Taltani.

Saleh was still talking. "Your brother David's offering of his life was amazing to us of the First Races, for it was out of character to what we had seen of your races, and especially contrasted with the grasping for life at any cost that the Xenobots manifested. We were unsettled by your brother's heroism, and grew in respect for your race, and realized that there was, perhaps, more in common between us than we had thought."

Saleh stopped talking for several minutes and turned his gaze again toward the unclaimed lands of Eagle Crater. Finally he spoke.

"And now, Kathy... "

"I will come with you now," said Kathy before he could finish. "Olor has asked for me."

"Yes."

Kathy's eyes moistened. She received the skin patch that Saleh had brought and, with trembling hands, placed it on her forearm. Then she reached out her arms for the embrace necessary for hypertravel without a spacecraft. They wrapped their arms together, and then Kathy's garden faded from view, replaced by the non-color of a hypertube.

After a time that seemed measureless, they appeared in an open place in a garden behind a simple stone house. It was evening, an hour or so after sunset, and uncountable silver stars shone and sparkled in a lucent, sapphire blue sky. The beauty took Kathy's breath away.

"Katherine Anastasia Foster!" exclaimed a glad voice. Kathy turned and saw Olor standing in the garden. He was surrounded waist deep in orange and yellow blooms, now appearing dark red and brown in the evening light. He stepped out of the midst of the flowers into the open place. He approached the Earthwoman with a wide and candid smile. He appeared happier than Kathy had ever seen him. He reached out his hands and she placed her closed hands, palm to palm, between his. For a moment their minds touched, and Kathy discerned a deep peace. The phantoms and grief that had plagued him had receded far and exercised

little influence on him. She noted that now the grief was mostly hers. After a long time, Kathy reluctantly withdrew her hands from his.

“You sent for me,” she said, “and I came at once.”

“I wanted to see you before I go,” said Olor. “In all my long life, child, you have touched me more than any other. You showed me mercy and kindness and even love when I had all but forgotten that such words even existed. My life was built around shadows and you, a woman of the young and dreadfully cold planets, showed me the emptiness of shadows merely by manifesting those qualities that are true to the foundation.”

“Olor, I—”

“I have lived on this planet among the First Races only for a very short time, but long enough to know that it is not my home, and can never be my home, though my time here has been immensely wonderful! It is the nature of the First Races to recognize when the time of their death has come near, and to accept that awareness willingly. I have now completed the cycle of my life in this galaxy. I feel it throughout my essence, and I am pleased and even full of anticipation. I feel the excitement of an imminent adventure!” Olor’s happiness radiated like heat from a fire.

“Over this past year I have come to a clear understanding of what it means to be a living being. By accepting that my life is a gift, I realize that at last I have something that I can give. I could not provide restitution in the fabric of the galaxy for the races that the Xenobots extinguished, not even by freeing the captives. But I have learned that I can, in some sense, reverse the lust that led my race into ruin. They sought to live forever by clutching their lives to themselves at the expense, when they thought necessary, of all other lives. I, the last Lucian of the rebels, can give proof of my final rejection of their corrupt desperation by relinquishing my life not only as a natural act within the true order of Creation and its harmony, but as confirmation of this Lucian’s final rejection of the evil of his one-time fellows, as an act of charity, as a witness to all others that life is best lived

when it is not clutched but rather freely given. You taught me that, Kathy, when you showed me mercy on Oet. Your life is a constant offering to others, as was your brother's, to the fullest extent."



Olor appeared happier than Kathy had ever seen him.

For a moment, no one said anything. Saleh stood some distance apart, listening to the conversation but not participating in it. Tears poured quietly down Kathy's cheeks. Her hands lifted as if reaching for Olor, but remained empty.

Olor began to speak again. "I have passed my knowledge of the *elthen* on to others—enough so that they can continue to learn from them. It is, perhaps, a kind of 'second chance' for the First Races to choose a course built on the best achievement of the Lucians. This also is my gift.

"Now I know that my healing will be complete when I exercise the prerogative of the First Races. I am not the first

among us to do so, by any means. I happily take this course—now, this evening. And I wanted you to be here for my departure.”

“Olor,” choked Kathy through her freely flowing tears.

Very slowly, Olor came close to Kathy, keeping his eyes on hers. Then he took her head gently between his hands, leaned in, and kissed her on the lips. As if through a thick cloth, Kathy could feel slight but exquisitely tender pressure across the strange molecular barrier that kept the two beings forever apart in this galaxy. Then Olor drew back and smiled at the Earthwoman with intense and pure affection. Kathy stared into his eyes, gulped, and began to sob with irrepressible sorrow. Olor’s smile widened and he took her into a tender but strong embrace. For long, as if time didn’t pass, Kathy relinquished herself to his embrace, held like a small child in her father’s arms. Slowly Kathy gained control of herself, and Olor released her.

Then Olor stepped between Kathy and Saleh and offered his hands to them both. She could feel the trembling in his hands. Then he led them toward the edge of his garden and looked out over the fields that extended for as far as they could see, rolling in pleasant contours with starlight illuminating tiny lacelike rivulets of liquid that lay in the shadowed hollows. They came to the boundary of the garden and stopped, although it seemed to Kathy that Olor kept walking forward. She marveled that she could see him moving away even though she held his hand firmly in her own.

Then she saw many soft silvery lights in the field, vague, almost misty, though they cast no shadows and did little to illuminate the ground around them. They drew closer, and she noticed that they were humanoid in shape, though indistinct. Olor kept walking away, and became gradually more light-filled. Some of the other shapes came still closer and took on more distinct appearance. Kathy recognized them as truly people.

With a gasp, she suddenly recognized one of them.

“David!” she whispered. “It’s my brother!”

She began to sob again. Olor paused and looked back. The redheaded Starman passed Olor and approached his sister, stopping a few feet away. He smiled tenderly and looked into her eyes for long moments. Kathy knew instinctively that they were looking at one another across a barrier that neither could pass. Slowly her sobbing ceased, though her tears continued to flow.

Then her brother said lovingly, "You, my sister, have what I gave up. I hope you will be pleased. I am so proud of you." He smiled tenderly, or was it sadly? And then he turned away and took Olor's hand, and the two of them entered the company of the others. They all turned and began to walk away. They became smaller and less distinct, and their light began to fade. Kathy waited with dread for the moment she knew must come, when the silvery light would finally be gone.

After the vista of the rolling fields had returned to normal, Kathy sighed deeply and turned toward Saleh. Neither had noticed when their hands that had held Olor's had become empty.

"I have never seen anything like that before," Saleh said solemnly. "The last of the rebellious Lucians ended well. At long last, the War of the First Races has come to an end."

Chapter 23: Kathy Foster

"Did you hear what my brother said to me?" asked Kathy, her face showing wonder. "Did you see him? Did you hear what he said?"

"Your brother?" repeated Saleh gently. "You saw... your brother?"

"I did!" exclaimed Kathy. "Didn't you see him? Didn't you see him?" Saleh's face showed perplexity and doubt. "He came for Olor! Didn't you see him?"

"I... I saw Olor walk into the field. He kept walking away, and then... and then I was aware that he was no longer holding onto my hand. He became enveloped in light, a soft kind of

illumination. And then I couldn't see him anymore." Saleh's last words trailed off into a mere whisper, almost apologetically.

Kathy's eyes were fixed on Saleh's, wearing a tragic expression that was full of appeal, an appeal that she knew would never be met. "My brother... my brother," she choked, "was here. He spoke to me."

"I believe you, Kathy." Saleh's voice was soft but intense. He took her hands in his. "Of course I believe you. I am just sorry that I could not see him."

"Or hear him," added Kathy through flowing tears. "You couldn't hear what he said."

"What did he say?"

"He said... he said that he was proud of me, and that I had something that he had given up, and that he hoped I would be pleased with it. What could that mean?"

For a moment her companion looked puzzled, and then his eyes widened.

"You know!" stated the Starman. "You know what he meant! What is it?"

"I do not *know*, Kathy. But I suspect. Come. Let us go to Su and Rinda. They will be able to confirm my suspicions."

Kathy's face paled, and she could feel herself growing unaccountably anxious. She could not speak. She nodded.

Saleh bowed his head and in moments they were back in the village where, over a year earlier, Kathy had met Su and Rinda, and where they had trained her in skills possessed by the First Races.

Saleh released her hands, and she raised her head. She scanned the hills over the roofs of the dwellings and other structures that had been in place for countless millennia. She saw the golden field beyond the village, and to the right, the shadowed forest. Aden's two suns poured their mixed light over the scene. The sky was poised for sunset; in just a few moments, it would be evening and the shadows would come.

She did not know how long she looked, but it could not have been more than a few moments. When she lowered her gaze, she

saw that Su stood before her. She smiled, and pressed Kathy's hands between her own in the customary greeting of the First Races.

"Welcome, Starman Foster," said Su in the mind-to-mind communication that Kathy had learned in this very place. "We welcome you back to Aden."

Kathy could not speak, even in her mind. An unspoken, indescribable apprehension hovered around her.

"Be at peace, Kathy," said Su gently. "You are loved here. You are safe; you will always be safe."

"I know that I am loved and welcome here," responded Kathy, "and I will always be grateful for that. Yet now, even here, I am anxious. What did my brother mean? Look into my memory and tell me."

"You know that I cannot know what he said or what he meant. But I can look at the memory you can share with me. Show me."

Kathy brought the memory back to the forefront of her mind. There Olor walked into the silvered field, exultant with joy. And there, her brother came to her, came close and said the words she had heard.

Her mind cleared, and once again Kathy stared at Su. "What is it?" she whispered.

Su smiled, and her eyes were deep, deep as intergalactic space.

"You know." Kathy's words were soft.

"I know," affirmed Su.

No words came to Kathy, but her pleading was obvious and all-consuming.

"You spent nearly three months on Aden," began Su. "You lived on this planet of the First Races, and you trained in our ways. Your Richard Starlight told you that you would become as no other member of your race had ever been before. He was right, Kathy, though he was only guessing. But he was right, and even we of the First Races had no anticipation of how you would change. But now that I see you again, I can tell that you are... no

longer what you were.”

And then, after a pause of a few seconds, Su told her.

In Kathy’s mind, the world tipped. Her breath left her in a rush, her knees buckled, and she nearly fell.

~

For two days she stayed on Aden, but during that time she was silent. Even her mind was all but still. Her feelings were dull. She emanated the message that she wanted, needed to be alone. And they left her to herself.

Then she bade a somber farewell to Su and the others, and went to Saleh and said, “I want to go home.”

“Of course, Kathy. But if you wish, this can be your home.”

The Starman shook her head. “It is a grand offer, and I know it is completely unprecedented.” She sighed and looked away. “But I’m sure that I don’t really belong here. I need more time to... to understand what I am now, what my life will be like. Yet, whatever that will be, I know that, for the time being, my home is on Ahmanya.”

Saleh took her hands in his, and then pulled her in closer and embraced her. In seconds, the infinite emptiness of a hypertube surrounded her. And then she was in the back yard of her home on Ahmanya. The sun was just appearing over the east wall of Eagle Crater, radiant and fresh.

“I will see you again,” said Saleh simply.

Kathy nodded her head and smiled.

~

For two days, she stayed at her home, gardening, taking silent walks into the untamed land of the crater, and eating only the simplest of meals. From time to time as she worked, her eyes would be drawn to her hands and she would stare at them with wonder, as if they were not her own flesh. When she showered, she contemplated her body, knowing at once that it was

intimately herself, but feeling also that she was profoundly disconnected from it.

On the third day she asked Mark and Stenafi if she could come and talk to them. And when they agreed, she asked if Nicholas Xanthakos could join them.

"Of course, Kathy!" enthused Stenafi. "We always enjoy our time with you! Come over for dinner, and bring Nicholas!"

And when the four of them had gathered at the Seatons' home, Mark brought out refreshments he had prepared, and wine, and Stenafi urged them all to be seated. The banter was light and pleasant, and punctuated with frequent laughter. But Kathy did not take part. Before long the others could no longer ignore Kathy's sober mood, and conversation dried up.

Then Stenafi said, "Kathy, you're not yourself this evening. Is something wrong? Are you sick?"

Kathy burst out laughing, a laugh without humor that caught them all by surprise.

Then she bowed her head and covered her face with her hands. After a moment she murmured, "No, I'm not sick." She looked up. "I can't get sick. I will never be sick again." She looked at each of them in turn, with both love and grief filling her up.

"A few days ago I was called back to Aden. Olor had decided to relinquish his life, and asked me to be there. It was wonderful. Very moving. Even Saleh said that he had never seen anything like it. He... Olor was very happy, and because of that I was very happy too.

"But..." She paused and pursed her lips. "But I saw my brother. He came to receive Olor, somehow. I don't know what to make of that, but he spoke to me. He told me that I had somehow changed, but he didn't say just how—at least, not in a way I could understand. I'm sure now that he wanted me to learn it from the First Races themselves and not from him.

"Su told me later. She told me that I will never get sick again. I lived on their planet, and learned their ways, and my body is changed. I will never be sick again. And... and... and

I..." She gulped. "And I won't age, not for many lifetimes. My lifespan will be about 400 years! They... they don't know for sure. Nothing like this has ever happened before. And no one anticipated it."

She looked around at them one more time. Their faces were covered with shock, each one frozen in place. Nicholas slowly, very slowly, lowered his wine glass to the tabletop. "I'm sorry," said Kathy in a voice so low that it was hard to recognize the words. "I don't know what it means yet. I don't know how I feel about it."

Nicholas leaned over and slowly took her into his arms. He pulled her into him and she felt the warmth of his body against hers. His muscles bulged against her softness, and she rested her head on his shoulder.

~

Over the next few days Kathy informed her parents and Richard Starlight of her news.

As time went on, she came to perceive a barrier between her and everyone else except her parents. Her relationship with her parents deepened and became more loving than she ever dreamed it could be, and for that she was overwhelmingly grateful.

Her mother was especially sympathetic.

"It is an amazing gift, Kathy," she said, and smiled, her eyes sparkling as she regarded her daughter tenderly. "The whole Xenobot War was about trying to hold onto life. The poor Lucians tried to live forever, and instead they all died. And the Ahmanyans managed to preserve their race and their planet when every attempt was made to destroy them forever. And your brother, and so many others, gave up their lives so that the rest of us could live. And now, in a completely unlooked-for way, you've been given what so many people want."

"I know. But I'm not sure that it is something that *I* want."

"No, I expect not. It does change everything, doesn't it?"

Kathy nodded, feeling the warm comfort that someone at last

understood.

Her mother laid a hand over her daughter's. "Probably you'll develop a new way of looking at things like family, friendships, and your career, and so forth. I imagine you'll *have* to. Time will come to mean something different for you from what it means to everyone else."

Kathy locked her eyes with her mother's. "Mother, all my friends will grow old, and die, while I still look just the way I do now. How can I have friendships?"

"Of course you will have friendships, Kathy. You can have many more friendships than anyone has ever had. You can have several generations of friendships. You will know Joe and Mark's children, and grandchildren, and their descendants for several generations. But you will have the grief of loss more than anyone has ever had, too."

"I will just have to learn it by living it, I suppose." She laughed wryly. "There's no one to teach me."

"But... how can I ever have a family? My life-span cannot be inherited."

"That I don't know, Kathy," said her mother quietly. "That is a question that only you can answer."

~

She did think about that. She could only think of one way that the question could be answered.

With her heart pounding, she offered to take Nicholas to Aden and train him in the techniques she had learned in the place she had learned them. At first he gave her no answer, but his face tightened and his eyes slid away from hers. And then, as time went on, they saw less and less of each other. One day she realized that he had not visited her for over two months, nor invited her to spend time with him. When the significance of that fact finally impressed itself on her, she hung her head and sobbed. She looked at herself in the mirror, and didn't know what she was seeing.

Yet often, especially when she dug in the garden, memories of Nick would come to her and she would lean back and smile.

~

And the years passed, and the world changed. One by one, everyone that she knew and loved died. She was 127 when she was present at the funeral for the eldest son of Starman Joe Taylor. But she sat with Joe's remaining son and two daughters, for she had found that entering into a second-generation friendship was easier than she had feared. As she left the funeral, she told no one that she was conscioius that now she was among the last people alive who could remember the second Xenobot War. For everyone else in that year 2270, that time was history, not memory. And it grieved her that the David Foster Spaceport was now simply known in popular conversation as "the Spaceport".

And she lived on, unchanged in body, looking still as if she would never reach the age of thirty. She found that her mother's prediction was accurate: she came to regard time differently from most other human beings. Her days and years were peaceful and passed without a sense of hurry or impending deadline.

She returned to active duty as a Starman. Many years passed. Under the leadership of Caedmon Starlight's grandson, she was the first human being to attempt intergalactic wormhole travel. She was the first to enter the Andromeda galaxy, and eventually spent over a hundred years exploring the star systems there. Her ever-dependable companion was Rachel, her holocom.

She returned to Ahmanya many times for rest and relaxation. She had kept her small brick home on the edge of the wild lands of the crater, though Eagle City continued to expand. She purchased three square miles of the unsettled land adjacent to her garden to ensure that no one would build on it. Eventually that land was the only undeveloped part of the crater floor.

Saleh came to her now and then and invited her to come to Aden to live, or at least to visit. Sometimes she did visit her

friends among the First Races, but felt more and more out of place. To her surprise, only there, where she had been trained, did she feel restless. Only among people who thought in eons did she see herself as an ephemeral being. Her visits became less frequent, and shorter when they did take place.

She was always invited to share in the big events of the Taylor and Seaton families. It was a great joy to her to sit with young children who begged her to "tell us some stories about Starman Joe and Starman Mark." Though she was often invited to give lectures about the days of the Xenobot War and the middle years of the twenty-second century, only in this family setting did the stories become personal, and her memories become valued treasures by those who heard them.

She liked to explore Ahmanya, and when the fancy took her, she would take her shuttle to some of the outlying parts of the planet to walk or even to camp for several days. For over a century the planet had been green with many thick forests. There were also many cultivated fields, and the towns and cities were well settled. The lakes and rivers were clear and bright, and the great seas were deep. The air was rich and healthy. She had never anticipated that she would live to see Ahmanya fully restored, and reveled in the experience. She was now the only person alive who had seen Ahmanya when it was a howling desert, frequently scoured by sand-filled wind.

One time she came to a forest whose trees were greater, grander, and more beautiful than any she had seen since her childhood on Luna when she traipsed through Armstrong Forest. Their live pillars upheaved a thick embowered roof, between whose leaves and blossoms hardly a sunbeam filtered. There were squirrels and birds and insects, and the soft natural sounds snuggled deeply into her spirit.

On her walk she met an Ahmanyan family with mother, father, and five children. When they saw her, they stopped and stared, embarrassed and mute. They were too awed to speak, and too moved to depart.

"*Tanmanna*," said Kathy in a matter-of-fact way.

“*Tanmanna*,” said the parents, their eyes lowered. After a short awkward silence, the youngest child, a boy, said, “My name is Elin. You are the old Starman, aren’t you? You’re Starman Foster.”

“Yes, I am. I am pleased to meet you, Elin.”

“I’m seven,” he said. “My birthday is in one month. Then I will be eight.”

Kathy smiled. “It is a good age. I remember when I was eight. It was a long time ago.”

“I know. You are very old now, aren’t you? Everyone knows that.”

“Yes. Now I am 318 years old.”

The boy laughed, a spontaneous eruption that made everyone else laugh. And the awkwardness evaporated.

“Would you please join us for our picnic, Starman?” asked the mother.

“Thank you,” said Kathy. “I’d like that. Yes, I will.”

~

And then one day, many years later, she noticed that she had a gray hair. Her eyes opened wide with astonishment, and then, when she had no doubt of it, she laughed for joy.

She continued to work and to travel and to teach classes. She was much in demand, but turned down more invitations than she accepted.

And in the next few years, her joints began to get a little stiff, and wrinkles appeared on her face. To her delight, she saw that they were laugh lines. When she looked in the mirror, she saw sparkles in her eyes, and knew that she was happy. And she began to think of what to do with the last years of her life.

She laughed aloud.

“What is it, Kathy?” asked Rachel.

“I’m going to garden!” she told her holocom.

The Starman saga does not end here. The last chapter of *Master of Shadows* will be found in the fourth book of the Starman saga, *The Starman Companion*.