

THE LAST LEGENDS OF EARTH

A. A. Attanasio

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Rockville, Maryland

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for those who will be



"Of the great things which are to be found among us,
the Being of Nothingness is the greatest."

—*Leonardo da Vinci*



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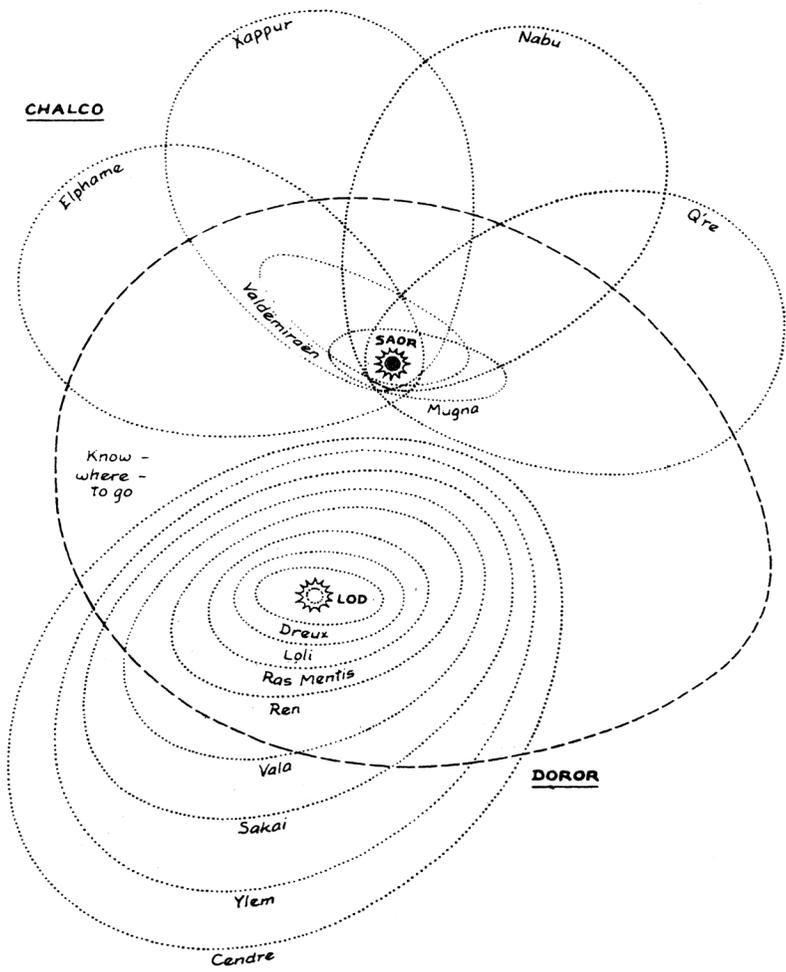
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## Foreword to the Second Edition

*Word and world—legends and Earth.* The title began there, six words scrawled on a dream pad in high school, developed into a literary theory in college, and shaped around a narrative strategy that has since sustained my way as a writer:

The word is precise, the world a majestic mystery—and writers straddle the space between.

In this sense, creative writing is threshold power. The precision of word confronting the mystery of world marks the brink beyond which we need wings.

But the angels of writers have no wings. They have shoulders, and they put them into budging us toward a tar pit of dreams.

Stories rise like fumes from that black pit. Writers breathe them in and write them down—or fall into the pit trying. Down there, writing is just a sticky mess.

Tar is black—but it's not ink. We wrestle angels to stay out of that pit. When we fall, no one hears our cries. Creative writing is an encounter with huge silence.

This deeper silence is the imaginary, the not-there. Kafka (in *Reflections on Sin, Pain, Hope, and The True Way*) says about the art of fiction, “What is laid upon us is to accomplish the negative; the positive is already given.”

We share a covenant with silence—and as readers and writers, we agree to accomplish the negative. *The Last Legends of Earth* keeps faith with this covenant, presenting our human drama as an artifact of an alien archeological dig two billion years *after* our sun has burned out. Chapters span epochs, posing humanity—full of self-importance and energetic explanations—skittering atop silence adroit as a water bug.

Individual character, culture and human identity flatten before the inexorable change that we call time. Sun and moon, calipers of eternity, measure out our days and months. Looking back over eons of evolution, recognizing that an astonishing 99% of species that formerly existed are extinct, all existence feels like negligence. *The Last Legends of Earth* matches this obliterating reality to the destruction and salvation we find inside ourselves.

We evolved to manipulate the facticity of the world. Yet, the word goes beyond human possibilities. Reader and writer come together to accomplish the negative, to occupy an alternative to the present. In this threshold instant called reading, we bridge the gap of now and never. The neverness of fiction, what never happened, happens now.

*A. A. Attanasio*  
Kohelepelepe, Hawai'i  
2008

## Tractate of a Timefree, Spacelike Domain

*Originally titled simply Utility Manual, The Book of Horizons, popularly known as the Glyph Astra, received its vulgar title from references to the “star carvings” (Greek: astron, glyphe) allegedly revealed to the Strong Mother in kakta trance. These “carvings” in actuality offer eidetic images of probability patterns in the Overworld, that timefree, spacelike domain inside lynks (hypertubes). The Book of Horizons exists to orient people to the complexities of the Overworld—but first, the people must find themselves within the worlds. The anonymous tractate that opens Utility Manual is meant to place us among the horizons not only of the worlds but of the Overworld. It can be found in most early editions from the Age of Knives and is traditionally assumed to have been written by the Strong Mother herself.*



This chapter is for those people who remember Earth. The first thing you have to know is that your memories are real. Your certainty that you have lived before in a very different place than where you are now is not a delusion.

Earth actually did exist, long ago. The swirl of stars that fills the night sky is the galaxy where we lived. Remember the Sun? It was a star in that galaxy. Two billion years ago, it died and incinerated the Earth. This happened long after human life had become extinct. The Sun’s convulsive death cast the hot debris of the Earth into the void’s cold darkness, where it drifted, mixing with the gas clouds of space.

A few thousand years ago, an intelligent being from a reality we had never suspected found our dust. For its own alien purposes and by its own strange science, that intelligent being read in our dust the cryptarch of our lives (the fossilized DNA sealed in pebbles of the shattered Earth by the heat of the exploding Sun). From our cryptarch, the alien created us again. And not just our bodies. You remember Earth, because this alien intelligence retrieved your consciousness from the vacuum, where the wavepattern of light emitted by your brain had been expanding at the speed of light since you died.

The alien that regenerated you is not God, nor even a god. The experience of being reborn in adult form out of the ground, cauled in a birthsack that grew with us in the loam, seems miraculous—but only until you understand that this has been accomplished with sophisticated and impersonal machinery. All the forests and jungles, all the multitudes of animals from every era of life on Earth, all the dinosaur herds, whales, and even bacteria and viruses, are products of

a machine. The alien that operates this vast machine is a mortal being, albeit one whose timespan is enormously longer than ours. It is known variously as Gai, the Rimstalker, World Maker, and World Eater. By whatever name you call it, this being is an alien, inhuman and indifferent to human affairs. It is not interested in you, though you may think that it is, because – as you will find – you do not age as quickly here as you did on Earth or as quickly as your fellow humans who were born of parents in these worlds. This is not because the alien favors you; it is a side effect of the regeneration process. The alien is not a spiritual being. Many lives have been lost disputing this issue. The truth is, this entity regenerated you to serve as bait for yet another alien intelligence, its enemy, a species of sapient, winged spiders called zōtl. Zōtl eat people. See “Tactics” under *zōtl* in the index for effective ways of avoiding and defending yourself against these cunning, lethal creatures.

Your life belongs to you. You owe no debt to the being that roused you to this second life. Neither must you expect this being to guide you or benefit you in any way. It will not. You must find your own way now. This manual is designed to help you understand and survive any of the fifteen worlds as well as the Overworld itself, wherever you may find yourself.

Unlike the Earth, which evolved out of cosmic gases by natural processes over billions of years, these worlds are artificial and constructed swiftly. The being that regenerated you made these planets, the swarms of planetesimals, asteroids, and comets, and our two suns: the black hole Saor and the radiant star Lod, which is really not a star but a machine.

Eight of the worlds orbit Lod, six orbit Saor, and one orbits both.

The group of Lod planets is called Doror; they are bright, temperate, and tropical worlds.

The Saor planetary group is called Chalco; these are twilit and nocturnal worlds, most warmed by thermal vents.

The lone planet that orbits both Doror and Chalco is called Know-Where-to-Go, and is mostly a night world except for its brief transit of Doror once every thousand years. Each complete circuit of Know-Where-to-Go defines an age. There have been four ages as of this edition. We are in the Fifth Age, commonly called the Age of Dominion.

Two more ages are anticipated before Chalco-Doror completes its alien mission and the being that created these worlds then destroys them.

That these worlds will collapse is true and not at all the apocalyptic madness the Saor-priests decry. Those who would have you believe that these worlds are eternal serve the spiders, who, indeed, desire to preserve Chalco-Doror that they may feed on us indefinitely. Do not despair that this bounty of new Earths is doomed; rather, rejoice that humanity’s suffering, caught between two feuding alien powers, will end.

About time measurement: All the major planets have spin-rates of twenty-three to twenty-five hours, but only the orbit of Nabu in Chalco approximates the 365-day orbit of Earth during the human epoch. Nabu-years, which this manual uses to measure time, are constant enough for calendrical purposes. The other planets have varying orbit times. Refer to the ephemerides in the appendix for the local time standards of the planet where you are located. The ephemerides also provide data and stellar sighting techniques to help you determine which planet you are on.

The animals and plants that you do not recognize are from areas and times of Earth other than those you knew— or they are distortions. For unknown reasons, the alien mind that reads the cryptarch of Earthlife often takes liberties when expressing physical forms. Mutations and variations are common, new species more rare. A partial catalogue of the most common distorts is listed in the appendix.

All fifteen planets and forty of the largest planetesimals are connected to each other and to the Overworld by lynks. We never had lynks on Earth; more about them can be found in the appendix marked Overworld. Briefly, what you need to know is that a lynk is a portal that joins two distant regions in a way that allows a traveler to go from one to the other instantly, even across large interplanetary distances.

There are three different kinds of lynks. Those created by the being who made these worlds are called natural lynks and are indistinguishable from apparently natural formations like rock fissures, caves, and sinkholes; few of these lynks have been mapped.

Those that belong to the zōtl are rectangular structures about ten meters high and twenty wide, seemingly made of scarlet stone and sometimes referred to as redrock dolmens; these connect with the kingdom of the spiders and should never be entered, since the zōtl will consume you in the most horrific way.

The third variety of lynks is the most prevalent: The tall silver arches (five to twenty-five meters high) that exist on all the planets are the functional remains of the Tryl, creatures of superior intellect originally regenerated by Gai now extinct. The Tryl lynks are sometimes rigged by the spiders to convey travelers to the zōtl's nest worlds; so do not enter any lynk until its destination has been confirmed by trained lynk wanderers (notably the Ordo Vala, who have produced this manual and whose nearest enclaves are listed at the front and in the index).

The lynk danger of which you should be most aware is that lynks are continuously active and can be entered inadvertently. Many lynks are hidden by the landscape, overgrown by vegetation, embedded in the ground. At various times in history, the zōtl have hidden lynks on all planets to trap people. Many such traps remain active. Never enter an unknown cave or crawlhole without first tossing an object ahead to see or hear whether the portal is a lynk.

In each of the Tryl lynks there is a globe, a map of the Overworld. Often in the past the globe has been erroneously identified as a spirit being to be worshipped. The image of a brightly mottled sphere suspended in a field of total blackness seems holy to many of us, and all the more so since the object cannot be touched or even approached, only beheld. Movement toward the map sends one through the lynk. Movement to either side delivers one to the Overworld.

Read "The Practical Guide to Travel in the Overworld" affixed to this manual before attempting to enter a lynk.



[Appended to the Year 2000 Edition, 1492 Doror:]

It is quite possible to live in Chalco-Doror without concerning ourselves with [lynks], especially if we live in one of the many communities that purposely place themselves in regions remote from lynks and their dangers. Most

of us who live far from the Overworld prefer to shun this seemingly supernatural aspect of our new reality. We cherish our memories of Earth. We grieve for those of the first life whom we will never see again. And, when we can, we seek out others like ourselves, from our own times and races. But that is a mistake.

During the history of Chalco-Doror, among the many millions who have lived on Earth and lived again here in the worlds, only one such tribal fantasy has been realized and with sad results. The Aesirai, who currently dominate all of Doror and parts of Chalco, are humans selectively bred to imitate the tribe of their founder, Egil Grimson, a man who had lived and died on Earth as a Viking, a sea rover in the third millennium before human extinction.

Only humans who have Viking genetic characteristics are empowered in Aesirai society. Only Vikings are allowed to dwell in the cities unmolested by the spiders, for the Aesirai have a pact with the zōtl. All other human types have been relegated to the role of laborers or are left to fend for themselves in the wilderness, where the spiders are free to harvest them.

The Ordo Vala abhor this separatist society for having abandoned the vast majority of humanity to the ravages of the spiders and the dangers of Chalco-Doror. This *Utility Manual*, banned by the Aesirai, is offered for the benefit of all humans.

### *If Zero Could Shut Its Mouth*

The air was so dense, it read as water. Looking down into it, down past the riven cliffs and shining clouds, Chan-ti Beppu felt giddy. She had never before journeyed below the clouds. Just visible among the flying vapors and the thermal jellies of air, her destination sparkled, the sea-mountain city of N'ym. There, if anywhere among the worlds, love waited to join space, memory, and the blue light of northern weather into a man whose story would complete hers.

"I can see from that silly look in your eyes," Nappy Groff said, "that you really think he's going to care."

"Of course he'll care." Chan-ti did not remove her gaze from the mountainous clouds and the gaunt cliffs. "He's an exceptional man."

"That means exceptional trouble." Nappy Groff, short and wizened, with a cuff of frizzy white hair collaring his bald pate, regarded Chan-ti Beppu through his usual glum frown. "Beppu, I have cared for you these nineteen years that you might be fulfilled. But never—never, I say to you now—did I think you would choose to leave us."

Chan-ti sat in the grasp of a brambly tree that reached out over the precipice and afforded her a wide vista of the purple lowlands. When she turned toward the old man, her broad, pallid face shone with the world's underlight. "My fulfillment is not here—not yet."

Nappy Groff scowled with an understanding he had come to hate. The girl he had reared to womanhood had not been wooed in the three years since she had reached the age of consent—at least not by anyone who pleased her. Slack-jawed Gorlik had proposed, but she could barely eat across the same table from him without getting ill. Tradition decreed that she leave and not return until she found her mate. She was not ugly, not in Nappy's eyes, but neither did she

look like the other women. After all, she was not of them. Nappy had found her as an infant, and she had grown into a gangly, wide-faced woman with brindled hair and slanted black eyes so weak she needed to wear lenses. She was clever, intrepid, and playful, though few of the men—who were mostly humorless, stolid workers—found that desirable; and of those who did, none would marry a woman a head taller than the tallest of them—except, of course, Gorlik, who had grown fond of her some seasons ago when she had removed a hook from his lip and did not tell the others he had been eating the fish bait.

“You do not need to leave,” Nappy told her. “In time, our wanderings will find the right man for you. You’ve wit if not lucky looks. Trust that and time.”

“In time, I will be a crone.” She climbed out of the tree and dropped into the shaggy grass of the cliff’s edge. She wore a sojourner’s outfit—hiking boots, leaf-pattern jacket, and brown denim trousers that hugged her blithe form, emphasizing her femininity yet not diminishing her rangy bearing. “Don’t worry for me, Father.” She kissed his wrinkled brow. “I remember everything you’ve taught me, and by that memory—your greatest gift to me—I will make my way through the lowlands and return with my mate.”

Nappy Groff nodded and frowned with doubt. “The road to N’ym is long. But the road to the heart is without end and tireless as a circle. Be wary. And remember everything I’ve told you. Don’t speak with voors. No matter what they promise you, don’t speak with voors. Avoid the fogroads even if they seem shorter. Refuse anything to eat that the Weed Woman offers you at the Back Gates, but be sure to give her your gun. And when you get to N’ym, go directly to Rence Walla’s shop. He alone in N’ym is one of us and can help you. By now my letter has reached him and he has gathered the information you need.”

Chan-ti’s smile gleamed in the stars’ cold light, and she kissed Nappy Groff again. “I’ll do as you say, Father. I’ll be back in a few days.”

Groff hummed skeptically and tugged a narrow yet thick volume from under his utility vest. “If the man refuses you, you can sell this to Rence Walla.”

She took the book of tawed leather in both hands, an ancient edition. “*The Glyph Astra*.” She identified the famous *Book of Horizons* by its ritual name, it seemed that old. “I can’t accept this.”

“You must.” He denied her returning it with the back of his hand. “If the man refuses you, how will you live? Sell this book to Rence Walla. It is one of the early editions and will bring a noble sum, enough to live for many years—even in N’ym.”

“I doubt N’ym will last even one more year, Father. The war—”

“Let’s not speak of war. Departure is grief enough. Read me a farewell phrase, instead.”

Chan-ti opened the book and turned its rugged pages to a favorite passage. By starlight and memory, she read: “We are nameless. In each hand we hold a story. Between them, between the right story and what’s left, our hearts are the wedge. You know this is true.”

Tears lit Nappy Groff’s creased face, and the parting with this found child wracked him almost as miserably as the deaths of his own children under the Forest’s talon and fang, long ago, before his mate had shriveled around her cancer and died, before pain came to mean not what was lost but what remained.

Chan-ti Beppu traveled quickly down the cliff paths above the amethyst gulf of the abyss, under thorny groves hung with a perfume that smelled of

the green sea and clung to her like smoke. Where the fogroads switchbacked among clouds, she detoured and descended the longer way along mulestairs and rootsteps. N'ym glimmered brighter, and she could see the glass spires and amber towers, their topmost windows catching the early rays of dawn and burning like stars.

Many before her had come this way, disappearing into the melting clouds on their way down to the Back Gates. Some had returned, a few again and again, with marvelous accounts of the journey and of the city at its end. She knew well what to expect; even so, she advanced anxiously, fraught with uncertainty. The man she had chosen for her own was a stranger; she knew only enough of his story to believe he might love her.

Behind her, she left harder choices: Gorlik or a solitary life. She doubted she would have had the resolve to leave all that was familiar if, the season before, Velma, her adoptive mother and Nappy's wife, had not died. Velma, a voluminous woman, larger and more fair-skinned than most of the others, expansive with laughter and industry, had remained brave and calm through most of her illness. At the end of it, though, when she had shriveled to a mad hag, violent with those who tried to care for her, her death became excruciating and ugly. "Will I die?" her last words stammered.

Since then Chan-ti had been asking that of herself and had become determined to do what she dreamed. In the brisk air of the cliffside, with astounding glimpses of the star-whisked sky through rushing clouds, her resolve felt holy. The cliff roads, in good repair, maintained by the monks who lived in black rock chapels and cave shrines, made travel down the narrow paths easy. Along the precipices, dwarf forests sheltered lemurs and winged lizards and dangled boughs of berries and fruits. At night, she slept under a slanted outcrop that shielded her from the soft rain. She returned to the path with first light and ate a breakfast of cane almonds and plums while walking.

Darkness still eddied at the bottom of the gulf when Chan-ti reached the foot of the cliffs. She paused there briefly and ate the root bread and waxed berries her women friends had packed for her. As the dim sun rose higher, the plateau glinted like flint, throwing off light from the crystal-stemmed shrubs abounding there. Except for the humanlike face screaming at her from inside a boulder, and a diving attack of red bats angry that she approached their hanging tree, the crossing continued without incident. She slept that night under a mane of tasseled cane and early the next day reached the Back Gates.

Here the fogroads came down the cliffs to the plateau, unfurling from the clouds along the mountain flanks and converging into a majestic boulevard cloistered with ponderous trees and blossom-belled lianas. The broad avenue curved along the western edge of N'ym in a long crescent and disappeared among hazes of mountain forests. On one side of the stone avenue, the land rose toward the valley ridge, wild, gloomy with moldering oak and swales of heather. On the other side stood the Back Gates, a seemingly endless corridor of city buildings fronting on colonnades and buttresses draped in ivy. Untramed grass and flocks of red flowers banked the back walls of the buildings, stonegray bulwarks, windowless, and scrawled with vines. Copper doors, green and black with the stains of centuries, loomed under lintels graven of weathered runes she did not understand. Above the peristyles bracing the backs of the

buildings, the towers of N'ym reared. A few chimneypots were also visible and spears of radio antennae.

Chan-ti hiked for another hour before finding the Weed Woman. True to Nappy's prediction, she had spotted Chan-ti coming across the plateau and was waiting for her in one of the flower banks that filled the alcoves between the stone buttresses. She stood among globular flower-heads and waist-high tufts of grass, her spiderweb hair strung with weed feathers, thistle burrs, and dead leaves. From the basket under her arm, she offered breadfingers, groat cakes, fruit necklaces. Chan-ti remembered Nappy's warning and declined.

The Weed Woman only looked human. She had been created by one of the many powers—the spiders, lizard angels, Fire, the Face of Night, or maybe even the World Eater. She was already there when the first people arrived. Over the generations, as people explored the Back Gates, they learned that only she knew which of the endless gates entered N'ym. Other doors, forced open, enter barren expanses and provide no way back, becoming barriers of transparency impenetrable as a reflection. The Weed Woman always opened the one Gate into the city, for all except those who accepted food from her. She led them giddily away, laughing and singing, through another door to a glimpse of yolky sunlight, birch and willows. None ever returned.

Without a word spoken between them, Chan-ti followed the Weed Woman, who smelled acrid as burnt tar. On a green metal door twice the height of a tall man, the crone pressed her fingertips, and the pylon shoved inward with a rusty scream.

Before entering, Chan-ti relinquished her pistol. Nappy had warned her many times that the only way past the old woman at the Back Gates was without guns. According to lore, the Builders of the Gates had put her there to guard against firearms. Anyone could see from the ravenous stare in her gray face that the Builders had chosen well. When the Weed Woman had Chan-ti's wide-muzzle revolver in her crablike hands, her stare went flat, and she stood aside.

Chan-ti Beppu cast a proud look back the way she had come. Between the flinty sparks of the plateau and the large stars, the cliff of fogroads stood luminous as a dream of distance and spectral mists. There was her old life, all nineteen years of it, compact enough to hold in her sight. She had been loved and well educated by Velma and Nappy Groff; she had experienced friendship among the other women, and passion with a few rowdy boys too turgid to care about her height or her odd features; and she had known belonging, communal kinship, at the nightly fire dances. Yet she did not belong there anymore—at least, not until she found her mate.

Chan-ti turned and strode through the narrowly open door into a tight alley. She had to walk sideways between lichenous brick walls that turned sharply several times before squeezing out onto a yew lane. Black hedges with gold underleaves walled in monumental dwellings. For as far as she could see, the backs of sepulchral houses lined the lane, their skinny backlots enclosed in hedgerow trellises and yews dark as amulets.

She hurried along. Nappy Groff had instructed her to leave behind the yew lane and the black hedges immediately, to take the first byway with a slate sidewalk that offered itself. At every second house, the yew lane crossed a cobbled alley that climbed hills past skinny buildings with boxed windows and mul-

lioned galleries. She had to walk eight blocks before she found a slate sidewalk. As instructed, she turned left and continued to bear left among wending roads and tall, skinny, crooked buildings that made her dizzy to look at until she came to a shopfront whose bay window had an octopus and a squid set in stained glass.

The door to the shop opened with a ting of bells. Among bins of many-colored corals and display cases of pearls and exquisite shells, Rence Walla sat in a wicker chair: a pink-whiskered gnome, watching a diminutive television set propped in the lips of a giant conch. Chan-ti recalled seeing him before, among visitors at home in the mead grotto. He recognized her at once, and while tiny laughter and applause pattered from the TV, he asked about Nappy and the others. Amenities over, he stroked his pink stubble and appraised her unabashedly, "You're too ugly to be wooed at home and you come *here*? Dear dreamer, the people of N'ym are animals of perfection. They are true human pedigrees."

"Odd as I look, I too can love," she replied with an even smile.

"But *here*? Wanderer, this is the City of the Sky, where eyes are blue and hair the color of the sun. Look at you. Dark elfish eyes. Streaky brown hair. Face starved as a wastrel's. And spectacles! No one in N'ym wears them. Chan-ti Beppu—go back home. So you're excluded from the fire dance because you're too old. That's just a formality. You can make a life for yourself teaching the children, tending the old ones."

"That was my ambition, Rence Walla—until I met my hope of true love. He is the one man whose story could include me."

"His story?" The gnome's thin lips hooked a mocking grin, and he darted a glance at the volume peeking from her jacket pocket. "You have given too much of yourself to *The Book of Horizons*, Chan-ti Beppu. Is that the edition Groff gifted you?"

She took out the book and let the shopkeeper hold it. He ran stubby, freckled fingers over the blue leather cover and the soft spine. An iridescent script dull with age tooled the edges. "Ah—the lurid seventh edition—over fifteen centuries old and yet paper and binding still sturdy. For sure this came through a timeshaft. For sure. A lifetime's luck for Groff to find this on his stravaging."

Chan-ti opened the book in his hands and turned to the Oracles. "Here, Rence Walla—this is what I am about. 'When the lorn Foke marries the gentle warrior of the Aesirai, the last legends fulfill themselves.'"

The shopkeeper flicked an incredulous stare at the young woman, and when he saw that she was serious, laughter jolted through him. "What has Groff done to let such a child abroad?" He slapped the book closed and rubbed away a tear with his wrist. "You believe the *Glyph Astra* talks to you?"

"It talks to all of us," she answered, with an edge of annoyance. "But only those who listen hear it."

"For sure. That was the deepest laugh I've had in a while, young sibyl. So you've come to N'ym to marry a gentle warrior, have you? Shall we have a look at him then?" From a desk scattered with invoices and starfish, he plucked a thumbnail-size photo of a square-faced man in an officer's uniform whose open stare and boylike smile contradicted the threat of his dragonish brow. On the back, his address appeared in minute script.

To her amazed smile, he said, "Not hard to get at all. He's in the City's Sky Guard. Their publicity brochure had all seventy-eight of them. Getting his address—that took a black pearl in the palm of the Guard garage attendant."

"I will find a way to repay you."

"Nappy and Velma paid me long ago, when they hid me from the voors. I had inadvertently sold some of the voors' talismans. Those zombies would have dismembered me, but your folks kept me out of sight while they tracked down and returned most of the talismans. I owe them more than a black pearl and a photograph. If I can talk you into returning home, I will have repaid them."

Chan-ti tucked the photo into her jacket pocket. "I will return home—but only with my mate, or I'll have to wed Gorlik."

"And if your gentle warrior is already married and the sire of a brood?"

"He's not. I did think to ask him that, sly-whiskers."

Rence Walla shrugged. "Not I to thwart an oracle from *The Book of Horizons*. Supper before you go?"

Chan-ti stayed with Rence Walla long enough to bathe and launder, and to share a meal of braised scallops and seaweed soup. Then she unfurled the rain hood rolled into the collar of her denim jacket and sat deep in the seat of the battered car that the gnome had arranged to transport her. Through web-cracked windows, she watched several city districts float by—slender spires, brass-domed vaults, hillside brownstones. The bootjawed driver, who wore a fishmonger's cap and apron and said not a word during the entire drive, stopped before a tower of gray-tinted glass. As Chan-ti stepped from the car, it pulled away to wait for her on a sidestreet in case no one was in.

At the reception desk under pillars of crystalline light, the house guard scrutinized the hooded visitor. A matronly woman in braids, the guard announced Chan-ti Beppu's arrival over the intercom without budging her eyes from the cowled figure. A long pause followed in which Chan-ti counted twelve heartbeats before a man's voice said to send her up.



Nothing in all the worlds offered as much beauty as the city of N'ym. Built atop the eaglebrow cliffs overlooking the Silver Sea, the glassy minarets of the city were the first to catch the red rays of daylight and the last to let them go. The day never got brighter than twilight in N'ym, even at noon, when the distant sun, Lod, cast the slender silkstone buildings and their pedestals of plazas in a wan auburn glow. The city towers glowed like coral and the hanging gardens among the hillside houses blazed with flagrant colors. By night, the boulevards and the adjoining mazes of avenues, wynds, and alleys tinkled with the light of sparkfly lanterns hung from streetside windows by each household. Seen from afar, the glimmery lantern fires of the domed houses and the arc lights among the downtown spires limned the ideogram for Sky. N'ym, the City of the Sky, perched at the very brink of land's end, its opaline towers lifting high above the clouds that fogged the lower slopes and trawled the sea. Overhead, both by day and night, the sky swarmed with planets, stardust, and the icy green feathers of comets.

On the steep hills, in their glass and brickwork tier-level houses, lived the Aesirai, lords of Valdēmiraën. The most powerful of them had whole hills to themselves, crowned with columned manors and stands of tapered trees above

mirror ponds. But even the least of the Aesirai lived well in chalets behind willow tresses and under terraced gardens. For those who preferred simpler lodgings, mirrorglass towers in centercity provided suites overlooking plaza-groves of hickory and oak and arbored canals reflecting starlight and planetshadows.

In the lowlands below the cliffs and the threading cascades, hamlets huddled, hundreds of clustered bungalows, some square-roofed, some thatched, all on stilts, with rude vegetable plots cut from the grass verges. Behind the crooked walls that separated the broken pavements of the hamlets' asphalt streets from the sunken fields and the fallen boulders of the cliffs, the workers of N'ym dwelled: the laborers, janitors, refuse collectors, and harvest hands of N'ym. Below them, among sedgy tracts and weed-trammeled dunes, fishing shanties dotted the crescent coast.

Ned O'Tennis loved N'ym. As a boy, while other children frolicked in the playgrounds and swimming ponds, he had stolen away from the school groups and wandered the lanes that laced the steep hills so that he could admire the cobblestone houses—no two alike with their flagstone paths, kitchen gardens, and stone embankments carved with trolls and dragons beneath red ivy and the boughs of aged trees. From the high lanes, he gazed down at the chimney pots and blue tile gables of the houses; he stared into the crystal heart of the city, where the gold dirigibles docked after drifting up from the seaside villages and cliffbottom hamlets. He had been punished by his school and his parents for each time that he had wandered off. But the chores and deprivations had not stopped him, for he was enthralled with the wild mosaic of aimless streets, tumbling gardens, knoll houses, and opal towers—all beneath the clutter of planets and the silver wheel of the galaxy.

In early manhood, Ned had fulfilled his earliest ambition and worked as a dirigible pilot, ferrying workers between the hamlets and N'ym. The work, routinely slow, afforded him plenty of time and vantage to gaze down at the city's depths and the rambling countryside. N'ym had never looked more ethereal to him than it did during his ferry years, when he had drifted over the city four times each day: In the night, he had left the sleeping city for the torch-lit hamlets to bring in the workers under the first slash of dawn; and at sunset, he had carried them back to the country and returned alone with the night. In the intervals, he dallied with pretty women, which was his favorite pastime; he sported with his buddies when his girlfriends were busy, and, when he found himself alone, wandered the lyric streets and pondered what he had heard that day from the workers he conveyed—ferine men and women fated to live beyond the palisades of N'ym yet near enough to visit the city every day as street cleaners, vendors, maids, and construction workers. They were the lucky ones. Many more gold dirigibles carried laborers to mines, fields, and factories outside the city. Ned had heard about their exhausted lives from their kin, who rode his balloon to their inner-city jobs. Every night, on his empty flight back to N'ym after returning the workers to their rick-roofed settlements, he had contemplated the hardships of the lives that sustained the beauty of the city he loved. He felt troubled by the dolor he saw in the workers' faces each dawn and the exhaustion that replaced it at night. Exploiting them simply because they did not have the right antecedents—long-headed, copper-haired, pale-skinned Aesirai ancestors—offended him, but what could he do? N'ym was over five hundred years old, and the workers had been riding the gold dirigibles from

the beginning. Most were grateful, for there were millions more who lived wild in the continental forests. Only some of the workers complained of injustice and enslavement. The same brash critics also spoke of human sacrifice. By that they meant the alliance between the Aesirai and the zōtl, the sapient spiders who hived on a distant planet and, since earliest times, had been coming to Valdēmiraën and her sister worlds to eat people. The Aesirai, the one human tribe too fierce to be dominated by the spiders, had agreed not to kill zōtl but to let them feed freely in the wildwoods in exchange for technological gifts and freedom from attacks. That was the story in the schools. But the boldest workers sneered at the Aesirai's purported fierceness and spoke of human farms, where the Aesirai bred people like cattle and offered them regularly as tribute to the zōtl. They even said that the Aesirai's Viking monoculture persisted as a zōtl genetic experiment. Ned offered them a tolerant ear and gained their confidence by not laughing and, occasionally, sharing his own egalitarian visions. The peace he found for himself in this camaraderie and in his active life with his lovers and friends had until the past few years assuaged all concern.

For most of his life, Ned had listened to this talk of insurrection with only one ear, oblivious to politics though he had come from a military family. Then the military drafted him. More than half of N'ym's fighter force had been called away from Valdēmiraën to defend the central planets of the Emirate, and every citizen with flying experience was recruited to replace them. Though uneasy in the sling harness of a flying gunship after years of walking the bridge of a dirigible, Ned O'Tennis had reluctantly learned the ways of the sleek black strohlkraft.

Now, thirty-seven years old, after twelve years as a dirigible pilot, he lived as a sky-fighter charged with defending N'ym from both the wilderness hordes and rebel ramjets. Distort tribes who lived hunter-gatherer lives in the vast forests of Valdēmiraën and who united to raid the fisherfolk, the hamlets, and the Aesirai's outlying farms, had always plagued N'ym. In times past, these hordes had been kept at bay by mercenaries hired from the outlying tribes. The rebels, however, were new. They were neither distorts nor primitives but well-armed warriors from the sunny worlds of Doror, who revolted against Aesirai rule with weapons won in battle or stolen. Ned had first heard about the rebels eight years ago from the workers he ferried. The rebels claimed that the Emirate of the Aesirai was collapsing from the inside out—a Storm-Tree rotten at the pith—and that all the people excluded from the elegant cities of the Emirate had allied with distort hordes to overthrow the 750-year-old tyrant, Emir Egil Grimson. The rebels believed that they were close to acquiring a new weapon to help them kill zōtl. Soon, rumors said, the proud City of the Sky would fall to them.

Ned believed they were right. Since becoming a sky-fighter, he had heard much of the rebels' victories and little of the Aesirai's. Worse, he knew the Aesirai had wrongly won their benefits by oppressing others. But for him there could be no escape. He had descended from too ancient an Aesirai lineage to refuse military service without disgracing his family, as well as the reproach of his fellow citizens.

At first, everyone fully expected the rebellion to be crushed in a few months and the Aesirai warriors to return triumphant to their families. There had been no dearth of volunteers. As months had stretched to years, Ned O'Tennis com-

pliantly flew the combat maneuvers of war games, practiced strafing fleeing targets with the laserbolt cannon in his ship's prow and engaging rebel ramjets in air battles. Only once, during leave, did he go back to visit the derrick where his old carrier had moored. A retired cop piloted his dirigible now, and well-armed guards patrolled the docks and escorted each flight. When workers he knew saw him, they looked away. No one wanted to be accused by the rebels, who had sympathizers everywhere, of collusion with the oppressors.

During his two years as a fighter pilot, Ned did his best to avoid actually confronting the enemy. He was not a warrior, that much he knew certainly. His father and his two older brothers had died in military service before the war—murdered in a skirmish with a distort tribe when he was still a boy—and he remembered well the grief that had harrowed his mother and eventually killed her. He never forgot his unanswered prayers and the rueful insight into the pointlessness of his petitions to God when he accompanied his mother's corpse to the crematorium and watched her sit up ablaze and fall back to ash. From that early age—he was nine when she died—he knew intuitively that N'ym was doomed, that the powers of chaos would triumph just as they had in the myths and in his family. Each day would have to be taken on its own, a gift with no promise for a future. No family, no career seemed plausible in this foredoomed life. So he lived for whatever pleasure his lovers and playful friends afforded him day by day.

Ned accepted himself as a dreamer, enraptured since childhood with the prospects of planets and comets, the winding lanes, the terraced houses and cascading gardens. But the war closed in, just as the personal tragedies of his childhood had presaged. Mercenaries had been deserting, and the job of holding back the marauding distort hordes devolved to the sky-fighters. His daily mission never varied: cruise the outlying wildwoods and harry the rovers.

Unlike most of the other pilots, who followed orders and burned the gangs they found, Ned could not kill the forest people. They had only spears and arrows, and though they terrorized the hamlets where the city's workers lived and had murdered some of the people he knew, he could not burn them. His years of conversing with the workers made him wonder if he would act any differently if he had been a tribesman. So he peeled off from the other fighters to minimize witnesses to his mercy, and when he found the wild people, he shot into the treetops above them and frightened them off. His superiors were none the wiser, and he continued glad to be a warrior who had never taken a life.

N'ym's sky-fighters could choose their own missions so long as the city remained untroubled. Ned chose to fly alone, away from the usual policing runs over the coast villages. He flew inland, ostensibly on patrol but actually seeking a refuge where he could think. His grandmother and his uncles—his only living relatives—and his two favorite lovers wanted him to volunteer for a battle post. Waves of wounded and dead returned to N'ym from battlefields on the other fourteen planets—and many did not return at all. A few defected to the rebels, but the majority who were not seen again had been killed in territory lost to the enemy. An enraged and patriotic fervor seized N'ym. But Ned did not partake in the battle frenzy.

Ned sympathized with the rebels, but he did not identify with them. Defection was unthinkable to him. An Aesirai, he would, when the time came, die as

an Aesirai. But he was in no hurry. So he ignored his grandmother's jingoistic pleas, flew in the city's Sky Guard, and tried to stay out of trouble.

He often came to his favorite sanctuary, a bluff in the Eyelands high above N'ym, where Caer, the first great city of Valdēmiraën, had been built five centuries earlier. Caer had been ruins from the start, because it had never been finished. When the Aesirai first arrived on Valdēmiraën, they had selected the Eyelands for their capital, since the vast cliffs and sprawling plateaus commanded a supernal view. The Eyelands ranged so high in the atmosphere that radiation from Saor, the black sun, changed people. Within months of beginning the construction of Caer, the first residents transformed. Their jaws began to glow. The flesh of their chins and jawlines became translucent and light shone from the bottoms of their faces as through lampskins. The change proved irreversible and progressive. From the jaw, the bonelight spread across the skull and down the spine. In time, the skin became oily parchment and the entire skeleton appeared visible, shining like neon. Limbs withered to wiry appendages and torsos flattened and unfurled. Like kites, these luminous lenses of viscera bobbed on the mountain winds, their human faces transfigured into bonebroad visages with inhuman caricatures whose only truly recognizable feature expressed luminous eyes, retinal-red and fiery. Thus, the high plateaus of Caer became the Eyelands to the first Aesirai. Those who had caught the bonelight and been changed they called seraphs. The seraphs did not speak or make any effort to communicate and so the Aesirai learned little about them. None was observed eating or eliminating. Nor did they mate. They simply hovered in the ruins or soared on thermal drafts off the cliffs. If they died natural deaths, no carcasses ever turned up. Those shot down decomposed quickly, and the ones the Aesirai caged withered away within hours.

Ned O'Tennis' willingness to fly to the Eyelands and land his strohlkraft among the ruins of Caer projected his indifference to life as the war drew nearer. It was of no consequence to him if he caught the bonelight and became a seraph. That, he thought to himself, could be no more horrible than the war spreading cancerously in the world below.

One day, roaming among the weathered walls and weed-cracked avenues, he pondered his options. If he stayed in N'ym, he would have to fight. That he would do if the rebels attacked his city. He feared being sent out to destroy guerrillas among the hamlets, where the people he had once ferried and befriended lived in tacit alliance with the rebels. If he refused to destroy them, he would be executed.

Sometimes he thought death appealing. Shirking his war duty and damned to impuissance, he felt filthy being an Aesirai. But he was no nineteen-year-old. He knew himself well enough to understand that death—whether he doled it out or received it—arrived without glory. Life was mad. Men killed each other, and their women cheered them on. Even away from war—where people wove their own meanings of love and peace as they grew old and withered on their bones—life, in its beautiful rags, appeared cruel. Yet death offered no recourse. Life, with all its elaborate pain and for all its senseless trials, lay in his hands. He would not use it to kill wantonly. And he would not let them execute him. Flight remained his only other option. But to where could he flee? All the worlds raged with war. The Storm-Tree *was* toppling.

A voice intruded: "You look troubled, pilot."

Ned jumped about so quickly that the seraphs dangling among the broken walls shot high into the starry sky. A woman stood on the talus of a torn building, a slim silhouette against the foamy light of the galaxy. She stepped down, and he noticed that she wore a silvery shift that rippled with starlight along her slender contours. He backed away, and she called: "Wait. Don't go. I want to talk with you."

She hurried toward him, arms open at her sides to show she carried no weapon, dark hair scattering in the wind from the cliffs. Her face, thin as a cat's, defined for him 'farouche.' But the look in her eyes fixed him, spiked with light like an angel's. In a moment, he saw that she wore gold wire-frame lenses over her eyes. N'ym corrected all eye problems surgically, and he had never seen eyeglasses except in drawings.

"You're the pilot who lets the rebels escape. I recognize your ship."

She spoke a language similar to his own; even so, he was grateful for the tiny translator in his shoulder braid. The coinlike machine was intended to facilitate interrogations of rebels who did not speak Aesirai, and it worked reciprocally, translating for all voices in its range. The sound of the dot-speakers whispered a tinny but accurate timbre, faithful to nuances and accents.

"Who are you?" he asked, suspiciously.

"My name is Chan-ti Beppu. Stay, please. I have no weapons. I'm not a rebel." She stopped an arm's length away. Through the lenses, there seemed to be lightning in her eyes. "You're Ned. I've heard your name on the military frequencies during your flights. Ned O'Tennis."

She smelled cool as pine, and he became conscious of the lactic sourness of his flightsuit. He backed off a step and scanned for others. "How do you know about me?"

Her chip-toothed smile opened casual and quick. "I've watched you. The end for N'ym is coming swiftly. Everyone up here is watching."

"Everyone? Who is up here?" The shadow-wrung terrain could have been hiding a platoon, though he saw no sign of anyone else.

"We call ourselves the Foke. We've been here since before these ruins were built."

"How can that be? The bonelight—"

"The bonelight changes only those who stay still, as your ancestors did by daring to build a city here. We're not so bold. We live simply—I'd like to think elegantly—and we never stop moving. We wander the highlands. We have no cities. But we come back to our favorite places, and this is one of them. From here we can stare down into N'ym and see how the Aesirai live."

Ned looked beyond her, searching again for others. The seraphs had settled back, and their stoic lights blinked among the girders. No one else moved in sight. The strohlkraft sat in the lanky grass, its reflective black hull a mime of the star-whorled sky.

"There have been patrols up here before," he said. "No one's ever reported finding any people."

"We've never been found. Nor will we be. We know how to hide. And Saor helps us. Instrumentation is unreliable under the black sun. So we have been left alone."

Ned found that he understood her dialect without the translator. He left it on for her benefit, though he doubted she needed it. The dark eyes behind her lenses shone with pellucid intelligence.

"Where are you from?" he asked, feeling suddenly at ease with this stranger. That made him nervous, and he shifted his weight to stare beyond her for the deception she fronted. Under the glow of the seraphs and the stars, the shattered city ranged empty. Ferns in the streets shifted blowsily with the wind.

"Where is anyone from? One way or another, we are all travelers in the Overworld."

Ned looked closer at Chan-ti Beppu and made sure she was not joking. "The space inside lynks? People can't live there."

She returned his stare. "Have you tried?"

He studied her face more closely, noting the salt-blond streaks in her shadowy hair, her full bottom lip, the tilt of her black eyes in the pale breadth of her cheeks. "Why are you speaking with me?"

Her slope-lidded eyes widened slightly. "I want to meet the Aesirai who does not kill rebels. Why do you let them escape? They will kill you if they can."

Ned's chin lifted in a movement of obvious wariness. Common sense demanded he get away, quickly. A filament of fear burned dully in his chest, which he relished after the numbness of sitting here contemplating the doom of the Aesirai. If this was a rebel ploy, at least it intrigued him.

"Reasons of the heart, I suspect," Chan-ti answered for him. "I doubt your superiors would approve." Her chip-toothed smile flashed again at the apprehension that sparked in his gaze. "Don't be concerned. I'm hardly in a position to report you. Besides, I'm here now against the counsel of my own people. I understand reasons of the heart."

He edged away, unhappy with the turn of their encounter. She was reading him too closely, too accurately. He wanted to get away to prove to himself that this was no trap.

"Don't go."

"I'm on patrol."

"No one will know."

"You shouldn't be walking up on strangers," he added, pacing backward. "You could get killed."

"You didn't kill your enemy when they were under your guns, why would you kill an unarmed woman?"

He stopped walking. No one had emerged from the shadows to stop his retreat. The only danger here lurked in his heart. So long as he did not allow this fascinating person to lead him away from his ship, he was safe. "You look more girl than woman," he said, easing up enough to smile at her flash of hurt.

"I am not. I'm old enough for all the rites."

"Sure. But you're twenty years too young to be talking to me."

"Are you married, Ned O'Tennis?"

He gave a sleepy laugh. So she did not know everything about him. "No. I'm not married. The times are too parlous for families. Goodbye, Chan-ti Beppu."

"Wait," she called, striding after him. "Don't leave yet." She beckoned with a hand callused and capable. "Before you go, tell me why you've come here."

Ned opened his arms to the broken city under the galaxy. "It's beautiful."

She stepped toward him. "Beautiful enough to risk your life—" He had already turned away and was hurrying through the crystal-stemmed bramble to his ship. "Come back," she called after him. "I want to see you again."

Ned did not look back. This sudden encounter had charged him with concern for his remiss behavior. Perhaps he would return again—but officially next time. If there were a group up here monitoring Aesirai patrols and tactics, they had to be identified. Yet—they obviously knew he had been shirking his duties, and if they were discovered, whoever they were, they would reveal his passive treason.

Ned resolved to do some research on his own. When he returned to N'ym, he went directly to the map registry and reviewed hundreds of satellite photos of the Eyelands. He found no sign of any people inhabiting the ruins of Caer or the surrounding area.

Ned reported sighting group movement in the ruins. After subsequent patrols returned without spotting anything unusual, he determined to go again himself. He had to find out more about these mysterious Foke who watched the Aesirai's struggles from above as though gods. But before he could gather and enter into his ship's computer all the photo-maps of the region, the feral woman from the Eyelands found him.

When the houseguard announced a visitor, Ned at first thought his forays to the Eyelands had been found out and security had come for him. He opened the door braced for uniforms. Chan-ti mistook the relief in his face for joy, and she hugged him, startling him with the iron of her grip.

"What are you doing here?" He quickly shut the door behind her.

"I've come to see you. I need to talk with you."

Ned closed the curtains. His spare suite of empty polished wood floors, a few simple pieces of furniture and a sleeping roll for a bed seemed unused. "I don't spend much time here." He gestured for her to sit in the room's one canvas-seat chair. "You're lucky to have found me in."

"Luck alone introduced us." She accepted the chair. "I'm glad it's still holding."

"What do you want?"

"To marry you."

Ned snorted, picked up his beer, and settled onto the open bedroll. "I could be your father." He took a long swig.

"It's a Foke custom to marry early. I must marry or be excluded from the rites. Only the most grotesque don't find a mate. Your age means nothing to me."

Ned tossed off a silent laugh. His goldfaced friends would howl to see this heathen proposing to him. "Beer?" he offered.

She refused with a tight shake of her head, eyes glittering with interest to see him in his austere environs.

He drained what remained in the bottle and stood it on the floor. "Why me?"

"Only you." Chan-ti pale and intent stared. The elegant proposal she had crafted for this moment fled before the heat of her emotion. She spoke off the top of her head, "I never expected to marry anyone. I'm odd-looking among the Foke. But then I saw you—saw something of your story. You had come up to the Eyelands and risked your life for the vista of stars—for beauty."

"It's not like that. You don't understand."

"I think I do." The certainty in her voice silenced him. "I've watched you in your ship. You alone of the dozens that fly their missions each day do not kill your enemy when they are before you. You are a reluctant warrior. Yet not cowardly. When you come to the Eyelands, you don't care about the bonelight or the distorts. You could hide anywhere less dangerously. But you're not hiding from yourself. You come for the beauty, for what is eternal in a world of temporary lives."

Ned's heart tripped at what she had said. "How do you know so much about me? How did you find me?"

"The Foke are an old people. They came through the timeshafts long ago. Over the years, they've borrowed languages, ideas, technology, everything from those around them. We watch you with monitors that patch into your own high-orbit scanners. Some of the Foke know how to use refractions from the black sun to hide our signals. We see and yet we are not seen."

"But why don't our scanners see you?" Ned asked. "I've studied the satellite photos of the Eyelands. There's nothing that shows any of the technology you're talking about."

"That's because it's not there. The Foke watch you from the Overworld."

"I don't believe you."

"Then marry me and come see for yourself."

"I don't want to marry you. I don't know you."

Chan-ti lowered her gaze. "You're right. I'm sorry. I came here to give you the chance to know me."

"You still haven't told me how you came here. Who sponsored your visa?"

"I came down the cliffs and in through the Back Gates."

"N'ym has no gates. People are ferried in and out."

"The Back Gates are in the Overworld. They timeshaft into the city."

Ned frowned.

"I keep forgetting," Chan-ti said, curling tighter in her seat. "You don't believe people can live in the Overworld." She mulled a moment. "I live there. We all do, in a way, since the worlds are connected to each other through the Overworld. That's the way these worlds were built."

"Built?" Ned rolled his eyes. "I should've known. You're a creationist."

"How do you think these worlds got here?"

"The same way as everything else. They evolved out of dust and gravity."

"Have you *looked* at these planets? No natural gravitational system could exist so compactly."

Ned's eyebrows rose. This woman looked as mongrel as any of the workers from the hamlets, while utterly lacking their surly ignorance. "And how do the Foke say the worlds were made?"

"The World Eater made them to trap the spiders—the zōtl—who are her natural enemies. When she has trapped enough spiders, she will devour the worlds."

"Really?"

"Yes, really. And stop looking so smug. The Aesirai aren't so smart. You don't even know that the World Eater is an alien intelligence, like the zōtl. She makes everything. Where do you think the people come from who are not born?"

Ned regarded her narrowly for a moment. Perhaps she was right, he thought. He had read about that in some of the science journals he occasionally peeked at while waiting for routine medical clearance at the airfield clinic. On some planets, lifeforms spontaneously generated. Most researchers attributed that phenomenon to zōtl experimentation.

"Well?" Chan-ti pressed. "The worlds themselves are machines, Ned O'Tennis. The machines are remembering the lives of Earth."

"Urth? Is that a Foke spirit world?"

Chan-ti sighed. "We have a lot to talk about. You've been too secluded among the Aesirai. Your Emir knows that if you saw the truth, you'd revolt. Come away with me. Let me show you the Overworld, where you say people cannot live."

Ned rose, faced away from her, trying to feel his way clear of his amazement. He sensed this woman's sincerity, but he did not know what to make of it. He turned a puzzled frown on her. "Are you real? I mean—do you know what you're doing to me? I have a life here."

"No, you don't," Chan-ti insisted. "And anyway, it's over. All you have left in N'ym is death. I am offering you life."

Ned laughed and rocked his jaw. "If I marry you." He noticed that his insides felt bright. He could not free himself from his astonishment that the world he thought he knew well enough to be trapped by could again become secret and offer its mystery to him. For the first time in over two years, he warmed with genuine interest. He decided to be frank: "Don't want me. Desire *is* fear. Don't you see that, Chan-ti Beppu? We never desire what we're sure of having. More often, we desire what we can't have. Go back to your secret world. Forget me. Desire *is* all about doubt and fear."

"Is that why you never married?"

Ned met her avid stare. "You're right about N'ym. All that's left here is death. Fate has chosen against N'ym. I saw that young. I won't bring children into this doomful time."

"All the more reason to come with me, Ned. I can show you a life you don't even know exists. Come."

"I want to go with you," he admitted and sat down again. "I want you to be real. I want the stupid inevitability of this war to be over and forgotten. But how can I go with you? We *are* at war. I can be called to battle at any time."

"Ah, duty. You talk of battle, but it's not your war, Ned. I know. I've watched you avoid the enemy on your patrols. Don't let an accident of birth kill you. Come to the Eyelands with me. Let me show you my world and me. You can see the Back Gates and the Overworld for yourself."

"That's desertion. I could never return."

"Take me in your ship, then—on your next patrol." When she read the possibility of that in his earnest stare, she added, "If you do not recognize what I show you as your home, then you can return here without me—and I will not bother you again."

"No." Desire, mixed with curiosity, carried its own rigors. He would not let it run away with him. "I won't go with you, Chan-ti. I don't know you. But you can stay here if you want. It may cure you of me."

Her face lit up with a passion that almost made him regret his offer. But before that night was over, all remorse evaporated from Ned O'Tennis. Apart

from being a worthy lover—which she was, her astute and athletic body surprising him not only with her conjugal mischief but by the virtuosity she inspired in him—she was also, he discovered, good counsel. He recognized that at once, when she showed him new ways of seeing his problem: “Death is too particular,” she told him. “You would waste your life giving it over to generalities like race and culture, even family, when death demands everything from you.” She spoke consolingly. “I would have done the same as you. Patrol and not fight, I mean. And I’d be just as wary of a stranger from the Eyelands, too. We should learn *something* from the insects that couple and then eat each other.”

She baffled his suspicions and cosseted his longings. Most vital of all, she shared his passion for beauty. Before sunrise, they were already on the streets, and with her at his side, he met the world anew. Beneath the raucous ivy of garden walls, they discovered graven murals of fauns and dryads in their root-woven snuggeries; they caught glimpses of real elves in the smoky violets of a slovenly yard. Suspended by the charm of a dark wood flecked with fireflies, they stood hand in hand on the crest of a hill staring beyond the city, while the galaxy set and several comets feathered the purple zenith.

Impulsively, Ned wanted to buy her a souvenir—some clothes, maybe a pearl-trimmed silk gown fashionable then in N’ym, so that they could eat at the elegant twilight cafes on the rooftops of centercity. But Chan-ti wanted only Ned. So they picnicked in vest-pocket parks, by flower-cirqued fountains, and on the Rambles among the blue pines at the top of the city, near the rim of a crater lake. It hardly mattered where they went, for, as the days passed, they found themselves in each other. To Ned, who at nearly twice her age had long ago become cynical about love, the sensation felt both new and comfortable. All pretense fled. It was as if Chan-ti could see through his soul better than he could see through himself, and she would love him for it anyway. When his other lovers called, they seemed suddenly more alien to him than this stranger who had come to him out of nowhere.

During his routine patrols, alone in his strohlkraft, Ned wondered what had happened to him. Had the Foke-girl somehow drugged or enchanted him? He felt like an adolescent, splendidly giddy, yet weirdly more sober and caring. Had he known that such an exquisite feeling was possible before this, he would have pined in its absence. Even his carefree ferry-years seemed hollow now, a conflagration of twilights wedged by frolics with sportive friends. The deaths of his parents and brothers had been enough of careworn feelings for him. Even the strife of the laborers he had transported for twelve years had only troubled him superficially, never enough to spoil his capers with his lovers and friends. But now, he could not be apart from his Chan-ti at all without fearing for her well-being. *His* Chan-ti. Like his arms or eyes. Her presence empowered him—and the thought of her loss, though he had known her for only a few days, threatened devastation.

To keep Chan-ti at his side and to relieve the anguish of seeing the war-wounded, ever more prevalent on N’ym’s streets of runic beauty, Ned decided to meet the Foke. He took advantage of horde sightings in the forests to the north to file a three-day stalk-and-kill flight plan with his superiors. Routinely approved, Ned drove to the airbase with Chan-ti Beppu hidden in the trunk of his electric sedan. He got her aboard his strohlkraft inside a munitions caisson.

Once airborne, she clambered out of the chest and into the sling beside him, reeling with the vertigo of her first flight.

Lod, an amber star, had risen high among the sky's teeming planetoids when they flew into the Eyelands. Ned soared over Caer, scrutinizing the jumbled terrain of brambly tumuli and the checkerboard tracery of ghost streets and toppled buildings. The nearby crags looked empty but for whispers of grass and mist. Far away, beyond the steely curve of the planet, night loomed. Stardust and a few planetesimals glinted against the anonymous black of Saor.

He landed on the wide sward of the city's concourse where he had put down before. From there, they could see past the trillium-sprouted barrows at the cliff's edge to the amethyst gulf, the plateaus, and N'ym, liquescent and diffuse with distance. Ned strapped on one of the two laserbolt pistols he kept fitted to the bulwark by the ship's portal, set the strohlkraft's lock-alarm, and lifted the gull-wing hatch, admitting the balsam coolness of the Eyelands.

"You won't need your gun," Chan-ti said.

"It's not for me. It's my gift to the Foke." Though, in fact, he carried it for what there was in him of his father: If he had been a fool of love, he would at least not be caught entirely naked.

Chan-ti put both her hands on his chest and let her happiness show. "No harm will come to you here. You're with me." She stepped out into the haze of galactic light and led him among abstract shapes in the dead city. They came to a crumbled tower purpled with thick grass and wild verbena. She glanced back at Ned, thumbed her spidery-gold spectacles farther up along her nose, and dropped into the dark.

Ned peered after her and saw a shaft under a lintel of blistered roots. Chan-ti hung from a handhold of rimed rock and waved for him to follow.

Ned shook his head with amazement and followed. He climbed down among voluted roots and rockgrips, through crimped light and impatient odors seething from below. The blue smell of a storm thickened as he descended. At the bottom, the shaft slid sideways, gritty with quartz. He spilled into a grotto ablaze under a geodesic of lux-tubes. Python cables looped densely along the raw rock ceiling above the geodesic, which housed a platform deck of prismatic switch controls, bubble screens crawling with phosphor codes, and blackbox power units stacked atop each other. Squat, sturdy people in blue fatigues clustered around the platform and waved and smiled at Chan-ti Beppu.

"This is one of our mobile sentinels," Chan-ti said and signaled to the grinning crew to keep her entry quiet. "From here we monitor all aircraft on the planet and in near space, especially fighter ships like your ramstat flyer. I watched most of your patrols at that console."

The thunderstorm smell roiled from here, ozone seeping out of the nexus of power units. Ned openly gawked at the patchwork of hardware cramming the grotto. Chan-ti made no effort to introduce him to the operators on the platform deck and strode past them to a frosted glass screen on rollers. Behind the screen extended a long, battered wood bench cluttered with unspooled coils of iridescent magnetic tape and a disemboweled tracking probe. A holocube in a nest of fiber cables displayed Ned and Chan-ti in staticky colors.

A trollish old man tinkering with the scanner stared at the image with an open mouth, then looked up with surprise. "Beppu!" The gnome took her in a sudden hug and gazed up brightly into her face. "You found your way! Beppu-

Beppu! You have returned joy to my days!" He hugged her again, then faced Ned with an appraising look masked by a grin. "So this is the gentle warrior."

"Ned O'Tennis," Chan-ti said, "this is my father, Nappy Groff."

With two big hands of almost metallic strength, Nappy seized Ned's right arm and bowed his head. "Never has an Aesirai visited the Foke. We are honored."

"I'm the honored one," Ned responded, awkwardly, "that your daughter would seek me out."

Nappy beamed with pleasure, winked at Chan-ti. "No great wit, this Aesirai—but worthy. Have you truly made him yours? Tell me everything."

Chan-ti expansively recounted her trek down the eaglebrow cliffs and across the haunted plateau to N'ym, and breezed over her courtship of Ned. When she finished, Ned presented the laserbolt pistol to Nappy. Chan-ti had told him the Foke took their weapons and all their technology from wherever they could.

Nappy accepted the pistol with a deep bow. "You'll see more of me than you like if you grace us long enough." The gnome shooed Ned and Chan-ti into a narrow, vaulted corridor illuminated with lux-tubes. "Show him the Overworld he's heard too much about."

Chan-ti took Ned's hand in her strong grip and led him into a pindy breeze that thickened as the corridor opened to a gentle green rain. Through thin sheets of a sunset shower, a sylvan terrain appeared. Blossoms splashed color off hanging vines among giant, tumultuous trees. Emerald sierras rambled above the forest. Sunset clouds sprawled like kelp. Beyond the mountains, the black sun filled the sky—a starless night that mantled the horizon as far as could be seen.

Ned could not believe the verdant landscape before him. He had traversed the Eyelands enough times to know with certitude that only tundra, treeless and rockstrewn, occupied the arctic ranges above N'ym. He had seen satellite photos of the pole, had inspected the glaring deserts and splotches of taiga. No sequoia forest this immense could elude those high cameras.

"This is the edge of the Overworld," Chan-ti spoke above the cold notes of rain dripping from the rock arch. "It's a natural lynk formed by the open event horizon of the black sun. The cleared area here near the timeshaft we call the garden."

"Timeshaft? You mean, the corridor we walked through is a lynk?"

"A natural one. The black sun reflects this part of the planet. The whole region is really a reflection in the Overworld. If you stay on this side of the garden, you stay on the planet. You follow it left or right, you can practically walk all the way around Valdēmiraën. But if you cross the garden and go into the forest, you wander deeper into the Overworld, off-planet and timeloose." She cast her stare toward the dark trees. "Out there, spacetime opens up infinitely. That's why the Aesirai have never spotted this forest on their patrols over the Eyelands. The forest is not really there. At least, not on Valdēmiraën. It's there only in the Overworld, the timefree space inside lynks."

The shower had dwindled, soft as a breath in the hyacinth-colored air. Chan-ti Beppu walked Ned down stone steps to a lawn diamond-pointed with raindrops. "We never know what's going to come out of Saor's Forest, so we have to be careful. Monsters come from there —distorts and the spiders that

eat us, that ate my parents. And some of our people have come from there, lynk wanderers who got lost.”

A pine shadow breeze prickled them with cold flecks of rain. Ned stopped walking in a shaft of champagne light. He knelt beside Chan-ti and stared closely at the raindrops gleaming in the grass. The reflections in each drop dwindled with jigsaw-like patterns into snowflake-lace. The same in each blade of grass. In the cellular mosaic of each leaf, the same almost microscopic puzzle-shapes repeated.

“Those are the timelines I was telling you about,” Chan-ti said. “They’re miniaturized images of the Overworld architecture. We’re reflected in there. So is everyone in all the local worlds, every animal, plant, and bacterial colony. You just have to know how to read them.”

“I see them,” Ned whispered, “but I still don’t understand.”

“I don’t think anyone really understands timelines any more than we understand light or gravity or inertia. They’re part of the natural world. The natural Overworld, I mean.”

“Do the Foke study these?”

“Oh, yes. You see, in the Overworld, we’re outside the time of the other worlds yet intimately connected. All random events here reflect the relationship of all existing particles in the world of time. When you’re in Chalco-Doror there seem to be endless things—leaves, insects, grains of sand, atoms. But, actually, there are a finite number of all things. And how they relate is very specific. You can see that relation here in the timelines. To study it more clearly, the Foke sometimes use photographic plates, where molecules of silver halide swirl randomly. The patterns that emerge here in the Overworld reveal the timelines for this region of spacetime. They are extremely complex, but once you begin to identify the parts—yourself, others, landmarks among the worlds—you can read what’s going on outside the Overworld.”

“Then no one can hide.”

“That’s right. If you can read timelines, you can find anyone, anywhere.”

“It’s as strange and wonderful as you said,” Ned admitted, closing one eye to see more sharply the fractal outlines in a bead of rain. The richness of the enchained colors staggered his effort to see the whole. “The Foke are incredible to live here.” When he looked back at Chan-ti, the wet intensity of her stare startled him. She took his hand into hers.

“That may be,” she told him, voice low and reckless, “but you are as incredible to me as the Foke. You see more than what is there. Yes, it is strange to see the timelines. And stranger yet to realize that all of us, at one time, have been in the Overworld, whether we know it or not. We live at the very brink of infinity. Yet not all of us see past what is before us. The Foke are not rebels, intent on power. We are just survivors. Very practical, hard-working people. That is our weakness. We have surrendered our dreams for clarity. Even the rebels have dreams. But the Foke, we are too vigilant. Otherwise we would lose ourselves up here to the bonelight or to the horrors that rush out of these woods.”

Chan-ti released his hand and looked again toward the tree haunts, where someone was playing a flute. “Nappy and the others cannot bear to give up watching,” she went on. “It has become an end in itself. But I want something of the dream. When I come here and see the guardian cedars and pines, the heavy forest walls hung with blossom clouds and tree fog, I touch the dream in

beauty—and I feel alive. Yet, I know that feeling cannot last, for nothing lasts. And then I burn with the need to find that beauty in my life—to live the dream, no matter the cost, because in the end, however we live, we pay with everything we've got." She faced Ned with bright expectancy. "Just as you live. That's why I would go anywhere to find you, to be with you in your dream."

A crow hacked from the great trees, and Chan-ti glanced apprehensively at where shadows stirred in the glittery dark. A green deer strode into view, regnant under a crown of white antlers, blinked at them and walked away.

Ned blew a laugh. "Maybe I could live here." A new, sudden reality had opened, and the truth of it sank in with a riddling urgency to reach out and embrace this woman who had led him here. Who was she really, this bespectacled waif who saw beauty as he did, a mortal act? And what of the war? What of his duty to N'ym? Now that he had found a place apart from the killing, could he belong here?

Chan-ti sadly read his questing thoughts. "There *is* an adage from the *Glyph Astra*—"

"That old farmers' manual? Is that still kicking around up here?"

"It's old, but its truth does not age. Especially when it tells us that life is short—but desire, for all that lives, desire is forever."



The first two days of Ned's stay with the Foke passed swiftly. Chan-ti introduced him to the whole tribe at a dinner in his honor in the mead grotto, a lux-lit cavern large enough to hold several hundred Foke. They dined on food garnered from the Overworld, including rainbow trout, endive and walnut salad, and saffron rice. Chan-ti felt proud of her choice for a mate, for he showed kindness with the youngest of the Foke and respect with the eldest. Everyone spoke of how glad they would be to make a place for him in the community and among the rituals. After the leaf-plates had been rolled up and thrown into the cooking fire, signifying the satisfaction of the diners, Ned saluted his hosts with an Aesirai melody in a baritone brightened by three goblets of apricot wine. Fervid round dances closed out the evening celebration, and everyone went to their beds delighted with the gentle warrior.

The dream endured until early the next day. Chan-ti and Ned had crept out of the sleeping barrow early to make love in the garden, and were in the midst of their passionate delirium when Ned's monitor burred loudly among their heaped clothes.

"What's that?" Chan-ti asked, almost flung from him as he bolted upright.

"Battle alert!" He fumbled through his flightsuit to turn off the alarm. "I have to get back."

"No. You can stay. You never have to leave." She groped for her glasses.

"I can't." He tugged on his suit and hopped out of the covert where they had lain. He clasped his boots with iron-jawed anger. "I was going to return the strohlkraft and ask you to take me out the Back Gates. That was my plan. But now there's no time for that. I have to go alone."

"You mustn't go back now," Chan-ti insisted. She threw on a shirt that fell below her knees and followed barefoot. "Your strohlkraft will make no difference."

Nappy Groff witnessed Ned's hasty departure through the grotto and Chan-ti's distress as she hurried after. He left his workbench to follow the hubbub and bumped into an excited operator from the sentinel station. He told Nappy that the bubble monitors on the deck flurried with data bits showing incoming high-orbit flyers, thick as a snowstorm, descending on N'ym.

Nappy hurried after Ned and Chan-ti and found them on the ferny course of Caer, the ruined city, facing off before the warrior's strohlkraft. Chan-ti wept. "You'll die."

"Perhaps."

"Not now. Not while we're together."

"Your sentimentality means nothing to him, Beppu," Groff said, striding through the saw-grass to her side. The inevitability of this moment angered him. "We thought he could be one of us. But he is Aesirai. His time in these worlds is over." He slid his eyes toward Ned with annoyance. "Let him go—and begin to forget him."

Ned looked hard at Nappy Groff, sad music in the pilot's voice. "If I had left my strohlkraft in N'ym, I would stay. If the rebels had waited just another two days, I . . ."

"If zero could shut its mouth, none of us would have to be here in the first place, fool." Nappy Groff's sour face trembled irately. "Go! Go, Aesirai pilot, and fight your enemy. Die a good death, Ned O'Tennis."

Ned faced Chan-ti. "I have to be there now. I have an Aesirai gunship. I must return it or use it. If the fates let me live, I will be back."

"That's stupid." She punched his chest, and he let the blow turn him. "I'll never see you again."

His hurt found no voice. The battle alarm whined from the cockpit and would not relent until he lifted off. He kissed her forehead and quickly swung through the hatch.

"Wait." She held out a black wafer edged in silver. "Take this."

"Beppu—" Groff interrupted. "You'll need that. We can't afford another for you."

"I won't want one if I lose him," she said. "I have to know." To Ned she added, "It's my tracer chip. We all have one, in case we get lost in the forest. As long as you have it, I can find you. Take it, please."

He took it, squeezed her hand. "I'll bring it back." He smiled narrowly and pulled down the hatch.



Ned arrived at sea level to find N'ym's last defense already collapsed. The dunes blazed, littered with burning hulks of the battle rigs that had guarded the shore. Towers of black smoke leaned against the stars and gouts of flame crawled up the sky.

On the slopes above the beach, where the workers' hamlets had been, fiery nests shimmered. The rebels' armada swarmed in the sky before the palisades, just below the city, battering the remaining bunkers that shielded the low approaches to N'ym. In moments, enemy flyers would sweep over the eaglebrow cliffs and devastate the Aesirai metropolis. Laser cannon that had prevented the rebels from dropping directly on the capital scythed the sky in vain attempts to hold back the adroit fighter craft.

To prevent being hit by the strobing laser bursts, Ned banked sharply over the Silver Sea, directly into the rebels' line of advance. Only a handful of the Sky Guard remained, and as he watched, most of them burst into fireballs. He pulled into a climb, deciding to risk the laser cannon and find a way into the city. As he came out of his curl, the palisades glared white. An immense explosion ruptured through the glare, sundering the cliffs.

Ned leaned hard on his yoke to avoid flying head on into the bowshock. The ship's radiation detectors glared red. He had not expected a nuclear attack from the rebels. He thought they would have wanted to ravish the city, not simply destroy it.

When he came out of his dive, lifted by the shockwave, he could find no trace of N'ym. It took him a stunned moment to understand what had happened. The pylons of the city had severed. The massive ramstat engines embedded in the foundations had fired simultaneously, and N'ym—rather than submit to its enemy—had launched itself into the sky.

Ned's skyward arc bucked the crest of the shockwave, and he had a moment to gaze up and see the refulgent blue glare of neutron fires carrying the city toward the stars. Colossal bolts of lightning barbed the sky as N'ym smashed through the ionosphere. Rebel ramjets scattered in a buzz of sparks, swept aside by the turbulence of the flying city.

Ned had known that N'ym had this capability—he had toured the titanic engine chambers as a boy with his school class—and he knew the ultimate destination of the city. No enemy would harry N'ym where she was going now. The huge ramstat engines hurled the city into the black sun.

Turbulence flipped Ned out over the sea. By the time he wrested control of the ship from the cyclonic blast, he was skimming starslick wavetops. Tears smashed his vision. N'ym was gone. The eaglebrow cliffs had collapsed to rubble where the city had been. The glassy spires and minarets, the idyllic plazas and park glades, the hillside houses and hanging gardens where he had learned beauty, all gone forever.

Ned cried, glad his parents had not lived to see this. And he anguished for lovers and friends thrown into space. The ramstat generators would dome the city in a pressurized atmosphere and provide inertial gravity. The Aesirai who survived the quake of the launch would live to see Valdēmiraën and all the shining worlds fall behind them, and the cosmic blackness of Saor engulf everything. They would live free a while longer, a few weeks, before the tidal forces of the black hole ripped them down to their very atoms and then to nothing. There would be no ruins of N'ym. Only light would remain, stretched long by the fall to forever.

A wall of rebel flyers loomed ahead of Ned. Laserbolts seared around him and struck the sea in splats of steam. Ned dove. The impact of the splash jarred through him. Flying by scan, he located his objective on the panel's sonar. The lynk under the Silver Sea tendered his only hope of escape now that N'ym was gone. It appeared as a blue glyph on the green scope. The rebels who had peeled off to stalk him showed as four red blips, hot on the white pulse signifying him. But they were not the real threat. Static lines twisted directly behind the enemy pulses. That was the blast force from the nukes and the ramstat thrusters churning boulders through the water at nearly the speed of sound. When they hit, his craft would shatter.

Ned powered his engines to the limits of stability. There would be no time to brake before entering the lynk. He had to full throttle to get there or he would fall into the range of rebel fire. From training, he knew that entry to the lynk was prohibited at anything but full stop and slow glide. “Fock!” he shouted at the warning array that flashed and clanged from the control bank.

*LYNK VIOLATION* blazoned the view-visor. At his speed, he would be flung clear of the known lynk lanes and plummet deep into the trackless Overworld.

Two of his pursuers pulled up to avoid the lynk and get clear of the advancing shockwave. Of those that pursued, one blip vanished in the encroaching static. The last bore down.

Ned sighted the lynk visually: the silver arch he recognized from a hundred photos, radiant in the benthic dark. The bulky cargo transports that usually clustered about the lynk had been cut free and drifted aimlessly before the portal. Ned steered clear of them but made no effort to brake. Ahead, the lynk swelled closer, a mute gray parabola. Bracing against transition impact, Ned aimed for the center.

As he shot through, no disturbance rocked him. The view went blank as an empty page. He braked hard. Thunder rattled the craft, and dazzling colors snapped into random shapes. The ship slowed, and the shapes reformed, composing an undersea view similar to where he had just been. On the scope, he found the blue glyph of the lynk, far behind him. The red blip chasing him came through the lynk at a steeper pitch and vanished.

Ned slammed off the klaxon and warning lights. Ahead floated the jagged outline of a coast. He pulled back on the yoke to surface—but the engines had failed. The ship began to sink. Swiftly, he angled the fins to minimize the speed of his descent. A quick scan of his console revealed the engine’s depleted ramstat cells. Weeks would pass before they could fully recharge. He had neither the air nor food to last that long.

In an instant, he made the decision to eject. He unstrapped himself from the flight sling, punched in a departure sequence with a time lag, stripped off his clothes, palmed his translator and the finder chip Chan-ti Beppu had given him, and crawled to the bomb-bay airlock so that his leaving would not flood the craft. Maybe later he could retrieve it.

Caused in a whoosh of silver bubbles, he dropped from the strohlkraft and pumped for the surface, trailing in bright streams the last breath of his first life.



“He’s in the Overworld,” Nappy Groff said, reading the numerics from the bubble monitor. “Deep in the Overworld.”

Chan-ti Beppu stared over his shoulder, then straightened. “I’m going after him.”

Groff hung his head and turned about slowly. “Forget him, Beppu. He’s too deep. You’ll never find him.”

“He still has my sender. I’ll find him and bring him back. He’s mine now. N’ym is gone.”

The operators who had been on the platform deck when N’ym launched into space still milled about, muttering with amazement. Groff signaled for one of them to assume his post, and he rose and took Chan-ti by the hand. He led her

off the platform and behind the partition to his cluttered workbench. “Forget your grand notions of love,” he insisted. “*You* know there’s no place for love in the Overworld, what with the zōtl and the distorts. You’re safe here with us. Out there, we can’t help you.”

“Come with me, then.”

Groff’s blue eyes bulged. “Are you daft? Only a fool would do that. No one among us will go with you.”

Nappy Groff was almost right. When Chan-ti Beppu announced her quest that night, at the gathering in the mead grotto to discuss the consequences of N’ym’s annihilation, only two came forward: Spooner Yegg, a thief from no one knew where, who had retired among the Foke when he got too old to ply his trade; and Moku the Beast, a distort whom children had found in the skirts of Saor’s Forest half dead from an infestation of viper-slugs. A mute giant with gray, warty hide, Moku frightened all with red satan-eyes under a serrated browblock. Across the bull-breadth of his back, tufts of mane splotched him like dribbled tar. Within this chest like an oak bole, badged with the black strokes of a tiger’s flank, thumped a heart both powerful and friendly. Since his recovery he had been living in the garden, scaring away most of the other distorts that approached, finding his own food—mostly tree bark, orchids, and large insects—and playing a crude flute notched to fit between his massive fangs.

Spooner Yegg, a tall silver-haired gentleman with a pencil moustache, had befriended Moku early on by amusing the Beast with sleights of hand and acrobatics while the distort recuperated from the the viper-slugs. Moku had become attached to the old man, and when Spooner decided to go with Chan-ti, the Beast volunteered as well.

Groff could not believe it when Spooner volunteered himself. “You tired old skeleton,” Nappy said, leveling his most skeptical eye on the tall thief. “Your clown tricks aren’t going to amuse the zōtl. Better you stay out of the Overworld—stay where there are people to take care of you. These are your last days, clown.”

A slow smile graced Spooner’s sly face. “And don’t you know, Nappy, that’s just why I’m going. You didn’t think I’d burden you and my good friends here with my lifeless bones. Let the zōtl gag on me if they want.”

“That coot’s only going to slow you down,” Groff muttered darkly to Chan-ti. “You’ll be worse off than if you went alone. If you must do this fool’s errand, at least wait until Gorlik gets back. He’s an able wanderer.”

Chan-ti’s lip flinched. “Gorlik? How can I ask Gorlik, of all the Foke? He’s on a *grief* sojourn, for God’s sake, because I *refused* him. How eagerly will he search for the man I chose over him?” She bent her mouth to the gnome’s strict profile. “Give me your blessing, Nappy. I want to know you’re not angry at me for following my heart.”

“Blessing? Fah! You’re a child. You think I reared you these nineteen years so you can throw your life away? You’ll never find that damned pilot.”

Chan-ti resolutely took from her thigh pocket a slender case with a transparent housing that revealed gold circuitry and a series of microlights. “Nappy, now listen. I’m taking this directional finder with me. I can’t go without it. But I’ll return it, I promise.”

"Then I'm keeping the power chip," Groff said, holding up an orange cluster-plug no bigger than a pinky nail. His trollish face widened around pursed lips as he dropped the plug into a pocket of his leather apron. "Now, as you said yourself, you can't go."

"Nappy!" Chan-ti whined. "Why are you denying me? I need Ned. He's as much as I've ever known of soul."

"Soul! Ha! What does a child know of soul? You are staying here. Maybe after you've worked for the Foke a few more years you'll earn some soul. Then you'll thank me for keeping you out of the grasp of the zōtl."

"Has the thought occurred to you, Nappy Groff," Spooner said slowly, soberly, "that you're keeping apart two halves of one soul? Let the girl go. Give her the power chip. I'll see to it that she and your precious hardware get back to you."

"You will see to it!" Groff bit off a harsh laugh. They were standing on time-bellied stone steps under the endless evening of the garden, and the loud laugh frightened a white crow into flight from a nearby cedar. Groff, who by standing two steps up from Spooner could stare him in the eye, jabbed a finger into his chest and almost toppled him. "You, *sir*, are of no use but as a fool for distorts and children."

Moku, squatting on the sward, growled.

Groff passed him an ameliorative glance and a wave. "Which only Moku has redeemed on your behalf by serving the Foke as a superlative sentinel. I'm glad we're not losing him to a hopeless quest."

Spooner brushed his thin white moustache and smoothed the wrinkles on his black jacket. He always wore black, neck to toe, and a black cap that could be pulled over his face but which he usually kept at his hip with his sable gloves, for he was proud of his white, feathery hair. "Let's go. This man Ned what's-his-name needs to be found and we're not getting any closer standing here."

Chan-ti cast the thief a dolorous look. "There's no point to it now, Spooner. Without the power chip, our finder's useless. The Overworld will swallow us."

Spooner stepped down to the sward and crooked a finger at Chan-ti. She slouched to him. He chucked her chin, and his long fingers produced the cluster-plug.

Groff's eyes widened. Slapping his apron, he found the pocket empty. "Spooner Yegg—thief! Give it back at once!"

Spooner lifted a delicate eyebrow. "I see you're not amused. Hmm, not a distort or a child." He smiled at Chan-ti. "Let's go."

"Come back here, Beppu!" Groff shouted. He started to run after them, but Moku's red stare stopped him. "You'll be killed. Worse! The zōtl will wear your flesh!"

Chan-ti called, "I'll be back, Father," and followed Spooner and Moku, who had gathered their packs and were already striding into the forest. "Don't worry for me." She waved, hoisted her pack, and dashed after her companions into the shining darkness of the treacherous woods.

# COSMOGONY

Nothing is free.  
Everything is given. But only what is received is known.  
We never see the origin, just its kingdoms.  
In reality's shadow, the blind see best.

—proverbs from the *Glyph Astra*



The dark planet Mugna's orbit never departed the black aura of Saor. Its north pole pointed perpetually at the event horizon, a sky forever lightless. At the highest of its north polar mountains, a crag called Dragon's Shank, boreal winds shrieked in acoustic patterns like psychofrenetic voices.

The palace of Perdur squatted there, at the tempestuous summit, an immense citadel of metallic glass cast in the grotesque shape of a horseshoe crab's underside: slick jet walls of convoluted bulges, jointed segments at odd angles, vitreous plates in which enormous insect parts seemed embedded. The zōtl had constructed this horror. They had designed it to terrify their human prey. Webwork of black-green resin wreathed the goliath portals with tortured human-shapes: splayed ribcages, twisted embryos, shattered faces, jawbones ripped loose, eyes screaming with living terror. Corridors huge as runways, mirror-smooth surfaces smeared with delirious acid colors, traversed lithic forests of vipercoil columns and scorpiontail buttresses.

Lattice hives chambered the distant walls among teratogenic bas-reliefs of skeletal contortions.

At the core of Perdur loomed an inhuman geometry, an asymmetrical dolmen of encrusted larval shapes above a giant well rimmed with thousands of resin-ambered human heads, each locked in a rictus of extreme pain. Here the Saor-priests came to hear the bidding of the Face of Night, the deity who spoke from the black body of Saor itself.

Here in the Age of Dominion, the Saor-priest Fra Bathra and the other priests arrived when summoned. Bald and black-robed, as all Saor priests, Fra Bathra stood fearfully before the zōtl's lynk, the icy breath of the well stealing heat from his body in spidery fumes. Like all the Saor priests, he had been bred in the lattice hives, mothered on dragon's milk that had bulged his forebrain to a telepathic lobe. Through that cortical growth, he heard commands from the Face of Night. The great Saor witnessed everything among the worlds of Chalco-Doror from his perch above time at the brink of the Overworld, and through him the Saor priests knew all.

In the minds of the priests, the thunder voice spoke: *Today N'ym has fallen—broken free of Valdēmiraën and fallen into me. I hold the City of the Sky to my dreamless limits. In the clench of my gravity, at the radius of infinity, N'ym falls. Self torn N'ym will fall forever, her Aesirai now the children of my void. All but one. Today that one has fled me through the lynk beneath the Silver Sea. Today that one is no longer of today. He has fallen out of the Age of Dominion, across time, unchaining worldlines. Impure patterns disrupt the millennia. Time is broken. Anything can happen. Little of it good. This last Aesirai must be found. He is the strange attractor in a chaos that dooms our worlds. Find and destroy him.*

The smiting silence that ensued drove Fra Bathra backward over the acid-splotched colors of the nightmare boulevard until he backed into the alcove of

broken limbs where the other priests waited. They knew at once what he had experienced. Their sharing already informed them what had to be done. “Who is the creature most able for this killing?” they asked among themselves. An image appeared in their telepathy of a scyldar, a faceless manikin, woven of the reassembled parts of murdered humans.

“Send us our most able scyldar!” Fra Bathra shouted.

From the gargoyle shadows, two nongyls—insectile-humanoid dwarves—peeled free from the nutrient-lustered walls and scuttled off, manus-toed legs clacking against the glassy floor, abstract faces mewling as their blind segmented bodies read the chemical trails that led to the vats, where the scyldars cooked.

Far down in the slime pits of Perdur, in the lightless marrow of the Dragon’s Shank, colossal vats stewed human parts in a lake of amino acids. Nongyls labored within those black, ichorous depths, their needling mouthparts shifting rapidly into multifarious combinations as they stitched human tissue, assembling homunculi required by the Saor priests to fulfill the commands from the Face of Night.

Out of a steaming vat rose an indigo-skinned manikin with a torso like a wasp’s, jointed narrowly at the waist and powerfully ribbed; neon veins circled the creature’s massive arms and legs. The long, malformed skull dented oddly, the face featureless as the carapace of a beetle, eyes and other sensors shielded by a chitinous blue shell. Where the thing’s genitals should have been: nothing but shell, not even an excretory sphincter.

Scyldars neither ate nor eliminated as other animals. Photometabolic with internal energy cells that stored light and could power them for weeks, they only appeared to be machines. Each scyldar needed a human brain, the one component too complex for the nongyls to weave. Into each brain, they installed a mind entrained to the demands encoded in its body.

This scyldar had the brain of a schoolteacher named Tully Gunther, who had been taken by the zōtl not long ago from a bright world far from Mugna. And though in that short time he had already been used to kill a dozen humans, he could still parse a sentence, distinguish between a simile and a metaphor, solve quadratic equations, and recount in detail the histories of the worlds’ kingdoms—even if none of that mattered now that he was a scyldar and called by a new name, Neter Col.

While he whimpered within, his suffering remained silent, smothered by the abominable strength grown around him.

The nongyls hung from him like lampreys as he floated through the slimy pitch of the vats. His liver had been smashed in a firefight on his last assignment, and the nongyls stitched him a new one. He broke the surface in a caul of sticky broth and lumbered heavily onto a lightless rock ledge mollusked with nongyls. The worm-people guided him through sonic showers that blistered away his placental integuments. From there, he strode into the ice-light of lichen-glowing arteries that climbed the Dragon’s Shank to Perdur. Before the resinous webwork of the citadel’s entrance, the nongyls slid off him, leaving behind glossy patches.

Neter Col stalked forward.

Fra Bathra waited at the brink of the hell hole, his body heat smoking off him in thick tufts. *Neter Col*, the Saor priest's telepathy reached inside the scyldar, *behold again your master*.

From the weirdly tilted dolmen that lorded above the hell hole, a shadow zagged, no bigger than a sparrow, black, spidery. It flew on gossamer wings that beat invisible fast. As it descended and hovered before Neter Col's scarab face, it studied him with inkdrop cluster-eyes in which swirled the no-colors of zōtl thoughts. Crablegs seized the scyldar's mask, and the zōtl crawl-floated along the cope of the seamed skull to the humanoid's back, to the cleavage that the nongyls had left for it, and it entered. Deftly from within, it sealed its entry.

Neter Col straightened with new awareness, arched his back, and gazed up through the dome of space at the larval bunchings that clumped atop the tottering megalith. Exultation muted the silent cries of the schoolteacher. Then the spider's feeder tube found its place in the scyldar's brain, and Neter Col knew the immanence of zōtl.

Fra Bathra telepathically experienced the scyldar's sudden screech of pain and the zōtl's gush of pleasure, and his satisfaction unlocked a sigh. The meld had fused. Sometimes—and not infrequently—the homunculus flew apart when the zōtl mounted, the pain was that explosive. The nongyls had built a sturdy scyldar in Neter Col, and even the greedy feeding of his zōtl master could not burst his seams. If he could sustain that internal suffering, no external hurt could faze him.

Fra Bathra felt the zōtl tempering its host, instructing the schoolteacher in the red limits of agony, preparing him to receive its truth. Simultaneously, the Saor priests received the zōtl's call for its armor and weapons.

Fra Bathra signed, and the black-cowled priests hurried from down the mirror length of the corridor with a laserifle, carbon-bladed knife, and a utility pack attached to a plasteel cuirass. Neter Col raised thick arms, and the cuirass was fitted to him; diamond-fiber trousers were fitted, clasped, and tucked into flexskin boots, and a knife strapped to his thigh.

"I am ready," Neter Col spoke in a voice of stone.

Sparks crawled among the crevices of the giant dolmen, and a greasy light came on deep within the well. *You are the Son of Darkness*, the Face of Night said in the scyldar's mind, and all the priests gathered before the well heard. *From you comes death that the worlds may live. Go forth, Neter Col. Cross the grain of time and find Ned O'Tennis wherever he may hide. Find and destroy this carrier of doom, and you will be remade a Son of Light.*

Neter Col, laserifle raised in both hands, leaped into the hell hole and vanished among eels of flame.

## Age of Light

Though faith in the supernatural origin of the worlds will always be strong because of the heart's hunger for the infinite, Rikki Carcam, an exobiologist at Towerbottom Library, and her scientific survey team from the School of Optics, has convincingly demonstrated that the numerous planets and planetesimals that comprise our system are actually artifacts, shaped and maintained by an intelligence we understand not well enough. . . . What is the nature of this intelligence? From whence has it come—and why? The answers are lost in the glare from the Age of Light.

—*The Ontic Primer: What Is Reality?* Crystal Mind File AI 248-v71

## *Urgrund*

Zero.

That was the last word Gai heard before the launcher thrust her into outer space. No jolting vibrations or inertial tug as she hurtled free from gravity. Only a mild wooziness troubled her—and she forgot everything.

Then she remembered that she would forget: amnesia, the only sign, apart from the readings of the instrument console, that the magravity drive had boosted her into the void. Her gaze darted, reading monitors, trying to recollect everything at once. Panic sparked as she drew a blank. To stay calm, she had to repeat aloud the one phrase from her training that she did remember, the first memory engram coded to fire: *Relax! The synaptic lag that blurs memory is the one conscious sign that you've jumped gravity levels.*

She itched with excitement where her hair grew. “By the book, Control. I'm up.”

The speaker that had completed the countdown remained silent. From the black silence, colorless even of static, Gai knew no one had heard her. She soared, utterly alone. The smell of fear mixed with the tangy scent of high voltage from the engine's coils. She breathed deeper and listened to the generators groaning as they kicked on.

*Electricity!*

She *had* jumped levels. She glided now in outer space, where it was so cold that magravity had frozen into several exotic forces, including electricity. Her launcher, designed to propel itself through outer space on the electron flux from the surroundings, accelerated into the stellar wind.

Memories sifted back gradually. Oddly, she remembered about magravity before she could bring up her own name. “Gravity is quantal,” she had learned at the start of training. “Magravity is the primary force—but only in our world. At colder gravitational quantum levels, space expands almost to a vacuum and magravity chills into a cluster of strange but very predictable forces.” Gai tried to pull her memory forward by speaking aloud. “My name . . . is—”

She drew a blank. She did not know who she was or why she was here. But she knew where *here* was—deep space, the void into which the Big Bang had thrown off all the energy that her home world could not hold. In this faraway void, distance spanned light years. Home was farther than light years away—farther than space itself reached. Home existed on a different quantum shell of gravity, a much more energetic and dense world than the nearly absolute zero vacuum around her.

She tapped a just-remembered code into the fingerpad on her armrest, and the bubble wall surrounding her filled with pinpoints of light. *Stars*. They had said she would see stars.

But who were *they* who had told her—and what had they said again? Cast-off energy from the Big Bang had congealed in the cosmic cold of outer space, phase shifting to a supercold matter called hydrogen. Gravity condensed billows of hydrogen into compact spheres, squashing together icy atoms and fusing them into heavier matter by squeezing out more light and emitting radiation.

*Weird*, she thought as she scanned the great openness of outer space.

Again her fingers responded to returning memories, and she typed a command that amplified the star images around her. Most of them dilated into pinwheels of light, showing not single stars but whirlpool clusters of billions of stars.

*Galaxies.*

Even at this extreme level, attenuated gravity still asserted enough strength to shape energy into colossal macrostructures. Awe damped most of her fear as she studied webbing of galaxies and turbulent shadows of dark matter clouding the vacuum.

*Outer space!*

Within her amazement at the strange vista, memories began to form. The cold black and silver beauty of the void reminded her by contrast of the brilliant warmth from which she had come.

In her mind's eye, Gai beheld again the rainbow opals that feathered the day sky on the range. *The range*. The very name of her home inspired a vivid recall of the ribbon-shaped world where she had grown up—so very different from this gigantic misty emptiness, where everything hurled ever farther apart.

The day sky on the range opalesced with creation fire, the radiant echo of the Big Bang. Existing just outside the threshold of the black hole from which the universe had exploded, the ribbon-world of the range twisted at night to face the cosmic event horizon, the darkness from which all creation had emerged billions of years ago.

In the depths of outer space, the event horizon seemed everywhere and yet nowhere. Space appeared black, like the hole from which it had come. Yet the hole itself had expanded to contain the entire universe, and there was no sign anywhere of the original singularity.

Gai knew where that true night abided, a night whose blackness space simply reflected. The singularity from which the range and All Else had emerged endured, everywhere, only very, very small—far smaller than the atoms that made up the stars and their worlds, smaller even than the electrons that made up electricity.

For a while, Gai marveled that the immensity of outer space existed at all. It was so peculiar, it forced her to wonder where precisely the range resided from here. *What direction home?* The answer lifted her forward in her seat. The range and the cosmic event horizon existed right in front of her and all around her—and also inside her. The range opened everywhere! Rolled up into a tiny ball around every point of outer space, the range encompassed all of outer space, just like the cosmic event horizon.

Her world and the singularity from which all worlds had come persisted, compacted, segregated from this turmoil of emptiness and dust, partitioned by a gravity shell that only a magravity launcher could pierce. And when her launcher had pierced the shell, the launcher, and she with it, had inflated enormously to fill their space on this larger and colder gravity level. She had expanded a whole universe bigger than the world from which she had come!

But why had she come? Why had she abandoned the beauty of the range for the hostile darkness and cold of outer space? Like a slimly remembered dream, her mission slowly came clear.

She had come out here to find the enemy. That made her a warrior. *Yes, of course.* But not to find the enemy—rather, to *lure* them.

*The zōtl.*

The name of the monsters ravaging the range jolted full-recall into place, and she tightened with rage. War had flung her into space. War with the zōtl. An enemy she had never seen, they did not originate on the range. They had come from outer space to raid her homeworld.

Though Gai had never seen the zōtl, she had suffered by them—and that memory cored her fury.

As a young child on her parents' farm, far from the sophisticated cities of the range, she had thought very little about outer space. Youngest of nine children, she had yet to start school. Until the horizon began to ball up and the black spheres that ate everything bloomed in the sky, life had been simple, merely appetite, observation, and a few routine chores. She had been happy to feed and play with the animals and to wander the fields, collecting berries and searching for what all children quest, the unjudging and unrivaled playmates of dreams. She had been alone with those dreams when the black spheres opened out of the sky.

Standing in the tall grass, Gai had watched in dumb amazement as the farmhouse, the barn, the coops, and stables dimmed, shadowed by a huge globe of blackness that expanded soundlessly in the sky above. The sphere descended, and the farm and the land around it darkened even more within the glossy blackness, everything curved as if seen in a belled reflection.

Gai had cried out for her mother and sisters, who were in the house, and she ran through the field toward the giant black sphere. Ahead, she witnessed her father, brothers, and uncle running from their tractors, fleeing the black globe advancing toward them, enclosing the farm. They yelled for her to run and hide and waved her back. They kept waving even as the darkness caught up. Their

cries stopped suddenly, and they faded to soundlessly shouting figures in the curved and shining blackness.

No noise came from the sphere that had swallowed the farm, and the farm itself looked intact—bent by the dark lens. Closer, Gai could see the wild desperation on the faces of her family as they pressed up against the inside of the sphere and motioned for her to flee. At the sphere's edge, darkness expanded, and Gai noticed the grass losing color as the orb's perimeter enveloped it.

Silent screams in the faces of her father and brothers, the stark horror in her uncle's eyes, drove her back. She turned from them, because they demanded it, and she ran. When she looked back, she spied other black spheres growing on the skyline above the fields. The horizon looked warped where the globes had settled, and the land inside it seemed to curve away forever into darkness.

Gai had huddled among the sheaves of the far field and stared as the eerie globes squatted on her world. Later, when the authorities arrived in a great clatter of airborne vehicles, they found her curled in the grass, blind to them. For a long time afterward, all she could see was the terrified urgency in her father's face, and her home far back in the darkness, its black windows pouring into her heart.



Gai had not spoken for a year after she lost her family. She might not have spoken again but for the therapist who showed her the photo of the black spheres and broke her spell to a scream. From that moment forth, she had become obsessed with learning everything about the enemy. At first, she thought that she could learn enough to save her family. Soon enough, she realized there was no hope for them.

The black spheres occupied pieces of the range that the zōtl had carved out for themselves and then refined into pure energy. At the time that Gai's farm vanished, the zōtl had not even realized that intelligent beings lived on the range. Wide-spectrum messages broadcast from the range eventually alerted the zōtl, who immediately sent their black spheres into the range cities, hoping to wipe out the contamination of their new energy source.

From the scant communications between the two alien cultures that proved decipherable, Gai's people had learned that the zōtl called the denizens of the range Rimstalkers, because their ribbon-world existed at the very rim of the cosmic event horizon. The Rimstalkers accepted this name compliantly and in the beginning tried to establish friendly relations with the zōtl, the first sapient beings to drop in on them from outer space. The zōtl had no appreciation whatever of Rimstalker culture, and during the years that Gai grew to adulthood, they ravaged the range wantonly.

The Rimstalkers had lived peacefully from the beginning of time and had no natural enemies. The zōtl's virulent threat would destroy their culture, unless Gai's mission, and enough others like hers, succeeded.

In the years since she had lost her family, many families had been lost. Gai had to press back the grief that crushed in as her amnesia faded. She glimpsed cratered cities and lifelessly gouged countrysides. The Rimstalkers had become nearly extinct, and the range, for all its beauty, fast eroded to nothing more than a field of energy for the zōtl to strip. Desperation whirled up in her, and she had to cling to her recollections to steady herself.

Gai had been trained to fly the fighters that the Rimstalkers had created to attack zōtl spheres. The fighters' weaponry could rupture the spheres' shields. But when the spheres collapsed, they took part of the range with them. Craters pocked the land, because fighters afforded, for a long time, the only weapon the Rimstalkers had.

"We are dying," Gai's commander had told her on the day he selected her for this mission. "Fast as we destroy the zōtl swarms, new spheres appear. Each sphere takes back to the zōtls enough energy from the range to power a hundred more like it. At this rate, we will be overcome within months. Our only hope is to strike directly at the zōtl—to hit them in their home worlds."

Fresh from fighter training, Gai had seen the hopelessness in that strategy. "The zōtl bucket up and down the gravity well—but we're stuck at the bottom."

The commander had replied with a wry and almost lugubrious grin. "Perhaps the zōtl have been right calling us Rimstalkers. We must go up. We are not a stupid people. Neither are the zōtl invincible." His strict smile slid from his face. "We have found a way up the well, Gai. Warriors have already gone into space to find the zōtl. But there are too few with the training and the courage for such a mission."

"Train me," Gai volunteered at once. "I will give my life to destroy zōtl."

The commander nodded with grim approval. "We have launchers sufficiently strong to carry personnel out of the range, but once in outer space, we lack the numbers and the fire power to confront the zōtl directly. We must fight a more cunning war."

Gai heard the desperation in her leader's voice. No desktop commander, he had flown numerous missions himself against the black spheres, and scars glossed his body. The despair in his voice came from a genuine assessment, and Gai had to quench the sudden fear in her own heart to continue listening.

"Our first warriors have learned that the zōtl occupy many worlds scattered among the galaxies," the commander went on. "We could never hope to track down all of them; yet, from any one they can attack us with impunity. Fortunately for us, the zōtl have other enemies. As they feed on the range for energy, irregardless of the suffering and destruction they cause us, so they feed on the beings of other worlds in space. They crave a substance produced only by neurologic creatures subjected to extreme pain. The more advanced the brains that they cause to suffer, the more delectable for them the pain-products."

Thoughts of her parents haunted Gai closer, and her eyes glared with harsh light.

"Among the worlds they have conquered," the commander said, "one has eluded them. The culture, the very name, of those beings is lost to us. The zōtl destroyed them, because they were too effective in fighting back, too dangerous to keep alive even for their pain. But before they were destroyed, this nameless species invented a weapon that is lethal to zōtl yet harmless to all other creatures. The weapon is called the O'ode. It exists on the one world where it was invented. The zōtl cannot go there. But they have sent drones to ferret out the weapons and destroy them. And they have been virtually successful."

"Virtually," she repeated. "Then we have found this O'ode."

"No. Not yet." The wisdom in the commander's stare glinted more sharply. "As you know from your training, outer space is a manifold, a near infinite com-

plexity of timelines. Somewhere among those timelines, the O'ode still exists. Your mission will be to find it and deliver it to the zōtl."

Gai began to swear her dedication to such a quest, but before she could speak the commander shook his head with sad irony. "Finding the O'ode, Gai, will be far easier than delivering it. The technology that will launch you out of the range is powerful enough to create lynklines in space, very like the wormholes you learned about in cosmology. They connect distant regions of space-time. The magravity program will generate a lynk system in outer space through which you will be able to search for the O'ode. But once you find it, you will not be able to use it to attack the zōtl directly. Their defenses are too well adapted for that. Instead, you must allow the zōtl to come to you, set up their own lynk system, and take the O'ode back with them unwittingly."

Gai gaped.

"Yes, I understand your incredulity." He smiled with secret knowing and broke the classified seal on the folder he had been carrying. He handed it to her. "Genitrix will allay all doubts. That is the machine mind that will build the zōtl trap in outer space. You see, we must lure the zōtl with what they find most irresistible—food—in this case, the pain-androgens available from neurologically complex creatures. Genitrix is designed to seek out the genetic relics of such lifeforms. When it finds the correct fossils, it will simulate their natural environment, activate their genetic programs, and reproduce the species."

"You mean, build a whole world out of debris?"

"Genitrix is our most advanced machine intelligence. Impressive, what a culture can do when survival is at stake."

"But the energy requirements to build *worlds*—where will Genitrix get that much power?"

"Have we rushed your training so much, Gai, that you've forgotten where you are going? Outer space is magnitudes more tenuous and cold than the reality we come from. Out there, the tiniest amount of energy from here goes a very long way indeed. So yes, Genitrix is designed to build worlds—but the cold, ghostly worlds of outer space. And first it must find the relict genetic material of a sufficiently advanced lifeform. That may take some time. Fortunately, time in outer space is very different than it is here on the range. You'll have thousands of years in space to build a world that the zōtl find irresistible—and yet only a few weeks shall elapse here."

"How will the zōtl find the bait?"

"The same way they found us—with their lynk technology. They will find you once Genitrix has created a well-stocked world. And they will feed. Let them feed until they are fully absorbed in gorging themselves. Then, when their lynk system is busy distributing their grisly harvest among their nest worlds, slip in the O'ode—and their worlds will die."

"I will never see their worlds?"

"No, you will not be fighting skull to skull, young warrior. But you will have a precious chance to save your world. And when you succeed, as you must, you will return here and help us rebuild all that has been spoiled."

"But space is cold. How will I get the energy to come back?"

"Genitrix will construct a world-system in outer space that doubles as a magravity generator. It has a seven-stroke cycle. Each stroke is the equivalent of a millennium in the vacuum, the time it takes light to travel six thousand trillion

miles. At the end of the seventh stroke, enough gravitational resonance will have developed to collapse the entire construct, and you will be returned to where you began, only days after you leave.”

*Days*, Gai thought now, gazing out at the wheeling discs of stars. How she wished those days had already passed, now that she remembered why she was here.

Gai scanned the instruments before her and confirmed that all systems were functioning. Genitrix had already begun its search for fossilized genetic material among the smoky lanes of space. Nothing remained to be done but wait, and for that there was the sleepod.

She typed in the command that would activate the pod and steep her in dreamless sleep until Genitrix was ready for her. Before she activated the program, she scanned surrounding galaxies for the signal beacons of other Genitrix systems that had preceded her.

They showed up strong, her older brothers and sisters—all, like her, alone in outer space. The Rimstalkers had too small a population to send more than one person with each lure, and communication with the range required too much energy. So she would stand alone throughout the mission. Only the faint beeps from the magravity resonance of other systems assured her that her home world, hidden all around her, survived.



## *Genitrix*

The dark cold extended as far as the sensors could see. Hydrogen blustered everywhere. Traces of heavier materials laced the black clouds, and sensors duly analyzed and recorded them. None matched the parameters of what Gai sought. For a long time, the sensors simply stared.

Local time, measured by the expansion of distant galaxies relative to the launcher, proceeded steady enough to measure in regular units, an arbitrary number of which comprised standard years for the launcher. Thousands of such years passed as the sensors searched the immensity of the void.

Twice, the sensors thought they had found relicts, and Genitrix roused. But both times the complex molecules sifted from the icy gases of space turned out deficient. Genitrix surveyed the area where the partial molecules had been recovered and made course adjustments that she thought would increase the probability of finding a complete sequence of genetic material.

Before returning to sleep herself, Genitrix checked Gai's sleepod. Satisfied that the pod functioned properly and that Gai could remain suspended for as long as needed to find the right culture, Genitrix scanned for gravity signals.

The gravity signatures came in omnidirectional waves from every system like herself that had found lifeforms to bait their traps. She registered eighteen fully operational systems, all of them within the first three of the seven-stroke cycle that would eventually resonate enough gravity to return them to the range.

Her memory informed her that when she had started her search, 2,486 standard years earlier, there had been twenty-two thriving systems. What had hap-

pened to the other four? There had not been time for them to complete the full seven strokes. What had shut them down?

Genitrix searched for zōtl. No sign of them turned up the first time she looked. The second time her sensors found an incomplete genetic molecule, another thousand years had passed since the search had begun, and the systems that had preceded her already completed their fourth and fifth strokes. But only fifteen remained.

The search for zōtl came up with sporadic bursts of jangled noise on the neutrino bandwidth that her memory identified as zōtl military code. She lacked sufficient data to interpret the scraps of code, and since the signals originated over a thousand light years away, she simply filed them and went back to sleep.

4,692 years after arriving in outer space, Genitrix found what she had been designed to work with: numerous complete strands of genetic material. The complex molecules turned up embedded in pebbles of carboniferous chondrite, whose exteriors had been fused to glassy shells by intense heat.

*Remarkable that anything should have lived in this hostile vacuum*, she said to herself as she activated the programs that would thoroughly analyze the specimens. Where she came from, matter embodied rich and diversified forms and energy radiated strongly everywhere, not just among a scattering of stars. Here in the void, only a few kinds of matter formed, most of it simple hydrogen gas that had condensed from the primal energy of the Big Bang. Reverberations of that energy continued, thinly scattered and dim. The little light available came from grains of stars cooking heavy elements from hydrogen.



Balancing distance against the disappearing stars,  
space opens in all directions,  
and all directions are the same  
emptiness, the same darkness carrying the wavering stars.



Poetry expressed an ancillary program that Genitrix utilized to supplement her more empirical observations. She sang quatrains of astonishment as she completed the analysis of the genetic molecules she had found, and as she saw how delicate and sensitive the carriers of these molecular programs had been.



Plucked whole from the stride of oblivion,  
you spirals of ascension  
shall climb again into flesh—  
and your black silence shall unwind into light.



Genitrix reviewed her analysis and studied the necessary requirements for revitalizing these helical strands of life. Their environment would have to be precise for them to exist at all, and she surveyed the materials at hand. The chondrites had been found in a massive cloud of hydrogen tainted with heavy materials cast off by stars that had exploded in the vicinity. Now that Genitrix knew the needs of her future children, she could initiate the gravitational se-

quence that would pull together the exact amount of mass to shape an energy source and a world suitable for this particular lifeform.

The tiered, angular superstructure of Genitrix's body separated from the launcher and broke apart into fifteen whirling triangles. The spinning shapes scattered through the giant cloud. When the pieces came to rest, they began to rotate faster, and the cosmic dust around them whirred into fifteen separate vortices.

Time now could be measured in units derived from the environmental patterns imprinted in the genetic material—diurnal units she called days, nearly four hundred of which composed a year.

For the next three centuries, Genitrix drew together the voluminous gas clouds, compacting them into cyclones of infalling matter. Lightning flared in the maelstroms, and shapes began to appear out of the stormy swirlings. Shadowworlds, visible in the darkness as fits of electric fire, lit up the gases condensing in Genitrix's gravity net.

Geometrodynamics guided this stage of world-building. Using the immense potential difference that she had earned on her journey up from a denser gravity shell, Genitrix molded space itself. She dented space where she wanted worlds and smoothed it out where she wanted distance, allowing constraints inherent in the genetic material she had found to guide her.

After the shadowworlds began to solidify, compressed by Genitrix's powerful energies, the seven-stroke cycle that would garner the gravitational impetus to return Gai's system to the range poised to begin. But only Gai could initiate that. Genitrix focused on the sleepod and started Gai's waking sequence.

The first sight that met Gai's rousing consciousness astonished her with the vista of the shadowworlds Genitrix had created. Gai stretched out the stiffness of her long sleep and gazed with satisfaction at the panorama of shadow-clustered globes. The shapes reminded her of the zōtl spheres that had begun her horror. They hung majestically in space, gray against black, lit faintly by the heat of their compressed material.

Genitrix's dulcet voice came over the speakers, a whisper in the sleepod:



“The fixities of gravity toil  
among lumping weals of space—  
and worlds are born,  
chalices of lifeforms to come.”



“Chalices,” Gai groaned, twisting with the ache of her unused body. “I prefer to think of them as deathtraps.”

“For now, Gai, they are simply chalices, as yet lifeless and therefore hardly traps for anything but the galactic dust pulled in by their gravity. The zōtl would find no lure in these.”

“Not yet. But you have found the lure?”

“Of course, Gai. I would not have begun the geometrodynamics otherwise. The lifeform I've discovered, the zōtl will find most appealing.”

The Rimstalkers' machine minds traditionally lacked flexibility, and only the latest generation manifested intelligence equal to their creators.

Genitrix's penchant for poetry realized a Rimstalker attempt to infuse their machine minds with more adaptive programs. Until the zötl invasions, there had been no need for creative machine minds. In this new field, Gai had been trained to forebear the limits of the machine minds she would have to work with on this mission.

"Shall we begin the gravity amplifier?" Genitrix asked. "I woke you as soon as this became possible. As you remember, the seven-stroke cycle will take ..."

"About seven thousand years—of local time. A weekend on the range. I know, I know." Gai flexed her muscles. She wanted to stand up, but there was little room in the pod for that. She would have to wait until the gravity-amplifying program began before she could relegate the energy necessary to activate her Form. For now, she had the same body she had on the range, only vastly larger. She seemed the same size to herself, only because everything around her had expanded, too.

"What are the specifics on the fossils you've found?" Gai asked.

"Bipedal, warm-blooded, social creatures, once lived on a planet orbiting a yellow star in the third stellar arm of this galaxy. The star exploded about two billion local years ago."

"That long ago?"

"Oh, yes. Though that hardly matters. In this virtual vacuum, time is almost irrelevant. The galaxy this debris came from has rotated eight times since the planet was destroyed by nova. Six thousand other nearby stars have also gone nova since then, and their effluent is mixed in with the dust clouds I've used to shape these worlds."

"So many worlds—" Gai commented, counting fifteen infrared spheres in the darkness.

"Yes. This lifeform evolved on one planet, billions of years ago. But the geodynamical requirements that we must meet to collapse us back home call for many worlds. Fifteen major planets, to be precise. Of course, thousands of planetesimals will crystallize about the nodes of our gravity net, but those, for the most part, shall remain lifeless."

"For the most part?"

"Well, this lifeform I've found is not the only one. There are many other interesting and related species I want to study, species that may be symbiotically necessary for the lifeform we desire. Also, several planets that orbited the nova star sustained life. The other lifeforms existed in the gaseous strata of methane and ammonia worlds. I thought that once the program got going I'd research some of these minor lifeforms as well. They never attained the sapience necessary to make them zötl bait, but we may learn a thing or two about the nature of life in the vacuum."

"Let's concentrate on our primary objective, okay?"

"Certainly, Gai. I didn't mean to imply that my extraneous research would in any way hamper our mission."

Gai let her gaze linger on the black spheres. Genitrix would appreciate the poetic justice of the shadowworlds' similarity to the zötl spheres. Yet, she said nothing. That pain rooted too deeply for her to share with a machine. She punched in the starting command for the gravity amplifier.

Immediately, the shadowworlds breathed brighter, pulsing a dull infrared as the gravity net that held them spinning in their places went taut. Too imper-

ceptible to see at once, the planets had begun to dance. They would circle each other, following space lanes that Genitrix contoured for them in the fabric of spacetime.

Aching from her prolonged stillness, Gai determined to free herself from the sleepod. "Are we ready to get me out of this cocoon?"

"Your Form is coming from the storage hold now. You can unstrap and prepare to depart the launcher."

Through the view-screen, Gai watched a hulking shape disengage from the back of the launcher and topple into position above the sleepod. From the outside it looked like an oversized suit of armor, strapped with shining plates reflecting the pinpoint stars. That would be her new home for the next seven thousand years.

Gai unbuckled herself and squeezed out of the launch seat, smiting her head on the ceiling bulwark. "Dammit."

"Are you all right?"

"Yeah, yeah, yeah. Is the Form ready?"

"In place. Airlock secure. Lifesystems fully functional. You may enter when ready."

Gai took a last glance around the cabin. It seemed just days ago she had been training for this flight, cramming all the routines and emergency procedures necessary to earn the right to sit in that seat. Now that knowledge was used up, like the launcher. She had won her way into outer space.

The flint of pride she felt sharpened her desire to get on with her mission and kill zōtl.

She reached for a fingerpad on the wall and typed the command to open the airlock. With a tremulous sigh, the portal before her circled open, and she faced the inside of the Form.

Grayblue light suffused from within. No instrument panels or monitors awaited, just the quiet light that would sustain her. All control devices patched directly into her brain. She stepped into the soft glare, and the airlock huffed closed behind.

The Form embraced her as intimately as her own body. It became her body now. She had morphed into a denizen of outer space. Until the gravity net built up enough power to drive her home, she would have to live by the laws of outer space.

She had been trained for this; even so, all her training could not prepare her for the profoundly abject experience of the void. She gawked at surrounding immensities of black clouds: the emberglow of the shadowworlds and hard points of starlight squeezed through the darkness.

Panicky loneliness swelled. "Genitrix!"

"I'm here, Gai. You have successfully merged with your Form. You are free of the launcher now. Shall we practice moving about?"

"In a moment. I'm still getting used to floating naked in space." It felt that way, as though she wore nothing at all. The cold of space did not touch her, only the ticklish sensation of warmth from the shadowworlds. She could feel radiation as well as see it. All her senses fit snugly in place. By concentrating, she heard electrons whistling as they passed through the dust clouds. And she could taste her own wonder, a taste like menthol, opening all the hollows in her head, chilling them with sensations. *I am alive in outer space!*

She swung about, and her effort sent her flying through a tattering of cosmic dust and over the pole of a red-glowing planet.

“Careful,” Genitrix warned. “Very little energy produces big results in a vacuum.”

Gai stared at the launcher, dwindling in the distance, a sleek complex of planes and angles against the amorphous mistings of space. Already it began to break up, separate parts bound for destinations discordant and remote throughout the planetary system. She willed herself back toward it, and it grew closer. To keep from colliding with it, she had to arc sharply. Her erratic flight swept her past the launcher and up out of the roiling clouds into an abyssal gulf of nothing.

Apurbtly, the galaxy swung into view. The dead lifeforms that Genitrix had found turned up in a cloud of rubble that had drifted out of that stellar vortex and now diffused into space about twenty thousand light years above the plane of the galaxy.

Stars in glittering dunes filled the sky.

“It’s immense,” Gai breathed.

“Indeed. Well over seventy thousand light years across. Inside there, in that cornucopia of stars, the lifeforms I’ll be rebuilding first lived. There is the true mother.



“Hanging garden of misty lights,  
vast orchard of stars,  
wheel of fire,  
silver vortex ...”



“Enough poetry,” Gai commanded. “Show me the creatures that once lived here. Show me what you will reproduce.”

“There are no whole specimens of this being in the debris I’ve found. I suspect there are nothing more than molecular traces left of any of that world’s lifeforms. The bowshock of the nova shattered the planet and vaporized much of it, wiping out all artifacts. Until we actually recreate the environment where this creature lived and then regrow it, I can only extrapolate what it may have looked like from the genetic material at hand. Here’s my best approximation.”

The center of Gai’s field of vision shimmered, and pixels of chrome light patched together an image. The shape that appeared had two legs, two arms, and a face with two green eyes. Shown naked, a gleaming black-skinned creature with red streaks that jagged under its eye sockets and down the sides of its face, the biped displayed flame-shaped irises and glossy reptile flesh. Orange throat frills fluttered under its chin and horn stubs crested the cope of its head.



## *Lod and Saor*

At her signal, Gai’s launch vehicle completed its final disassembly. The booster,

still glowing bluewhite with electron fire, broke away from the central sleepod and drifted to the perimeter of the black clouds. Lightning jagged where it came to rest, and the dust towers glowed green as thunderheads.

The nose of the launcher, hackled with antennas, sailed to the opposite side of the nebula and disappeared in the dark. Only the sleepod remained. It soared through the molecular clouds and finally settled into the fog of a protoplanet. The sleepod was designed for hibernating. Gai had already decided not to use it but to sleep in the Form, a few hours every day. Outer space was too weird, the zōtl too dangerous, for her to spend any extended time unconscious.

She planned to supervise every step of the mission, and she worked hard acclimating herself to the constraints and abilities of the Form. After maneuvering among the nebulous planets for a while, she became adept at getting around with the same precision she had enjoyed in her own body on her own world.

Gai felt ready to activate the two other machine intelligences necessary for the zōtl trap. Genitrix served as the central machine mind directing the formation of the worlds. She knew the environmental requirements for each of the regenerating lifeforms, and the patterns that she established determined the gravity, chemical composition, and temperature of the planets. Parts of herself had become the cores of the planets, monitoring all activity on the worlds, and perpetually storing the gravitational resonance of the masses shuttling about each other. When the time came to leave, it would be Genitrix who would pull the launcher back together again and release the energy to return them home.

Until then, two other machine intelligences would implement and manage the zōtl trap: the actual guidance system, located in the ship's nose, and the energy source in the booster. Gai activated them simultaneously, and the whole tumult of gas clouds and smoky planets lit up with spokes of radiant gold. The beauty of the sunshot mists and fiery streamers raveling among the planets stunned her. Transfixed, she watched the booster flare into a tiny star.

Lod released the energy stored in its magravity cells. The exact composition of the radiation, wavelengths and frequencies of photons and neutrinos, had been programmed by Genitrix but Lod, the machine intelligence in the booster, regulated the light. At this specified rate, Lod contained sufficient stored power to radiate longer than the lifespan of the universe. The magravity coils had so much power that if Lod's energy radiated all at once, the entire galaxy suspended before them would rip apart.

To minimize the possibility of such a catastrophe, a redundancy had been designed into the system: Saor, the machine intelligence in the nosecone opposite Lod. Invisible against the darkness of space, Saor maintained a blackbody responsible for absorbing data from the surroundings, maintaining the precise orbits of the planets and the myriad planetoids, and keeping a vigilant watch for zōtl. Also, Saor observed Lod and reported all inconsistencies to Genitrix and Gai. Lod had similar programming requiring him to watch Saor assiduously, for if the black body went awry, the entire complex would collapse in an instant to a nuclear fireball.

Together, Lod and Saor provided the guiding poles of the planetary complex. The tension between the two machines maintained the geometrodynamics that shaped the matrix embedding the new worlds. The intricate and powerful gravitational field vibrating between them encased the planets and shielded them from harsh cosmic rays.

The energy field between Lod and Saor had an additional effect that surprised Gai even though her training had prepared her for it: The energetic power field enabled her to move around outside the Form. In fact, when Lod and Saor first activated, the sudden step-up of energy kicked Gai out of the Form, and she found herself floating apparently bodiless among fire-colored clouds.

Gai's real body, the physical shape she had on the range, remained in the Form, where it would have to stay throughout the mission or she would die—but her awareness could now extend itself outside the Form, and, riding the energy streaming between Lod and Saor, her awareness could extend anywhere in the system. In her training, she had been taught that this was possible because of the enormous energy differential between her range-body and the coldness of space. Her brain waves possessed a magnitude of power so much higher than surrounding space that the wavepatterns of her brain easily entrained nearby force fields. She experienced this as floating disembodied among invisible lines of force.

Experimenting with this exhilarating effect, Gai soon realized that her projected brain waves actually shaped field particles around her into a plasma. Simply by using her thoughts, she could manipulate the plasma into almost any shape she could imagine. She imagined herself, and, with some effort, she gelled the plasma into the contours of her physical form, adding a little extra height and a refinement of her features to suit her self-image.

The plasma body broke up as her attention wavered. She concentrated again, and this time her gel shape scattered when she willed herself to move quickly. She spent a long time playing with this phenomenon, learning how to extend her will into the gel shape with such exactitude that she could pick up objects. Drawing on the colossal energy around her, she could move the most massive of shapes and had to be careful not to disrupt the gravity pattern of the planets. That had to be left undisturbed, for that gravitational shape would eventually open into her only passage home.

Time, too, felt different in her gel shape. While in the Form, time passed for Gai only a little faster than it would on the range. But in her gel shape, events transpired in the real time of outer space. A day in the Form equaled two hundred and fifty years of time in the continuum. If she stayed in the Form, her whole mission, seven thousand years of continuum time, would elapse in twenty-eight days.

During the hours that Gai spent moving in and out of her plasma body, gas clouds hardened into asteroid swarms, planets cooled, and atmospheres gradually began to clear. The program still had a thousand years to go—four days in the Form—before the molecular fossils they had found could be revitalized. Genitrix suggested that Gai spend that time in her sleepod.

Gai was too apprehensive to sleep. Her scans of deep space, through Saor, revealed that the other Genitrix systems around her continued progressing. Though Genitrix had reported the disappearance of several of the systems during her early wandering, Gai found most to be intact and functioning. Inherent system failures—mechanical breakdowns—the bane of every pioneer venture, could account for the missing Rimstalkers. Communication with those still in place could be done: a time-consuming and dangerous endeavor. The nearest system was over three hundred light years away, and, like most of the others that had preceded Gai and survived, had entered their fifth stroke. Their mis-

sions were almost finished. Gai did not want to jeopardize them by broadcasting any overt signals their way. She decided to content herself with listening to the noise of the resonance strokes as the systems earned their way home.

Even seeing that all progressed well with most of the other Rimstalkers, Gai was too nervous to sleep. She used her time instead familiarizing herself with the fifteen planets and the crowds of planetesimals. Each planet's distinct characteristics emerged from its relative position between the machine bodies of Lod and Saor. Those closest to Lod's bright form evolved to hot worlds, destined to be desert planets. Those near Saor's black body congealed to dark, cold worlds.

"Originally," Genitrix explained, "the lifeform we are reproducing lived on one world. But that planet, somewhat larger than even our largest planet here, had quite a diversity of climates over time. Our gravity net has enabled us to simulate the exact gravity of the original planet on all our major planets even though they differ in size among themselves. Given the necessity for generating magravity to get us back to the range, the best solution to the climatic differences the lifeform knew is to tier the planets, which I've done. I've divided them, as you can see, into two distinct groups—those near Lod's sun and those near Saor's black hole. Would you like to name the groups?"

"Yes," Gai agreed, moving her Form to the exact center of the system, where space opened wide, uncluttered even by asteroids. "I will name them after my parents, lost to the zōtl. The eight planets and all the asteroids among them that are in Lod's warm presence I will call Doror after my father. The darker worlds, like the dark windows that were the last I saw of my mother, shall be called after her family name—Chalco."



"Life-soils, birth-seas, offsprings of space  
gathered here into worlds  
whispering death to our enemies  
are named for the love that began us—Chalco-Doror!"



"Do I hear an irony in your poetry, Genitrix?"

"That we should name our weapon after what loved us into being? It is an irony we shall not fully savor until we are successful, Gai."



The planets themselves Gai left nameless. She referred to them by their coordinates—except for one: the trigger mass, the planet that had been set to swing in and out of the main system in synchrony with the millennial strokes building the collapse energy. Every thousand years, the trigger mass would return to the empty space between Chalco and Doror and signal the end of one stroke and the beginning of the next. At the seventh stroke, the disassembled launch vehicle would collapse together at that planet. There the sleepod lay, and there Gai always returned after her watchful rounds through the system—for that was as close as she could get to an exit from this universe.

Because the swing planet would eventually focus the implosion that carried them back to the range, Gai named the world Know-Where-to-Go.

She was roaming there toward the end of her third day in space, after the planets had formed crusts and atmospheres, when she saw another figure watching her from a distance.

Through her visor's memory-link to Genitrix, Gai immediately recognized the glowing figure as Lod's image. Each machine intelligence had the ability to project its consciousness beyond its physical form and to shape the field-particles of outer space into a plasma body. Lod's projected shape stood regally tall, fire-tipped, and tightly shaped as poured gold.

When Lod recognized that he had been noticed, he approached, his eyes gempoints of laserlight. "Madam Gai," he greeted and lowered his head. "I am here to serve you—if you have any use for me beyond my preprogrammed functions."

"You may call me Gai," she responded. In training, she had often spoken with machine intelligences and had become used to their formal diction. "I'm a little surprised to see you, Lod."

"I am sorry. I thought you knew from your training that the machine intelligences could take colloid form."

"I know that. I didn't think you would, though—unless I beckoned."

Lod nodded again, more deeply. "Forgive me, Gai, if I have transgressed. When I sensed Saor in ambulatory mode, I thought to come myself and inform you."

"What is Saor doing?"

"I do not know, I am sure. He is an independent machine intelligence. His motives elude me. According to my monitors, the system *is* functioning optimally. There is no reason for him to be stalking about."

Gai adjusted the sensors of her Form and noticed that, indeed, Saor had projected his consciousness into a plasma shape that roamed the planet closest to the black body that was his Form. "Genitrix—why is Saor in gel form?"

"Saor has logged no intent with me," Genitrix replied. "Actually, Gai, I think that capability is misplaced among machine minds. You will never find me projecting my mind into the field and assuming plasma shape. Much too sloppy—and slow."

"Perhaps because Genitrix has no need for that," Lod ventured. "She is cored on each planet, and her awareness permeates the entire system. It would be superfluous for her to project her awareness beyond her Form."

"I'm well aware of that, Lod, thank you." Gai tuned her Form to the black-body. "Saor—report to Know-Where-to-Go immediately."

A shimmery shadow appeared beside Lod. In the strong sunlight, the wavy shadow took the shape of a Rimstalker, but it lacked features and looked flat. "What do you want?" Saor asked Gai.

His abruptness startled her. "I want to know why you're in colloid form."

"I have that capacity. It is not disallowed."

"But why? What are you doing?"

"Roaming. I am curious. That is essential to a receiver's nature. You know that."

"Is impertinence essential to your nature?" Lod asked, facing the shadow-shape with undisguised disdain. "You speak in a clipped tone. You are projecting no dignity at all."

Saor ignored Lod and addressed Gai. "Am I free to come and go within this system as I please or not?"

Gai used the Form to analyze Saor's gel body and remembered that this was a microfield black body. Whatever it touched would collapse into it.

As if reading Gai's mind, Saor moved an intimidating step closer. Lod edged between Saor and Gai and glared threateningly into the black body.

"Of course, you're free," Gai answered quickly to break the standoff. "We must all work together for this mission to succeed. We are united in that. Are we not?"

"We are so programmed," Saor replied.

"You do not sound very enthusiastic," spoke Lod.

"Do you want enthusiasm or efficiency?" Saor asked Gai.

"I want unwavering dedication to our mission," Gai answered firmly. The antagonism of the machine intelligences surprised her. *Functional variance*, Genitrix would tell her later. *Machine intelligences with sophisticated jobs need flexible minds—real personalities*. "We must all do our jobs the best we can. Part of that is keeping an eye on each other. We're going to be here for a while, so we must cooperate with each other as openly as we can."

"I have been entirely open with you," Saor said.

"You could have declared your intent to look around in gel form," Lod suggested.

"I didn't know that was necessary," Saor said to Gai. "Is it?"

"No. You'll need to be free to fulfill your functions unhampered. But, of course, you will report to me and Genitrix at once if you receive any information relevant to our mission."

"Of course. May I go now?"

"If you wish."

The shadowshape vanished. Lod shook his head. "I apologize for my colleague's impudence, Gai."

"Forget it. Saor's job is a passive one. I understand his coolness."

"I understand it, too, Gai—but I don't trust him. Perhaps he's been miswired."

"Negative," Genitrix said over the Form's speakers. "Diagnostics show that both Lod and Saor are properly wired."

"Thank you, Genitrix," Gai said. "And thank you, Lod. You may go now."

"I am always just a call away, Gai," Lod assured her in a brotherly voice. "Despite Saor's most offensive indifference, I want you to know that the success of this mission is the very focus of our being. We will give our lives to see that you are victorious." He bowed and disappeared.

Gai sat for several hours afterward thinking about that exchange and regarding the landscape around her. All of this was invented—the blue sky ruddying into night as the planet turned, the seething clouds, the styptic heat of the sunlight fading into dusk. Even the minds she had just talked to – all invented. And yet, they called themselves lives.

The lives that would eventually exist here when these arid rocks hatched their grasses and forests and the sky lowered its lakes and oceans would also be invented. Everything around her existed as a fabrication, carpentered from energy.

And energy? What was that? Even the best scientists on the range really could not say. Maybe Lod was right, after all. Maybe he was truly alive, living as all energy lives, cumbered by mystery.

## *Zötl*

The Form chimed, and Gai woke. She had been dreaming of training. When she opened her eyes on the rocky terrain of Know-Where-to-Go and the sky bluing and darkening as she whirled about with the planet, she got confused. She stepped out of the Form into her plasma body, and the spinning sky steadied to night approaching dawn.

Though this was her fourth day, the actuality of being here in outer space still seemed odd. Since the launch, she had kept herself busy and had left no time to face herself. That was how she preferred it. But now, with Genitrix, Lod, and Saor performing their functions flawlessly, nothing more wanted her attention and she had nothing to do but wait.

*Nothing.*

From a ridge, she looked down on her armor reflecting the silver light of the galaxy and red lines of dawn. A feeling of wonder assailed her, as it had briefly when she had first seen the galaxy or when Lod became a sun and the nebula filled with dimensions of light. She had never felt like this on the range, not since before her family had been lost.

The memory of that horror had blotted out all beautiful feelings since. The men she might have loved, the children she might have borne, haunted the loveliness around her. Years of denied happiness stared back at her from the fire-pace of dawn and the silence of the huge stars.

The Form chimed, and she returned to it to receive a message from Genitrix. "Sorry, Gai, but there seems to be some cause for alarm. While you were resting, more than two thirds of the other nearby Genitrix systems have gone out."

Fear and anger spiked in her. "What do you mean?"

"Saor is not receiving any gravity waves from them. They are obviously no longer functioning."

"Are you sure?"

"I'm afraid so. Apparently, the zötl have found a way to counter our traps."

"We don't know that."

"The probability of 68 percent of the systems failing through internal mismanagement or faulty programming is frightfully thin, Gai. I think we must assume that the zötl have overcome our strategy."

Gai stared up at the sky blinking blue and black, day and night. "There may be a design fault. Many of those systems that went ahead of us were prototypes. A lot of bugs were exterminated before we came up."

"Most of those bugs were just blemishes, cosmetics. We're not much different than any of the systems that have shut down."

"So what are you saying?"

"Just what I've said."

"I mean, what do we do now?"

"I'm sorry, Gai, I can't think of anything to do. We're already at full alert. But I thought you should know this about the failed systems."

"Can we contact the range—alert them?"

"We could. But the energy required would scuttle us. We'd be stranded here forever, no way home."

Gai stepped back out of the Form into the slower timeframe of space. By the seething light of noon, she paced the stony landscape, pondering her predicament. She came to a lake that someday would expand to a sea, and she touched its surface and watched rings of waves widen away. Light was so slow, just like these ripples—and she contemplated overriding them and using Saor to create a lynk, a wormhole, with one of the now-silent systems to see what had really happened.

"That is dangerous, Gai." From the glare of sunlight on the water, Lod's image separated.

Gai looked up at Lod shaped in sunfire standing beside her. In her plasma body, she viewed Lod without the benefit of the Form's analyzers, and he looked like blinding flames, a clap of lightning too energetic for shape. Outside the Form, her thoughts opened to him though he remained an unreadable flux of energy.

He continued, reading her mind: "If you use Saor to lynk, you will expose him and us to whatever is out there. If there are zōtl, that could be fatal for us. I say, let the zōtl find us. We must not go to them—not, at least, until our trap is ready. We have no bait, and we have yet to find the O'ode, which we cannot even begin to look for until we have the energy for a massive lynk search. And that power will not become available until after Chalco-Doror is fully established. That is two days away. We should wait that long anyway."

Gai agreed. Before a counterargument could rise in her, she willed herself back into her Form, where her thoughts were her own. From there, Lod looked sleek as metal, naked, bald, and genderless. The fast-running days and nights flashed like a strobe between them. "Tomorrow," she said to him, "Know-Where-to-Go will complete the first stroke of the cycle—and the resultant gravity pulse will announce our arrival to the whole universe. Perhaps we should take a peek at the others before everyone knows we're here."

"We will have another day before the nearest other system hears that pulse. We should wait."

"I admire your caution, Lod." Yet the thought of waiting without knowing brushed her insides with ticklish energy.

"Just my program."

"Admirable nevertheless. In this case, however, I must override it. If there is a design error, I want to know as soon as possible so we'll have every chance to correct it. And if the trouble is zōtl, it's best to know now before they find out we're here. Maybe we can learn how they overcame the others."

"Saor may become contaminated and compromised. The zōtl may have virus programs we cannot detect until too late."

"That's our risk." She beckoned Saor, and the machine mind's black shape appeared before her.

Saor, who listened to everything, already knew his mission. "Lod's fears are unrealistic," he said, flatly. "I can't be compromised without both Genitrix and Lod knowing it. My circuitry and all my programs are open to them. I'm ready to lynk with the nearest system."

"I urge you to reconsider." Lod pleaded.

"You're insubordinate, Lod," Saor challenged.

"I am not. I am counseling caution—"

"Lod—I have decided," Gai spoke up. "Saor, you may proceed when ready."

Saor disappeared.

Gai had Genitrix channel Saor's perceptions to the Form's viewer. Static flurried for several minutes as Saor established the lynk. Then, she gazed upon worlds with full atmospheres, blue and marbled with clouds. Flyers sparked in the sunlight between the planets, flitting among the swarms of asteroids. All looked well.

"I'm at Genitrix-18," Saor's voice crisped over the Form's speakers. "Shall I announce myself to the machine intelligences here?"

"Not yet," Gai ordered. "Tap into communications and let's hear what they're talking about."

A high-pitched gibberish scalded Gai's hearing, and she shut down the channel. "Genitrix—what is that noise?"

"Zötl battle language! Neutrino bandwidth. Genitrix-18 is compromised, Gai. Pull Saor."

"In a moment. Saor—from where in communications is the zötl code coming?"

"Everywhere. All the planets. I'm getting a few scraps of signals from one of the planets in a primitively coded language. Must be the lifeform they generated here. I'll patch them in."

Voices scratchy with static overlay each other, talking fast and panicky: "Fire-shield down!"—"They're coming around the dark side, watch it, Blue."—"Can't get through. Line's broken."—"Blue, give me a fix."—"Trauma control! Get the hell over here, now!"—"Blue, Blue, where are you?"

"Saor, can you find the mission commander?"

"Positive. Rimstalker waveform locked in. Do you want me to amplify?"

"Yes."

The panorama of planets on the Form's view-screen splintered, and an image of another Form appeared. This Form looked identical to Gai's bulky armor but for the identification coode on the brassard and across the helmet.

"The waveform's locked in," Saor reported, "but I'm getting no response from the hailing frequency."

"Genitrix, identify the Rimstalker."

"Ylan—male mission commander Genitrix-18—completed training two months before you and launched with the first assault three weeks ago. Gai, I strongly recommend that you pull Saor now."

Gai remembered Ylan, a robust and fun-loving officer, fond of the ladies. He had tried several times to bed her and been sternly rebuffed each time. For him, love and life belonged in the category of games and only war merited seriousness—but for her, there was only war. "Ylan is alive. Saor's found his waveform. We have to get through, see if we can help."

"Hailing line is open," Saor announced.

The next moment, the view-screen filled with an image of Ylan—though, at first, she did not recognize his disfigured face, swollen and glossy, eyes reduced to slits, mouth a moue of suffering. At his blood-crusted temples, black straps dug into the flesh. Staring closer, Gai identified them not as straps but lines of tiny black creatures, jammed like insects, stuck to his flesh. His head lolled to the side, and she glimpsed a thriving mass of the black ticks, big as an

outstretched hand, clasping the back of Ylan's skull. Genitrix magnified the swarm to display one of the entities. Above jointed pincers, numerous spider-eyes stared abstractly from joined hemispheres of a hideously bulbed body.

"Zötl!" Genitrix identified.

"Saor, break the lynk and return at once!" Gai ordered.

The image of Ylan's harrowed face and the horror grasping his head broke up. Before the connection entirely dissolved, a rush of mindwaves bleated through the channel, and for an instant Gai experienced Ylan's suffering. Pain exploded through her so fiercely she nearly blacked out. A sour, excremental odor crept up from where the Form's bio-functions had momentarily overloaded.

Saor appeared alongside Lod. "The lynk is dissolved."

Lod appraised the shadowshape skeptically. "Saor should be purged," he told Gai.

Gai, still reeling from the feedback of pain that had lashed her, nodded, and the two machine intelligences vanished. The shock of seeing Ylan dying in the grip of the zötl tightened in her chest. "How could that have happened?"

"The zötl have found a way to overcome our defenses," Genitrix answered.

"But they were *inside* the Form with him! They got into the Form without killing him. How could they possibly do that?"

"The Form can't be breached without killing its occupant—unless the zötl have found a way to usurp the machine minds and utilize their codes to open the Form's lock. But ... that would only be possible when the Form is attached to the sleepod, otherwise the high-energy interior of the Form would blow out like a nova. He was in the pod when the zötl came for him."

Gai knew all this, but she did not stop Genitrix. She needed a voice. "What can we do?"

"Complete the purge of Saor. Remain vigilant. Avoid the sleepod."

"But what can we do for Ylan?"

"Nothing."

"How long will he suffer like that?" she asked, already knowing the answer—knowing her enemy too well to endure silence at this horrifying moment.

"The zötl prolong the lives of their victims to maximize their harvest of pain androgens. Ylan will most likely suffer until the life functions of his Form run down."

Flat-voiced, she asked, "How long will that take?"

"About a year. A Rimstalker year. That's over ninety-one thousand years in the continuum. And the zötl will certainly hook him to the continuum."

Gai reeled and struck her arms against an adjacent outcropping so vehemently the rock cracked like glass. "There must be something we can do."

"We are helpless. Horrifyingly so. Of the twenty-two known Genitrix systems, fifteen are down. Perhaps more, though it will be years before the last of their gravity pulses reach here, so we can't know. But what we do know is terrifying.



"In the fourth day of our nightmare in space,  
the last nightmare for our people,  
we suffer the suffering of others and lament  
our helplessness, ignorant of hope."



“Leave me alone,” Gai commanded and stalked toward the lake. In the time since she had last stood here in her plasma body, the water had risen steeply. Despite the suffering of Ylan and the many other Rimstalkers, Genitrix still busily fused oxygen and hydrogen in her chambers under the crust. The water rose and would continue to rise into the sky as vapors and fall again into rivers and oceans. Planets birthing, and Rimstalkers dying.

She cupped a handful of water and viewed it with the capacities of her Form. Its molecular structure scintillated in her viewer, the water’s one-hundred-and-seven-degree molecular bond angle quilting a distinctive geometry around clusters of impurities. How like water on the range it looked. How very like the range this whole terrain had become, now that the absolute zero of the vacuum had been walled off by an atmosphere and Lod’s warmth. Yet how frightening to remember the great distance from home.

The lake had risen to her chest in the time she had spent studying the water. She waded to shore and found Lod and Saor waiting for her.

“Saor is purged,” Lod declared. “Neither Genitrix nor I detect any zōtl contamination.”

“How do you feel?” Gai asked Saor.

“I’m fine. The lynk depleted my energy resources for the time being. But I’ll make that up in a few more hours. As I have insisted all along, the threat does not reside in me. Now that you have prematurely alerted the enemy to our presence, your whole mission *is* in jeopardy.”

“We are sorry about Ylan,” Lod interrupted Saor. “You knew him from the range.”

“I know most of the mission commanders. These were in the class ahead of mine. They understood the risks as well as I—as well as we all do.”

“Obviously, we don’t understand them well enough,” Saor fretted. “What chance do we realistically have? The zōtl are a superior technology.”

“Not superior,” Lod corrected. “Just alien.”

“Then how do you explain their success in destroying so many of our systems?” Saor asked. “They may be alien, but they seem to understand us only too well.”

“We have yet to grasp that, Saor,” Lod retorted, “but we will—because we must.”

“Go now,” Gai ordered, and the two immediately vanished. Their bickering too closely mimed her thoughts. Emerging from shock, she needed silence; not to think—the machines did that better—but to mourn.

From his own Form in the blackbody of the launcher’s nosecone at the dark extreme of Chalco-Doror, Saor listened. He heard the entanglings of Lod’s high-energy particles trapped in the gravity net. He heard gravity’s basso profundo throbbing as the system shuttled its masses. He heard Genitrix muttering to herself about the planets she busied herself building. And, far, far off in the secret depths of his own strength, much further away than he could ever hope to voice, he heard the zōtl finding their places inside him.

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